

**July 2022 EDITION**



# **News Juice**

# **MONTHLY**

1st June to 30th June 2022

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**Summary of The Hindu & The Indian Express**  
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# Polity and Governance

## 1. After-effects of anti-corruption laws

### Relevant for GS Prelims & Mains Paper II; Polity & Governance

Strict anti-corruption laws are seen as the panacea to many of society's problems. But like many other laws that are created with good intentions, there can be unintended consequences to anti-corruption laws as well. These consequences are initially unforeseen by the supporters of these laws.

#### **"Bribe-switching"**

"Bribe-switching" by American researchers Jamie Bologna Pavlik and Desiree Desierto looks into the unintended consequences of the strict implementation of the Foreign Corrupt Practices Act (FCPA). It should be noted that the FCPA was enacted to prohibit firms and people in the United States from bribing public officials in foreign countries. Most famously, the FCPA was used to prosecute Goldman Sachs for its involvement in Malaysia's 1MDB scam.

#### **So, what have been the benefits of the FCPA?**

Many assume that strict anti-corruption laws like the FCPA when enforced properly by government officials would lead to a fall in corruption and an improvement in the economy. The FCPA, which imposes heavy fines and other penalties on American firms engaging in corrupt practices, is in fact considered to be a law that is implemented well. The researchers, however, found that when the U.S. government went after certain U.S. firms that operated in other countries on charges of bribery, other interesting results followed. These results failed to satisfy the initial expectations of the legislators who framed the FCPA.

#### **Growth of illegal markets**

First of all, there was no real decrease in the level of corruption among foreign officials after the enactment of the FCPA. The researchers propose what they call the "bribe-switching hypothesis" to explain the failure of corruption to fall in foreign countries despite the enforcement of FCPA regulations.

They argue that public officials do not depend on only formal markets to earn bribes but may also depend on other illegal markets to earn bribes. Whether public officials receive bribes through legal markets or through illegal markets depends among other things on the relative cost of receiving bribes through each route. When the cost of extracting bribes in the legal market increases due to laws like the FCPA, this can cause public officials to resort to obtaining bribes from the illegal market instead. If so be the case, public officials may compensate for the loss of bribe revenues from legal markets with bribe revenues from the black or illegal economy. For example, after the enactment of the FCPA, certain formal investment projects that would have earlier received approvals from officials after the payment of a bribe may no longer receive official approval. Instead, officials may focus their efforts on approving projects in the illegal market that bring them bribe revenue at a lower risk of getting caught red-handed.

In countries where American firms could no longer offer bribes due to FCPA regulations, the size of the black economy increased by as much as 0.25 percentage points, the researchers found in their study. Other proxy markers of illegal activity such as homicide rates, tree loss, and trade misinvoicing also showed that the FCPA was leading to an increase in illegal activity in the black economies of these countries. This, the authors argue, happens because public officials resort to obtaining their bribe revenue from the illegal rather than the legal market. This will make them more likely to allow illegal activities to flourish in order to maximise their bribe revenues. So, for example, a powerful bureaucrat might allow

the illegal sale of liquor in the black market to flourish in exchange for bribes when he can no longer easily obtain bribes for investment projects from established U.S. liquor firms due to the FCPA.

### **Illegal economies, an alternative?**

More importantly, the authors note that while there was no increase in a country's GDP per capita after the FCPA moved against attempts to bribe their public officials, there was a significant increase in the size of their black economies. The authors argue that the growth of the black economy is a significant negative development for these countries. Others, however, may argue that the black economy in these countries could be serving as a useful alternative to the highly restricted legal economy. In this view, bribes may actually be greasing the wheels of commerce in many economies where existing laws that govern the formal economy are not conducive to legitimate business activities.

**Source: The Hindu**

## **2. Questioning the safety of Aadhaar**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

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 did the UIDAI advisory say?**

The withdrawn notice had suggested holders use a masked Aadhaar card instead of the conventional photocopy, adding that the document must not be downloaded from a cybercafé or public computer and if done for some reason, must be permanently deleted from the system. 'Masked Aadhaar' veils the first eight digits of the twelve-digit ID with 'XXXX' characters. The notice informed that only entities possessing a 'User Licence' are permitted to seek Aadhaar for authentication purposes. Private entities like hotels or film halls cannot collect or keep copies of the identification document.

In July 2018, Telecom Regulatory of India's Chairman R.S. Sharma tweeted his Aadhaar number challenging users to "cause him any harm". In response, users dug up his mobile number, PAN number, photographs, residential address and date of birth. It could not be ascertained if the PAN number was actually correct. UIDAI dismissed assertions of any data leak, arguing that most of the data was publicly available. It did however caution users from publicly 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.

### **Is identity theft via Aadhaar possible?**

As per the National Payment Corporation of India's (NPCI) data, ₹6.48 crore worth of financial frauds through 8,739 transactions involving 2,391 unique users took place in FY 2021-22.

Since the inception of the UID project, institutions and organisations have endowed greater focus on linking their databases with Aadhaar numbers, including for bank accounts especially in light of the compulsory linkage for direct benefit transfer schemes. The NPCI's Aadhaar Payments Bridge (APB) and the Aadhaar Enabled Payment System (AEPS) facilitate direct benefit transfer (DBT) and allow individuals to use Aadhaar for payments. This requires bank accounts to be linked to Aadhaar. In 2017, researchers at the Centre for Internet and Society (CIS) acquired information of various beneficiaries of such social security and employment schemes such as their Aadhaar numbers, bank account details, job card status, mobile number etc. The same year, the UIDAI in response to an RTI stated that more than 200 central and State government websites publicly displayed details of some Aadhaar beneficiaries such as their names and addresses. Both were made possible by the lack of robust encryption. This data could be potentially used to fraudulently link the rightful beneficiary's Aadhaar with a distinct bank account, embezzling the beneficiary by impersonation, made possible by the sizeable identity documents available.

The UIDAI maintains that merely knowing the bank account number would not be enough to withdraw money from the bank, stating that the individual's fingerprint, iris data or OTP to a registered mobile number would be required. CIS states that brokers are known to buy tonnes of Aadhaar documents from mobile shops and other places where the identification document is shared. Additionally, there have been instances where employees of service providers were caught stealing biometric information collected solely for Aadhaar authentication. A far-stretch means for acquiring biometrics would involve collecting fingerprints from varied places that an individual might touch unknowingly in a certain space (such as a railing of a staircase) with iris data being acquired from high-resolution cameras.

As for mobile verification, phone users in India are known to carry two or more phone numbers at one time. There could be a possibility that the number linked to the Aadhaar is not prominently used. Fraudsters could use this as an opportunity to link their phone numbers instead, update it in the bank using the available information (of the individual) and deprive them of benefits or embezzle funds.

### **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. Further, UIDAI's unstable record with biometric authentication has not helped it with de-duplication efforts, the process that ensures that each Aadhaar Number generated is unique. The CAG's reported stated that apart from the issue of multiple Aadhaars 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. Though the UIDAI has assured that no one would be deprived of any benefits due to biometric authentication failures, the absence of an efficient technology could serve as poignant premise for frauds to make use of their 'databases'.

**Source: The Hindu**

### **3. Supreme Court order on Puri Heritage Corridor today, what is the case?**

**Relevant for GS Prelims & Mains Paper II; Polity & Governance**

On Thursday, the Supreme Court reserved its orders on petitions against excavation and construction work by the Odisha government along the Puri Jagannath temple as part of the Puri Heritage Corridor Project. A Bench comprising Justices B R Gavai and Hima Kohli is set to pronounce its orders on Friday.

### **What is the Puri Heritage Corridor case about?**

The case in the Supreme Court comes at a time when the Orissa High Court is already hearing a plea against construction by the state government along the 800-year-old Puri Jagannath temple. Puri residents had moved the High Court alleging that the structural safety of the temple could be in jeopardy if land around the temple were dug up. The District Court in Puri is also hearing cases seeking to stop the construction.

Last week, a High Court Bench comprising Chief Justice S Muralidhar and R K Pattnaik had asked the state government to file an affidavit before June 20 and had listed the case for hearing on June 22. The court had earlier also asked the Archeological Survey of India (ASI) to file an affidavit before the court and even conduct a joint inspection along with the state government.

The ASI then told the court that the state government had no requisite permission for the project.

Following the ASI's affidavit, different petitioners (not the ones before the High Court) have moved the Supreme Court. The SC is examining whether such an appeal through a Special Leave Petition can be permitted before hearing the plea on merits.

### **What is the construction in question?**

Conceived in 2016, the ambitious Puri Heritage Corridor Project has become the centre of a political slugfest between the BJP and the BJD-ruled state government. It involves redevelopment of Puri into a heritage site at a cost of Rs 3,200 crore. The construction has been taken up by the Odisha Bridge and Construction Corporation (OBCC) under the state's Works Department, while Tata Projects is running it on the ground.

The project includes 22 schemes redeveloping major portions of the temple town. The first phase of work, the cost of which is estimated at Rs 800 crore, began in February 2020. Following this, the Shree Jagannath Temple Administration (SJTA) approved the architectural design plan of the project.

The project includes redevelopment of the Shree Jagannath Temple Administration (SJTA) building; a Srimandir reception centre (capacity 600); Jagannath Cultural Centre including Raghunandan Library; integrated command and control centre; Badadanda heritage streetscape; improvement of Srimandiramenities; Sri Setu; Jagannath Ballav pilgrim centre; multilevel car parking; municipal market development; Swargadwar development; Pramod Udyan; Gurukulam; Mahodadhi market; beachfront development; Puri lake; Musa river revival plan; Atharnala; and housing for sevayats.

### **What is the ASI's role in this?**

The 12th-century temple is a centrally protected monument, with the ASI as its custodian. As per the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, the National Monuments Authority (NMA) grants approval for construction and mandates that a heritage impact assessment study must be carried out before developmental work around any monument of archaeological importance with a built-up area over 5,000 square metres. The Jagannath temple is spread over 43,301.36 square metres.

The NMA, which functions under the Union Ministry of Culture, was set up for the protection and preservation of monuments and sites through management of the prohibited and regulated area around the centrally protected monuments.

### **And what has it said about the project?**

On September 4, 2021, the NMA had issued a no objection certificate (NOC) to the state government for the construction of a cloakroom, a shelter pavilion, three toilets, an electrical room and a pavement within the prohibited 75-metre zone. The NMA's approval was based on the understanding that public amenities do not come under the definition of construction and that the project would be carried out under ASI supervision.

However, after a joint inspection, ASI Director General V Vidyavathi flagged concerns on the project before the High Court. The affidavit filed on May 9 said that there was a possibility that the archaeological remains at the heritage site being destroyed due to the excavation work for the corridor.

On February 21, the ASI also wrote to the state government to review the the project for the development around the Puri Srimandir. "One point of discussion was the proposed reception centre which is at a distance of 75 metres from the temple (part falls under the prohibited area). The building is proposed to be used to hold devotees before they proceed to the main complex. Given that this would be very essential, it was decided that the state government would consider options to slightly move the building beyond 100 metres," the ASI wrote. It added that moving the building beyond 100 metres would be good in the interest of security of the temple.

#### **How has the state responded?**

Advocate General Ashok Kumar Parija relied on the NOC granted by the NMA, arguing that the project has not strayed from the parameters on which the approval was granted. He also sought an opportunity to file a detailed response to the ASI's affidavit, which the court granted.

The state government has also cited a 2019 verdict by Justice Arun Mishra which highlighted the lack of facilities and mismanagement of the Puri temple premises. In one of the several directions, the SC had also directed that "the ASI shall forthwith clear the plan for construction of sheds/permanent structures which is absolutely necessary".

#### **On what ground is the project being opposed in the Supreme Court?**

The petitioners have contended that the project has "no valid permission" while the Odisha government has insisted that it has. Appearing for the petitioners, senior advocate Mahalakshmi Pavani contended that the construction was happening in violation of Section 20A of the Ancient Monuments Act that sets a minimum of of 100 metres within which construction around a protected monument is prohibited, except in exceptional circumstances with the permission of the central government or the ASI Director General.

For the state, Advocate General Ashok Kumar Parija argued that the activities currently being carried out, which are for building public conveniences such as wash rooms, cannot be termed construction within the meaning of the Act. He referred to the NOC from the NMA and added that "we are not doing one thing beyond this".

**Source: The Indian Express**

### **4. What is the PM CARES scheme for children who lost parents to Covid?**

#### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Prime Minister Narendra Modi Monday released benefits like scholarships and health insurance under the PM CARES for Children scheme to support children who lost their parents due to coronavirus during the pandemic.

In February this year, a study in The Lancet had estimated the number of such children in India to be around 19 lakh. This was termed as "sophisticated trickery" by the Ministry for Women and Child Development (MoWCD), which said the number was close to 1.53 lakh.

#### **What is the PM CARES scheme for children who lost parents to Covid?**

PM CARES for Children was launched in May 2021 to ensure rehabilitation and education of children who lost caregivers to Covid between March 11, 2020, when Covid-19 was declared as a pandemic by the WHO, and February 28, 2022. The scheme applies to children who have lost both parents or a surviving parent or legal guardians/adoptive parents, to ensure their rehabilitation and education.

Funded by PM Cares and with MoWCD at its nodal agency in the Centre, the scheme will provide a monthly stipend to each child from the age of 18 years, and a lump sum amount of Rs 10 lakh on attaining the age of 23. The Prime Minister said the benefits also include an annual scholarship of Rs 20,000 for school students and monthly financial support of Rs 4,000 for daily needs.



Health coverage will be given through the Ayushman Card, and counselling through the Samvad helpline for psychological and emotional help.

Different guidelines have been mentioned for the care of children under different age brackets.

Till six years of age, children will receive support from Anganwadi services for supplementary nutrition, pre-school education.

For children below 10 years of age, admission shall be provided in any nearest school – government/government-aided school/Kendriya Vidyalayas (KVs)/ private schools – as a day scholar.

In private schools, tuition fees will be exempted. The scheme will also utilise existing schemes and programmes. For instance, two sets of free uniform and textbooks shall be provided under the Samagra Shiksha Abhiyan.

Additionally, the scheme will help place the orphaned children either in the care of relatives and family, or with Child Care Institutions (CCIs), or in a Sainik School, Navodaya Vidyalaya, or other residential schools. CCIs are centres for children in need of care or in conflict with the law, and are mentioned under the Juvenile Justice Act of 2015.

#### **What is the process to select beneficiaries?**

Applications for enrollment under the scheme were to be submitted via the online portal – pmcaresforchildren.in – with the required documents till February 28, 2022. Child Welfare Committees (constituted by the state governments under the Juvenile Justice Act) have been tasked with gathering facts about each case and recommending the child as a beneficiary to the District Magistrate (DM). The DM will then accept or reject the application and if accepted, the relevant bank accounts will be opened.

It was in July 2021 that the Ministry had directed states and UTs in July 2021 to identify children eligible for support and register them on the portal.

Aadhaar registration of eligible children is needed to receive support under the scheme, and if the same is unavailable the DM has to facilitate it.

The Department of Women and Child Development or the Department of Social Justice in the state/UT is the responsible authority here, while the DM is in charge of verification of beneficiaries and is to act as a “guardian” of the children.

#### **What led to this?**

In the past, courts have questioned the government about the work being done in this regard. In July 2021, the Supreme Court had asked district authorities to “immediately take charge of such children and attend to their basic needs without waiting for any further orders”.

Later in May 2022, the Delhi High Court directed the Centre to file an affidavit explaining in detail the steps that have been taken for ensuring continued education of the children. This order was passed after a petition was filed by two minors, students of Class II and Class V, who lost their sole bread-winning parent to Covid-19.

National Commission for Protection of Child Rights (NCPCR), as a monitoring authority under the Juvenile Justice Act, was asked by the apex court to set up a portal.

“Bal Swaraj” was set up, where data of the orphaned children was uploaded. The NCPCR said it has been tracking all the children who have lost their parent/s since April 2020, and that all states/UTs were directed to upload the data of all such children on the Bal Swaraj portal. However, it clarified that its figures include deaths of parents in the given period due to other reasons too.

#### **How many children were orphaned in India due to Covid?**

A study published in The Lancet in February this year said the number was close to 19 lakhs. In a press release, the government said these numbers were “sophisticated trickery intended to create panic among

citizens, divorced from truth and ground reality". The NCPCR was "continuously tracking" the numbers, it said.

It added that in compliance with the judgment of the Supreme Court, the NCPCR also files affidavits on "regular basis to update the Hon'ble Court."

An earlier study of The Lancet from July 2021 had estimated 1.19 lakh children had lost a primary caregiver. It said India had the third highest number of such children in the world.

According to the government's own data, 1.53 lakh children were orphaned due to Covid-19.

So far, 9,042 applications have been received under PM CARES for Children, of which 4,345 have been approved. Most of the approved applications are from Maharashtra (790), Uttar Pradesh (441), and Madhya Pradesh (428), while most applications have been received from Rajasthan (1547), Maharashtra (1434), and Uttar Pradesh (976).

**Source: The Indian Express**

## **5. How 'Use and File' system will bring new health insurance products faster**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

The Insurance Regulatory and Development Authority of India (IRDAI) has decided to extend the 'Use and File' procedure to all health insurance products. The move is expected to facilitate faster customer access to health policies.

#### **What is 'Use and File'?**

Under 'Use and File', insurers are permitted to market products without the regulator's prior approval, thus avoiding a long wait. Under the existing 'File and Use' system, an insurer wishing to introduce a new product has to first file an application with the IRDAI and use the product for sale in the market only after getting all regulatory approvals. "The Product Management Committee of the insurer should ensure compliance to the policy of the board while signing of the new products or modification of products," IRDAI said.

"This reform authorises insurers to launch products innovative and customised to buyers, avoiding a long waiting duration," said Sylvester Carvalho, Lead- Product, Riskcovry.

#### **What does it mean?**

General and health insurance companies launch, modify or revise all categories of products and add-ons or riders in the health insurance business through the 'Use and File' method. This means insurance firms can quickly introduce new schemes with innovative features, enabling people to participate and cover their health expenses. Earlier, companies used to file scheme drafts with the regulator and wait for weeks and months to get clearance.

The new initiative has come at a time when demand for health coverage products has risen significantly in the wake of the pandemic. "The proactive initiative by IRDAI will provide some necessary mechanisms to insurance companies which wish to bring out more innovative products in the market at a faster frequency," said TapanSinghel, MD and CEO, Bajaj Allianz General Insurance. Customers have the opportunity to choose from a range of insurance products that best suit their needs and thus secure themselves against any exigencies, Singhel said.

"This will aid customer centricity and fuel product innovation which should help augment insurance penetration in our country," said Rakesh Jain, CEO of Reliance General Insurance.

The move offers flexibility to insurers to offer products that may cover the immediate needs of customers on account of a changing environment. If there is a new disease that emerges, 'Use and File' will allow insurers to design a product covering that disease and offer it immediately, rather than waiting for approval.



### **What if the regulator raises concerns over such a product later?**

If a customer has already taken an insurance policy launched under 'Use and File', and the IRDAI later raises concerns about it, then it can lead to some rethinking. The customer will continue to get the benefits of the policy for the first year, and if the insurance company makes amendments in line with regulator's apprehensions, the customer will still get these benefits. However, if the policy is withdrawn as a result of IRDAI's intervention, the product will no longer be available for renewal in the second year. In such a case, the insurance company may provide the policyholder with similar options from its existing policies, and the customer may agree to taking one.

### **What is the procedure?**

Insurers should file the proposed name of the product, date of approval by the Product Management Committee, and they should obtain a UIN. "Thereafter, insurers should file the product along with all others with the authority within 7 days of launch of the product," the circular said.

Insurers should ensure that the product pricing is viable, self-sustainable and affordable to the targeted market. A revision in the price, if any, should be effected only based on the underlying claims experience (Incurred Claims Ratio, or ICR), and to make the product viable and self-sustainable. Insurers should disclose on their website the rationale for the revision along with the ICR that led to the revision.

Pricing of products or add-ons should be based on generally accepted actuarial principles. The premium rates should appropriately reflect the benefits, terms and conditions of the underlying products or add-ons and should not be discriminatory.

### **How is the health cover business doing?**

The health insurance business is the fastest growing segment in the insurance sector, and accounts for a 33.33% market share in the general insurance industry. Premium income under the health insurance category rose by 25.39% to Rs 73,582 crore during the financial year ended March 2022. Standalone health insurers reported a 32.55% growth in premium mobilisation during the fiscal, according to data from the General Insurance Council.

There were 26.54 lakh claims for Rs 24,255 crore under the Covid health insurance category until April. These claims are reimbursement towards treatment and hospitalisation expenses. Many insurers have seen over 100% claims during the peak of the pandemic.

**Source: The Indian Express**

## **6. Why the lack of compliance with Sports Code is landing a lot of federations in trouble**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

\* On Thursday, the Delhi High Court summoned the joint secretary of the sports ministry for overlooking the violation of the National Sports Code by the federations, and hinted at strict actions against erring associations.

\* On May 26, the court hinted that if the federations continued to violate the rules, it would order the government to stop their funding.

\* A day before, the same Delhi High Court bench had pulled up Hockey India for flouting the sports code and appointed a three-member Committee of Administrators, led by former chief election commissioner SY Quraishi, to look after its day-to-day affairs.

\* A week earlier, the Supreme Court ended Praful Patel's term as All India Football Federation's (AIFF) president for, once again, violating the sports code. It took control from the AIFF and transferred it to a three-member CoA, led once again by Quraishi.

\* In February, the Delhi High Court suspended the executive committee of the Table Tennis Federation of India (TTFI) and constituted a CoA, chaired by former Jammu & Kashmir High Court Chief Justice Gita Mittal, to run the federation.

If these precedents are anything to go by, the Indian Olympic Association (IOA), which has been accused of not complying with the sports code, could be in trouble as well when the Delhi High Court passes its order, which was reserved for April 12.

So, why are the courts intervening in the running of sports federations? In their order dated May 26, Justice Najmi Waziri and Justice Vikas Mahajan have tried to answer this question. They noted that, in essence, it is to seek 'compliance by NSFs (National Sports Federations) with the Sports Code and orders passed by the courts.'

"Twelve years is a long time to enable sports bodies to conform to the Sports Code," the judges wrote in their order, referring to the first petition made to make federations accountable back in 2010. "The time to stop is now."

### **What is the Sports Code?**

It is a set of regulations passed by the government in 2011, which enunciated the 'basic universal principles of good governance, ethics and fair play.' The Sports Code seeks to put restrictions on the age and tenure of the office-bearers of federations apart from envisaging transparent functioning along with free and fair elections.

### **Why is it important for the federations to comply with it?**

As sports lawyer and activist Rahul Mehra, who is also the petitioner in the ongoing case in the Delhi High Court, said: "It's about following the law of the land." The Delhi High Court order, too, noted the same. "Non-compliance with the regime of the law," it stated, "is clearly against public interest."

### **Who is responsible for ensuring that the federations follow the Sports Code?**

The Court holds the government responsible for ensuring that all federations are compliant with the Sports Code. In 2014, a Delhi High Court bench – which included Justice Waziri – held that the government can 'insist upon adherence to these provisions (sports code), without the aid of legislation' and added that the sports code provisions were 'neither arbitrary' nor did they 'violate any freedom under the Constitution.'

### **What are the consequences of not following the sports code?**

The court has said that a federation that does not follow the guidelines should be suspended. Additionally, it has also suggested that grants given to the federations should be stopped. "There can be no let-up or latitude in this regard, as relaxation would be arbitrary, illegal and lead to dilution of the Sports Code. No NSF or Sports Entity should be seen to be receiving benefits which are unjust," the court noted.

### **What benefits do the federations receive?**

Most athletes are now funded directly by the government, instead of routing it via the federations. However, the federations still get plenty of grants such as 'tax benefits, travel concessions, accommodation and hospitality accorded to players and officials of NSFs, use of government-owned stadia and sports facilities, etc.' "Fairness and legitimacy need to imbue all governmental affairs. Therefore, it is prudent, indeed imperative that no further exemptions be granted to or lenience be shown to noncompliant NSFs," the court has noted.

### **How many federations have been accused of not adhering to the code?**

Last year, the court had asked the sports ministry to file an affidavit indicating the status of compliance with the Sports Code by 41 national federations. That information, the judges noted, has still not been provided. In its order on May 26, the court asked the sports ministry to examine the constitutions of the federations of 'gymnastics, handball, national yogasana, tennis, volleyball, mallkhamb and motor sports as well as equestrian, rowing, golf, squash racket, yachting, polo'. If they are found violating the sports code, the order read that 'directions/ notices shall be issued apropos suspension of their recognition.'

### **Why has action been taken against hockey, football and table tennis federations and why is a CoA constituted to run these sports?**

In the case of table tennis, the Delhi High Court – hearing the petition filed by CWG medalist Manika Batra alleging match-fixing by coaches – said the federation 'safeguarded the interests of its officials' and 'instead of promoting players, TTFI is dictating terms.' Consequently, it suspended the federation and appointed a CoA.

In football, the Supreme Court said the AIFF did not comply with the sports code and constituted a three-member CoA to amend and finalise the federation's constitution accordingly. Hockey India's executive committee was suspended after the Delhi High Court, hearing a petition filed by former India hockey captain Aslam Sher Khan, found multiple violations of the sports code, including the appointment of IOA president Narinder Batra as a life member of Hockey India. Subsequently, Batra said he won't seek re-election as IOA president.

#### **Do the administrators get paid for their roles?**

They do. The three-member table tennis CoA is entitled to Rs 5 lakh per month, including Rs 3 lakh to the chairperson. In hockey, the court ordered that 'a deposit of Rs 3 lacks per month shall be made with each CoA member to meet expenses, etc.' The remuneration of the CoA for the AIFF has not been made public yet.

#### **Has the CoA been successful in ensuring accountability?**

Not entirely. In the case of the BCCI, the CoA was accused by many of failing to implement the reforms proposed by Justice RM Lodha.

**Source: The Indian Express**

### **7. Rule 10(a) of the BJP constitution, invoked to suspend spokesperson Nupur Sharma**

#### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Faced with a backlash in Gulf countries, the BJP on Sunday (June 5) took the extraordinary step of suspending two of its spokespersons for their remarks on Islam and the Prophet.

In the case of one of the two leaders, national spokesperson Nupur Sharma, the BJP, which sees itself as a disciplined and cadre-based party, invoked Rule 10(a) of its constitution as reason for the action.

In a letter to Sharma, Om Pathak, Member Secretary, Central Disciplinary Committee of the BJP, said: "You have expressed views contrary to the party's position on various matters, which is in clear violation of Rule 10(a) of the Constitution of the Bharatiya Janata Party. I have been directed to convey to you that pending further inquiry, you are suspended from the party and from your responsibilities/ assignments if any, with immediate effect."

#### **Religion in the BJP's constitution**

Article II of the BJP's constitution lays down the "objective" of the party, which was formed in 1980 by the members of the erstwhile Bharatiya Jana Sangh who left after the collapse of the Janata Party experiment.

The objective of the BJP says: "The party aims to establish a democratic state, which guarantees to all citizens irrespective of caste, creed or sex, political, social and economic justice, equality of opportunity, and liberty of faith and expression."

The party constitution contains 34 articles. Along with filling in party membership forms, one has to take a pledge that "I subscribe to concept of Secular State and nation not based on religion... I undertake to abide by the Constitution, Rules and discipline of the Party."

#### **The rules of the party**

Article XXV-5 states: "National Executive will frame rules for the constitution of Disciplinary Committee at different levels for deciding matters relating to violation of discipline." The rules are listed at the end of the constitution, along with details of the necessary action, and the process of action.

A 10-part process is listed as part of "disciplinary Action" in case of breach of discipline. Six types of breach of discipline are listed.

#### **Rule 10(a) of the BJP constitution**

Rule 10 gives extraordinary powers to the party president to discipline members. It says: "The National President if he so desires, may suspend any member and then start disciplinary proceedings against him." It is under this rule that Sharma has been suspended even before an inquiry against her.

Para (a) under “Breach of Discipline” states: “Acting or carrying on propaganda against programme or decision of the Party.”

Under the rules, “Disciplinary Action Committee of not more than 5 members will be constituted... Committees shall draw their own procedures; State Disciplinary Action Committee can take action only against units subordinates to it...;

“On receipt of a complaint, the National President or the state president...may suspend an individual or a Unit followed by a show-cause notice within a week of the said order;

“Maximum 10 days’ time from the date of receipt of such notice may be given to a person to reply...;

“Committee will submit its report to the President in not more than 15 days...”

**Source: The Indian Express**

## **8. The provisions of the withdrawn draft on social media regulations**

**Relevant for GS Prelims & Mains Paper II; Polity & Governance**

On June 2, the Ministry of Electronics and Information Technology (MeitY) put out a draft proposal, seeking comments from the general public on a set of proposed amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021. The draft document was however withdrawn the same day. It had proposed measures to strengthen the oversight mechanism for regulating content on social media platforms. The draft stated that the measures dealt with “new and emerging issues” and addresses identified “gaps” in the legislation so as to make the internet more open, safe, trusted and accountable to its users. The MeitY reposted the draft amendments on its website, inviting comments from stakeholders in the next 30 days, the same day this article went to press.

### **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.

Digital advocacy group, Internet Freedom Foundation (IFF) said that “worryingly, this would have made the government the arbiter of permissible speech on the internet and incentivised social media platforms to suppress any speech that may not be palatable to the government.” 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. For example, Twitter took two-three days to censor former U.S. President Donald Trump's account following a close review of his tweets and their context, particularly in light of the January 6 violence at the White House, the previous year. The shortened timelines therefore invited fears of a hastier approach to get things done. "Such a short-time line would have created the possibility of disposal of grievances without application of mind and led to arbitrary restriction on speech," the IFF states.

What needs to be remembered is that all social media platforms deal with a sizeable user base and an even more massive content flow. For example, between March 25 and April 26 this year, Twitter acted against a total of 1,494 URLs for violating varied community standards. In addition, it processed 108 grievances seeking account suspensions and overturned 52 account suspensions during the mentioned period. Even if a minuscule fraction of these people were to approach the appellate, both the microblogging platform and the committee could be potentially burdened. Not to forget, the data is for a month-long period and for a single entity, and such occurrences are recurrent and could only multiply the case count. Further, 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).

When argued at the Bombay High Court in August 2021, Additional Solicitor General Anil Singh mentioned that 97% publishers of news and current affairs had not challenged the 2021 Rules and thus the provisions are accepted and implemented. The Bombay High Court however ruled, "People would be starved of the liberty of thought and feel suffocated to exercise their right of freedom of speech and expression, if they are made to live in present times of content regulation on the internet with the Code of Ethics hanging over their head as the Sword of Damocles." The Supreme Court will now hear this matter on July 19.

**Source: The Hindu**

## **9. The debates around the Surrogacy Act**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Petitioners in the Delhi High Court questioned why marital status, age, or gender were the criteria for being allowed to commission or not commission surrogacy in India. The female petitioner said that she already had a child but the trauma of the first childbirth experience and her need to juggle work with child care persuaded her that surrogacy would be a better option for the second child. But under the provisions of the Surrogacy Act, she was denied a chance at commissioning surrogacy.

As per the Surrogacy Act that kicked in from January this year, a married couple can opt for surrogacy only on medical grounds. The law defines a couple as a married Indian "man and woman" and also prescribes an age-criteria with the woman being in the age group of 23 to 50 years and the man between 26 to 55 years. Additionally, the couple should not have a child of their own. Though the law allows single women to resort to surrogacy, she should either be a widow or a divorcee, between the age of 35 to 45 years. Single men are however, not eligible.

### **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. Several instances began to emerge where women, in often desperate straits, started lodging police complaints after they did not receive the promised sum.

Other issues also began to crop up. For instance, in 2008 a Japanese couple began the process with a surrogate mother in Gujarat, but before the child was born they split with both of them refusing to take the child. In 2012, an Australian couple commissioned a surrogate mother, and arbitrarily chose one of the twins that were born.

The time therefore, was ripe for proper regulation.

### **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 from life threatening disorder or fatal illness.'

### **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. Representations from these groups emerged even as Health Minister J.P. Nadda introduced the Bill in the House.

Others, primarily those involved in organ transplantation, pointed out how despite a similar, stringent law — the Transplantation of Human Organs Act — organ commerce continues to thrive in the country. Brokers continue to operate, though with less temerity and more covertly, sometimes with hospital authorities, to pull wool over the eyes of the appropriate authority and law enforcement officials. Clearly the issue will have to be handled with a stern visage, even as sensitivities of people are factored in.

### **What lies ahead?**

These apprehensions and perceived hitches due to the exclusionary criteria, have already come to the forefront in the short period that the Act has been operational. A path of litigation is possibly the course ahead, and if a critical mass builds up, amendments might have to be resorted to in order to resolve the grievances and ensure access for all categories of parents.

**Source: The Hindu**

## **10. What are the draft amendments to IT Rules, 2021?**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

The Ministry of Electronics and Information Technology (MeitY) has published a fresh draft of amendments to the Information Technology Rules, 2021, which proposes the creation of government-appointed appeal committees that will be able to veto content-moderation decisions taken by social media intermediaries like Facebook, Twitter and YouTube.

Last week, the ministry had issued a draft with the same proposal, but withdrew it within hours. The fresh draft, floated by MeitY late on Monday night, however, is largely the same as the earlier proposal.

### **What are the proposed amendments to the IT Rules, 2021?**

The draft proposes to create government-appointed appeal committees that will be empowered to review and possibly reverse content moderation decisions taken by social media companies. “The Central Government shall constitute one or more Grievance Appellate Committees, which shall consist of a Chairperson and such other Members, as the Central Government may, by notification in the Official Gazette, appoint,” MeitY said in the draft.

What it essentially means is that in case a user is not satisfied with the content moderation decision taken by a company’s grievance officer, they can appeal that decision before the proposed government-appointed appeals committee. “Every order passed by the Grievance Appellate Committee shall be complied with by the concerned intermediary,” the ministry said in the draft. Currently, the only recourse a user has against companies’ content decisions is to approach the courts.

Apart from this, the new proposal also suggests placing additional responsibilities on grievance officers appointed by social media companies. It says that if a user complains about content which is “patently false”, infringes copyright, and threatens the integrity of India, among other things, a grievance officer will have to expeditiously address it within 72 hours. Under current rules, grievance officers have 15 days to act on and dispose of users’ complaints.

### **Draft up for discussion**

The draft, which is up for public consultation for 30 days, triggered concerns about the government overriding the decisions of social media platforms.

### **What prompted the amendments?**

In a press release issued late on Monday, MeitY said the proposed amendments will ensure that “Constitutional rights of Indian citizens are not contravened by any big tech platform by ensuring new accountability standards”. The new draft, it said, will ensure “actual enforcement of requirements in IT Rules, 2021 in letter and spirit”.

“The IT Rules, 2021 provide for a robust grievance redressal mechanism. However, there have been many instances that grievance officers of intermediaries either do not address the grievances satisfactorily and/or fairly. In such a scenario, the need for an appellate forum has been proposed to protect the rights and interests of users,” MeitY said in the press release.

According to a senior government official, de-platforming of users by social media companies without allowing them an opportunity to explain their actions is a recurring complaint that the government has received from users. This, as per the official, suggests there are gaps in the rules that were implemented in May last year and the proposed amendments would fill those gaps.

As per the IT Rules, 2021, that came into effect last year, social media companies like Facebook and Twitter are mandated to appoint India-based resident grievance officers as part of their due diligence as ‘intermediaries’ who enjoy legal immunity from third-party content on their platform. These officers are responsible for overseeing the grievance redressal mechanism of complaints from the people who use their services.



### **Have there been concerns raised around the proposals?**

The proposal to set up government-appointed committees has triggered concerns about the government overriding social media platforms' content decisions.

Reacting to the proposal while it was made in the last draft, Delhi-based digital rights group Internet Freedom Foundation had said, "The proposal, without any legislative basis, seeks to subject content on social media to the direct scrutiny of the government by permitting users to appeal decisions of social media platforms to a Grievance Appellate Committee constituted by MeitY".

**Source: The Indian Express**

## **11. Safe foods**

### **Relevant for GS Prelims & Paper II; Polity & Governance**

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.

#### **Performance of Tamil Nadu**

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). The State has performed marginally lower than what it did last year in 'consumer empowerment'. But barring Tamil Nadu, there is nothing for the other southern States to cheer about despite the region being more advanced than the rest of India in many socio-economic indicators.

#### **Performance of other Southern States**

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.

#### **Support of Central Government**

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. What every player in the field of food safety should realise is that each one has a critical role to play, and there has to be collective and well-coordinated action.

**Source: The Hindu**

## **12. Food safety index: how it is worked out, how the states have performed**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Last week, the Food Safety and Standards Authority of India (FSSAI) released the State Food Safety Index (SFSI) 2021-22. A look at how the index assesses and ranks states, and their performances.

### **What is the SFSI?**

Developed by the FSSAI, the index aims to measure the performance of states and Union Territories on selected “parameters” of food safety. According to the FSSAI, the index is aimed at encouraging states and UTs to “improve their performance and work towards establishing a proper food safety ecosystem in their jurisdiction...”

The SFSI is released annually for a financial year. For instance, the latest SFSI, released on World Food Safety Day, June 7, is for the fiscal 2021-22. This is the fourth edition of the SFSI since its inception in 2018-19.

### **Which are these food safety parameters?**

The SFSI takes into account the performance of the states on five key parameters, each of which is assigned a different weightage in the assessment.

**HUMAN RESOURCES & INSTITUTIONAL DATA:** This carries a weightage of 20% and measures the “availability of human resources like number of Food Safety Officers, Designated Officers facility of adjudications and appellate tribunals, functioning of State/ District level Steering Committees, pendency of cases and their monitoring and participation in Central Advisory Committee meetings of the Food Authority”.

**COMPLIANCE:** This carries the highest weightage, 30%. “This is the most important parameter and measures overall coverage of food businesses in licensing & registration commensurate with size and population of the State/UTs, special drives and camps organized, yearly increase, promptness and effectiveness in issue of state licenses/ registrations,” the FSSAI says. “Promptness” in attending to consumer grievances, and availability of a help desk and web portals, too, come under this parameter.

**FOOD TESTING—INFRASTRUCTURE AND SURVEILLANCE:** Weighted at 20%, this measures the “availability of adequate testing infrastructure with trained manpower in the States/ UTs for testing food samples”. The FSSAI says, “The States/ UTs with NABL accredited labs and adequate manpower in the labs score more in this parameter.” It takes into account the “availability and effective utilization” of Mobile Food Testing Labs and registration and utilization of InFoLNet (Indian Food Laboratories Network).

**TRAINING & CAPACITY BUILDING:** This parameter carries the lowest weightage, at 10%. It measures states’ performance on training and capacity building of regulatory staff.

**CONSUMER EMPOWERMENT:** This carries a weightage of 20%. It evaluates the states and UTs on their performance on various consumer empowering initiatives of FSSAI, such as participation in Food Fortification, Eat Right Campus, BHOG (Blissful Hygienic Offering to God), Hygiene Rating of Restaurants, Clean Street Food Hubs, etc.

Besides, the states’ initiatives for creating consumer awareness are also considered under this parameter.

TOP & BOTTOM IN EACH GROUP		
RANK	STATE/UT	SCORE
<b>LARGE STATES</b>		
1	Tamil Nadu	82
2	Gujarat	77.5
3	Maharashtra	70
15	Telangana	34.5
16	Bihar	30
17	Andhra	26
<b>SMALL STATES</b>		
1	Goa	56
2	Manipur	44
7	Mizoram	22.5
8	Arunachal	21
<b>UNION TERRITORIES</b>		
1	J&K	68.5
2	Delhi	66
7	Dadra & NH& Daman & Diu	27.5
8	Lakshadweep	16

#### How is the states and UTs assessed?

The states and Union Territories are not assessed and ranked together. They are segregated into three categories — large states, small states and UTs— and assessed separately within their respective categories, based on their performance on the selected food safety parameters.

“The assessment and evaluation of each category are done by separate teams comprising of outside experts for food testing and food & nutrition professionals in addition to FSSAI officials,” the FSSAI says.

These expert teams examine details received from the states and UTs. They also interact with the states/UTs through video-conferencing for verification and confirmation of data.

#### How have the states and UTs performed this year?

In the category of the 20 large states, Tamil Nadu with an overall score of 82 out of 100 has performed the best and been ranked 1st on SFSI 2021-22, while Andhra Pradesh with an overall score of 26 has been ranked at the bottom —17th place (some states share a common rank).

Following Tamil Nadu in the rankings of the larger states are Gujarat (rank 2nd with a score 77.5), Maharashtra (3rd with 70), Himachal Pradesh (4th with 65.5) and West Bengal and Madhya Pradesh (sharing 5th with a score of 58.5).

Bihar (rank 16th, score 30), Telangana (rank 15th, score 34.5), Assam (rank 14th, score 35) and Chhattisgarh and Haryana (rank 13th, score 38) join Andhra Pradesh in the bottom 5 among the large states on the SFSI for the large states.

Among the remaining 8 large states, Kerala with a score of 57 has been ranked at 6th, Uttarakhand (score 55) at 7th, Odisha and Uttar Pradesh (both 54.5) at 8th, Karnataka (score 52.5) at 9th, Rajasthan (score 50.5) at 10th, Punjab (score 45) at 11th and Jharkhand (41.5) at 12th.

Among the eight small states, Goa with a score of 56 has been ranked at the top, while Arunachal Pradesh (rank 8th and score 21) is at the bottom.

Among the eight Union Territories, Jammu and Kashmir with a score of 68.5 has been ranked 1st and Lakshadweep (score 16) as the bottom. Delhi with a score of 66 has been ranked at 2nd place.

**Source: The Indian Express**

### **13. What is the e-Vidhan system for paperless legislation?**

#### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

A delegation of MLAs from Gujarat visited the Uttar Pradesh Legislative Assembly on June 9, to learn about the novel e-Vidhan system for paperless proceedings that has been recently adopted by the UP state assembly.

Uttar Pradesh is one of the few state legislatures in India that has implemented the digital Vidhan Sabha system, and its last session was completely digitised. Earlier in May, a training programme was organised to familiarise the representatives with the technology.

The National e-Vidhan Application (NeVA) is a system for digitising the legislative bodies of all Indian states and the Parliament through a single platform on which house proceedings, starred/unstarred questions and answers, committee reports etc. will be available. Nagaland became the first state to implement NeVA, in March this year.

#### **What is the National e-Vidhan Application (NeVA) system?**

The NeVA system has been developed to make all the work and data related to legislative bodies available online for the use of both citizens and the members of Assemblies. It includes a website and a mobile app.

There has been a shift towards digitisation in recent years by the government. Prime Minister Narendra Modi mentioned the idea of “One Nation One Legislative Platform” in November 2021.

“A digital platform, a portal that not only gives the necessary technological boost to our parliamentary system, but also works to connect all the democratic units of the country,” he said.

Lok Sabha Speaker Om Birla also said this year that the proceedings of all legislatures — both Houses of Parliament and state Assemblies and Legislative Councils — will be available on one platform by 2023.

#### **Why is NeVA being introduced?**

This has been done for streamlining information related to various state assemblies, and to eliminate the use of paper in day-to-day functioning. Its website states: “Several thousand tons of papers would be saved, which in turn would help in saving lakhs of trees annually”.

Himachal Pradesh’s Legislative Assembly implemented the pilot project of NeVA in 2014, where touch-screen devices replaced paper at the tables of the MLAs.

The then Chief Minister, the Congress party’s Virbhadra Singh, had inaugurated the e-Vidhan system. Though reluctant to learn the new system at the age of 80 years, he later appreciated the technology becoming “more useful for the MLAs”.

According to the state government's website, by adopting the digitised system, the state has annually saved 6,000 trees, and around Rs 15 crore in expenditure.

#### **Has this been done elsewhere?**

Though both Houses of Parliament have not gone fully digital yet, governments world over are heading towards embracing the digital mode.

In December last year, the Government of Dubai became the world's first government to go 100 percent paperless. It announced all procedures were completely digitised. This, as per a government statement, would cut expenditure by USD 350 million and also save 14-million-man-hours.

The US government announced in 2019 that by the end of 2022, all government agencies would stop dealing with paper.

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

The International Parliamentary Union, an organisation of more than 170 parliaments including India, in a 2018 report outlined some challenges in this regard.

Access, particularly for legislators representing rural constituencies, to devices and reliable internet and electricity was an issue. In its 2020 report, it said lack of training and heightened concerns over security are some more recent issues in the road to digitisation.

**Source: The Indian Express**

### **14. India's new policy on air sports**

**Relevant for GS Prelims & Mains Paper II; Polity & Governance**

The Union Ministry of Civil Aviation on June 7 released a new policy on air sports in India.

"This is an industry that is ripe for the picking but it lacked, until today, architecture to propel it forward," said Civil Aviation Minister Jyotiraditya Scindia. He said that the policy aims to "organise a previously unregulated sector" and could potentially generate annual revenue of Rs 8,000 to Rs 10,000 crore in the near future.

#### **What activities are classified as air sports?**

The National Air Sport Policy (NASP), 2022, lists 11 games under this category. These include aerobatics, aero modelling and rocketry, ballooning, amateur-built and experimental aircraft, drones, gliding and power gliding, hand gliding and power hand gliding, parachuting, paragliding and paramotoring, powered aircraft and rotor aircraft. In India, the small-sized industry is currently worth about Rs 80 crore and has 5,000 practitioners according to the government.

Globally, the Fédération Aéronautique Internationale (FAI), headquartered in Lausanne, Switzerland is the governing body for air sports. It sets standards, organises events and has over 100 members.

#### **What does the National Air Sport Policy propose?**

The NASP, 2022, aims to create a structure that would help "promote the country's air sports sector, by way of making it safe, affordable, accessible, enjoyable and sustainable." It includes safety mandates, penalties for violating those norms.

Its vision is making India "one of the top air sports nations by 2030".

Scindia said in his address that the industry can potentially generate 1 lakh jobs annually and give hundred times the revenue it gives now.

The first draft of the policy came out on January 1, 2022, from a committee that included armed forces officials, members from the National Cadet Corps, and experts. The policy says the Air Sports Federation of India, an autonomous body under the Ministry of Civil Aviation, will be the apex governing body. It will

preside over the national sports federations, which in turn will preside over the district and state-level bodies.

### **What impact is the policy expected to have?**

The Union government believes that India's demographic dividend, of a young population, as well as its favourable climatic conditions can be leveraged to make India a top destination for air sports.

Tourism, the development of support infrastructure, and eventual manufacturing of sporting goods used in air sports can lead to "economic multiplier" effects, the Civil Aviation minister said.

"This will be a private sector-led initiative in the truest form to make sure that it thrives in the years to come," said Scindia.

In view of heightened risk associated with air sports, safety will be maintained by coordinating with the Air Traffic Control department and creating segregated air spaces in certain air corridors exclusively for air sports.

**Source: The Indian Express**

## **15. Bengal passes Bill replacing Governor with CM as state university Chancellor. What are the constitutional and political issues here?**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

The West Bengal Assembly on Monday (June 13) passed a Bill paving the way for making the Chief Minister the Chancellor of universities run by the state government, replacing the Governor from the position.

The move by the Mamata Banerjee government has once again brought to the fore similar disputes playing out in Opposition-ruled states such as Tamil Nadu and Maharashtra, which too have curtailed the authority enjoyed by Governors as Chancellors.

### **What is the latest development in West Bengal about?**

On Monday, the state Legislative Assembly passed the West Bengal University Laws (Amendment) Bill, which seeks to replace the Governor, Jagdeep Dhankhar, with the CM as the Chancellor of state-run universities. Ironically, the Bill will become law only after it receives Dhankhar's assent.

The government has indicated that even if Dhankhar — who has had a rocky relationship with the Chief Minister — sits on the Bill, an ordinance might be brought to implement the proposal. But that again would be a stop-gap arrangement as ordinances, which can only be brought when the legislature is not in session, cease to operate on the expiry of six weeks from the reassembly of the state legislature.

### **What options does Dhankhar have?**

Dhankhar may give his assent to the Bill, or withhold assent, or send it back to the Assembly for reconsideration. But if the Assembly passes the Bill again, with or without amendments, and sends it back, the Governor will be left with no option but to give his assent.

There is a fourth alternative too available to the Governor. He may reserve the Bill for the consideration of the President of India. Instead of giving his assent, the President has the option to direct the Governor to send it back to the Assembly for reconsideration. The Assembly may reconsider and send it back with or without changes. But even in that case, the President may choose to withhold his assent, as the Constitution does not impose any time limit on him to take decisions in such cases.

### **What powers do Governors enjoy as Chancellors?**

The appointment of Vice-Chancellors in state government-run universities is among the responsibilities of Governors as Chancellors. Chancellors in most states have the power to annul decisions of the decision-making bodies of universities such as the Executive Council, and to make appointments to these bodies.

They also enjoy the power to preside over the convocation of universities.



In some states, however, Governors have little or no say in appointing VCs despite holding the post of Chancellor. In Telangana and Gujarat, Governors have no option but to appoint VCs from among the names approved by the state governments.

The Gujarat University Act, 1949 states that “the Vice-Chancellor shall be appointed by the State Government from amongst three persons recommended by a (search-cum-selection) committee”.

The Telangana Universities Act, 1991 states that the search committee shall “submit a panel of three persons to the Government in alphabetical order and the Government shall appoint the Vice-Chancellor from out of the said panel”.

### **How are similar disputes playing out in other states?**

While no attempt has been made to officially designate the CM as Chancellor in any other state, Tamil Nadu in April passed two Bills that seek to transfer the power of the Governor to appoint VCs of 13 state universities to the state government, which is currently run by the DMK.

The Bills seeking to amend the process of appointment of VCs in the state universities underline that “every appointment of the Vice-Chancellor shall be made by the Government from out of a panel of three names” recommended by a search-cum-selection committee.

### **What about Maharashtra and Kerala, two other states ruled by the Opposition?**

Last December, the Maharashtra Assembly had cleared a Bill that seeks to amend the Maharashtra Public Universities Act, 2016 by slicing the Governor’s role in appointing VCs. Under the unamended Act, the state government has no say in the appointment of VCs. But if the changes cleared by the Assembly take effect, the Governor will be given two names to choose from by the state government, which is currently run by the Shiv Sena-NCP-Congress coalition, following the suggestions of a panel.

In Left-ruled Kerala, the appointment of the VC of Kannur University became a flashpoint with the Governor alleging that it was done against his wishes. The BJD government in Odisha has also tried to bring appointments to state universities under its control. But it has been challenged by the University Grants Commission (UGC).

### **What do UGC norms suggest?**

Firstly, education comes under the Concurrent List, which contains subjects on which both the Centre and the states can legislate. However, Entry 66 of the Union List — “coordination and determination of standards in institutions for higher education or research and scientific and technical institutions” — gives the Centre substantial authority over higher education.

The UGC plays that standard-setting role, even in the case of appointments, in the case of universities and colleges. According to the UGC (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018, the “visitor/chancellor”, which is mostly the Governor in states, shall appoint the VC out of the panel of names recommended by the search-cum-selection committees.

Higher educational institutions, particularly those which receive funds from the UGC, are mandated to follow its regulations. These are followed without any hitch in the case of central universities. However, in the case of state universities, such a top down approach by central government bodies is resisted by the states, especially where non-BJP or non-NDA allies are in power.

### **What about central universities?**

While passing the Bill, the West Bengal government cited the example of Visva-Bharati University where the Prime Minister plays the role of the Chancellor. But Visva-Bharati, which is a central university, is an exception. The Central Universities Act, 2009, lays down that the President of India shall be the Visitor of a Central University.

With their role limited to presiding over convocations, Chancellors in central universities are titular heads, who are appointed by the President in his capacity as Visitor. The VCs are also appointed by the Visitor from panels of names picked by search and selection committees formed by the Union government.



The Act adds that the President, as Visitor, shall have the right to authorise inspections of academic and non-academic aspects of the universities and also to institute inquiries.

### **Has the judiciary made any observations on such disputes in the past?**

The Supreme Court had in March made some pertinent — though unrelated to the current dispute — observations while setting aside the appointment of the VC of Gujarat’s SP University by the state government.

A Bench of Justices M R Shah and B V Nagarathna said that “any appointment as a Vice Chancellor contrary to the provisions of the UGC Regulations can be said to be in violation of the statutory provisions, warranting a writ of quo warranto.”

It said that every subordinate legislation of the UGC, in this case the one on minimum standards on appointments, flows from the parent UGC Act, 1956. “Therefore, being a subordinate legislation, UGC Regulations become part of the Act. In case of any conflict between State legislation and Central legislation,

Central legislation shall prevail by applying the rule/principle of repugnancy as enunciated in Article 254 of the Constitution as the subject ‘education’ is in the Concurrent List of the Seventh Schedule of the Constitution,” the top court had ruled.

**Source: The Indian Express**

## **16. The Agnipath scheme for recruiting soldiers — what is it, how will it work?**

**Relevant for GS Prelims & Mains Paper II; Polity & Governance**



*Recruitment will begin within 90 days under the scheme which will bring “all India, all class” recruitment to the services. (Representational/File)*

The government on Tuesday unveiled its new Agnipath scheme for recruiting soldiers across the three services. The new defence recruitment reform, which has been cleared by the Cabinet Committee on Security, will come into effect immediately, and the soldiers recruited under the scheme will be called Agniveers.

### **What is the Agnipath scheme?**

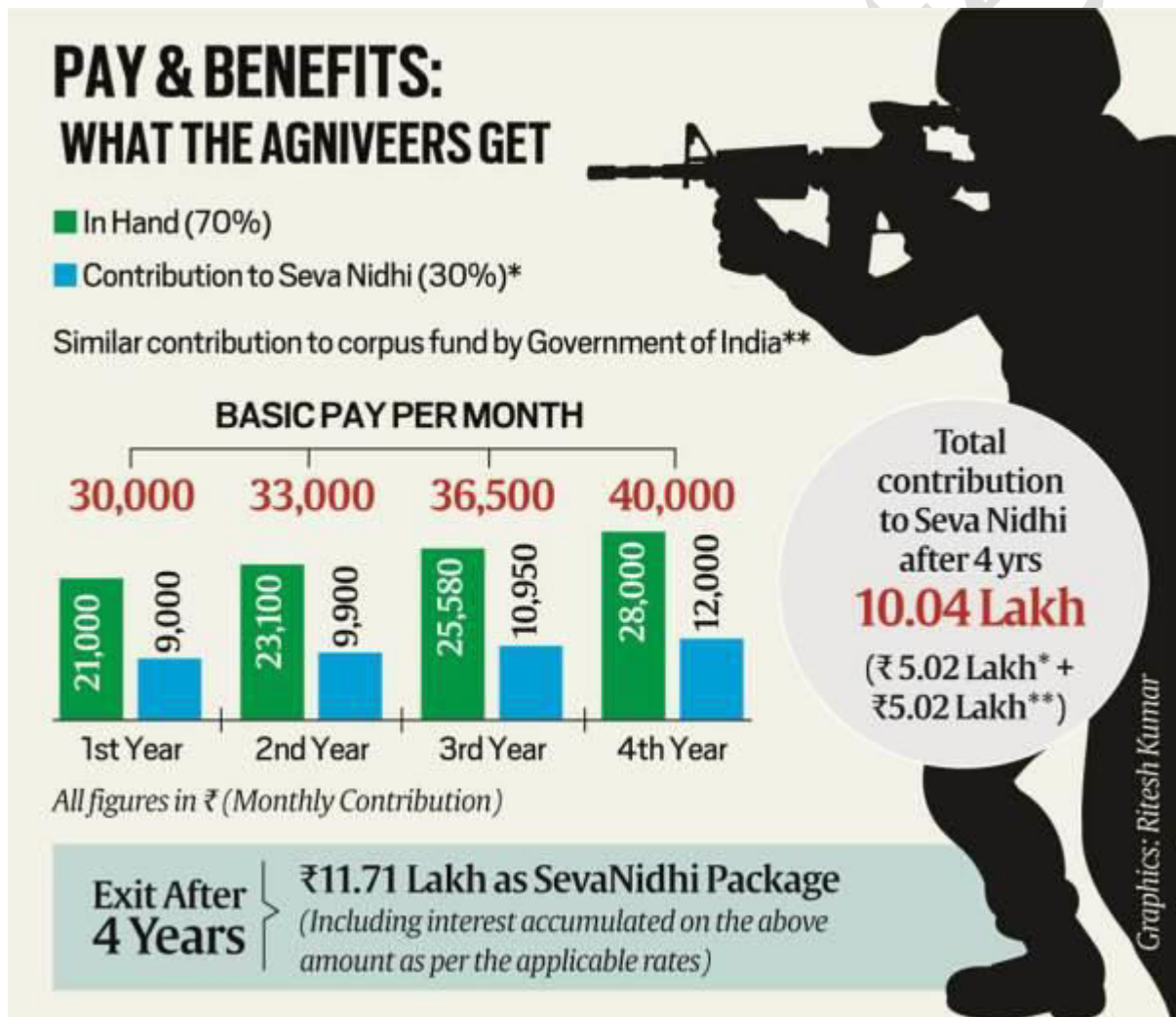
Under the new scheme, around 45,000 to 50,000 soldiers will be recruited annually, and most will leave the service in just four years. Of the total annual recruits, only 25 per cent will be allowed to continue for another 15 years under permanent commission. The move will make the permanent force levels much leaner for the over 13-lakh strong armed forces in the country.

This will, in turn, considerably reduce the defence pension bill, which has been a major concern for governments for many years.

**What is the eligibility criteria?**

The new system is only for personnel below officer ranks (those who do not join the forces as commissioned officers).

Under the Agnipath scheme, aspirants between the ages of 17.5 years and 21 years will be eligible to apply. The recruitment standards will remain the same, and recruitment will be done twice a year through rallies.



**What happens after selection?**

Once selected, the aspirants will go through training for six months and then will be deployed for three and a half years.

During this period, they will get a starting salary of Rs 30,000, along with additional benefits which will go up to Rs 40,000 by the end of the four-year service.

Importantly, during this period, 30 per cent of their salary will be set aside under a Seva Nidhi programme, and the government will contribute an equal amount every month, and it will also accrue interest.

At the end of the four-year period, each soldier will get Rs 11.71 lakh as a lump sum amount, which will be tax-free.

They will also get a Rs 48 lakh life insurance cover for the four years.

In case of death, the payout will be over Rs 1 crore, including pay for the unserved tenure.

However, after four years, only 25 per cent of the batch will be recruited back into their respective services, for a period of 15 years.

For those who are re-selected, the initial four-year period will not be considered for retirement benefits.

#### **When will the recruitment actually begin?**

Recruitment will begin within 90 days under the scheme which will bring “all India, all class” recruitment to the services.

This is especially significant for the Army, where the regiment system has region and caste bases, and with time that will be eliminated to allow anybody from any caste, region, class or religious background to become part of existing regiments.

#### **How will the scheme benefit the armed forces and the recruits?**

The average age in the forces is 32 years today, which will go down to 26 in six to seven years, the scheme envisions.

It will create “future-ready” soldiers, said Lt Gen Anil Puri, additional secretary, Department of Military Affairs.

Announcing the scheme, Defence Minister Rajnath Singh said that “efforts are being made that the profile of the Armed Forces should be as youthful as the wider Indian population.” A youthful armed forces will allow them to be easily trained for new technologies.

The minister added that it will increase employment opportunities and because of the skills and experience acquired during the four-year service such soldiers will get employment in various fields.

“This will also lead to availability of a higher-skilled workforce to the economy which will be helpful in productivity gain and overall GDP growth,” Singh said.

Lt Gen Puri said the government will help rehabilitate soldiers who leave the services after four years. They will be provided with skill certificates and bridge courses. The impetus will be to create entrepreneurs, he added.

**Source: The Indian Express**

### **17. Govt's new guidelines banning surrogate ads**

#### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Sellers of alcoholic beverages have asked the government to provide clarity on ‘surrogate advertisements’, which have been banned under the new guidelines to tackle misleading advertisements.

The guidelines were issued on June 10 by the Central Consumer Protection Authority (CCPA), and include a Rs 10 lakh penalty for first violation and a Rs 50 lakh penalty for subsequent violations. Notified by the Consumer Affairs Ministry, the guidelines were issued days after outrage over a controversial perfume ad.

#### **What do the new advertising guidelines say?**



The Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022, have been released to “protect the consumers” and “to ensure that consumers are not being fooled with unsubstantiated claims, exaggerated promises, misinformation and false claims”.

These guidelines focus on misleading ads and ads shown during programming for children. Surrogate ads, meanwhile, have been banned completely. Misleading ads have not been defined, instead characteristics of non-misleading ads have been mentioned such as those which “contain truthful and honest representation” and do not exaggerate benefits.

On advertisements aimed at children, detailed criteria has been spelt out to disqualify certain ads, such as: ads that encourage practices detrimental to children’s physical health or mental well-being, imply children are “likely to be ridiculed or become less popular” if they do not purchase the goods, and ads that use qualifiers such as ‘just’ or ‘only’ to make the price of goods seem less expensive even when additional charges are present.

### **What is surrogate advertising?**

Surrogate advertising is the strategy of advertising a product that cannot be advertised openly. Advertisers instead create ads that help in building a brand, and often involve popular celebrities – all without naming the actual product that is being indirectly advertised.

In India, tobacco products and alcohol cannot be advertised openly under laws like the Cigarette and Other Tobacco Products Act, 2003, which bans all kinds of direct and indirect advertisements of tobacco products. To circumvent them, surrogate advertising is done.

A few years ago, the Delhi government pulled up actor Pierce Brosnan for endorsing an Indian pan masala brand. Brosnan claimed he was “cheated” by the brand and unaware of the fact that the “breath freshener” ad was a surrogate ad used to disguise the actual product – areca nut or supari, which the Delhi government argued was a cancer-causing agent.

### **Why are advertisers seeking clarity?**

As per the new guidelines, a surrogate ad will refer to an ad which indicates directly or indirectly to consumers that it is an advertisement for the goods whose advertising is prohibited. Using any brand name, logo, colour, etc. associated with goods whose advertisement is banned is also not allowed.

This is the area that needs clarity, said the liquor sellers. Companies put their name on objects such as water bottles, or events like music festivals for surrogate advertising, but some of these products exist on their own as well. Whether advertising these objects and events will then also be prohibited is unclear at present, advertisers have sought to know.

**Source: The Indian Express**

## **18. Agnipath scheme: Why age relaxation can also become a problem**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Moving to allay concerns and dial down anger on the streets over the short-term **Agnipath recruitment scheme** for the armed forces, the government announced a **one-time relaxation** in the upper age limit for entrants this year, raising it from 21 to 23 years, saying there had been no recruitment in the last two years. But this one-time waiver can also become a problem.

### **More competition**

Recruitment data shows that the intake of 46,000 recruits this year — that’s the number specified for recruitment in the first year of the Agnipath programme — will be the lowest since 2015 for the three services together.

The age relaxation for the first year will see more candidates vie for the 46,000 positions being offered after two years of zero-recruitment — the government has not mentioned or shown any willingness yet to raise this number for 2022.

According to recruitment data shared by the Ministry of Defence with Parliament in March this year, the recruitment of soldiers for the Army, below the rank of officers, through recruitment rallies in the last seven years, topped at 80,572 in 2019-2020. No recruitment has been done in the years since. Data shows that between 2015 and 2020, the Army hired more than 50,000 soldiers every year.

### **Expected Agniveer jobs**

Sources said the total induction in the three services over the first four years of the Agnipath scheme will be a little over 2 lakh — 202,900 Agniveers, of which around 175,000 will be for the Army. This works out to an average of around 50,000 Agniveers recruited every year for all three services over the next four years.

### **Contributing regions**

The data shared with Parliament also shows that just eight states account for more than 60 per cent of all recruitment in the Army since 2015.

Since 2015, according to the data, 186,795 people have been recruited in the Army from Punjab, Haryana, Bihar, Uttar Pradesh, Maharashtra, Rajasthan, Himachal Pradesh and Uttarakhand. Total recruitment in the Army for these years was 308,280. The share of these states in the total recruitment was a little over 60 per cent.

The anger against the new policy is also likely to be more in the villages because recruitment data for the Army shows that more than three quarters of the recruits come from villages. In 2018-2019, recruits from villages accounted for 78.32 per cent of the total intake of the Army, and in 2019-2020, this share stood at 77.20 per cent.

The Ministry of Defence had informed Parliament that recruitment rallies had been suspended due to the Covid-19 pandemic since July 2021. In 2020-2021, the Army had conducted 47 rallies across the country but again, because of the pandemic, the process was not completed and the rallies did not result in any recruitment that year either.

**Source: The Indian Express**

## **19. What is Agnipath Scheme? Why is Agnipath under widespread attack?**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Large-scale violence by distressed youth broke out in many parts of India, notably in States such as Uttar Pradesh, Bihar, Haryana, and Telangana which contribute a sizeable manpower to the armed forces, in the wake of the Centre announcing, on June 14, a new scheme of recruitment of jawans, personnel below officer ranks (PBORs), to the three wings.

### **What is the scheme?**

Agnipath or Tour of Duty will be the only mode of recruitment of soldiers, sailors, and airmen from now on. It envisages enlisting youths aged between 17.5 years and 21 years — the upper limit has been extended to 23 years this year after protests — for a period of just four years, also counting their training time. At the expiry of their contract, only 25% of these soldiers, to be known as Agniveers, will be re-enlisted for regular military service.

While the salary package of Agniveers will be around ₹4.76 lakh in the first year which can go up to ₹6.92 lakh in the fourth year, these short-term soldiers will also be offered a contributory severance package besides non-contributory death and disability compensation. They will not be eligible for pension or gratuity.

### **Other defence related jobs**

A day after the scheme was unveiled by Defence Minister Rajnath Singh in the presence of the Service chiefs, the Union Ministry of Education said it would offer a three-year degree programme to these enlistees in order to make them employable once out of service. As protests rocked the country, the Ministry of Home Affairs, on Saturday, announced its decision to reserve 10% of vacancies in the Central

Armed Police Forces (CAPFs) and the Assam Rifles to Agniveers. The Defence Minister also approved of a proposal to earmark 10% of vacancies in Coast Guard, defence civilian jobs and in the defence PSUs for Agniveers provided they meet the eligibility criteria.

### **What, according to its supporters, are the scheme's benefits?**

Defenders of the scheme, which include the three Service chiefs, have maintained that this 'transformational' initiative will make the forces lean and much younger, with the average age of the soldier brought down to about 25 from the present 32 years. It will also ensure the availability of a larger share of budget outlay for capital expenditure for the acquisition of hi-tech equipment and platforms because the outlay for pension payout will drop considerably over time. Military training at a young age would make these men returning to the civilian world more disciplined and employable, advocates of the scheme argue.

They say that the military recruitment procedures in many countries such as the U.S., Russia, the U.K., Israel, France and Germany were extensively studied over the past two years before formulating the scheme for Indian conditions.

### **Why are there protests across States?**

Apprehensions about Agnipath are vast and varied. Scores of veterans have flayed the scheme as an effort to scrimp and save on revenue expenditure at the expense of the forces' operational efficiency or fighting capabilities. Four years is too short a time for a conscript to acquire the skills essential for operating sophisticated systems in the technology-intensive Navy and Air Force. For the Army, which has a regimental system, it is feared to impair the unit's cohesiveness as the soldier on a short-term contract could remain 'risk-averse'.

There are also apprehensions about this path leading to the militarisation of society. Some say that it's unfair to the potential recruit as well, as the absence of a continued employment guarantee at the expiry of four years when he's still in his 20s and without the skillsets or credentials required to make the cut in the civilian/corporate world, could be demoralising. Agnipath cuts at the root of social security and dignity that have lured rural Indian youth to the military fatigue, argue the scheme's detractors.

### **What is the way forward?**

Unmindful of the ongoing protests and reservations expressed by a chunk of military veterans — ironically, also including some habitual votaries of the government — the Centre has stated unequivocally its resolve to go ahead with the reform. The Army and the Air Force have announced their recruitment plans and the Navy is expected to follow suit. Each year, about 45,000 soldiers will be enlisted in the three Services under this scheme. It remains to be seen if amendments such as the extension of their initial service period and mandatory re-enlistment of at least 50% of Agniveers recommended by some veterans would be considered to finetune the scheme. Right now, the protests are continuing unabated. A clearer picture will emerge by the time the recruitment process gets underway.

**Source: The Hindu**

## **20. The anti-defection law, and why Eknath Shinde could be poised to dodge it in Maharashtra**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

Maharashtra Minister Eknath Shinde, leader of the revolt against Chief Minister Uddhav Thackeray, has said that 40 lawmakers are with him. Reports said that the rebel group includes 33 MLAs of the 55-member Shiv Sena legislature party, and seven Independents supporting the state government.

Under the Constitution, a rebel group must have at least two-thirds of the total MLAs of a party in order to break away without attracting punishment under the anti-defection law.

The BJP has 106 MLAs in the current 287-member Assembly. Before Shinde's revolt, the Sena had 55 MLAs in the House. The NCP's 53 and Congress's 44 MLAs took the strength of the ruling Maha Vikas Aghadi coalition to 152.

### **What is the anti-defection law, and what is its purpose?**

The anti-defection law punishes individual MPs/ MLAs for leaving one party for another. It allows a group of MP/ MLAs to join (i.e. merge with) another political party without inviting the penalty for defection. And it does not penalise political parties for encouraging or accepting defecting legislators.

Parliament added these provisions to the Constitution as the Tenth Schedule in 1985, when Rajiv Gandhi was Prime Minister. The purpose of the anti-defection law was to bring stability to governments by discouraging legislators from changing parties. It was a response to the toppling of multiple state governments by party-hopping MLAs after the general elections of 1967.

### **But what constitutes defection? Who is the deciding authority?**

The law covers three kinds of scenarios.

One is when legislators elected on the ticket of one political party “voluntarily give up” membership of that party or vote in the legislature against the party’s wishes.

The Tenth Schedule originally contained a provision for disqualification of MLAs in cases where fewer than 1/3rd of the party’s total number broke away, or where fewer than 2/3rds of MLAs of a legislature party merged with another political party. Following an amendment in 2003, the one-third split provision was deleted.

The second scenario arises when an MP/ MLA who has been elected as an Independent member of the House subsequently joins a party.

The third scenario relates to nominated legislators. In their case, the law specifies that they can join a political party within six months of being appointed to the House, and not after such time. Violation of the law in any of these scenarios can lead to a legislator being penalised for defection.

The Presiding Officers of the Legislature (Speaker, Chairman) are the deciding authorities in such cases.

The Supreme Court has held legislators can challenge the decisions of the Presiding Officers before the higher judiciary.

### **Has the anti-defection law ensured the stability of governments?**

Not quite.

Parties often have to sequester MLAs in resorts to prevent them from changing their allegiance or getting poached by a rival party or an opposing faction of their party. Recent examples are Rajasthan (2020), Maharashtra (2019), Karnataka (2019 and 2018), and Tamil Nadu (2017).

In the ongoing case, Shinde’s MLAs were originally taken to Gujarat and then to Assam, both states ruled by the BJP. Parties have also been able to use the anti-defection law to their advantage.

In 2019 in Goa, 10 of the 15 Congress MLAs merged their legislature party with the BJP. In the same year, in Rajasthan, six BSP MLAs merged their party with the Congress, and in Sikkim, 10 of the 15 MLAs of the Sikkim Democratic Front joined the BJP.

### **Have any suggestions been made to improve the law?**

Some commentators have said the law has failed and recommended its removal.

Former Vice President Hamid Ansari has suggested that it must apply only to save governments in no-confidence motions. The Election Commission has suggested it — and not the Presiding Officers who are often seen to act in a partisan manner — should be the deciding authority in defection cases.

Others have argued that the President and Governors should hear defection petitions. And last year, the Supreme Court said Parliament should set up an independent tribunal headed by a retired judge of the higher judiciary to decide defection cases swiftly and impartially.

**Source: Indian Express**

## **21. Has the anti-defection law failed in India?**

**Relevant for GS Prelims & Mains Paper II; Polity & Governance**



Maharashtra is in the throes of a constitutional crisis. Many ruling Shiv Sena legislators who seem to have revolted against the leadership of Chief Minister Uddhav Thackeray are now holed up in a hotel in distant Guwahati to keep out of the reach of party leaders. Their travel to Guwahati, via Surat, seems to have been facilitated by the BJP, the ruling party in Gujarat and Assam. All indications are that there is a planned mass defection underway so that an alternative regime that includes the BJP is formed in the State.

### **Isn't there a law against such defection?**

The Tenth Schedule of the Constitution, commonly known as the anti-defection law, was introduced in 1985 with a view to curb the tendency among legislators to switch loyalties from one party to another and facilitate the toppling of regimes and formation of new ones. It provides for the Presiding Officer of the legislature to disqualify any defector on a petition by another member. The law contemplates two kinds of defection: (a) by a member voluntarily giving up membership of the party on whose symbol he got elected (b) by a member violating a direction (whip) issued by his party to vote in a particular way or to abstain from voting.

While voting contrary to the party's whip is quite a straightforward instance of defection, the other mode of defection has proved to be a source of dispute and litigation. A member 'voluntarily giving up membership' does not refer to a simple resignation letter and formally joining another party. It is often an inference drawn by the party that loses a member to another based on the legislator's conduct. The Supreme Court has also ruled that 'voluntarily giving up membership' can be inferred from the conduct of a person.

### **How do the MLAs plan to avoid disqualification?**

The Shiv Sena has 55 members in the Maharashtra Assembly. Eknath Shinde, who leads the rebel group, claims that he has 40 MLAs with him, but the figure may include Independents. The group may claim to be the 'real Shiv Sena' and seek to 'expel' the current leadership. As a legal defence, they may invoke Paragraph 4 of the Tenth Schedule, under which disqualification on account of defection will not apply in case of a merger of one party with another. However, there is a rider. There is a deemed merger only if two-thirds of the party's total strength agrees to the merger. In Maharashtra, the rebel group will need to have 37 MLAs to make the claim that they constitute two-thirds of the legislature party. However, it remains to be seen if the Deputy Speaker (the Speaker's office is vacant), initially, and then the law courts will recognise such a 'merger'. Disqualification proceedings have already been initiated against some of them.

Originally, the 10th Schedule had spoken of a 'split' in a legislature party as an exception to the disqualification rule. That is if one-third of a legislature party leaves it or joins another party, it amounts to a 'split' and such members would not attract disqualification. This proved to be an escape clause for legislators to form a group that amounted to one-third of the legislature party's total strength and then cross over. Paragraph 3, which allowed the use of a split to avoid disqualification for defection, was deleted by the Constitution (91st Amendment) Act, 2003.

### **How foolproof is this plan?**

It remains to be seen if the defectors will get away by using the 'merger' argument. In a recent instance, the Bombay High Court at Goa ruled in favour of MLAs who had defected from the Congress to the BJP in Goa. The court noted that they satisfied the two-thirds requirement for a deemed merger and ruled that they were exempted from disqualification. The Congress has appealed to the Supreme Court.

The main ground of appeal is that the Court should not have accepted the existence of a merger, as the merger envisaged in Para 4 of the 10th Schedule is a two-step process under which one political party first merges with another, and then the legislators accept the merger. In the absence of a merger of the parties, the mere fact that two-thirds of the MLAs cross over to the other party does not save them from disqualification.

In a similar case in Meghalaya, the Speaker recognised as a 'merger' the crossover of 12 Congress MLAs out of a total of 17 to the Trinamool Congress and refused to disqualify them.

The Supreme Court may have to adjudicate whether an actual merger is a condition precedent for bringing into play the 'deemed fiction' of a merger after two-thirds of a party's legislators cross over.

### **Does the 10th Schedule mean anything?**

This brings us to the question whether the anti-defection law has been rendered meaningless by various events. What was introduced as a panacea for the menace of floor-crossing and toppling of elected regimes by engineering defections has proved largely ineffective in many cases. Recent instances give an idea of the various ploys adopted by parties, legislators and Speakers to either evade the law against defection or to achieve partisan political ends.

The most common these days is for a ruling party with a big majority to poach the main Opposition parties without any regard for the anti-defection law. When the aggrieved party moves for disqualification, Speakers choose not to act, thus formalising the defection.

In Manipur, for instance, seven Congress MLAs joined the BJP shortly after the 2017 Assembly election and one of them became a Minister too. However, the Speaker did not act on petitions to disqualify the Minister for over two years. In January 2020, the Supreme Court directed the Speaker to dispose of the matter within four weeks. As the Speaker passed no order even long after the deadline, the Court invoked its extraordinary powers to remove T. Shyamkumar Singh, the Minister concerned, from the Cabinet and barred him from entering the Assembly. Opposition members have crossed over to the ruling party in Andhra Pradesh and Telangana in large numbers in recent years, but did not suffer disqualification.

In Karnataka, in 2010, a group of BJP rebels against then Chief Minister B. S. Yeddyurappa met the Governor to express their resentment against his continuance in office and sought a 'constitutional process' to be initiated. The Speaker subsequently disqualified them on the ground that their action in meeting the Governor amounted to voluntarily giving up their membership. However, the Supreme Court ultimately set aside their disqualification on procedural grounds — they were not given sufficient time to file their replies and were not given advance copies of material relied upon by the Speaker.

In an attempt to capitalise on this precedent, a group of AIADMK MLAs revolted against Chief Minister Edappadi K. Palaniswami in 2017 and met the Governor seeking a similar 'constitutional process' against him. The Speaker disqualified 18 MLAs for 'voluntarily giving up membership' of the party which had fielded them as candidates. However, the Madras High Court by a 2:1 majority, upheld the disqualification. Though facts were similar to the developments in Karnataka, the High Court was of the view that there was nothing unreasonable or perverse in the Speaker coming to the conclusion from the MLAs' conduct that they were seeking to topple the regime.

In 2019, one saw the spectacle of some members submitting resignation letters to escape disqualification proceedings, while the Speaker questioned the voluntariness and motive behind the resignations. 'Defection through resignation' became a thing suddenly. The Supreme Court ultimately ruled that the Speaker has the authority to verify if a resignation is voluntary and genuine, but it is constitutionally impermissible for the Speaker to take into account extraneous factors while considering the resignation. In other words, once it is clear that a member is resigning out of free will, the Speaker is bound to accept it.

As defections continue unabated and Speakers refrain from acting on these developments based on their political loyalties, there is a strong case to reform the anti-defection law.

Redefining the merger clause, shifting the adjudicatory power from the Speaker to some other credible authority and even dispensing wholly with the law are measures that jurists have suggested.

Some believe that the anti-defection law should be scrapped as it enslaves members to their party line, prevents them from representing their constituents and the people, and violates their freedom of expression.

**Source: The Hindu**

## **22. Indian laws on abortions**

**Relevant for GS Prelims & Mains Paper II; Polity & Governance**

In a significant step backwards for women's rights in the U.S., the Supreme Court overturned the landmark Roe v. Wade judgement of 1973, which gave women in America the right to have an abortion before the foetus is viable outside the womb. With the setting aside of the historic judgement on abortion in the U.S, here's a look at the laws that govern abortion in India.

### **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 then 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 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 — (1) If the continuation of pregnancy would involve a risk to the life of the pregnant woman (2) If its continuation would result in grave injury to the woman's physical or mental health (3) In the case of a substantial risk that if the child was born, it would suffer from serious physical or mental abnormality.

The pregnancy can be terminated upto 24 weeks of gestational age after the opinion of two registered medical practitioners under these conditions — (1) If the woman is either a survivor of sexual assault or rape or incest (2) If she is a minor (3) If her marital status has changed during the ongoing pregnancy (i.e. either widowhood or divorce) (4) If she has major physical disabilities or is mentally ill (5) On the grounds of foetal malformation incompatible with life or if the child is born, it would be seriously handicapped (6) If the woman is in humanitarian settings or disaster, or emergency situations 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 judgement 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 specialisation in gynaecology 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-gynaecologists 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.

**Source: The Hindu**

## **23. The 2/3rds rule in anti-defection law**

### **Relevant for GS Prelims & Mains Paper II; Polity & Governance**

The political crisis in Maharashtra has given rise to the question whether the Shiv Sena rebels can avoid disqualification under the anti-defection law.

### **Law and exception**

Under the anti-defection law, a member of a legislature can be disqualified if he or she has voluntarily given up membership of their political party; and if he/she votes or abstains from voting in the House contrary to any direction issued by their party (or by any person or authority authorised by the party).

There is a provision to protect such legislators from disqualification. If two-thirds of the members agree to a merger with another party, they will not be disqualified. Under the 91st Amendment to the Constitution in 2003, the exemption from disqualification if one-third of the members form a separate group (the rule prior to the amendment) was removed.

### **How courts have ruled**

In February this year, the High Court of Bombay at Goa held that 10 Congress MLAs and two two MGP MLAs, who had defected to the BJP in 2019, are exempted from disqualification and held that a merger of this group of Congress MLAs is "deemed to be a merger" of the original political party with the BJP (Girish Chodankar v Speaker, Goa Legislative Assembly).

In Rajendra Singh Rana v Swami Prasad Maurya (2007), a Constitution Bench of the Supreme Court interpreted the term "voluntarily giving up membership of a political party", and held that "a person may be said to have voluntarily given up membership of an original party even though he or she has not

tendered resignation from membership of the party” and that an inference can be drawn from conduct of the member.

### **The two-thirds rule**

Some experts believe that even if two-thirds of legislators have broken away, they will be protected from disqualification only if they merge with another party or become a separate group in the legislature.

Senior advocate DevdattKamat, representing Shiv Sena, said that until the MLAs rebel camp merges with another party, disqualification under the anti-defection law will still apply to them. He said there are court judgements including in the Ravi Naik case (1994) in the Supreme Court which held this view.

Senior advocate ShrihariAney, a former Advocate General of Maharashtra, said there are debatable positions about the anti-defection law. “Various courts have passed verdicts as per specific facts of the case and I am of the view that the Eknath Shinde faction has already crossed the two-thirds mark and thus they cannot be subjected under this law and they are protected from the anti-defection law. They are entitled to be identified as a separate group or a ‘gat’ in the house and to participate in the proceedings.”

### **Disqualification notices**

Another issue that has arisen is whether the disqualification notices served on 16 rebel MLAs can stand the scrutiny of law. Experts said that as per the Maharashtra Legislative Assembly (Disqualification on grounds of Defection) Rules and other stipulations, the Deputy Speaker’s decision cannot be upheld.

Aney said, “In my opinion, the notices disqualifying some MLAs are void ab initio. The orders are premised on the ground that these MLAs did not attend the official meeting and did not adhere to the whip. But, a whip is limited only to the business of the legislature... Here it was for a meeting called by their president Uddhav Thackeray.”

**Source: The Indian Express**

## **24. What is SC’s ‘KihotoHollohan’ judgment, and why is it relevant in the context of the crisis in Maharashtra?**

**Relevant for GS Prelims & Mains Paper II; Polity & Governance**

As the political battle in Maharashtra moves to the Supreme Court, the role and powers of the Deputy Speaker are in focus. On Monday (June 27), the top court gave the 16 rebel Shiv Sena MLAs until July 12 to respond to the disqualification notice issued by the Deputy Speaker. Among other things, the petition had challenged the short time — 48 hours — given to the rebel MLAs to respond.

In the context of the crisis, references have been made to the landmark judgment in ‘KihotoHollohan vs Zachillhu And Others’ (1992), in which the Supreme Court upheld the sweeping discretion available to the Speaker in deciding cases of disqualification of MLAs.

However, as rebel leader Eknath Shinde’s petition before the court has argued, in ‘KihotoHollohan’, the SC held that “the Speaker/Deputy Speaker while deciding disqualification Petition under the 10th Schedule as such a Tribunal and therefore it is incumbent upon the Deputy Speaker to afford a reasonable opportunity of hearing and defending his case to the Petitioner”.

### **What is the ‘KihotoHollohan’ case?**

The law covering the disqualification of lawmakers and the powers of the Speaker in deciding such matters became part of the statute book in 1985 when the Tenth Schedule to the Constitution, commonly known as the ‘anti-defection law’, was adopted.

A constitutional challenge to the Tenth Schedule was mounted, which was settled by the apex court in ‘KihotoHollohan’.

The principal question before the Supreme Court in the case was whether the powerful role given to the Speaker violated the doctrine of basic structure — the judicial principle that certain basic features of the Constitution cannot be altered by amendments by Parliament.

The Supreme Court laid down the doctrine of basic principle in its landmark judgment in 'Kesavananda Bharati vs State Of Kerala' (1973).

### **What does the Tenth Schedule of the Constitution say?**

The Tenth Schedule, which was inserted in the Constitution by the Constitution (Fifty-Second Amendment) Act, 1985, provides for the disqualification of Members of Parliament and state legislatures who defect.

Paragraph 2 of the Schedule says that "a member of a House belonging to any political party shall be disqualified from being a member of the House... if he has voluntarily given up his membership of such political party; or if he votes or abstains from voting in such House contrary to any direction issued by the political party... without obtaining... prior permission..."

### **And what is the extent of the Speaker's powers under the Tenth Schedule?**

Paragraph 6(1) of the Tenth Schedule describes the Speaker's sweeping discretionary powers: "If any question arises as to whether a member of a House has become subject to disqualification under this Schedule, the question shall be referred for the decision of the Chairman or, as the case may be, the Speaker of such House and his decision shall be final."

### **What did the Supreme Court rule in 'KihotoHollohan'?**

The petitioners in 'KihotoHollohan' argued whether it was fair that the Speaker should have such broad powers, given that there is always a reasonable likelihood of bias.

The majority judgment authored by Justices M N Venkatachaliah and K Jayachandra Reddy answered this question in the affirmative: "The Speakers/Chairmen hold a pivotal position in the scheme of Parliamentary democracy and are guardians of the rights and privileges of the House. They are expected to and do take far reaching decisions in the Parliamentary democracy. Vestiture of power to adjudicate questions under the Tenth Schedule in them should not be considered exceptionable."

They added that the Schedule's provisions were "34alutary and intended to strengthen the fabric of Indian Parliamentary democracy by curbing unprincipled and unethical political defections."

### **Did all judges on the Bench agree with this view?**

No, Justices Lalit Mohan Sharma and J S Verma dissented and took a different view: "The tenure of the Speaker, who is the authority in the Tenth Schedule to decide this dispute, is dependent on the continuous support of the majority in the House and, therefore, he does not satisfy the requirement of such an independent adjudicatory authority."

They added: "An independent adjudicatory machinery for resolving disputes relating to the competence of Members of the House is envisaged as an attribute of the democratic system which is a basic feature of our Constitution... [the Speaker's] choice as the sole arbiter in the matter violates an essential attribute of the basic feature."

### **What about the role of the Deputy Speaker?**

Article 93 of the Constitution mentions the positions of the Speaker and Deputy Speaker of the House of the People (Lok Sabha), and Article 178 contains the corresponding position for Speaker and Deputy Speaker of the Legislative Assembly of a state.

Maharashtra has been without a Speaker since February 2021, and Deputy Speaker Narhari Zirwal has been carrying out the responsibilities of the position.

Article 95(1) says: "While the office of Speaker is vacant, the duties of the office shall be performed by the Deputy Speaker".

In general, the Deputy Speaker has the same powers as the Speaker when presiding over a sitting of the House. All references to the Speaker in the Rules are deemed to be references to the Deputy Speaker when he presides.

**Source: The Indian Express**



## 25. When defection is a mere detour for an MLA

### Relevant for GS Prelims & Mains Paper II; Polity & Governance

The Supreme Court, after hearing rebel MLA faction leader Eknath Shinde's petition challenging the disqualification notices issued to him and 15 other rebel MLAs, extended the deadline given to the concerned MLAs to file their responses to the disqualification notices. In this article dated January 3, 2020, S.Y. Quraishi explains how defecting MLAs need to be barred for at least six years before they can contest elections again.

They defected, re-contested, and became members again, all in six months. Some are even likely to become Ministers soon. The Karnataka byelection results have widely put to display the ineffectiveness of the Anti-Defection Law. Of the 17 defecting Congress-Janata Dal (Secular) MLAs, 11 were re-elected on a Bharatiya Janata Party (BJP) ticket. Not only did this set of events lay down a well-structured framework to sidestep the law, it even set a dangerous precedent for neutralising the consequences of the law altogether.

The phenomenon of defections is not new to Indian politics. It has been plaguing the political landscape for over five decades. The most prominent case was that of Haryana's Gaya Lal, originally an independent MLA who, in 1967, juggled between the Congress and Janata Party for two weeks, during which he switched his loyalty thrice. The recurrence of this evil phenomenon led to the 1985 Anti-Defection Law, which defined three grounds of disqualification of MLAs — giving up party membership; going against party whip; and abstaining from voting.

#### Resignation 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 judiciary to become the watchdog of the anti-defection law, instead of the Speaker, who increasingly had become a political character contrary to the expected neutral constitutional role. The same could be witnessed in *Shrimanth Balasaheb Patel & Ors vs Speaker Karnataka Legislative Assembly & Ors* (2019), where the three-judge SC bench upheld the then Karnataka Speaker's decision of disqualification of the 17 rebel MLAs. However, it struck down his ban on the MLAs from contesting elections till 2023, negating the only possible permanent solution to the problem. The Supreme Court played the role of a neutral umpire in this political slugfest. But, the spectacle of MLAs hoarded in a bus, and being sent to a resort, openly exposed not just the absence of ideological ties between a leader and his party, but also her/his weak moral character. It was also upsetting to see public acceptance of such malpractices as part of politics, with some even calling it Chanakya niti!

#### Exit, and swift return

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 other 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 defections.

The main issue, as witnessed in Karnataka, is that the defectors treat disqualification as a mere detour, before they return to the House or government by re-contesting. This can only be stopped by extending

the disqualification period from re-contesting and appointment to Chairmanships/Ministries to at least six years. The minimum period limit of six years is needed to ensure that the defectors are not allowed to enter the election fray for at least one election cycle, which is five years.

Of course, MLAs can still be bought from the ruling dispensation to bring it to a minority by being paid hefty sums, simply to stay at home for six years. Almost every political outfit has been party to such devious games, with hardly any political will to find a solution.

**Source: The Hindu**

# International Organizations and Relations

## 1. The status of Russia's invasion of Ukraine

### Relevant for GS Prelims & Mains Paper II; International Issues

Three months after Russia started the invasion of Ukraine, its troops are making slow but steady advances in the eastern Donbas region. Russia has faced stiff resistance from the Ukrainian troops from day one and the crisis has snowballed into a larger security contest between Moscow and the West, which has pumped money and weapons to Ukraine. With no peace talks on the table and neither side showing any signs of compromise, the war is likely to grind on for many more weeks, if not months.

#### What's the current status of the invasion?

Russia started the war on February 24 on three fronts — its troops moved in from the Belarussian border in the north, from the separatists-controlled parts of Donbas in the east and from the Russian-controlled Crimean peninsula in the south. While announcing his “special military operation”, President Vladimir Putin said “demilitarisation and de-Nazification” of Ukraine were his goals. It's anybody's guess whether Russia wanted to capture Kyiv and bring in a regime change. But clearly, at least as part of their war strategy, the Russians sought to envelope Kyiv, while its troops attacked cities in the east and south. While its forces made gains in the east and south, they faced stiff resistance from the Ukrainian forces in the north and northeast. As its advances slowed down, Russia pulled back troops from around Kyiv, ending its efforts to envelope the city, and retreated from Kharkiv, Ukraine's second largest city which lies about 40 km from the Russian border, and focussed its resources on the east.

The southern city of Kherson had fallen into Russian hands in the initial days of the war. From the south, Russian troops have moved towards the outskirts of Zaporizhzhia, taking over the eponymous nuclear plant, the largest in Europe. In the eastern Donbas region, the Russians have taken almost all major cities. They took Mariupol, a Sea of Azov port city known for its steel plants, last month after a prolonged siege. They took Lyman in Luhansk last week while advancing towards Severodonetsk, the easternmost city in Ukrainian hands.

As of Monday, pro-Russia media have claimed, quoting Chechen leader Ramzan Kadyrov, that the Russians have seized Severodonetsk. The Ukrainian authorities have contested this claim, but independent reports confirm that the Russians have entered the city. Faced with the likelihood of being encircled in the east, Ukrainians troops hinted last week that they might make a tactical retreat to bolster their defences elsewhere.

#### What does Russia want?

Russian Foreign Minister Sergei Lavrov said on Monday that the “liberation” of Donbas was Russia's “unconditional priority”. Donbas, the traditional industrial region that has historical ties with Russia, encompasses Ukraine's Luhansk and Donetsk oblasts (now, self-declared Luhansk and Donetsk People's Republics, which were recognised by Mr. Putin as sovereign states before ordering the invasion). Russia has already taken almost all of Luhansk.

Severodonetsk (it was the capital of the Ukrainian-controlled parts of Luhansk), is the only major city where there is still Ukrainian presence in the oblast (province) and all reports indicate that the city would be in complete Russian control within days, if it hasn't already fallen.

Russia and the separatists it backs have also taken a sizeable part of Donetsk, including Mariupol, which allowed Moscow to establish a land bridge from the Russian mainland to Crimea along the coast of the Sea of Azov. Mariupol was also the headquarters of the Azov Battalion, the neo-Nazi group that had been integrated into the Ukrainian armed forces. The capture of the city serves the Russian claims of “de-Nazifying” Ukraine.

If Mr. Lavrov should be trusted, Russia is likely to shift its focus to the Ukraine-controlled parts of Donetsk once Severodonetsk is fully in its control. But there's no clarity on whether Russia would stop the war even if it captures the whole of Donbas. There are conflicting signals from Russian leadership. According to Mr. Putin, “demilitarisation and deNazification” are the goals, which are open for interpretation. As per Mr. Lavrov, “liberation of Donbas” is the priority.

In April, Maj Gen Rustam Minnekayev, a senior Russian commander, said Russia wanted the whole of Ukraine's east and south. If Mr. Minnekayev is right, Russia wants to take, besides Donbas, Kharkiv in the northeast and Mykolaiv, Zaporizhzhya and Odesa in the south, which would turn Ukraine into a landlocked country. Ukraine has already asked for more weapons, including artillery and long-range rockets, from the West, apparently to prepare for the coming battles. The U.S. is sending them the Multiple Launch Rocket Systems (MLRS) and the High Mobility Artillery Rocket Systems (HIMARS) — both light, flexible, long-range rocket launchers. All these suggest that there is no immediate plan from any side to end the war.

#### **Haven't the sanctions hit the Russian economy?**

They have. Russia's economy is expected to contract this year. But the sanctions and their impact on the economy are unlikely to influence the Kremlin's strategic thinking for a number of reasons.

First, the war and the western response to it appear to have bolstered Mr. Putin's standing in Russia. According to the Levada Centre, an independent research firm, as of April, 82% Russians approve of his presidency. He doesn't face any immediate threat to his grip on power in Russia. Second, despite the sanctions, the Russian economy doesn't face any imminent collapse. The rouble, which U.S. President Joe Biden threatened to run into “rubble”, is one of the best performing currencies this year. The sanctions also jacked up commodity prices, especially that of oil and gas, which is helping Russia, a major oil and gas exporter. Europe remains dependent on Russian gas — close to 40% of its gas requirements are met through imports from Russia. Its attempts to diversify its gas imports by buying LNG from countries such as Qatar and Libya have so far been not successful.

Also, the Russian blockade of Ukraine's sea ports is threatening to send food prices soaring which could impact global food supplies and food security. This has prompted several European countries to reach out to Mr. Putin, seeking a solution. Moreover, countries outside the Western alliances have not joined the sanctions, which means Russia is not as isolated internationally as the West claims it is. So Mr. Putin appears to be ready to fight a war of attrition, which could hurt the global economy further.

#### **Is there a peace process?**

Both Russia and Ukraine have held multiple rounds of talks, in Minsk as well as in Istanbul, since the war began, but there has been no breakthrough. In the last round of the Istanbul talks, Ukraine had apparently made a peace proposal.

According to media reports, Ukraine proposed a 15-year consultation period for Crimea (during this period Kyiv won't contest Russia's control of the peninsula) and direct talks between Presidents Volodymyr Zelensky and Mr. Putin on the status of Donbas. As a “goodwill gesture”, the Russians quickly announced that they were withdrawing troops from the outskirts of Kyiv. But soon after the Istanbul talks were concluded, video footage surfaced showing bodies in Bucha, the northern city that the Russians vacated. U.S. President Joe Biden accused Russia of committing “genocide” in Ukraine. The peace process collapsed.

Now, Mr. Zelensky has once again urged direct talks with Mr. Putin, but Russia, which stated in April that the talks were “at a dead end”, says “Ukraine is not serious about ending the conflict”. In between, the war continues and Ukraine keeps losing territories.

**Source: The Hindu**

## **2. How India, Bangladesh are rebooting their rail link**

**Relevant for GS Prelims & Mains Paper II; International Issues**

Two years after they were stopped due to the onset of the pandemic on March 28, 2020, passenger train services between India and Bangladesh resumed Sunday with the Bandhan Express setting off from Kolkata for Khulna and the Maitree Express starting its run from Dhaka for Kolkata. A third train, the Mitali Express, will be flagged later this week by Railways ministers of the two countries.

### **The trains**

The Bandhan Express was resumed by rebooting a long-forgotten rail link between Kolkata and the industrial hub of Khulna, the third-largest city of Bangladesh. In 1965, this route was served by the Barisal Express, which was stopped due to the India-Pakistan war. The Narendra Modi government along with the Sheikh Hasina regime restarted that with Bandhan in 2017.

The Bandhan Express was the second train to be flagged off after the introduction of Maitree Express between Kolkata and Dhaka Cantonment in April, 2008. It covers the distance between Kolkata and Khulna via Petrapole and Benapole border route to cater to the demands of the people from both the countries.

The Maitree Express has been a success since its launch. The tri-weekly service between Kolkata and Dhaka used to run with 90 per cent occupancy. The train has a capacity to carry 456 passengers, the same as Bandhan Express.

The Bandhan Express has AC Chair Car and AC First Class coaches. On Sunday, only 19 passengers were on board the Bandhan, but officials said the numbers would increase.

The Mitali Express will connect New Jalpaiguri in North Bengal with Dhaka. This train was announced by PM Modi during his visit to Dhaka in March, 2021.

### **Beyond passenger travel**

The governments of both the countries have been working towards strengthening the rail link between them, and not just through passenger trains.

In August 2021, the two sides started regular movement of freight trains between the newly-restored link between Haldibari in India and Chilahati in Bangladesh.

The Haldibari-Chilahati rail link between India and the then East Pakistan was also operational till 1965 and stopped due to the war. This was part of the broad gauge main route from Kolkata to Siliguri at the time of Partition. The two sides envisage at least 20 freight trains to cross the border per month on this link.



#### **Rail infrastructure**

Once part of a single, seamless railway network under British rule, trains continued to pass between the two countries even after the Partition. The infrastructure to connect the two sides through railways was, therefore, largely present.

Policymakers on both sides viewed this as an opportunity to deepen diplomatic ties using cross-border movements of goods and passengers.

Five rail links have so far been rebooted between India and Bangladesh.

They include Petrapole (India)-Benapole (Bangladesh), Gede (India)- Darshana (Bangladesh), Singhabad (India)-Rohanpur (Bangladesh), Radhikapur (India)-Biorol (Bangladesh) and the Haldibari-Chilahati link.

Ordinarily, stone chips, ballasts, rice etc. have been carried to Bangladesh. Railway PSU CONCOR has also started container cargo with such Fast Moving Consumer Goods of private clients. Typically the idea is to establish faster and cheaper freight link by weaning them away from the sea route.

Last year, the Eastern Railway facilitated the import of de-oiled soya cakes from Bangladesh.

**Source: The Indian Express**

### **3. The Salem Witch Trials, in focus over pardoning of the last convicted 'witch'**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

More than three centuries after the notorious Salem Witch Trials took place in colonial Massachusetts, the last of the alleged 'witches' was formally exonerated last week.

Massachusetts lawmakers Thursday decided to pardon Elizabeth Johnson Jr, who was convicted of witchcraft and sentenced to death in 1693. She was never executed, but neither was her name officially cleared despite every other surviving victim of the trial being pardoned over the years.





“For 300 years, Elizabeth Johnson Jr was without a voice, her story lost to the passages of time,” state senator Joan Lovely of Salem, told the Associated Press.

### **What were the Salem Witch Trials?**

The trials took place in colonial Massachusetts between 1692 and 1693, when over 200 people were wrongly convicted of practicing witchcraft and 20 were executed.

Years later, the colony admitted that the trials were unjust and the families of the victims were compensated. However, it was only in 1957 that the state formally apologised for the events.

### **What led up to the trials?**

Between the 1300s and 1600s, a similar wave of trials and executions were being carried out across Europe. Tens of thousands of alleged witches, most of whom were women, were executed.

The beginning of the Salem Witch Trials came at a time when the ‘witchcraft craze’ in Europe was starting to wane. Historians believe that local circumstances explain the onset of the dark period in Salem’s history.

In the late 17th century, there were two Salems – one was a town located in Massachusetts Bay known as Salem town, which is present-day Salem, and the other was a small village with a population of about 500 people, known as Salem village.

In 1689, after the English launched a war against France in the American colonies — ravaging vast swathes of Quebec, upstate New York and Nova Scotia — refugees began to flood Salem village. With an increased strain on resources, there was a growing intolerance towards the displaced people entering Salem.

In Salem village at the time, there was also a great deal of enmity between the two biggest families — the wealthy Porters, who had close links to the merchants in Salem town, and the Putnams, who wanted greater autonomy for the village.

Trouble began when the Putnam’s brought in a new pastor, Samuel Parris, from Boston. Soon after his arrival, several young girls, including his daughter and niece, began exhibiting strange behaviour — they were reported to be having fits, screaming, throwing things and complaining of being pinched by invisible forces.

Unable to identify the cause for the fits, a local doctor declared that they had been bewitched. The afflicted girls then blamed three women for their illness — Tituba, Parris’ Caribbean slave, a destitute woman named Sarah Good and Sarah Osbourne, an elderly impoverished woman.

The three women were put on trial, where Tituba pleaded guilty, and confessed that the “devil came to me and bid me to serve him”, according to the Smithsonian Magazine. The other two women insisted that they were innocent. All three women were arrested.

Over the next few months, several members of the community were accused of witchcraft. By May, the then Governor William Phipps ordered that a separate court and judge be set up for the counties of Essex, Middlesex and Suffolk.

The accused, a majority of whom were women, were made to defend themselves without counsel. Several of their accusers cited “spectral evidence”, claiming that they had seen or been attacked by ghosts and spirits.

On June 2, Bridget Bishop became the first person to be hanged on what later came to be known as Gallows Hill. She was found innocent 12 years later. Hundreds were accused and twenty hanged in the following months.

That was until October, when Governor Phipps halted the trials after his own wife was accused of witchcraft. While the trial resumed a few months later, the special court was replaced by a Superior Court



of Judicature, which was instructed not to accept spectral evidence. By May 1963, the trial officially came to an end.

#### **What was the aftermath of the trials?**

In the years that followed, many of the people involved in the trials and executions, including Judge Samuel Sewall, expressed regret. In 1702, the trials were declared unlawful. About a decade later, the colony passed a bill restoring the rights of those accused, clearing their names and compensating their kin for the injustice committed.

#### **Why has Elizabeth Johnson Jr been pardoned now?**

It took over three centuries for the last Salem “witch”, Elizabeth Johnson Jr, to be pardoned. Massachusetts lawmakers decided to open her case again last year, after a group of eighth grade students from a local middle school took an interest in the trials and looked into the legislative steps needed to clear Johnson Jr’s name, the Associated Press reported.

The students contacted Senator Diana DiZoglio, a Democrat from Methuen, who took up the issue in the state Senate. “We will never be able to change what happened to victims like Elizabeth but at the very least can set the record straight,” DiZoglio said. The legislation was attached to a budget bill and approved.

Johnson was 22 years old when she was first accused of witchcraft and sentenced to hang in 1693. But she was never executed as Phipps threw out her punishment towards the end of the trials.

In the centuries that followed, charges against several of the people convicted, including Johnson’s own mother, were dropped. But Johnson’s name was not cleared.

In 1712, she submitted an exoneration petition before a Massachusetts court but her request was never heard, as per an AP report. She was excluded from a legislative resolution in 1957, that exonerated one more person and referred to “certain other persons”.

**Source: The Indian Express**

### **4. Looking at the UN report on the Taliban regime**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

A new report from the Analytical Support and Sanctions Monitoring Team of the United Nations Security Council (UNSC) says that foreign terrorist organisations continue to enjoy safe haven under the new Taliban regime. The report adds that due to financial constraints, and possibly under political pressure not to embarrass the Taliban internationally at this juncture, the terrorist groups are currently in consolidation mode and not likely to launch major attacks outside Afghanistan before 2023.

#### **What is the mandate of the monitoring team and how did it collect data?**

The monitoring team assists the UNSC sanctions committee. Its report, circulated among committee members, informs the formulation of UN strategy in Afghanistan. India is currently the chair of the sanctions committee, which comprises all the 15 UNSC members. This report — the 13th overall — is the first since the Taliban returned to power in August 2021. The UN team could not visit Afghanistan for evidence-gathering. This is the first of its reports not informed by official Afghan briefings. Instead, the team relied on consultations with UN member states, international and regional organisations, private sector financial institutions, and the work of bodies such as the United Nations Assistance Mission in Afghanistan.

#### **What does the report say about terrorist organisations that pose a threat to India?**

Two India-focussed terrorist groups, Jaish-i-Mohammed (JiM) and Lashkar-e-Taiba (LeT), are reported to have training camps in Afghanistan. While the JiM “maintains eight training camps in Nangarhar, three of which are directly under Taliban control,” the LeT was “said to maintain three camps in Kunar and Nangarhar”. Both the groups enjoy close links with the Taliban leadership, with the LeT having a history of providing finance and training expertise to Taliban operations.

The report also says that the al-Qaeda in Indian Sub-continent (AQIS) has 180-400 fighters in Afghanistan. “Fighters included nationals from Bangladesh, India, Myanmar and Pakistan,” says the report. While AQIS capabilities were “assessed as still weakened from losses as a result of the October 2015 joint United States-Afghan raid in Kandahar’s Shorabak district”, the outfit has also been forced to adopt a “less aggressive posture” due to financial constraints. The report notes that the name change of the AQIS magazine from ‘Nawa-i-Afghan Jihad’ to ‘Nawa-e-Gazwah-e-Hind’ suggests a “refocussing of AQIS from Afghanistan to Kashmir”.

### **What about internal tensions?**

The foremost internal division in the Taliban is between the moderate and hardline blocs. While the moderate bloc wants working relationships with foreign partners and integration with the international system, the hardliners (consisting of senior Taliban leaders centralised around Hibatullah Akhundzada) have a more ideological stance, with little interest in international relations. Independent of both these blocs is the Haqqani Network which, while more aligned with the hardliners, is inclined towards a pragmatic rather than ideological approach to securing Taliban interests. According to the report, under the command of Hibatullah, various Taliban factions are manoeuvring for advantage, with the Haqqani Network cornering most of the influential posts in the administration.

### **How are ethnic dynamics in the administration?**

The report believes the Kandahari (Durrani) Taliban to be in the ascendancy among the Taliban leadership, with Pashtuns getting precedence over non-Pashtuns. Several key Tajik and Uzbek commanders in the north have been replaced with Pashtuns from the south, and these decisions have come against the backdrop of an “organised campaign by Pashtuns to dislodge ethnic Tajik, Turkmen and Uzbek communities from rich agricultural land in the north”.

Internal cohesion within the Taliban was easier to maintain during the insurgency period, when there was a “compelling common cause to expel foreign forces from Afghanistan”, the report notes. But now that they are in power, “the Taliban’s core identity of a Pashtun nationalist cause dominated by southern Taliban has again come to the fore, generating tension and conflict with other ethnic groups.”

### **What about other terrorist groups?**

Tehreek-e-Taliban Pakistan (TTP) constitutes the largest component of foreign terrorist fighters in Afghanistan, with their numbers estimated at 3,000-4,000, and mostly located along the east and south-east Afghanistan-Pakistan border areas. Among all the foreign extremist groups in Afghanistan, it is the TTP that has benefited the most from the Taliban takeover. The report also notes that the Kabul airport attack of August 26 has elevated the Islamic State in Iraq and the Levant-Khorasan (ISIL-K) to be the most prominent Da-esh affiliate in the region. While its activity declined towards the end of 2021, the group has grown in

strength through prison releases and new recruitments. Meanwhile, al-Qaeda continues to enjoy a close relationship with the Taliban, celebrating the latter’s success by “renewing its pledge of allegiance to Hibatullah”. Noting that neither ISIL-K nor the al-Qaeda are “believed to be capable of mounting international attacks before 2023 at the earliest,” the report concludes that their presence, along with the presence of other terrorist groups on Afghan soil, remain a matter of grave concern for neighbouring countries and the wider international community.

**Source: The Hindu**

## **5. Israel signs UAE free trade deal, its first in Arab world**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

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.

#### **Details**

Israel’s Ambassador to the oil-rich UAE, Amir Hayek, tweeted mabruk — congratulations in Arabic — with a photo of Emirati and Israeli officials holding documents at a signing ceremony in Dubai.

The Emirati envoy to Israel, Mohamed Al Khaja, hailed as an “unprecedented achievement” the deal that, 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,” Mr. Khaja tweeted.

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, according to Israeli figures.

**Source: The Hindu**

## **6. The European Union’s ban on Russian oil**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

As part of the sixth package of sanctions since Russia’s invasion of Ukraine, the European Union member states on May 30 reached an agreement to ban 90% of Russian crude oil imports by the end of the year. The partial embargo, worked out following extended negotiations in Brussels, exempts pipeline oil in order to bypass Hungary’s objections to the ban.

#### **What was the original proposal of the oil embargo?**

The proposal to completely phase out Russian crude and refined products from EU territory within a time frame of six to eight months was first mooted by European Commission President Ursula von der Leyen in early May. Addressing European lawmakers, she sought a “complete import ban on all Russian oil, seaborne and pipeline crude and refined.” It needed the agreement of all the 27 EU member states in order to be implemented.

#### **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.

This was deemed a legitimate concession since the pipelines do pass through the war zone in Ukraine.

#### **Why was exemption given for pipeline imports?**

The exemption for pipeline imports — essentially at the behest of Hungarian Prime Minister Viktor Orbán — was made on the logic that landlocked countries (Hungary, Czech Republic and Slovakia) that are heavily dependent on Russian pipeline oil do not have a ready option to switch to alternative sources in the absence of ports. While Hungary imports 65% of its oil via pipeline from Russia, 50% of the Czech Republic's oil imports are Russian, while Slovakia gets 100% of its oil from Russia. Bulgaria, which gets 60% of its oil from Russia, is not landlocked. But its refineries at present are only equipped to process Russian crude.

Until it invests in infrastructure to be able to process non-Russian crude delivered to its ports, it wants to be able to continue importing Russian oil via pipeline and has accordingly claimed the exemption.

### **Do the exemptions dilute the embargo?**

EU leaders have countered this criticism by pointing out that even a partial (90%) embargo on Russian oil represents tremendous progress in terms of weaning EU off Russian oil — something that was unthinkable even a few months ago given the magnitude of Europe's dependence on Russian energy imports.

Secondly, they have reiterated that even the exemption for pipeline imports is not permanent and will be revisited soon. However, no timeline has been specified for a total ban on pipeline imports.

### **Are there other elements in the sixth package of sanctions?**

Apart from the oil embargo, the sixth package of sanctions also contains other tough measures against Russia. These include cutting off Sberbank, Russia's largest bank that holds one-third of Russian banking assets, from the SWIFT messaging system; a ban on three Russian-owned broadcasting networks from the EU; sanctions on individuals responsible for war crimes in Ukraine; and a ban on EU-based firms offering insurance, financing, brokering or any other technical services related to the transport of oil to Russian ships — a measure aimed at curbing Russia's ability to divert its oil to non-EU destinations.

### **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. Since that won't be easy, Russia might have to cut production by 20-30%, say industry experts. So far, Asian importers, especially India, have absorbed some of the excess inventory at discounted prices. But it remains unclear if the embargo would have any impact on Russian military operations in Ukraine.

### **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. But European lifestyles have tended to take cheap Russian energy for granted, and if inflation peaks further, the EU runs the risk of losing public support for harsh sanctions.

### **What about import of Russian gas?**

Compared to Russian oil, Europe's dependence on Russian gas is much greater, and this embargo leaves the import of Russian gas — which accounts of 40% of Europe's natural gas imports — untouched. In other words, Europe will continue to pay Russia for gas imports. But since crude is more expensive than natural gas, the oil ban is expected to hurt Russian revenues.

### **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. In this context, with Russia reportedly offering discounts of \$30-35 per barrel, India has found it convenient to make the most of the cheap Russian crude on offer.

**Source: The Hindu**

## 7. Understanding gun control legislation of different countries

### Relevant for GS Prelims & Mains Paper II; International Issues

The U.S. recently witnessed two episodes of mass shootings in a span of 11 days that killed more than 30 people including elementary school children. In 2020, it had witnessed 24,576 homicides, of which approximately 79%, or 19,384 incidents, involved the use of a firearm.

#### 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, while federal courts argue of a potential infringement if federal, state and local firearm regulations circumvent this right.

#### How are Arms regulated in Canada?

Canada introduced legislation to amend its Firearms Act on Monday. It is proposing to institute a ‘national freeze’ on handguns — preventing sale, purchase, transfer and import of handguns into Canada. The legislation is of particular significance because handguns were used in 49% of all firearm-related homicides in 2020. Possessing a fully-automatic weapon, unless registered before 1978, is illegal in Canada. Gun licences are valid for five years and accorded to individuals at least 18 years of age upon completing the Canadian Firearms Safety Course. Vetting is undertaken to ensure that applicants do not have a history of violence, are suffering from mental illnesses or were previously barred from the process. The proposed legislation would revoke licences from holders deemed to be a danger to themselves or others. (by means of partner violence, gender-based violence, among others). It is mandatory for individuals and businesses to update records before transferring ownership of non-restricted items. In 2020, firearm-related homicides constituted 39% of all homicides in the country.

#### How do gun laws work in Japan?

Acquiring a gun in Japan is particularly difficult — one has to present a series of documents, establish their ‘needs’, undertake an approximately month-long training on handling and safety, pass a scrutiny of criminal records and medical health, and then an exam to prove eligibility. Buying a weapon too requires a separate certification (from the dealer) mentioning the desired model.

Applicants must be 18 years, not suffering from mental illnesses, not having a license revoked less than five years ago, not dependent on alcohol or narcotic substances, and have a fixed residence.

Any violation is punishable with an imprisonment for a period up to three years, which could extend up to five years or more along with a fine of 10 million yen if done for “purpose of profit”. The Council on Foreign Relation states that “some analysts link Japan’s aversion to firearms with its demilitarisation in the aftermath of World War II. Others say that because the overall crime rate in the country is so low, most Japanese see no need for firearms”.

#### How is it in New Zealand?

The turnaround in gun-law legislation in the country came in 2019 following the mass shootings that took place at two mosques in Christchurch.

The legislation now requires firearms dealers to provide licence numbers of all its employees at a facility, including those not directly involved in handling any arms but having access to the premises.

It is now also mandatory for all weaponry to have an identification number. In case a dealer receives an item without the same, they are required to have them stamped or engraved within 30 days of receipt. Applicants must be at least 16 years of age and undertake training in handling and storing firearms, and pass an exam. The vetting process requires the applicant to furnish contact details of known people to ascertain that she/he is a ‘fit and proper person’. In addition, if an applicant has resided overseas for six months or more in the past 10 years, she/he would have to provision a criminal history check from each country.

#### 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.

**Source: The Hindu**

## **8. Why is the Israel-UAE trade pact more than just another international deal?**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

Israel and the United Arab Emirates signed a historic trade agreement on May 31 with an aim to do trade worth more than \$10 billion annually. The UAE is now the first country in the Arab world to have a free trade agreement with Israel.

The deal comes two years after the then US President Donald Trump first brokered the process of normalisation of ties between Israel and the UAE, Bahrain through the Abraham Accords in 2020.

#### **What is the deal?**

After the deal, tariffs will be removed or reduced on 96% of goods traded between the two countries. The UAE predicted the Comprehensive Economic Partnership Agreement would boost annual bilateral trade to more than \$10 billion within five years. Trade was already at \$1.2 billion in 2021, according to the Israeli data.

"Our agreement will accelerate growth, create jobs and lead to a new era of peace, stability, and prosperity across the region," the Emirati trade minister, Thani al-Zeyoudi, said on Twitter.

The UAE has of late engaged in talks for similar accords with Indonesia and South Korea. It signed an agreement with India in February that eliminated duties on goods which account for 90% of India's exports to the UAE by value.

#### **How must the deal be viewed given the Gulf region's history?**

The relations among countries in the region, particularly the Gulf, are shaped by multiple, complex factors – geopolitics over the control of oil and other valuable resources, rivalry between Sunni-majority Saudi Arabia and Shia-majority Iran, and the Israel-Palestine conflict.

The Israel-Palestine conflict has always cast a shadow on how nations in the region deal with Israel. However, there have been attempts at establishing peace. The 1993 Oslo Accord, signed by the leaders of Palestine and Israel in the US with the cooperation of Norway, was a landmark moment. Though it did not achieve success in ending the conflict, it led to a kind of thaw in relations between Israel and MENA (Middle East and North African) countries in both official and unofficial ways. Jordan signed its peace deal with Israel in 1994.

In a 2021 report by the Brookings Institute titled 'The emergence of GCC-Israel relations in a changing Middle East', it was noted how this still did not result in a domino effect because of the Arab world's historic support for Palestine.



It noted that in 2002, Saudi Arabia led the Arab Peace Initiative, which outlined the principle of first establishing a Palestinian state and then normalising relations between the Arab world and Israel. But even in Saudi Arabia, this view is expected to soften due to the presence of Crown Prince Mohammed bin Salman.

The Brookings report also says as per Abu Dhabi's Crown Prince Sheikh Mohammed bin Zayed Al Nahyan, "The principal threats to the UAE and its allies are an expansionist Iran and transnational political Islamists." Israel is seen as a formidable regional power that shares these views, so a better ties with it makes strategic sense. The promise of being closer to "the US strategic orbit" is an important factor too.

What has been noted by many is the speed with which that pact has been inked, coming just two years after Israel and UAE established official relations. The trade deal, observers say, points towards the changing priorities of Arab nations, and their willingness to engage with Israel despite the outstanding issues.

#### **How sustainable are these ties?**

Trade and cooperation has been growing, even as the UAE has simultaneously been critical of Israel's actions towards Palestinians. In the summer of 2021, shortly after violence erupted in the Gaza Strip, Israel's Foreign Minister visited the UAE in June to inaugurate the country's embassy despite the UAE condemning the eviction of Palestinians by Israeli authorities in the lead-up to the violence.

Al-aqsa Mosque has been a flashpoint often, with violence breaking out this year as well. The UAE foreign ministry on Monday again condemned "storming" of the Al-aqsa compound in Jerusalem by "extremist settlers under the protection of Israeli forces", and then on Tuesday signed the deal with Israel.

**Source: The Indian Express**

### **9. China's growing footprint in the Pacific Islands**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

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. Though this has raised regional concerns about China's growing footprint in the Pacific islands, it has also been seen as a demonstration of China's limitations in the region.

#### **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. Moreover, these countries have played an important role in major power rivalry as springboards for power projection and laboratories for developing and demonstrating strategic capabilities. The major powers of the colonial era competed with each other to gain control over these strategic territories. 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.

### **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. 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. Wooing the PICs away from the West and Taiwan will therefore make the goal of Taiwan's reunification easier for China. It has to be noted here that a zero-sum game has been underway in the past few decades in the Pacific between China and Taiwan in terms of gaining diplomatic recognition. China has been successful in getting diplomatic recognition from 10 out of the 14 PICs through its economic largesse. Only four PICs — Tuvalu, Palau, Marshall Islands and Nauru, currently recognise Taiwan.

### **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 PICs as a collective did not agree to China's extensive and ambitious proposals, and therefore China failed to get a consensus on the deal. In fact, the Prime Minister of FSM had sent a letter to all the PIC governments prior to the meeting, to consider China's proposals with caution, as they could have negative implications for the sovereignty and unity of PICs and may drag them into major power conflicts in the future. Some have argued that China has acted too boldly and has therefore met with such a debacle. China might have also miscalculated the regional reaction, perhaps led by a monolithic understanding of the PICs after seeing Solomon Islands' positive response earlier this year. However, China can always come back with improvised plan which is more acceptable and use it to further pursue its final objectives incrementally. Moreover, this debacle does not stop China from pursuing bilateral deals of similar nature.

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 role played by the U.S. in mobilising opposition against China's proposed deal could not be ruled out as FSM is the only country which recognises China and at the same time is part of the Compact of Free Association with the U.S.. Australia, in the meanwhile, has sent its new Foreign Secretary Penny Wong to the islands for revitalising ties, with promises of due priority and assistance to the PICs.

Wang may leave the Pacific humbled at the end of his visit, but with more insights; the Western powers may have been relieved, but may have turned more vigilant; and the PICs may have become more united than ever before.

**Source: The Hindu**

## **10. Why Turkey now wants to be called Türkiye**

## Relevant for GS Prelims & Mains Paper II; International Issues

Turkey will now be known as Türkiye at the United Nations, after the intergovernmental body agreed to a formal request for the name change from Ankara. The UN said it had received a request from Ankara this past week, and the change was made soon after. The UN's acceptance of this name change marks the start of the similar process of adoption by other similar bodies and international organisations.

The process of rebranding the country's name started last year. In December 2021, the country's president Recep Tayyip Erdogan issued a statement saying the "word Türkiye represents and expresses the culture, civilisation, and values of the Turkish nation in the best way."

Domestically, citizens refer to the land as Türkiye, but its anglicised version 'Turkey' was adopted internationally.

### Why does Turkey want to be called Türkiye?

State broadcaster TRT had published a report last year explaining some reasons why. It said 'Turkey' was adopted following the country's independence in 1923. "Over the centuries, Europeans have referred to firstly the Ottoman state and then to Türkiye by many names. But the name that has stuck most is the Latin "Turquia" and the more ubiquitous "Turkey," the report said.

But curiously, there were more justifications. Apparently, the country's government was not pleased with the Google search results that came up for the word 'Turkey'. Some of these results included the large bird that is served for Thanksgiving and Christmas meals in North America.

The government has also had objections to Cambridge Dictionary's definition of the term "turkey"; "something that fails badly" or "a stupid or silly person".

TRT said this unflattering association can be traced back centuries, when "European colonisers set foot in North America, they ran into wild turkeys, a bird that they mistakenly assumed was similar to the guinea fowl, which was native to eastern Africa and imported to Europe through the Ottoman Empire."

The bird soon found its way to the tables and meals of colonisers, and the association of the bird on these festivals has stuck since.

### How is Türkiye tackling it?

The government has started a major re-branding campaign, where "Made in Türkiye" will feature on all exported products. BBC additionally reports that in January this year, the government also launched a tourism campaign using "Hello Türkiye" as the tag line.

But BBC reports that while supporters of the government back the move, it has found little takers outside that circle given the economic crisis that the country is undergoing. It may also be a distraction while the country gears up for elections next year.

### Have other countries changed their names?

There are other countries that have changed their names either to drop colonial legacies or rebrand, as is the case with Turkey.

Some examples include The Netherlands, which was changed from Holland; Macedonia, which changed its name to North Macedonia due to political disputes with Greece; Iran, which changed its name from Persia in 1935; Siam, which changed its name to Thailand; and Rhodesia, which changed to Zimbabwe to drop its colonial legacy.

**Source: The Indian Express**

## 11. Engaging with the Taliban

Relevant for GS Prelims & Mains Paper II; Bilateral Relations

When India sent an official delegation to Kabul earlier this week, it was the first time that New Delhi signalled that it wanted a formal engagement with the Taliban.

With this, it appears that the Indian foreign and security establishment is less divided about the need to engage formally with the Taliban and prevent getting marginalised in a country that New Delhi sees as vital to its strategic interests in the region, and where the people's affection for India is legendary.

Although recognition of the Taliban government is not on the cards yet, Thursday's visit may have paved the way for the reopening of the Indian embassy, albeit a downgraded one.

From 1996 to now, India's journey from first opposition, then diffidence to engaging with the Taliban, to the resigned acceptance of its inevitability, is in no small measure a story of India's problematic relationship with Pakistan.

In 1996, when the Taliban fought their way through warring mujahideen factions into Kabul for the first time, India, fearing a spillover on Kashmir insurgency (there was indeed some), backed the Northern Alliance with money and weapons. As the scholar Avinash Paliwal has pointed out (*My Enemy's Enemy: India in Afghanistan from the Soviet Union to the US Withdrawal*), New Delhi did briefly contemplate opening contacts with the group but dropped the idea as the establishment was divided on reaching out to a group tied to Pakistan.

India bore the brunt of this nexus twice. During the 1999 hijacking of IC814, when the Pakistani hijackers took the plane to Kandahar, the then ruling Taliban acted as a support arm of the hijackers. Second, in 2008, the CIA traced the bombing of the Indian Embassy at Kabul to the Haqqani group, part of the Taliban and deeply embedded with the Pakistani security establishment. The bombing was reported to have been carried out at the orders of the ISI. Moreover, Lashkar -e-Taiba and Jaish-e-Mohammed were increasingly reported to be present in Afghanistan.

### **Reconsidering the Taliban**

After 9/11, under the US umbrella, India invested money and energy into the rebuilding of Afghanistan. But by 2010, with increasing doubts about the US continuance, India was once again considering reaching out to the Taliban.

In the final months of UPA-2, Mullah Abdul Salam Zaeef, who was the Ambassador in Pakistan in the Taliban's first regime, made a splash at a literary event in Goa. He had been invited as the author of the bestselling *My Life with the Taliban*. Then Home Minister P Chidambaram was in a photograph that also included him. Then in the opposition, the BJP trained its guns at the government for keeping company with an Islamist extremist.

Media reports then quoted government sources as saying it was not Zaeef's first visit, and that keeping a door open to the Taliban was necessary. The reasons were the same as they are today: New Delhi did not want to be left out or marginalised in the Afghanistan of the future. After getting Osama bin Laden in Pakistan in 2011, the Obama Administration was getting ready to declare an end to the war, and the US and the Taliban had already made tentative contact towards talks.

But with Pakistan continuing to loom large – the Pakistan security establishment, which had a huge role in the birth of the Taliban, had given Mullah Omar and other Taliban leaders sanctuary in Quetta after the 2001 US invasion, and sustained them with money and weapons — New Delhi did not have the will to pursue the plan seriously.

### **Pakistan shadow**

As talks between the Taliban and the Trump Administration took off, the Indian establishment decided to put its weight behind President Ashraf Ghani and the government of Afghanistan, which had been left out of the talks. When it became increasingly clear that far from collapsing, the talks might actually lead to Taliban rule or at least a set-up in Kabul with a significant Taliban presence, India flagged "concerns" about terrorism, even as it looked for a seat at the table in any of the several regional groups, and also for openings to the Taliban.



One view was to build relations with factions in the Taliban that were opposed to Pakistan, but there was little clarity on how strong such factionalism was, and if such factions had any influence. An Indian diplomat who had been approached by a Taliban leader once in a foreign capital said talking to the Taliban was “the same as talking to the ISI”.

It was evident that India had missed the bus. Pakistan had delivered the Taliban to the Trump Administration for talks. Russia was backing the Taliban fully as the future ruler of Afghanistan, seeing in this sweet revenge for its own defeat in Afghanistan by US-financed, Pakistan-trained mujahideen; Iran, also glad at America’s defeat at the hands of the Taliban, hosted a delegation of the Shia-persecuting group in Tehran. China leveraged its relationship with Pakistan to get a foot into Kabul.

Nine months after the Taliban took over Kabul, 15 countries have a diplomatic presence in the country. Pakistan, China and Russia never shut down; others, including the EU, have re-opened to facilitate humanitarian assistance. The Taliban regime is not recognised by any country yet. When members of the Shanghai Co-operation Organisation’s anti-terror sub-group met in Delhi recently to discuss the situation in Afghanistan, host India was the only one without a diplomatic presence in Kabul.

### **Counter-intuitive timing**

India’s cautious opening to the Taliban has come at a time when the group has made it clear it has not changed from its previous mediaevalism. Restrictions on women have increased, from not being allowed to attend school to curbs on free movement in public spaces and at work. A UN Taliban monitoring committee has reported that the Taliban continue to remain close to al-Qaeda, with a significant presence of its multinational fighting force in Afghanistan. The report has also flagged JeM and LeT training camps in Nangarhar and Kunar, close to the Pakistan border. India is the chair of the Taliban sanctions committee.

However, a view that has gained ground in the Indian establishment is that it is time to de-hyphenate Pakistan from the Taliban, especially as the Pakistan security establishment is finding the going tough with the Kabul regime.

The Pakistani Taliban (TTP), which has spread terror in Pakistan since it came into existence in 2007, has found sanctuary in Afghanistan, and it has taken several rounds of negotiations mediated by the Afghan Taliban for the Pakistan security establishment to arrive at a ceasefire with the TTP. There are other disagreements between the Kabul regime and Pakistan, including over Durand Line as the border between the two countries.

Another reason advanced for India’s change in policy is that the Taliban in power are more divided than they were as a fighting force, and that the situation may provide room for a layered political and diplomatic engagement with different actors. It has also helped that the Taliban have made no hostile statements on Kashmir since taking over in Kabul.

The ban on girls’ high-school education is reported to have brought out rifts in the open between hardliners led by supreme leader Mullah Haibatullah Akhundzada and others seen as pro-West Taliban, such as Sher Mohammad Abbas Stanekzai. In all this, the Haqqani are projecting themselves as the true moderates.

Gautam Mukhopadhaya, a former Indian Ambassador to Kabul, said the hardening of the regime, widening internal rifts, and the resistance against the Taliban getting more organised made for a “far from stable Taliban rule”.

As long as the move helps the Afghan people, facilitating humanitarian assistance through international organisations, and paving the way for access to consular services, Mukhopadhaya said it was a step in the right direction.

“It is a good move towards Afghan people, provided the [Afghan] opposition is being taken into confidence and is kept in touch with on a parallel track, and basic principles are not sacrificed for formal relations,” Mukhopadhaya said.

**Source: The Indian Express**



## 12. Fissures in the West's anti-Russia alliance

### Relevant for GS Prelims & Mains Paper II; International Issues

In a significant departure from the position of the trans-Atlantic alliance (EU-NATO-U.S.) on the ongoing Russia-Ukraine war, French President Emmanuel Macron, in an interview on June 3, said that the West “must not humiliate Russia so that the day when the fighting stops we can build an exit ramp through diplomatic means”. Viewed alongside recent phone calls from Mr. Macron and German Chancellor Olaf Scholz to Russian President Vladimir Putin, the statement hints at a pivot toward a diplomatic solution. This is at odds with the West's stance so far — adopted in solidarity with Ukraine — that the only acceptable outcome of the ongoing conflict is a military victory for Ukraine, unconditional withdrawal of all Russian forces from Ukrainian territory, and restoration of Ukraine's pre-2014 territorial boundaries.

#### How did Ukraine react to Mr. Macron's comments?

Mr. Macron's comments elicited strong rebuke from Ukraine. Ukrainian Foreign Minister Dmytro Kuleba tweeted, “Calls to avoid humiliation of Russia can only humiliate France and every other country that would call for it. Because it is Russia that humiliates itself. We all better focus on how to put Russia in its place. This will bring peace and save lives.” Earlier, in May, Ukrainian President Volodymyr Zelensky had already gone on record claiming that Mr. Macron wanted Ukraine to compromise its sovereignty so that Russia can “save face” when deciding to cease hostilities. With Russia now in possession of one-fifth of Ukrainian territory, Kyiv wants the West to supply it with more advanced weapons, especially longer-range missiles, so that Ukraine can strengthen its position before contemplating diplomatic possibilities.

#### How have other European states responded to these comments?

EU nations which share a border with Russia — the Baltic states of Latvia, Lithuania and Estonia, and Poland — reacted sharply to Mr. Macron's comments, indicating a growing divergence of views within EU ranks. Latvia's deputy Prime Minister Artis Pabriks said on Twitter: “It seems that there are number of so-called Western leaders who possess explicit need for self-humiliation in combination with total detachment from political reality.” Lithuania's Foreign Minister observed that “Giving the occupier a chance to occupy territory means that it can be repeated elsewhere.” The strongest response, however, came from Estonia, which, along with Poland, has been at the forefront of providing military aid to Ukraine. Marko Mihkelson, head of the Estonian Parliament's foreign affairs committee even used the phrase “brain-dead” — once applied by Mr. Macron to describe NATO — to characterise the words and actions (repeated phone calls to Putin) of France and Germany.

#### Why did Mr. Macron speak about not “humiliating” Russia?

From the beginning of the conflict, the West's response has been to isolate Russia from the rest of the world through a combination of harsh economic sanctions and a 360-degree cultural, political and commercial boycott of Russia, and aggressive military aid to Ukraine with the objective of weakening Russia and forcing it to abandon its military ambitions. But 100 days of the war have gone by, and while an end is nowhere in sight, collateral damage in the EU due to economic sanctions against Russia — rising fuel prices, a sputtering economy, and spiraling cost of living for the average citizen — is beginning to bite, especially in Germany and France, whose dependencies on global trade, supply chains, and commodity imports are high. The possibility of an endless — or long-term — war is making them nervous, vindicating Mr. Putin's calculation that Russia's pain threshold is higher than the West's. Against this background, Mr. Macron seems to believe that an insistence on a military solution — that is, defeat, or “humiliation” of Russia — is an unrealistic goal that would only end up prolonging the war, and attendant pain for Europe, without moving the needle closer to a resolution.

#### Why have Mr. Macron and Mr. Scholz been in telephonic talks with Mr. Putin?

Historically France has had close links with Russia and Mr. Macron, in particular, has fashioned himself as a mediator between the EU and Russia. He has been in regular talks with Mr. Putin from December 2021, first attempting to pre-empt the conflict, and when that failed, trying to find a quick negotiated settlement. On June 4, both Mr. Macron and Mr. Scholz had long phone calls with the Russian President where they raised the issue of Russia unblocking the export of grains from Ukraine's Black Sea ports. Russia's month-long blockade has triggered fears of widespread shortages and hunger, especially in developing countries. Mr. Putin, according to reports, promised to allow the export of grains provided the ports are “de-mined” and “relevant sanctions” on Russia were lifted. While France and Germany are

hopeful of Russia allowing food exports from Ukraine, other EU nations and the U.S. are not keen on lifting any of the sanctions on Russia.

#### **Are cracks beginning to appear in the 'united front' of the anti-Russia western alliance?**

It does seem like two blocs with distinct views are beginning to coalesce. On one side are the U.S., the U.K., the Baltic states, and Poland, whose primary objective is to help Ukraine win the war, and failing that, to weaken and isolate Russia. On the other are EU states like France and Germany, and, for slightly different reasons, Hungary, which favour maintaining lines of communication and commercial links with Russia and are not enthusiastic about the policy of isolating the country. While the former bloc speaks only of restoring Ukraine's sovereignty over its territory and view talks with Mr. Putin as "encouraging" the occupier, the latter, especially Mr. Macron, believes that isolating Russia will not yield a sustainable security architecture for Europe, given the long history between the two. While the bloc in favour of arming Ukraine is dominant for now, the camp favouring a diplomatic resolution could gain fresh converts as more EU nations begin to feel the economic pain of a long-drawn war of attrition.

**Source: The Hindu**

### **13. The Ukraine war and the global food crisis**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

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. As the war, in its fourth month now, is still raging in Ukraine's east with no political solution on the horizon, the United Nations and Turkey have initiated talks with the Russian leadership to facilitate the exports of grains and fertilizers from Russia and Ukraine.

#### **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. As of June 1, 2022, the Agricultural Price Index was 40% higher compared to January 2021, according to the World Bank. Maize and wheat prices rose 42% and 60%, respectively, from the levels of January 2021. Global food, fuel and fertilizer prices are projected to be sharply higher this year and will remain elevated into 2024, the Bank estimates.

Almost all economies in the world have been hit by higher food prices. Across the western world, there's a cost-of-living crisis with food and energy prices rocketing. In the U.S., Treasury Secretary Janet Yellen told senators on Tuesday that the country was facing "unacceptable levels of inflation" which would stay so in the coming years. In the U.K., inflation numbers have already hit a 40-year high. Almost 90% of emerging markets and developing economies experienced food price inflation greater than 5% this year. Low-income countries that are reliant on imports for basic food consumption, are the hardest hit. According to the UN World Food Programme (WFP), Ethiopia, Nigeria, South Sudan and Yemen remain at 'highest alert' as hotspots with "catastrophic conditions", as Afghanistan and Somalia are added to this category.

#### **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. Besides wheat, Ukraine is the world's eighth largest producer and fourth largest exporter of corn, accounting for 16% of global exports. 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.

These factors have in effect brought exports from Ukraine to a grinding halt. According to Ukrainian authorities, more than 20 million tonnes of grain are stuck in warehouses and containers. June marks the beginning of a harvesting season in Ukraine and this season, the country is expected to produce some 30 million tonnes of corn, wheat and sunflower oil, half of which are meant to be exported. But unless the blockade is lifted and Ukraine starts exports, the country would not even find enough warehousing capacity to store this year's harvest. This would make the food crisis worse.

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. Russia's food and fertilizer sectors were not directly targeted by western sanctions, but the sanctions on its financial sector, which made payments difficult for Russia, has complicated its exports, including food grains. Also, the targeted sanctions on Russian oligarchs have choked finances for the agricultural industry.

### **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. Ukraine, however, is sceptical, saying it doesn't trust Moscow. No breakthrough has been achieved so far.

Ukraine has little good options to ship its grains out of the country if its ports remain blockaded. One option is to transfer the grains overland to the Baltic states, either through Poland or Belarus, and then ship them out from the Baltic Sea ports. According to UN officials, Kyiv has dismissed the proposal to seek help from Belarus, a Russian ally that also faces western sanctions. A Wall Street Journal report stated on Tuesday that the U.S. State Department also stays staunchly opposed to giving any concession to Belarus in return for help for moving food grains. Moving them overland via Poland is challenging because the rail track gauge in Poland is smaller than that of former Soviet countries such as Ukraine and the Baltic states — this means cargoes will have to be moved to different trains at the Polish-Ukraine border and then again at the Polish-Lithuania border to start exporting them from the Baltic ports. So, the only practical solution to take Ukrainian grains to the global markets is to open the Black Sea routes. And to ease the pressure on global food items, Russia will also have to step up exports of both grains and fertilizers. For this, Kyiv and its allies may have to strike a deal with Russian President Vladimir Putin.

**Source: The Hindu**

## **14. Why has Kazakhstan voted to amend its Constitution?**

**Relevant for GS Prelims & Mains Paper II; International Issues**

Citizens of the Central Asian nation, Kazakhstan, in a historic vote on June 5, gave an overwhelming majority to proposed constitutional amendments to soviet-era laws under former president Nursultan

Nazarbayev. The former president unexpectedly resigned in March 2019 after being in power for three decades.

According to preliminary results, Kazakhstan's Central Election Commission on Monday said that 77 per cent of voters supported the constitutional amendments, while just under 19 per cent voted against them.

The reforms are a part of a drive called "New Kazakhstan", headed by the current President, Kassym-Jomart Tokayev.

### **What was the referendum in Kazakhstan?**

The referendum to the proposed changes in the constitution were first disclosed by President Tokayev during his State of the Nation address in March 2022, after thwarting an attempted 'coup' in January, and removing the former president and his relatives from key positions in the government. Nazarbayev was head of the security council. The protests against Nazarbayev's government were sparked by a sharp rise in fuel prices, but the overall agitation also reflected wide public discontent with a stagnant economy and authoritarian government.

The 56 amendments include changes that will strip Nazarbayev of his "national leader" status which grant him lifetime privileges.

The most important amendment is the transition of the government body from a super-presidential model, which existed under the former president, to a presidential republic. Under these amendments, the president will be prohibited from having an affiliation with any political party during his tenure. This will also apply to the presidents and judges of all the courts, along with chairpersons and members of the Central Election Commission. The heads of the Supreme Audit Chamber will also have to follow the same.

In a report published by the state news agency, The Astana Times, the presidential quota in the Senate, the upper chamber of the Kazakh Parliament, will be reduced from 15 to 10 deputies, and five of them will be proposed by the Assembly of the People of Kazakhstan. The Assembly is a consultative/advisory body which represents ethnic groups in the country.

The reforms will also see changes in the judiciary. The re-establishment of the Constitutional Court will change the number of judges to 11, four more than at present. Six judges will be appointed by Parliament, while the other four will be appointed by the president. The Chairperson of the Constitutional Court will be appointed by the president with the consent of the Senate.

Further amendments to the constitution will focus on strengthening the role and enhancing the status of Parliament, instead of the president. President Tokayev has also called for higher taxes on the extractive industries and on high-income individuals.

The proposed changes included specific questions on modifications like prohibiting the death penalty.

They will also provide Kazakhs the right to directly appeal to the Constitutional Court for a review of normative legal acts.

State Secretary of Kazakhstan Erlan Karin, in a statement, said, "This will strengthen systemic human rights activities and supreme supervision over the observance of the rule of law in the territory of the country on behalf of the state."

With the amendments to the laws, the 'New Kazakhstan' government promises to strengthen and protect the rights of citizens, which was under question during the 30-year rule of Nazarbayev.

### **How do these amendments help President Tokayev?**

Hoping to move out of his predecessor's shadow, Tokayev will want to cement his role as a long-awaited reformer after the referendum.

According to a report by news agency Reuters, the vote indicates that many citizens support the ouster of Nazarbayev, who ran the country for three decades before giving up the presidency in 2019 and picking Tokayev as a successor.

Securing domestic support will also help the 69-year-old career diplomat navigate the Ukrainian crisis, which has destabilised Kazakhstan's economy and put it in a difficult geopolitical position between Russia and the West.

Tokayev was previously criticised for his decision to ask a Russia-led security bloc for help in January's unrest, putting the Kazakh leadership in Russia's debt, weeks before it invaded Ukraine. The violent protests had led to the deaths of more than 230 people.

With the passing of the referendum, Kazakhstan has moved away from Moscow and closer towards the West.

While Russia is Nur Sultan's major economic and security partner, the West has invested hundreds of billions of dollars in its oilfields and mines.

Western sanctions against Russia due to the Ukrainian crisis have also hurt the Kazakh economy. The country's currency Tenge plunged almost as much as the Russian Rouble did in March. However, President Tokayev has been very cautious in commenting on the crisis, urging all sides to act in line with the United Nations charter. The course of the Russia-Ukraine war will also decide Kazakhstan's economic fate.

**Source: The Indian Express**

## **15. Ties reset with Iran**

**Relevant for GS Prelims & Mains Paper II; International Relations**

### **Multilateral Implications for bilateral relations**

Iranian Foreign Minister Hossein Amir Abdollahian's first visit to India this week has many implications for bilateral relations, but it is the multilateral context and timing that stand out.

1. This is the first visit by a member of the 57-member Organisation for Islamic Cooperation, which took offence to comments made in India on the Prophet. The controversy has overshadowed India's other diplomatic engagements. As a result, his visit was an opportunity for New Delhi to project that it has successfully assuaged the Islamic world with the actions of the ruling BJP against its spokespersons.
2. For New Delhi, which always seeks to run a balance in ties between the two rivals, the Iranian visit comes a week after that of Israeli Defence Minister Benny Gantz.
3. It also coincides with the meeting of the Board of Governors of the IAEA in Vienna, which has passed strictures against Iran for its nuclear programme. For Mr. Abdollahian, the visit would be portrayed as a show of support from a powerful country.
4. In addition, Iran and India discussed the situation in Afghanistan under the Taliban, just days after an Indian envoy made the first outreach to Kabul. To this end, India and Iran have discussed further operationalising the Chabahar port, where goods to Afghanistan were sent before the government in Kabul fell last year.
5. Finally, against the backdrop of the Russian war in Ukraine, and western sanctions, Iran has also been keen to convince New Delhi to restore its crude oil purchases, which it cancelled in 2019, after threats of U.S. sanctions.

While there was no public statement on the matter during the official part of the visit, External Affairs Minister S. Jaishankar's statement was significant — he called for the U.S. and Europe to allow Iranian and Venezuelan oil back into the international market if they want India to lower Russian oil imports, accusing the West of "squeezing" all alternative sources for India.

### **Bilateral Implications**

On the bilateral front too, India and Iran have catching up to do, with many promises of the last summit in Delhi left unrealised. Instead of increasing Indian oil imports, investments in developing reserves,



building up the Chabahar rail project and scaling up trade, India has drastically cut its Iranian engagement due to sanctions, while Iran has looked to China for more infrastructure investment.

Bilateral trade dropped to just over \$2 billion (2020-21) from \$17 billion (2017-18). Ties also appeared to have been hit by New Delhi's surprise decision to join the Israel-India-UAE-U.S. group, portrayed as an "anti-Iran" coalition, and by perceptions of Iranian support to Yemeni Houthis behind the drone attack on a UAE oil facility where an Indian was among those killed. Mr. Abdullohaian's visit, and a possible visit by Iranian President Ebrahim Raisi, may be the start of a reset of traditionally strong ties even if it is one that is buffeted by developments in other parts of the world.

**Source: The Hindu**

## **16. Why are economic stakes high in West Asia?**

### **Relevant for GS Prelims & Mains Paper II; Bilateral Relations**

The diplomatic fallout from the provocative and communally charged comments made by two erstwhile spokespersons of the ruling Bharatiya Janata Party (BJP), forced the government into firefighting mode earlier this month after several West Asian nations including Qatar, Kuwait, Iran, Bahrain, Oman, Iraq, Saudi Arabia and the UAE as well as the 57-nation Organisation of Islamic Cooperation (OIC) and the six-member Gulf Cooperation Council (GCC) took strong exception to the remarks denigrating Islam and the Prophet Muhammed. In response, Indian officials strenuously asserted that the government stood by the country's traditional values and respected all religions. It also tasked its diplomats to reach out to individual OIC member states and reassure them on India's position of an 'inclusive' approach to all communities.

#### **What prompted the government response?**

India's cultural, economic and trade ties with the countries of the West Asian region are deep and abiding. Starting with maritime trade, the exchange of goods, services and cultures between the people of the Gulf region including those on the western shores of the Arabian Sea and the people of India's southern and western States reaches back several millennia and significantly predates even the foundation of the Islamic faith.

The West Asian region also served as a land trade bridge to Greece, Rome and other early European empires and a flourishing trade in spices, cloth, silk and indigo in exchange for gold and silver is well recorded.

In a more contemporary historical context, the British colonial era saw the advent of even a loose common monetary system with the rupee serving as legal tender in several Gulf states till the middle of the 20th century. It was also the discovery and subsequent commercial exploitation of oil in the Gulf region during the colonial era that started to alter the balance of trade flows between India and the countries in the region.

Today, the countries of the West Asian region collectively account for well over a sixth of India's total bilateral merchandise trade and contribute about three fifths of India's crude oil supplies. The region is also a major provider of jobs and economic opportunities to Indian workers, professionals and entrepreneurs and houses about 89 lakh Indians. These non-resident Indians (NRIs) annually send home about \$40 billion, and account for more than 55% of the country's total remittance inflows. Investments from sovereign wealth funds and other large investors from the GCC have also climbed steadily in recent years and India, which earlier this year signed a Comprehensive Economic Partnership Agreement (CEPA) with the UAE, is looking to significantly boost trade ties with the region by negotiating more such trade and investment pacts.

It is the sizeable and rapidly growing economic interconnectedness that the government is keen to insulate from any fallout over this sensitive and potentially disruptive issue.

#### **Why is India so dependent on West Asian countries for its energy needs?**

Domestic crude production, which has been declining over the years, meets less than a fifth of the country's oil requirement, forcing India to take recourse to imports to fill the gap of more than 80%. An

Observer Research Foundation (ORF) April 2022 paper analysing 'India's oil imports: Trends in diversification' notes that out of India's total imports of crude oil, the share of the Gulf countries has remained fairly steady at about 60% over the last 15 years. The ORF study observes that in 2020-21, the top oil exporter to India was Iraq, with a share of more than 22%, followed by Saudi Arabia — about 18%. The UAE, Kuwait and Oman were other Gulf countries among the top-10 suppliers of crude oil to India in the fiscal year ended March 2021.

A large proportion of India's refineries have also historically been predominantly configured to process the sulphur-heavy sour grades of crude that are produced in the Gulf region and with the sweeter (low sulphur) grades of oil such as Brent proving comparatively costlier, India's crude purchases have over the last two decades gradually shifted to being more weighted towards the Oman and Dubai sour grades, according to data on the composition of the Indian basket of crude compiled by the Ministry of Petroleum and Natural Gas's Petroleum Planning and Analysis Cell (PPAC). While the ratio of sour grades to sweet grades was 57:43 in the fiscal year ended March 2001, the proportion of sour crude to Brent had increased to 75.62:24.38 in the 12 months ended March 2022.

### **How reliant is India on the region for non-oil trade?**

Over the five years from 2017 through 2021, Iran and the GCC member states comprising the UAE, Saudi Arabia, Bahrain, Oman, Kuwait and Qatar accounted for a 15.3% share of India's cumulative two-way merchandise trade of \$3.98 trillion in that period, according to statistics available on the UN Comtrade database. Of the \$609 billion of exports and imports that the seven countries accounted for in this period, the UAE contributed the lion's share of \$277.4 billion, or almost 7%, making it one of India's largest trading partners. Saudi Arabia was next with \$153 billion. The region is today a key market for several Indian commodities ranging from tea and basmati rice to electrical equipment, apparel, and machinery. Reflecting this importance, India and the UAE signed the CEPA in February with the aim of increasing the total value of bilateral trade in goods to more than \$100 billion in five years and getting services trade to exceed \$15 billion over the same period. The trade pact will provide Indian exporters preferential market access on '99% of the country's exports to the UAE in value terms, particularly from labour-intensive sectors such as gems and jewellery, textiles, leather, footwear, sports goods, plastics, furniture, agricultural and wood products, engineering products, pharmaceuticals, medical devices, and automobiles', according to a Ministry of Commerce and Industry release. With the CEPA now serving as a framework, the government is actively pursuing a broader FTA (Free Trade Agreement) with the GCC as a whole. With the region serving as a key hub to markets in Africa, India is keen to gain tariff-free access for its exports not just to the Gulf region but also to countries across Africa.

### **What else is at stake?**

The West Asian region provides among the largest number of overseas jobs for Indians, with nearly 89 lakh Indians living and working in the Gulf economies. The UAE, which comprises the seven emirates of Dubai, Abu Dhabi, Sharjah Ajman, Umm Al-Quwain, Fujairah and Ras Al Khaimah, accounts for the largest share of NRIs

in the region and is home to more than 34 lakh Indians. Saudi Arabia with close to 26 lakh and Kuwait with over 10 lakh are the other large providers of jobs and economic opportunities for Indians. Indians are today ubiquitous by their presence across a vast range of job categories in the region spanning construction labour to oil industry workers, nurses and doctors in the medical sector to the hospitality industry and finance professionals.

The remittances that they sent back home in 2017, according to Pew Research data, accounted for about 55% of the total \$68.97 billion in inward remittances received in India from across the world that year.

**Source: The Hindu**

## **17. Understanding the Organisation of Islamic Cooperation**

### **Relevant for GS Prelims & Mains Paper II; International Organisations**

On June 5, the General Secretariat of the Organisation of Islamic Cooperation (OIC) "condemned and denounced" the comments on Prophet Muhammed made by two erstwhile national spokespersons of the Bharatiya Janata Party (BJP). Referring to it as part of "growing spate of hatred and defamation of Islam in

India”, it sought that the perpetrators are brought to justice and held accountable. In response, Arindam Bagchi, spokesperson at the Ministry of External Affairs, stated that India rejected the OIC Secretariat’s “unwarranted” and “narrow-minded” comments. He said that the views expressed by the two individuals did not reflect the views of the Indian government and that relevant authorities had already initiated strong actions against them.

### **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’. Moreover, it aspires to hold Israel accountable for ‘war crimes’ and violations of international law.

The organisation adheres to a charter that lays out its objectives, principles and operating mechanism. First adopted in 1972, the charter has been revised multiple times in line with emerging conditions in the developing world. The present charter was adopted in March 2008 at Dakar in Senegal. It enshrines that all members be guided and inspired by the noble Islamic teachings and values alongside committing themselves to the purposes and principles of the UN charter. Member states are expected to uphold and promote good governance, democracy, human rights, fundamental freedom and the rule of law — settling disputes through peaceful means and refraining from the use of threat or force.

In addition, the OIC carves out a 10-year Programme of Action (PoA). Last instituted for the decade ending 2025, the PoA calls for measures to combat all aspects of terrorism globally. It also talks of implementing social schemes to eliminate two-thirds of extreme poverty and spurring industrialisation, investment, trade and overall economic and social growth among member states.

### **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. Former Foreign Affairs Minister of Chad, HisseinBrahim Taha, is the current Secretary General, taking up the role in November 2021.

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 same provisions apply for acquiring an observer status. All decision-making in the forum requires a quorum defined by the presence of two-thirds of the member states and complete consensus. In case a consensus cannot be reached, decisions shall be made by a two-thirds majority of members present and voting.

The OIC is financed by the member states proportionate to their national incomes. Should a member fail to meet their obligations such that the amount of arrears equals or exceeds the amount of contributions due from it for the preceding two years, their voting rights are suspended. The member is only allowed to vote if the Council of Foreign Ministers is satisfied that the failure is due to conditions beyond the member’s control. The OIC also has standing committees for cooperation on information and cultural affairs, economic and commercial matters, scientific and technological initiatives and for Jerusalem.

### **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.

About 50 years later, External Affairs Minister Sushma Swaraj addressed the OIC Plenary of Foreign Ministers in Abu Dhabi as a guest of honour. The invitation was extended by the UAE's Foreign Minister Sheikh Abdullah bin Zayed Al Nahyan. In 2018, Bangladesh had proposed India be given the observer status at the OIC considering its sizeable Muslim population – a move which received support from Turkey but was opposed by Pakistan. Political analyst Ketan Mehta of the Observer Research Foundation wrote in 2019 that Islamabad's apprehension stems from the fear that India's involvement in the grouping could influence the opinion of other Muslim states — not boding well for its influence.

### **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 according of observer status at the UN to the Palestine Liberation Organisation is considered among its major successes.

Al Sharq Forum analyst Abdullah al-Ahsan, in an article in 2019 — the 50th anniversary of the organisation— noted that the OIC has failed to establish a cooperative venture among its members, who were either capital-rich and labour-scarce countries or manpower-rich and capital scarce. "...the organization has not evolved to become a significant player either in international politics or in the area of economic cooperation," Mr. Al-Ahsan wrote.

**Source: The Hindu**

## **18. The FATF and Pakistan's position on its 'grey list'**

### **Relevant for GS Prelims & Mains Paper II; International Organisations**

Ahead of the plenary session of the Financial Action Task Force (FATF), the global financial crime watchdog, from June 14 to 17 in Berlin, Pakistan which continues to face an economic crunch, is hoping for some respite in the form of its removal from the FATF's 'grey list' or the list of countries presenting a risk to the global financial system.

In its last plenary meeting in March, the FATF had retained Pakistan's listing, asking it to expeditiously address the remaining deficiencies in its financial system.

### **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.

### **Why is Pakistan on the grey list?**

Pakistan was retained on the grey list in March as it was yet to address concerns on the front of terror financing investigations and prosecutions targeting senior leaders and commanders of UN designated terrorist groups. Diplomatic sources in Pakistan told The Hindu that steps had been taken in this direction such as the sentencing of terror outfit chief Hafiz Saeed, prosecution of Masood Azhar, arrest of about 300 other designated terrorists, and the seizure of more than 1,100 properties owned by terror groups. India meanwhile, a member of FATF, suspects the efficacy and permanence of Pakistani actions.

Pakistan is currently banking on its potential exclusion from the grey list to help improve the status of tough negotiations with the International Monetary Fund to get bailout money.

Pakistan has found itself on the grey list frequently since 2008, for weaknesses in fighting terror financing and money laundering. In 2009, the country began to cooperate with the FATF-like regional body, Asia Pacific Group (APG), for a ME process.

On completion of the ME in June 2010, Pakistan made a "high-level political commitment" to the FATF and APG to address its strategic AML/CFT deficiencies. It was given an action plan which required demonstrating adequate criminalisation of money laundering and terrorist financing as well as showing adequate measures to identify, freeze and confiscate terrorist assets.

It was taken off the list in 2015 owing to its progress but was put back on it in 2018. It was given a 27-point action plan to restrict terror financing activities. After warnings and two deadline extensions on the first plan, Pakistan was prescribed another seven-point action plan by the APG in 2021, focused specifically on combating money laundering. In March, Pakistan informed FATF that it had completed 32 of the total 34 action items in the two plans but was retained on the list. The FATF gave it time till January 2023 to complete the 2021 plan.

**Source: The Hindu**

## **19. A closer look at the Reuters Institute Digital News Report 2022**



## Relevant for GS Prelims & Mains Paper II; International Issues

According to the 2022 Reuters Institute Digital News Report, trust in news is falling in nearly half the countries surveyed, with significant proportions of the public, especially younger age groups, beginning to turn away from news. Further, news consumption is increasingly happening via social media platforms such as TikTok rather than traditional media.

### What is the scope of this report?

This study, an annual one commissioned by the Reuters Institute for the Study of Journalism, tracks how news is consumed in different countries. This year's report, the eleventh overall, is based on a survey conducted by YouGuv, a British market research and data analytics firm, in January/February 2022 through online questionnaires. It covers 46 markets in six continents. Since it is based on online questionnaires, the findings are not necessarily nationally representative, especially for countries with lower internet penetration. For India, the data is more representative of younger English speakers and not the national population as such.

### What are the major trends highlighted in the report?

Broadly, the report documents the ways in which “the connection between journalism and much of the public may be fraying”. It flags six major trends which could have wider socio-political implications. Firstly, people are trusting news content less and less. Second, consumption of traditional news media declined in nearly all the countries surveyed. Third, the proportion of news consumers who say that they “avoid news” has risen sharply across countries, with the report describing the phenomenon as “selective avoidance”. Fourth, despite small increases in the proportion of people willing to pay for online news (mostly in richer countries), the growth in digital subscriptions for news content seems to be leveling off. Next, “the smartphone has become the dominant way in which most people first access news in the morning”. Finally, the report notes that while Facebook remained the most-used social network for news, it is TikTok that has become the fastest-growing network, “reaching 40% of 18-24-year-olds, with 15% using the platform for news”. TikTok, however, is currently banned in India.

### What is ‘selective avoidance’ of news?

While the majority of people remained engaged with news, the report finds that a growing minority is increasingly choosing “to ration or limit their exposure to it — or at least to certain types of news”. The report calls this behaviour “selective avoidance” and says this is one of the reasons why news consumption levels have failed to increase as per expectations. The proportion that says they avoid news has doubled in Brazil (54%) and the U.K. (46%) since 2017. Across markets, respondents cited a variety of reasons for this avoidance. Many said they were “put off by the repetitiveness of the news agenda — especially around politics and COVID-19 (43%)”. Some said they were “worn out by the news” (29%). A significant number said they avoided news because they didn't trust it (29%). About one-third (36%), especially those under 35, said that news ruined their mood. About 17% said they avoided news because it led to arguments they would rather avoid, while 16% said reading the news led to feelings of powerlessness. A small percentage (14%) said that they didn't have time for news while 8% said that they found it too hard to understand.

### What are the reasons cited for declining trust in news content?

The average level of trust in news, at 42%, was found to be lower than the previous year. Trust levels fell in 21 of the 46 markets surveyed, rising in just seven. The report states that an “indifference to news and its value, along with widespread perception of political and other biases by the media, are two of the main reasons for low trust”. The trust levels were also lower among those on the right, compared to those on the left, of the ideological spectrum — a pattern most pronounced in the U.S. In France, on the other hand, the lack of trust closely tracked the class divide, with the ‘haves’ showing higher levels of trust, while the ‘have-nots’ viewed media as often aligning itself with the elites. Other reasons for low trust included perceptions of undue influence from business or political interests, with just 19% agreeing that “news organisations put what's best for society ahead of their own commercial or political interests.” At the same time, many more said that all or most news outfits “put their own political views (40%) or commercial interests (42%) ahead of society.”

### What about preferred modes of news consumption?

Across markets and age groups, text is still king when it comes to news consumption. However, younger audiences, especially ‘digital natives’ who grew up with networks like Facebook and TikTok, were more

likely to say they “watch the news”. In India, 58% said that they “mostly read” the news while 17% said they “mostly watch” it. On the other hand, the comparable figures for Finland, which has a historic pattern of high newspaper consumption, was 85% and 3% respectively.

### **What does the report say about trends in India?**

In the section on India, produced in collaboration with the Asian College of Journalism, the report, observing that “India is a strongly mobile-focussed market,” says that 72% of the survey respondents accessed news through smartphones and 35% did so via computers. Also, 84% of the Indian respondents sourced news online, 63% from social media, 59% from television, and 49% from print. YouTube (53%) and WhatsApp (51%) were the top social media platforms for sourcing news. India registered a small increase in the level of trust, with 41% trusting news overall. While legacy print brands and public broadcasters continued to have high trust levels, only a minority — 36% and 35% — felt that the media was free from undue political influence and from undue business influence respectively.

**Source: The Hindu**

## **20. The fragile state of nuclear disarmament**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

The Stockholm International Peace Research Institute (SIPRI) released its yearbook a few days back highlighting some worrying trends of the past year in international security. The expected rise of the global nuclear arsenal was the chief cause of concern among SIPRI experts. The comprehensive report claims that while absolute numbers of nuclear arsenal have reduced, they are expected to grow over the next decade.

### **What have been the trends in military spending?**

During 2012-2021, military spending as a percentage of gross domestic product has largely been stable. If anything, the average worldwide trend has been slightly downward. Russia leads the charge in absolute numbers of nuclear inventory (5977 against the U.S.’s 5428), however it is the U.S. that has the largest number of deployed warheads (1744 against Russia’s 1588). The U.K. has 225 nuclear weapons in its inventory, while France has 290, China has 350, India has 160, Pakistan has 165. Israel is estimated to have 90 and North Korea 20.

It is concerning, to say the least, to see how global discourse has created a sense of fear around China’s military modernisation and their upward trend in nuclear weapons development while the thousands of nuclear weapons held by the U.S. don’t seem to attract a similar level of attention.

### **What about global arms imports?**

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—ranging from the development of newer and more efficient nuclear submarines, aircraft carriers, fighter jets, manned and unmanned aerial vehicles to the growing spread of the use of missile defence systems which may result in aggravating security concerns for other countries.

The yearbook has highlighted India as being 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.

### **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 heads. Speaking at the Shangri-La Dialogue, Chinese Defence Minister, Wei Fenghe, claimed that while they have made “impressive progress” vis-à-vis their nuclear arsenal, the primary purpose of said arsenal continues to be self-defence. Over in the subcontinent, India and Pakistan seem to be making gains over their nuclear arsenal (in absolute numbers) while also looking at the development and procurement of newer and more efficient forms of delivery systems.

### **Has Iran inflated its military expenditure?**

The SIPRI yearbook claims that while there were some advances over the rollout of the 2015 Joint Comprehensive Plan of Action, Iran increased its enrichment of Uranium-235 to 60% in 2021. It also reported that Iran’s military budget grew to \$24.6 billion, growing for the first time in four years. However, some analysts believe that SIPRI has, over the years, overstated Iran’s military expenditure. This is based on there not being a single Iranian exchange rate, resulting in a hyperinflated estimation of expenditure by SIPRI analysts.

It is claimed that SIPRI is aware of this ‘accusation’ and will investigate the ‘exchange rate issue’.

### **What is the general attitude among countries about existing nuclear and arms related treaties?**

Earlier this year, the leaders of the P5 countries (China, France, Russia, the U.K. and the U.S.) issued a joint statement affirming the belief that “a nuclear war cannot be won and must never be fought”. The joint statement also highlighted their seemingly collective belief that bilateral and multilateral arms control agreements and commitments were indeed important. The dichotomy of this sentiment against the upward trend in absolute numbers of arms and nuclear arsenals is rather unsettling. One could however claim that even with these upward trends, the nation states are making sure to remain well within the ambit of what the treaties and agreements ask for. The tactic here seems to be to milk the treaties and agreements to the hilt. The states are aware of the value of the rhetoric and the security dilemma that their actions present. The recent Russian invasion of Ukraine and the subsequent NATO bids by Finland and Sweden seem to be telling events. While the Ukrainian invasion saw Russian military and political establishments hype-up its nuclear attack rhetoric against Ukraine, its primary leadership (both civil and military) had been rather diplomatic and ‘relatively’ cordial in its treatment of the Finnish and Swedish NATO bids.

Clear and constant communication between the countries involved was instrumental in making sure no unintended meanings were construed by the parties involved. The Russians seem to protract this invasion and hope to win it by exhausting Ukraine’s defence capabilities.

The year 2021 also saw the Treaty on the Prohibition of Nuclear Weapons, 2017 coming into effect. The Nuclear Suppliers Group (NSG) and the Missile Technology Control Regimes (MTCR) held their annual meetings despite decision making being limited due to the COVID-19 pandemic.

### **What lies ahead?**

The recent geopolitical events transpiring around the world in practically all regions have made the global security climate more unstable. A sense of precariousness lulls the air. It is further aided by actions of authoritarian leaders of not just non-democratic systems but also of strongmen leaders of democratic systems. The muscular military policies of these nations coupled with the continuous use of rhetoric that fuel public sentiment over the state’s use of military assets make ripe conditions for the situation to further deteriorate. A strong political opposition would be needed to help keep the ruling dispensation in check. Furthermore, the two largest nuclear weapons holding states need to take on a more engaging role in the international arena. SIPRI’s yearbook, while not being devoid of some challenges, forces us to look critically at how the global disarmament project seems to be going.

**Source: The Hindu**

## **21. Demolition drives violate international law**

### **Relevant for GS Prelims & Mains Paper II; International Organisations**

#### **Universal Declaration of Human Rights**

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. 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...”.

Besides, international law also prohibits arbitrary interference in an individual’s right to property. For instance, Article 12 of the UDHR 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”.

Article 12 also stipulates that “everyone has the right to the protection of the law against such interference or attacks”. This same right is also provided under Article 17 of the International Covenant on Civil and Political Rights (ICCPR). Article 17 further provides that everyone has the right to own property alone as well as in association with others and that no one shall be arbitrarily deprived of his property. Thus, arbitrary interference with an individual’s property is a gross violation of the ICCPR.

### **International Covenant on Economic, Social and Cultural Rights**

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”.

Furthermore, under Article 11.1, countries are under an obligation to take “appropriate steps” to ensure the realisation of these rights such as the right to adequate housing.

The rights recognised under ICESCR, according to Article 4, can be restricted by States only if the limitations are determined by law in a manner compatible with the nature of these rights and solely to promote society’s general welfare.

However, any limitation imposed on the rights given in the Covenant such as the right to adequate housing cannot lead to the destruction of these rights. This is categorically recognised in Article 5 of ICESCR.

### **Forced evictions**

The Office of the High Commissioner for Human Rights (OHCHR) commonly known as the United Nations (UN) Human Rights Office — whose mandate is to promote and protect human rights guaranteed under international law — has elaborated on the content of the right to adequate housing.

According to the UN Human Rights Office, an integral element of the right to adequate housing is ‘protection against forced evictions’. Building on the right to adequate housing, given in Article 11.1 of ICESCR, the UN Human Rights Office defines ‘forced evictions’ as ‘permanent or temporary removal against the will of individuals, families and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection’. The right to adequate housing also entails freedom from arbitrary interference with one’s home, privacy, and family.

The bulldozing of the houses by the Madhya Pradesh government of the alleged rioters amounts to forced eviction and arbitrary interference with an individual’s home, thus a breach of Article 11.1 of the ICESCR. This action can be defended under international law only if it can be shown that the forced eviction is as per the law and in conformity with the provisions of the human rights covenants. Also, other requirements such as whether the state action was necessary and proportionate will have to be examined. It is unlikely that these forced evictions can be lawfully defended given the timing of the eviction.

One wonders that if these demolitions were against illegal encroachments, then did the authorities get the eviction order on the day of the riots, or did they have an eviction order earlier, but decided to act only after the riots? Also, were the eviction orders limited to the Muslim locality?

### **Judicial incorporation**

Moreover, the international human rights law identified above has been judicially incorporated by the Supreme Court of India into the Indian legal system. The apex court in cases like *Bachan Singh vs State of Punjab*, *Vishaka vs State of Rajasthan*, and recently in the famous *Puttaswamy vs Union of India* has laid

down the principle that the fundamental rights guaranteed under the Constitution must be read and interpreted in a manner which would enhance their conformity with international human rights law.

As the custodian of India's constitutional order, it is high time that the judiciary acted and imposed necessary checks on the unbridled exercise of power by the executive. Courts should use international law to counter the nationalist-populist discourse.

**Source: The Hindu**

## **22. The controversy around the Northern Ireland Protocol**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

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 standards.

#### **Why did the U.K. come up with the Northern Ireland Protocol Bill?**

The Northern Ireland Protocol (NIP) has been a lingering issue for the U.K. almost from the day Brexit was signed. In fact, back in July 2021, the Boris Johnson administration announced its intent to renegotiate the NIP. But with efforts at negotiations not producing the results it wanted, it decided to proceed with a unilateral revamp of the NIP via domestic legislation. 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. It is in this context that the Northern Ireland Protocol Bill seeks to empower the U.K. government to override key provisions of the NIP.

#### **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.

#### **What has been the reaction to the proposed Bill?**

The Bill has triggered strong pushback from MPs belonging to Mr. Johnson's own party, from Irish legislators, and from EU officials. All of them have pointed out that the legislation would violate



international law, damage the U.K.'s reputation as a trade partner, and spark a trade war with the EU. The EU's executive branch announced on June 15 that it would be taking legal action against the U.K. for violating international law.

#### **How has the Johnson administration justified the Bill?**

The Johnson administration has sought to justify its breach of its obligations under the Brexit agreement by invoking a principle of international law known as the "doctrine of necessity". The UN's International Law Commission allows a state to invoke this doctrine when its "essential interests" are facing a "grave and imminent peril". The Johnson administration believes that this emergency loophole will enable it to defeat any legal challenge to its proposed Bill. The "grave peril" in this context, according to the British government, is the threat posed by the NIP to the Good Friday Agreement. "The maintenance of stable social and political conditions in Northern Ireland, the protection of the 1998 Belfast (Good Friday) Agreement...and the preservation and fostering of social and economic ties between Northern Ireland and the rest of the United Kingdom, are essential interests of the United Kingdom," says a statement from the U.K. Foreign Secretary.

**Source: The Hindu**

#### **23. No registration or insurance needed, why your Thailand holiday is more convenient from July 1**

##### **Relevant for GS Prelims & Mains Paper II; International Issues**

Thailand, which is one of the top tourist destinations for Indians, has eased travel norms for international arrivals further. Starting July 1, the country is doing away with its requirement of Thailand pass registration scheme, and the mandatory US\$10,000 health insurance for foreign visitors.

##### **What were the old rules that are being removed?**

International visitors arriving in Thailand are currently required to register online for a Thailand pass with a certificate of Covid-19 vaccination, and a health insurance policy. The requirement for a Thailand pass is being done away with.

According to a statement by the Tourism Authority of Thailand, from July 1, foreign nationals are only required to show proof of either a certificate of vaccination or a negative RT-PCR or professional ATK test (antigen test) result within 72 hours of travel. These can be in a print or digital format.

##### **Are there any other requirements for entering Thailand?**

Upon arrival, random checks will be made at Thailand's international airports or land border checkpoints (in 22 provinces). Randomly checked unvaccinated or partially vaccinated travellers who are unable to show proof of a pre-arrival negative test will be required to undergo a professional ATK test at the point of entry.

##### **Are there other countries that are easing travel requirements?**

Yes, effective June 11, Germany lifted all Covid-19 restrictions for travel to the country. This means that travel from India to Germany is now permitted for all purposes — and no proof of vaccination, recovery, or testing is any longer required for entry into Germany.

The United States has also lifted its requirement that international travellers arriving in the country go through a mandatory Covid-19 test within a day before boarding their flight, easing one of the last remaining government mandates meant to contain the spread of the coronavirus.

**Source: The Indian Express**

#### **24. How is the crisis in Ukraine causing a global food shortage?**

##### **Relevant for GS Prelims & Mains Paper II; International Issues**

The ongoing Ukraine-Russia war, which has intensified since it began in February, is leading to food crises in developing countries across the world. The stoppage of food exports from Ukraine has worsened pre-existing conditions.

The post-pandemic demand for food, extreme weather conditions, supply chain bottlenecks and export restrictions have negatively affected the food market. The invasion has added to the widespread inflation in food prices throughout the world, pushing the Food and Agriculture Organization's Food Price Index to an all-time high—the highest it has been since the index began in 1990.

The **FAO Food Price Index (FFPI)** is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices weighted by the average export shares of each of the groups over 2014-2016. The five commodity groups are cereals, vegetable oils, sugar, meats and dairy products.

FAO Food Price Index has become a critical and timely monthly indicator of the state of international food markets, gauging the change in food commodity prices over time in nominal and real terms.

The FFPI is calculated as the trade-weighted average of the prices of food commodities spanning the key agricultural markets for cereals, vegetable oils, sugar, meat and dairy products.

While these commodities represent about 40 percent of gross agricultural food commodity trade (FAOSTAT), they are chosen for their high and strategic importance in global food security and trade. The Laspeyres price index is used because it facilitates timely updates. Prices are combined in the various sectors using trade weights calculated from average export values over a chosen three-year base period, when the trade weights appear most stable relative to their trend values. A three-year period is chosen to minimize the impact of variation in both internationally traded prices and quantities.

Source: FAO

#### **What countries are being affected and how?**

Somalia is one of the countries facing the implications of the war. The country is facing an unprecedented shortage of wheat stemming from the halted exports from Russia and Ukraine, as the export route through the Black sea has been shut down since the war started on February 24.

Other African countries, which also have little say in the ongoing conflict, are affected too. In Egypt, bread is a staple.

#### **Contribution of Ukraine and Russia**

Ukraine and Russia provided for 85 percent of the country's imports in 2020-2021. Ukraine was expected to constitute approximately 12 percent of global wheat exports in 2022. The price of wheat globally has shot up by approximately 50 percent since the invasion began. About 20 countries have imposed food restrictions and taxes on food since late February.

#### **How is Russia responding?**

Russia is strategically using the global food shortage and there is now increased pressure on the West to lift the sanctions imposed on it. Russian President Vladimir Putin blamed the West for the global food crisis.

The US alleges Russia seeks to benefit from the expected increase in demand for wheat from the Middle East and Africa. Regardless of sanctions, Russia is in the running to be the top wheat exporter with an estimated 40 million tons exported from July 2022 to June 2023.

Russia has also been accused of stealing Ukrainian grain, with the New York Times reporting the US alerted 14 countries of three vessels transporting stolen Ukrainian grain. Russia is denying the allegations, blaming Ukraine for not opening ports located on the Black sea for exports.

#### **What next?**

According to the UN Secretary-General Antonio Guterres, the conflict between Russia and Ukraine is set to further massive food, energy and economic crises, with poorer countries bearing the worst of it. The 2022 Global Report on Food Crises said about 180 million people across 40 countries will face inescapable food insecurity, which can also lead to malnutrition, mass hunger and famine.

With people still struggling with post-Covid recovery, the governments of these countries having little cash at hand, and the war in Ukraine still ongoing, the global food crisis shows few signs of slowing.

**Source: The Indian Express**

## **25. Ukraine is one step closer to joining the EU. What happens next?**

**Relevant for GS Prelims & Mains Paper II; International Issues**

### **Status of Ukraine's membership**

The European Commission, the executive arm of the European Union, recommended on Friday (June 17) that Ukraine be **formally granted candidate status** in the EU, the first step in the long journey to become a member state of the bloc.

The announcement by EU President Ursula von der Leyen, who was dressed in yellow and blue, the colours of the Ukrainian flag, came a day after representatives of France, Germany, and Italy, the most powerful member states of the organisation, visited Kyiv for the first time, where they backed Ukraine's bid to join the bloc.



### **What is the current relationship between Ukraine and the EU?**

Four days after Russia invaded Ukraine, Zelenskyy requested the EU on February 28 to allow his country to become a member through a special procedure immediately, after which he officially signed an application for Ukraine's membership.

Currently Ukraine, along with Moldova, Georgia, Armenia, Azerbaijan, and the Republic of Moldova are categorised under the **Eastern Partnership**, which formed in 2009. This joint policy partnership seeks to strengthen and deepen political and economic ties between the EU member states and the six "partner countries".

### **What is the requirement for joining the EU?**

Article 49 of the EU treaties state that any European nations that seek to join the bloc, must be committed to respecting and promoting the EU's fundamental values set out in Article 2. These include respect for freedom, democracy, equality, the rule of law, etc. After the application is received, the EU members judge the suitability of the nation on the basis of these terms.

The European Council meeting in Copenhagen in 1993 set out more specific criteria. Called the Copenhagen Criteria, these include essential conditions that all candidate countries must satisfy. Among them are a functioning market economy, a stable democracy and rule of law, and the acceptance of all EU legislation, including that of the Euro.

### **What is the process of joining the EU?**

The procedure to gain membership of the EU consists of **three stages**.

In the first stage, the country is given the status of an official candidate.

In the second stage, formal membership negotiations with the candidate begin, which involves the adoption of EU law into national law, and the implementation of judicial, administrative, economic and other reforms, called the accession criteria.

Once the negotiations are completed and the candidate has met all the accession criteria, they can join the EU.

Becoming a member of the bloc involves a long and complex process. Even after candidate status is granted, the rest of the process takes years to complete. The negotiation in particular goes on for long, and its duration can vary from country to country. The EU's most recent member Croatia joined the EU in 2013, and it took 10 years to complete the process.

### **What happens with Ukraine's application hereon?**

Currently, the European Commission has only recommended that Ukraine (and Moldova) be granted candidate status.

This recommendation will be discussed by the EU's 27 member states during a summit that will be held in Brussels on June 23-24. To proceed to the accession talks, all member states have to unanimously approve of the prospective country. For Ukraine's bid to move forward, the bloc will have to agree that Ukraine has met the Copenhagen Criteria.

Negotiations (the next step) take place in an intergovernmental conference, involving ministers and ambassadors of the EU government and the candidate nation.

CNN reported concerns that Ukraine does not meet the Copenhagen Criteria yet. According to Transparency International's 2021 Corruption Perceptions Index, Ukraine is placed 122nd on its list of 180 countries.

Some EU countries are reluctant to grant Ukraine candidate status. Denmark and Portugal have argued that if Ukraine was not at war, it would not be able to meet the qualifications for initiating membership talks.

**Source: The Indian Express**

## **26. The key takeaways from the 12th Ministerial Conference of the World Trade Organization**

### **Relevant for GS Prelims & Mains Paper II; International Organizations**

After days of protracted negotiations, **the 12th Ministerial Conference of the World Trade Organization on June 17, agreed to a series of deals relating to the temporary waivers on Covid-19 vaccines**, a moratorium on e-commerce trade, food security and setting limits on harmful fishing subsidies. The agreements passed by the WTO come after an intense week of negotiations.

#### **What is WTO**

The **World Trade Organization is the only international organization that deals with the rules of trade between countries**. Founded in 1995, the WTO is run by its 164 members, and according to its rules, all decisions are taken through consensus and any member can exercise a veto.

Its aim is to promote free trade, which is done through trade agreements that are discussed and signed by the member states. The WTO also provides a forum for countries to negotiate trade rules and settle economic disputes between them.

#### **What is Ministerial Conference**

The Ministerial Conference is the WTO's top decision-making body and usually meets every two years. All members of the WTO are involved in the MC and they can take decisions on all matters covered under any multilateral trade agreements.

The WTO's 12th Ministerial Conference was held in Geneva from 12-17 June. It was supposed to end on 15 June, but with intensifying negotiations, the conference was extended by two days.

#### **Top of Form**

##### **Curtailing harmful fishing subsidies**

The WTO passed a multilateral agreement that would curb 'harmful' subsidies on illegal, unreported and unregulated fishing for the next four years, to better protect global fish stocks. Since 2001, member states have been negotiating the banning of subsidies that promote overfishing.

India and other developing countries were able to win some concessions in this agreement. They successfully lobbied to remove a section of the proposal that would threaten some subsidies which would assist small-scale artisanal fishing. Critics argued that this agreement would only restrict and not eradicate subsidies on illegal fishing.

### **Global Food Security**

Members agreed to a binding decision to exempt food purchased by the UN's World Food Programme (WFP) for humanitarian purposes, from any export restrictions. In light of the global food shortages and rising prices caused by the war between Ukraine and Russia, the group's members issued a declaration on the importance of trade in global food security and that they would avoid bans on food exports. However, countries would be allowed to restrict food supplies to ensure domestic food security needs.

India's key demand to allow it to export food from its public stockholdings to other countries will reportedly be discussed in the next Ministerial Conference in 2023.

### **E-commerce transactions**

During the MC12 session, India has asked the WTO to review the extension of the moratorium on custom duties on e-commerce transactions, which include digitally-traded goods and services.

Piyush Goyal, the commerce and industry minister who led the Indian delegation, argued that developing countries faced the brunt of the financial consequences of such a moratorium. From 2017-2020, developing countries lost a potential tariff revenue of around \$50 billion on imports from only 49 digital products, he said.

WTO members had first agreed to not impose custom duties on electronic transmissions in 1998, when the internet was still relatively new. The moratorium has been periodically extended since then.

However, all members agreed to continue the long standing moratorium on custom duties on e-commerce transmissions until the subsequent Ministerial Conference or until March 31, 2024, depending on whichever comes first.

### **Covid-19 vaccine production**

WTO members agreed to temporarily waive intellectual property patents on Covid-19 vaccines without the consent of the patent holder for 5 years, so that they can more easily manufacture them domestically.

The current agreement is a watered down version of the original proposal made by India and South Africa in 2020. They had wanted broader intellectual property waivers on vaccines, treatments and tests.

Rich pharmaceutical companies had strongly opposed this, arguing that IP's do not restrict access to Covid vaccines and that the removal of patent protections gives researchers that quickly produced life saving vaccines, a negative message.

The waiver agreed by the WTO was criticized by advocacy groups for being narrow in scope, as it did not cover all medical tools like diagnostics and treatments.

**Source: The Indian Express**

## **27. Russia's gateway to global waters**

**Relevant for GS Prelims & Mains Paper II; International Issues**





### **Treaty of Küçük Kaynarca**

The Treaty of Küçük Kaynarca, signed on July 21, 1774 by the Russian and Ottoman Empires after the 1768-74 war between the two powers was one of the most consequential treaties for the global balance of power in the 18th century — it marked the beginning of the decline of the Ottoman Empire and the arrival of the Russians, under Catherine the Great, as a major power in the Black Sea region.

### **Terms of the Treaty**

As part of the treaty, Russia got access to the Black Sea through the Kerch and Azov seaports. More important, Russia gained official status as the protector of the Orthodox Christians of the Ottoman Empire, a clear signal of the waning influence of the High Porte, the Ottoman central administration, within imperial territories.

This clause also left the Crimean Khanate, which had declared independence from the Ottomans, dependent on the Russians. In 1783, nine years after the treaty was signed, Prince Grigory Potemkin, a Grand Admiral in the imperial Russian army and a favourite of Empress Catherine, annexed the Crimean Peninsula in the name of protecting its Christians amidst violent clashes between Christians and Crimean Tatars. The annexation gave Russia seamless access to the Black Sea's warm waters, helping its rise as a naval power.

One may find parallels between the 18th century annexation of Crimea by Empress Catherine and the 2014 annexation of the same region by President Vladimir Putin. If Catherine's annexation anchored Russia as a Black Sea power, Mr. Putin's move allowed Russia to retain Sevastopol, which hosts its Black Sea fleet, and turn Crimea into a platform for force projection.

### **Steps by Russia to tighten hold over Black Sea**

After the invasion of Ukraine began on February 24, Russia further tightened its hold over the Black Sea. Russia has taken the entire Sea of Azov coast and more port cities in the south and south-east, including Mariupol, Berdyansk and Kherson.

The Black Sea is critical for Russia for geo-economic reasons. Russia's northern ports are in the Arctic Ocean, which restricts its outreach to the world. Its gateway to the global waters is the Black Sea, which opens into the Mediterranean Sea through the Turkey-controlled Bosphorus and Dardanelles Straits.

Currently, Russia's only naval base outside the former Soviet territories is based in Syria's Tartus in the Mediterranean Sea. While Russia sees the Mediterranean as NATO-dominated waters, it has sought to enhance its presence in the region in recent years. So, from a geopolitical point of view, it's imperative for Moscow to retain its hold over the Black Sea to remain an influential naval power. The Black Sea is also a vital economic artery for Russia to export its hydrocarbons and grains to Turkey and Asian markets.

During the Soviet period, Russia had dominated the Black Sea, which was then dubbed by many the 'Soviet Lake'. Ukraine and Georgia were Soviet republics. Bulgaria and Romania, two other Black Sea basin states, were part of the Soviet-led Eastern bloc. The only country that was out of the Soviet sphere in the Black Sea region during the Cold War was Turkey, a NATO member. Despite Turkey's control over Bosphorus and Dardanelles Straits, the 1936 Montreux Convention ensures that Russia and other Black Sea countries get access to the straits so that they can seamlessly move both commercial and military vessels in and out of the waters. (The Convention bans non-Black Sea countries' aircraft carriers and submarines from entering the waters.)

But the balance of power in the Black Sea would shift in favour of NATO after the disintegration of the Soviet Union. Bulgaria and Romania became NATO members in 2004. Ukraine and Georgia were offered membership in 2008. If they had also joined NATO, Russia would have faced an arc of NATO coast in its gateway to the global waters. But in 2008, Russia made a military intervention in Georgia, practically ending the country's NATO dream. And in 2014, by annexing Crimea, Russia did not only derail Ukraine's NATO plans, but also reasserted its hold over its southern waters. Now, with more territories under its control as the invasion grinds on, Russia is seeking to rewrite the balance of power in the Black Sea to its favour through force.

**Source: The Hindu**

## **28. Who is Gustavo Petro, the former guerrilla fighter who will be Colombia's first leftist President?**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

Former rebel fighter Gustavo Petro secured 50.5% of the vote in the second round of Colombia's presidential election held on June 19, putting himself in line to become the first leftist President of the country. Petro's victory underlines an ongoing shift of South American politics to the left, which has seen leftist leaders secure victories in Peru last July, and in Chile and Honduras this year.

### **Support of the 'TikTok generation'**

In April last year, Colombia saw a series of anti-establishment protests against corruption, stagnancy, increased taxation during the pandemic, and a new health care reform.

President Iván Duque Márquez of the Democratic Centre Party was criticised for his taxation policy at a time of economic hardship, with jobs having been hit badly, and the fiscal deficit having widened. The attempt to hastily push through Bill 010, which aimed to privatise healthcare, fuelled anger. (The proposal was withdrawn after four days of massive street protests.)

A quarter of Colombia's electorate is of age 28 or younger, and the empty promises of jobs, uncertain prospects for education, poverty and inequalities hit the younger sections of the population the hardest. Ahead of Petro's historic victory, a poll by Invamer showed more than 68% support for him among voters aged 18-24.

Petro's running mate and now Vice President elect Francia Márquez — the first black person in the post — is an environmental and human rights activist whose humble roots and social consciousness struck a chord with the younger generation. Prior to the election, a political analyst had predicted, "The TikTok generation that is very connected to Francia, that is very connected to Petro, is going to be decisive."

### **Colombia's history of revolutionary violence**

Decades earlier, Petro was a part of the urban guerrilla outfit known as M-19. Established in 1970, the M-19 sought to gain power through violence following claims of fraud in that year's elections. Petro, who spent time in jail for illegal arms possession, joined the urban military group at the age of 17, and was among the many university students and artists who fought against the government.

The M-19 was demobilised in 1990 in what is considered a historic success in Colombia's long history of conflict. The group metamorphosed into a political party, and aided in the rewriting of the constitution.

For almost a half century from 1964, a violent Marxist-Leninist insurgency led by the Revolutionary

Armed Forces of Colombia — Fuerzas Armadas Revolucionarias de Colombia, or FARC in Spanish — raged in the country. The violence of groups like the FARC impacted Colombia's relationship with leftist political ideology, and made it difficult for a legitimate political left to take shape and establish itself.

### **Petro's political career**

Petro, who described his victory as one "for God and for the people", wrote on Twitter: "May so much suffering be cushioned by the joy that today floods the heart of the homeland".

Despite his early revolutionary actions, the President elect has spent many years in Colombia's Parliament, having served in the lower house, the Chamber of Representatives, from 1991-94 and then from 1998-2006, before entering the Senate where he served until 2010, and then again from 2018 onward. In between, Petro was Mayor of the capital city of Bogota from 2012 to 2015.

The elections of 2022 marked Petro's third attempt at winning the presidency. He had been defeated by Duque Márquez in 2018. This time, both presidential candidates, Petro and Rodolfo Hernández, had pegged themselves as anti-establishment fighters against the monopoly of the ruling political class.

### **Colombia's relations with the US**

Colombia has been America's most reliable ally and the largest beneficiary of US aid in Latin America. The new government under Petro could lead to significant changes in bilateral relations, especially if Petro follows through on his proposed policies on the war on drugs and the question of Venezuela.

The US has invested significantly to cease the production and export of cocaine in Colombia. Petro has been a critic of the current approach that focuses on eradicating the coca crop, and instead seeks to push developmental projects in rural Colombia and some form of drug legalisation. In addition, both presidential candidates called for a re-evaluation of trade agreements to ensure Colombia's greater benefit.

The US has attempted to cut off Venezuela, run by the authoritarian regime of President Nicolás Maduro, from the world economy. Colombia has been an enthusiastic supporter of America's policy of "maximum pressure" on Caracas. But the sanctions, and the recognition by Washington of opposition leader Juan Guaidó as interim president following the disputed election of 2019, have not yielded the results the US was hoping for.

Petro has stated that he will restore diplomatic relations with Venezuela and hold dialogue to address violence along the long border between the two countries. He has also said he would allow the restarting of trade across the border.

**Source: The Indian Express**

## **29. West Seti Hydrel Project in Nepal and its importance for India**

**Relevant for GS Prelims & Mains Paper II; Bilateral Relations**



#### What is West Seti Hydro Project?

The West Seti Dam is a proposed 750-megawatt (MW) hydroelectric dam on the Seti River in the Far-Western Development Region of Nepal. The Project will facilitate export of hydroelectricity to India. The project is envisaged to **provide Nepal 31.9% electricity free**. Besides, locals affected by the project are being given a share of Nepal Rs 10 million plus 30 units of electricity per month free.

#### The Project completion rights to India

The project was earlier accorded to a Chinese company. But Nepal feared that India won't buy power from China-executed projects.

Now, India will be constructing ambitious hydropower project in Nepal — West Seti — nearly four years after China withdrew from it, ending a six-year engagement between 2012 and 2018.

#### Issues in project execution

There has been some uncertainty in Nepal over **India's inability to deliver projects on time**. An ambitious **Mahakali treaty** was signed back in 1996, to produce 6,480 MW, but **India has still not been able to come out with the Detailed project Report**. The **Upper Karnali project**, for which the multinational GMR signed the contract, has made **no headway for years**. Major reasons for stalling of these projects was a **lack of consensus over power purchase agreement** with India. Also, **seismic sensitivity** of the Himalayan Region is the prime consideration.

#### Why India has been chosen?

India under PM Modi has been **successful in executing the 900-MW Arun Three Project** in eastern Nepal's Sankhuwa Sabha. After a standoff between Nepal and India led to the economic blockade of 2015, equations changed after Deuba took over last July, replacing Oli.

#### Benefits for Nepal

Nepal has a massive power shortfall as it generates only around 900 MW against an installed capacity of nearly 2,000 MW. Although it is currently selling 364 MW power to India, it has over the years importing from India.

### **Hurdles from Nepal's internal crisis**

Nepal's Constitution has a provision under which any treaty or agreement with another country on natural resources will require Parliament's ratification by at least a two-thirds majority. That will also mean homework will be required before any hydro project is signed and given for execution.

**Source: The Indian Express**

### **30. What are the implications of French President Macron losing the majority in the National Assembly? Who is his main Opposition?**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

President Emmanuel Macron has lost his majority in the National Assembly, the lower house of the French Parliament. In the legislative elections, which concluded on June 19, Ensemble, the centrist coalition led by Mr. Macron, could muster only 245 seats in the 577-member assembly. The number needed for an absolute majority is 289. At the same time, NUPES, the left-wing alliance led by Jean-Luc Melenchon, and the far-right National Rally of Marine Le Pen made substantial gains, finishing with 131 and 89 seats respectively. The mainstream conservatives, Les Republicains, managed to get 61 seats.

#### **What is the significance of France's legislative elections?**

Although the President's office is the most powerful of political posts in France, with scope to govern by decree, a majority in the National Assembly is still needed for passing new laws or amending the Constitution. In the 2017 legislative elections, Mr. Macron's party and his allies won an absolute majority of 350 seats, which meant he could push through whatever legislation he wanted in line with his policy goals. But this time, short of the majority needed to control the Assembly, he may be forced to make political compromises in order to cobble up the numbers.

Apart from having a say on key bills, members of the National Assembly, or 'deputies', also have the power to pose tough questions to cabinet Ministers, organise hearings, and set up enquiry committees.

#### **How do the legislative elections work?**

The legislative polls are held in two rounds, with one elected deputy for each of the 577 constituencies. The top two candidates with the most votes in the first round face off in the second round to determine the winner. But if a candidate wins more than 50% of the vote in the first round — which is rare — then she is declared elected without the need for a second round. This year, the first and second rounds were held on the 12th and 19th of June respectively. After the first round, the centrist Ensemble coalition and the leftwing NUPES were neck-and-neck with around 25% of the votes each, while the National Rally got 19% and Les Republicains, 10%.

#### **Why did President Macron lose his majority, and which parties have gained at his expense?**

Mr. Macron's pro-business policies, rising inequality, and growing discontent over inflation have been steadily eroding his support base, especially among left-leaning voters. One major factor in his comfortable win in the Presidential elections was the keenly felt political imperative to keep the far-right Marine Le Pen out of the Elysee Palace. It delivered to Macron the votes of the left parties in addition to his own. But this factor was not in play in the legislative elections where the firebrand leftist Mr. Melenchon strung together a robust alliance of all the left and green parties and ensured they were not contesting against each other. As a result, the leftwing coalition increased its presence in the National Assembly from 45 to 131. Another big gainer from the disenchantment with Macron's policies — especially his forays into pension reform — seems to be the far-right Ms. Le Pen, whose party increased its tally more than ten-fold, from eight to 89.

#### **What are the ideological differences between Mr. Macron and his main opposition in the National Assembly?**

President Macron's main Opposition in Parliament would be the leftwing NUPES coalition led by Mr. Melenchon. NUPES, or New Social and Ecological People's Union, includes communists, socialists, Greens and different shades of leftwing groups that do not necessarily agree on every issue. Mr. Macron, a former investment banker, followed classic neoliberal policies in his first term as President — he lowered corporate tax rates from 33.3% to 25%, ushered in labour reforms that cut employment benefits and enabled easier lay-offs, and did away with the wealth tax.



He now wants to raise the retirement age — a move strongly opposed by the working classes and the vast bureaucracy. NUPES, on the other hand, has an agenda focused on social and climate justice. It is calling for the retirement age to be lowered from 62 to 60, the return of the wealth tax, and for the minimum wage to be hiked by 15%. While Mr. Macron already has — in the aftermath of the inflation fuelled by factors related to the Ukraine war — capped fuel and gas prices, NUPES wants a cap on the prices of all essentials. With regard to the EU, Mr. Melenchon has been speaking of France unilaterally disregarding EU treaties that interfere with its national policies, but he doesn't enjoy the support of all his coalition partners on this issue.

### **Lacking a majority in Parliament, what are Macron's options?**

Political observers speculate that he might try to regain control of the Assembly by seeking an alliance with a broadly like-minded rival, such as Les Republicains, whose 61 seats would be enough to secure a majority. The other alternative would be to negotiate and build consensus with select parties on specific issues in order to get key legislation passed.

### **What does the reduced majority mean in terms of France's position with regard to the Ukraine war?**

It is unlikely to matter in terms of France's foreign policy. However, the indirect political pressure on the Macron government on account of the war's impact on the domestic economy, especially inflation, is bound to go up with a higher representation of the Opposition in the Assembly and its enhanced power to block legislations.

**Source: The Hindu**



## **31. El Salvador's Bitcoin bet**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

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. In fact, a lot of times when the price of Bitcoin crashed steeply, he had gone on popular social media site Twitter to announce to the world that he was 'buying the dip' (this refers to purchasing an asset after it has dropped in price). Even during the current crash, he has plunged into the market to buy Bitcoin and has urged citizens of El Salvador to be patient. It is said that the El Salvador government's investment of over \$100 million in Bitcoin has lost more than half of its value till date due to the crash.

### **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. El Salvador's public debt has risen to over 100% of gross domestic product and its recent attempt to borrow \$1 billion using bonds backed by Bitcoin failed. The government's bonds are trading at a steep discount and are classified as junk by investors. President Bukele has already had to rely on financial help from the International Monetary Fund (IMF) and the World Bank to meet his government's spending needs. It should be noted that while the El Salvador government can tax its citizens to meet its need for dollars, it could turn out to be an unpopular

move among citizens. Many believe that the President has mismanaged funds received from abroad during the pandemic and this has made international organisations hesitant to lend any more dollars to his government. The IMF had also opposed President Bukele's decision to make Bitcoin an official currency.

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. This maybe why the government is making various attempts to encourage the use of Bitcoin over U.S. dollars by its citizens. Mr. Bukele has also set up geothermal plants to power his Bitcoin mining facilities. He can use the mined Bitcoins to directly fund his government's domestic spending if Bitcoin gains greater acceptance in the country. Otherwise, he can exchange his Bitcoin for U.S. dollars and use it to repay debt or even spend it on the domestic economy since the dollar is still the most commonly accepted currency in El Salvador. This is why the fall in the price of Bitcoin is worrying analysts. A crash in Bitcoin's price against the U.S. dollar means that the government will have to sell its Bitcoin for fewer dollars, thus affecting its capacity to repay dollar debt.

### 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. This has been the case despite the fact that the supply of cryptocurrencies is limited by design, which could potentially help them maintain or increase in value over time. One big reason for the low acceptance of cryptocurrencies has been their extreme price volatility, making them an unreliable store of value. People in general are hesitant to accept something as money if they are not fairly sure about its likely value in the future.

Source: The Hindu

### 32. What is the Western Sahara dispute that has now strained Algeria-Spain ties?

Relevant for GS Prelims & Mains Paper II; International Issues



On June 8, Algeria announced that it was immediately suspending its 20-year-old treaty of “friendship, good neighbourliness, and co-operation” with Spain. The blow to the ties, which have proved mutually beneficial for both countries, came after Spain decided to shift its position on the Western Sahara dispute.

It was in 2002 that Madrid and Algiers had signed a deal to promote dialogue and co-operation on political, economic, financial, education and defence issues.

### **What is the Western Sahara dispute?**

The dispute started with colonisation of the region by Spain in 1884. When Spain announced its withdrawal from Western Sahara in 1975, the region descended into a conflict between Mauritania, Morocco and the Polisario Front – with all three trying to control the region.

The Polisario Front declared the establishment of the Sahrawi Arab Democratic Republic (SADR) in Western Sahara on the very day Spain left. However, the SADR did not get Western recognition despite going on to become a member of the African Union.

The matter then came up before the International Court of Justice in 1975 itself, and the court decided neither Morocco nor Mauritania could claim sovereignty over Western Sahara. The ICJ called for decolonization of the region. Notwithstanding the ICJ’s decision, the Moroccan Sultan began the “Green March” towards Western Sahara causing an influx of thousands of Moroccans in the region.

The Polisario Front kept fighting both Morocco and Mauritania. The Front signed a ceasefire with Mauritania in 1979. The fighting with Morocco continued and finally ended when both Morocco and the Polisario Front agreed to a UN-proposed peace deal.

Post this 1991 Agreement, Morocco controls about 80 per cent of the Western Sahara, with the Polisario Front-led SADR operating primarily from the eastern flank of the region and from refugee camps in Algeria.

In 2007, the Moroccan government proposed limited autonomy under which the Sahrawis would be free to run their government, but under the shadow of overarching Moroccan sovereignty. The Polisario Front rejected it arguing that Morocco would continue to control key areas related to phosphate reserves and fisheries, defence, and foreign affairs.

The Front continues to push for complete independence with support from Algeria.

### **How has Spain changed its stance and why?**

Spain’s official position for years has been to back a UN-sponsored referendum to settle the region’s decolonization. A recent statement by Morocco’s royal palace, however, said: “Spain considers the autonomy initiative presented by Morocco in 2007 as the basis, the most serious, realistic and credible, for resolving the dispute.”

The Spanish Foreign Ministry confirmed the Moroccan announcement. In the run up to this, the relationship between the two countries had hit a historic low after it was revealed that Brahim Ghali, the leader of the Polisario Front, was admitted to a hospital in Spain for Covid-19 treatment in 2021. He had after a month’s treatment moved to Algeria to continue his recovery.

But to pressurise Spain amid this diplomatic row, Morocco had reduced border controls to the Spanish city of Ceuta on the coast of North Africa causing about 10,000 immigrants to enter the country. The shift in Spain’s stance is a likely bid to end for good its long-running dispute with Morocco.

### **What does Spain’s new stance mean for the region?**

Given Spain’s standing as a former colonial power, the country has always been expected to maintain a semblance of neutrality on the matter. However, Spain siding with Morocco publicly and expressing support for limited autonomy under Moroccan sovereignty has disrupted the delicate balance of power in the region.

Algeria has been a committed supporter of the Polisario Front, after it recognised the Sahrawi Arab Democratic Republic in 1976. Over 1.7 lakh Sahrawi refugees live in camps in Algeria's Tindouf province after fleeing Moroccan violence.

#### **What next?**

Spain's gas supply might be in jeopardy, given Algeria has been the country's primary supplier of the same. According to Al Jazeera, the current contract between Algeria and Spain regarding trade of natural gas supplies is long-term, but with the resource being pegged at a price far lower than the market price.

Given Spain's inclination to help Morocco in boosting its gas supplies, Algerian authorities have threatened the Spanish government stating if gas from the country were to be diverted to a third destination, they would be suspended immediately.

On June 9, Algeria also decided to suspend foreign trade of goods and services with Spain, affecting all forms of trade apart from those pertaining to gas supplies.

Spain's exports to Algeria include meat, metals and industrial chemicals. There are fears that the deadlock might cause a spike in inflation in Spain. The European Union has urged the Algerian government to "reverse their decision" and revoke the suspension of the cooperation treaty with Spain.

**Source: The Indian Express**

### **33. The importance of Snake Island, speck of land in the Black Sea, where Ukraine has bombed Russia**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

Ukraine has said it has caused "significant losses" to the Russian military in airstrikes on Zmiinyi Island, also known as Snake Island, in the Black Sea. The hit on the island is believed to be the second major military success using missiles given to Ukraine by the West. The Ukrainians had last week claimed their first successful use of Harpoon anti-ship missiles, British Military Intelligence said on June 21, Reuters reported.

#### **Snake Island strike**

The Guardian quoted from a video address by the Ukraine military's southern operational command: "The island of Zmiinyi was dealt a concentrated blow with the use of various forces and methods of destruction... The military operation continues and requires information silence until it is over."

The Russians on their part claimed it to be "another fake 'victory' of the Ukrainian military".

#### **Strategic island**

Zmiinyi Island, also known as Snake or Serpent Island, is a small piece of rock less than 700 metres from end to end, that has been described as being "X-shaped". It is located 35 km from the coast in the Black Sea, to the east of the mouth of the Danube and roughly southwest of the port city of Odessa.

The island, which has been known since ancient times and is marked on the map by the tiny village of Bile that is located on it, belongs to Ukraine. On February 24, the day Russia launched its invasion, two warships from the Russian Black Sea Fleet, VasilyBykov and Moskva, attacked Snake Island, followed by Russian troops landing on it.

Ukraine has claimed to have launched several attacks on the Russian occupiers of Snake Island even before the latest ongoing operation. Last week, Ukraine said it had sunk a Russian naval tug called SpasatelVasilyBekh, which was delivering personnel and military supplies to the island. Earlier in April, it had sunk the Moskva, the 600-foot flagship of the Black Sea Fleet, which had attacked the island on day 1 of the war.

#### **The Black Sea**

The famed water body bound by Ukraine to the north and northwest, Russia and Georgia to the east, Turkey to the south, and Bulgaria and Romania to the west, which links to the Sea of Marmara through



the Bosphorus and then to the Aegean through the Dardanelles, has traditionally been Russia's warm water gateway to Europe.

For Russia, the Black Sea is both a stepping stone to the Mediterranean as well as a strategic buffer between NATO and itself. Domination of the Black Sea region is a geostrategic imperative for Moscow, both to project Russian power in the Mediterranean and to secure the economic gateway to key markets in southern Europe.

Russia has been making efforts to gain complete control over the Black Sea since the Crimean crisis of 2014. The domination of the Black Sea has been a major Russian objective of the ongoing war, along with the land bridge to connect Russia and Crimea. Cutting Ukrainian access to the Black Sea will reduce it to a landlocked country and deal a crippling blow to its trade logistics.

**Source: The Indian Express**

### 34. Where is Kaliningrad, why is it in focus amid the Russia-Ukraine conflict?

**Relevant for GS Prelims & Mains Paper II; International Issues**



As the Russia-Ukraine conflict rages on, the spotlight is on Kaliningrad, Russia's westernmost region. The region is at the centre of a row after Lithuania decided to ban goods part of EU sanctions from moving through its territory to reach Kaliningrad. Russia wants the ban limited.

As Russia's westernmost federal entity, the Kaliningrad Oblast occupies 15,000 sq km and houses under 1 million people. Russia is divided into 85 such oblasts, or states. It is situated almost 300-km away from mainland Russia, and shares no borders with it.

The end of the Second World War marked an important milestone in Kaliningrad's history. The Potsdam Agreement was signed by America, Britain and the former Soviet Union in 1945 in which Kaliningrad, then known as Königsberg, was ceded to Russia. This was done as the Soviet Union, under Stalin, had already taken control of the East Prussian territory due to its strategic geographic location.

#### **Socio-political, economic landscape**

Left in ruins after a prolonged siege by the Red Army in April 1945, Kaliningrad transformed from the land of the Teutonic Knights to an industrial and commercial centre dealing in lumber, paper making, fishing among others. Kaliningrad is also connected to the naval base of Baltiysk. Home to the deployment



of Moscow's Iskander missiles and the Russian Baltic Fleet, Kaliningrad has been called the Kremlin's "unsinkable aircraft carrier".

A special economic zone with close to no import duties and reduced taxes to facilitate the growth of the economy has been set up in Kaliningrad. Back in 1947, the German population of Kaliningrad was expelled and thousands of Soviet settlers, primarily from Russia and Belarus, were brought in to repopulate the area, making its ethos a unique one. The city still retains bits of its German past through architectural elements and landmarks such as the grave of philosopher Immanuel Kant.

Though Kaliningrad was closed to foreigners till the fall of the USSR in 1991, its proximity to Europe and its shared borders with two NATO and EU members have meant that it has been exposed to several western influences.

On public holidays and weekends, there is traffic and movement at the border as people travel to the neighbouring countries, with Polish port city Gdansk being a popular destination. Following Putin's ban on certain western foodstuffs in 2014 as a retaliation to sanctions, several citizens from Kaliningrad make their way to Lithuania and Poland to purchase such commodities, including coveted cheese parmesan and camembert.

### **Why has Lithuania banned movement of Russian goods?**

The state-owned railway company of Lithuania, the LTG, said it would bar the transport of Russian goods to Kaliningrad, adhering to an EU sanctions list including advanced technology, metals, construction materials and coal. This will not impact the flow of passengers and other cargo, such as fuel. Situated on the coast of the Baltic Sea, Kaliningrad, which is the administrative centre of the Kaliningrad Oblast, receives a significant amount of its supplies from routes in Lithuania and Belarus. Governor of Kaliningrad, Anton Alikhanov, said that around half the goods imported by the region would be affected by this.

Earlier in February, Lithuania had closed its airspace to Russian flights headed to Kaliningrad, meaning such planes had to take a longer route over the Baltic Sea.

In response to the ban, Moscow has said, "Russia will certainly respond to such hostile actions. Their consequences will have a serious impact on the population of Lithuania."

### **What next?**

The Baltic states of Latvia, Lithuania and Estonia are worried the war between Russia and Ukraine may spillover into their territory. The 40-mile Suwalki Gap, forging a connection between Kaliningrad and Belarus, is what they are concerned Russia is seeking to lay claim to. Losing the Suwalki Gap would mean the loss of a land corridor to the rest of the NATO countries.

Moreover, Anton Alikhanov voiced concerns saying the ban was "a most serious violation of the right to free transit into and out of Kaliningrad region". Seeking to pacify citizens, the governor said he would begin talks for more ships and two vessels were already in the process of transporting goods between Saint Petersburg and Kaliningrad.

**Source: The Indian Express**

## **35. Could Germany keep its nuclear plants running?**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

Every domestic energy source, including nuclear power, is under consideration as Germany seeks to fuel its economy and ward off a recession considered likely if faltering Russian gas supplies stop completely.

Former Chancellor Angela Merkel pledged to halt the use of nuclear power after the Fukushima nuclear disaster of 2011 and utility leaders have prepared for the closure of three remaining reactors by the end of 2022.

They say constraints in sourcing fuel rods and expert staffing make keeping them open impossible. The government also said in March that legal, safety and liability issues ruled out maintaining nuclear power.

Some of the Liberals within the Social Democrat-led government and the opposition Conservatives say, however, that given coal, which Germany has been phasing out for environmental reasons, is being reassessed, nuclear should also be reconsidered.

Chancellor Olaf Scholz has so far opposed keeping nuclear running longer.

### **Why the need?**

Following Moscow's invasion of Ukraine, which began on Feb. 24, Germany's has reduced the share of Russia in its gas imports to an estimated 35% from 55%, but is still dependent on it.

While the European Union has sought to reduce its use of Russian energy, Russia has also cut flows through the Nord Stream 1 pipeline to Germany to 40% of capacity. Moscow says Western sanctions are hindering repairs; Europe says this is a pretext to reduce flows.

Whatever the explanation, the energy regulator, the Bundesnetzagentur, has said there will be problems keeping consumers warm and industry functioning. At the same time, surging prices as the markets brace for shortage add to the risk of recession.

Alongside increased use of imported and domestic coal, nuclear power could help to help relieve the power generation sector, of which 15% is generated by gas-fired plants.

Using less gas for power to heat Germany's 41 million households would also free up more for industry, which in many cases needs it as a feedstock.

Utilities E.ON, RWE and EnBW operate respectively Isar 2, Emsland and Neckarwestheim 2 – in total 4,300 megawatts (MW) of nuclear capacity.

Three other remaining reactors closed at the end of last year when six reactors provided 12% of Germany's electricity.

Other energy alternatives for Germany are solar and wind, which rely on the weather and imported liquefied natural gas (LNG) terminals.

The difficulty with LNG is a lack of import capacity and competition on the international market, especially as Freeport LNG, operator of one of the largest U.S. export plants is offline following an explosion earlier this month.

### **What is the symbolism behind German nuclear?**

Nuclear-fired power plants remain unacceptable to the Green Party. It traces its origins to the environmentalist movement of the 1970s, which cited security risks and the unresolved question of nuclear waste.

Restating the usefulness of nuclear power would be a vindication for Merkel critics and populist voices.

### **Would it be legally possible to keep the plants running?**

"An extension by a few years would be legally admissible," Leipzig-based lawyer Christian Raetzke wrote in an article published by nuclear technology association KernD, also citing the climate benefit from near zero-emissions.

A relevant law "is possible and could be quickly passed," he said. Achieving this would still be complex and require parliament to change existing laws, most notably a 2017 deal under which the utilities transferred their decommissioning funds to a public trust.

### **What do the operators say?**

They're against an extension for operational and economic reasons, but defer to the government's lead in the matter.

E.ON Chief Executive Leonhard Birnbaum wrote to staff saying the government had looked into nuclear and found it was not part of the solution. “We must respect this decision,” he said in the letter, which was picked up by the Rheinische Post newspaper on Wednesday.

“It is the right question but unfortunately, it is too late (for German nuclear),” said CEO Markus Krebber at a German industry federation panel on Tuesday.

**Source: The Indian Express**

### **36. Who is Sajid Mir, the 26/11 planner reportedly arrested in Pak?**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

Sajid Mir, chief planner of the November 26, 2008 (26/11) terrorist attacks in Mumbai, has been reportedly taken into custody in Pakistan.

The FBI has designated Mir as a ‘most wanted’ terrorist. It has listed the charges against Mir as conspiracy to injure property of foreign government, providing material support to terrorists, killing a citizen outside the US, aiding and abetting, and bombing of places of public use.

Among the 166 people killed in the Mumbai attacks, six were Americans. The FBI has put a reward of up to \$5 million for information leading to the arrest and conviction of Mir.

#### **Shadowy Lashkar terrorist**

Mir helped direct preparations and reconnaissance for the Lashkar-e-Tayyiba (LeT), the Pakistani terrorist group that carried out the attacks with the help and support of the ISI. He was one of the Pakistan-based controllers of the terrorists while they were in Mumbai.

Not much is known about Mir. US intelligence agencies believe he has been a senior member of the LeT since 2001. From 2006 to 2011, he planned various terrorist attacks on behalf of the group. The FBI believes he conspired to commit a terrorist attack against the Danish newspaper Jyllands-Posten and its employees between 2008 and 2009.

The FBI issued an arrest warrant against him on April 22, 2011.

#### **David Headley’s handler**

Sajid Mir was the handler for Dawood Gilani alias David Coleman Headley, the Pakistani-American double agent who scoped out Mumbai for the Lashkar-e-Taiba terrorist team.

Headley has confessed to his involvement in the Mumbai attacks, and is currently serving a 35-year prison sentence in the US. His co-conspirator Tahawwur Rana is serving a shorter, 14-year sentence.

#### **Current status of Mir**

In 2021, a report by the US State Department said that while Pakistan had taken some steps to counter terror, it still did not stop operations of terrorists like Mir.

The 2020 Country Reports on Terrorism said: “Groups targeting Afghanistan — including the Afghan Taliban and affiliated HQN, as well as groups targeting India, including LeT and its affiliated front organizations, and Jaish-e-Mohammed (JeM) — continued to operate from Pakistani territory. Pakistan did not take action against other known terrorists such as JeM founder and UN-designated terrorist Masood Azhar and 2008 Mumbai attack “project manager” Sajid Mir, both of whom are believed to remain free in Pakistan.”

Pakistan has made some attempts to counter terror financing in the last few years in a bid to be removed from the FATF Grey List, which monitors terror financing and money laundering by countries.

**Source: The Indian Express**

### **37. Pakistan’s economic muddling and the IMF challenge**

## Relevant for GS Prelims & Mains Paper II; International Issues

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.

The new government has already increased the fuel price — in late May and early June. Besides, the new budget has proposed resuming the petroleum development levy. This would mean increased oil and electricity prices, which has the potential to bring people to the streets. Earlier this month, citing "heightened external vulnerability risk" and the "ability to secure additional external financing," the rating agency Moody's downgraded Pakistan's outlook to negative. The government-International Monetary Fund (IMF) talks have remained complicated.

### Will the IMF bail out Pakistan?

The immediate future of Pakistan's economy would depend on IMF resuming its support. Despite an intense discussion between the two, there has not been a breakthrough until now. Pakistan's relationship with the IMF has remained complicated. Though Islamabad has been negotiating with the IMF repeatedly, there has been an economic nationalism, mostly jingoistic, against approaching the IMF in recent years. Imran Khan, the former Prime Minister made statements and fuelled the sentiments against the IMF. After becoming the PM in 2018, he preferred approaching friendly countries (China and Saudi Arabia) and avoiding the IMF. The new government is now back to the IMF; it expects the IMF to release the payments, expand the support programme, and give a longer rope to repay.

The IMF is willing to support Pakistan but has some conditions regarding macroeconomic reforms. This was highlighted in the IMF statement after the last meeting in May 2022. The IMF wants Pakistan "to address high inflation and the elevated fiscal and current account deficits, while ensuring adequate protection for the most vulnerable." The IMF would also not want any deviations from what has been agreed to, especially concerning fuel and power subsidies. 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).

Subsidies are politically sensitive; with elections ahead, it would not be an easy decision. The new budget also has proposed resuming the petroleum tax levy. With the above, the new government expects that the IMF will consider resuming its package.

The IMF may agree to support after a few more promises by the government. But the relief may be less than what Pakistan would hope for. Without macroeconomic reforms, the IMF is less likely to expand its support programme, or provide a longer rope to Pakistan, that Islamabad wants.

### Will Pakistan pursue macroeconomic reforms?

This has been a million-dollar question. Economists within Pakistan and elsewhere have been arguing for macroeconomic reforms, including the independence of financial institutions. It is a political question that the successive governments led by the Pakistan Peoples Party (2008-13), Pakistan Muslim League-N (2013-18) and Pakistan Tehreek-e-Insaf (2018-22) were unwilling to address. Instead, all governments continued to borrow from global institutions and friendly countries.

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. With the present government led by the PML-N and PPP combine facing elections, they are less likely to take any further bold decisions. Successive governments, especially the previous one, would instead look for external bailouts and support from "friendly" countries.

### Will "friendly countries" support Pakistan without preconditions?

Saudi Arabia and China have been supporting Pakistan. Immediately after becoming the Prime Minister, Shehbaz Sharif visited Saudi Arabia to secure a loan. In early May 2022, Riyadh agreed to provide \$8 billion; in December 2021, Imran Khan secured a \$3 billion support. A similar understanding was reached in October 2021. However, Riyadh's support was not unconditional. An editorial in Dawn in November

2021 highlighted that Riyadh can ask Pakistan “to return the money at any time if the two countries have divergent views regarding their relationship or ties with a third country, or some other issue.”

China has been another significant source for Pakistan. Islamabad has been regularly seeking loans from China within and outside the CPEC projects. While the CPEC projects kept expanding and was projected as a panacea for Pakistan’s economic problems, there are many questions over the hidden costs. Pakistan also had to raise the security for the CPEC projects after a series of militant attacks. Pakistan has created a Special Security Division to provide security exclusively for the CPEC projects, increasing the cost further. A larger question is whether Pakistan would divert external aid to pay its debts to China? This has been one of the questions raised by the IMF, way back in 2018, and remains relevant even today.

During the latest Financial Action Task Force (FATF) meeting, there was an understanding that Pakistan has met its requirement. The FATF has agreed to explore the possibilities of removing Pakistan from the grey list.

However, when Pakistan was on the grey list, the IMF had been holding talks with Islamabad. The big two — China and Saudi Arabia — were not constrained by Pakistan’s listing in the FATF. So, the relaxation is less likely to open gates for big investments.

#### **Will Pakistan go the Sri Lankan way?**

The situation was similar in Sri Lanka — the falling value of rupee, declining foreign exchange reserves, differences with the IMF, and rising fuel prices. All of them led to public protests in Sri Lanka against the government. The economic and energy crises in Pakistan have not snowballed into a political storm as it had happened in Sri Lanka during April-May.

#### **Will there be one?**

Politically, unlike in Sri Lanka, there is a coalition at the federal level; the main partners — the PML-N and the PPP — have a strong presence and control over the two big provinces, Punjab and Sindh.

To conclude, Pakistan’s economic and energy situation is serious and demands bold decisions. The situation will worsen in the short term before it gets better, but this has been Pakistan’s history in the last 75 years. With a relief from the IMF, after a protracted negotiation, a few band aids, and the U.S. intervention, Islamabad may muddle through this time as well, until the next crisis.

#### **Source: The Hindu**

### **38. What is Roe v. Wade which the US Supreme Court overturned, and why is it significant?**

#### **Relevant for GS Prelims & Mains Paper II; International Issues**

The United States Supreme Court overturned by a 6-3 majority ‘Roe v. Wade’, the court’s landmark 1973 judgment that made abortion a constitutional right. The decision is expected to transform life for women in America. Near total bans on abortion will come into effect in about half of the country’s states.

#### **What is ‘Roe v. Wade’?**

The case is sometimes referred to simply as “Roe”, the listed name of the 22-year-old plaintiff, Norma McCorvey. ‘Wade’ was the defendant Henry Wade, the Dallas County (Texas) district attorney at the time.

‘Roe’ struck down laws that made abortion illegal in several states, and ruled that abortion would be allowed up to the point of foetal viability, that is, the time after which a foetus can survive outside the womb.

Foetal viability was around 28 weeks (7 months) at the time of the ‘Roe’ judgment nearly 50 years ago; experts now agree that advances in medicine have brought the threshold down to 23 or 24 weeks (6 months or a little less), and newer studies show this could be further pegged at 22 weeks. An average pregnancy lasts about 40 weeks.

Foetal viability is often seen as the point at which the rights of the woman can be separated from the rights of the unborn foetus. The length of a pregnancy is commonly calculated from the start of a person’s



most recent menstrual period. Since many people identify pregnancy only after the sixth week, pre-viability timelines leave women with very little time and opportunity to make a decision to abort.

Abortion laws across the world rely on this metric but those opposing abortions argue that this is an arbitrary timeframe that legislation and the court in 'Roe' adopted.

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### **What has the Supreme Court said on Roe v Wade?**

The judgement has rejected 'Roe' as "egregiously wrong from the start", and held that both 'Roe' and 'Casey' — another landmark abortion judgment of the court from 1992 that reaffirmed the central tenet of 'Roe', that women have the right to terminate pregnancies up to the point of foetal viability — "must be overruled".

The judgement has been given in "Thomas E Dobbs, State Health Officer of the Mississippi Department of Health vs. Jackson Women's Health Organisation", popularly known as the "Mississippi case".

The court held that, "It is time to heed the Constitution and return the issue of abortion to the people's elected representatives". Thus, laws passed by legislatures would decide the abortion rights of women.

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

In 2018, Mississippi state legislature banned most abortions after 15 weeks — much before foetal viability, and sooner than was allowed by 'Roe' — throwing a direct challenge to the 1973 judgment.

The then last remaining abortion clinic in the state, Jackson Women's Health Organisation, which provided abortion services up to 16 weeks of pregnancy, challenged the law in US District Court, which struck down the law, ruling that it violated the constitutional rights of women. This law was also blocked by Circuit court (level of judiciary after District court, but lower than Supreme Court).

In March, 2019, then Republican Governor Phil Bryant signed the so-called "heartbeat" abortion law, an even more restrictive measure that banned most abortions once foetal cardiac activity could be detected — which is about six weeks. The heartbeat law said that physicians who performed an abortion after a foetal heartbeat was detected could have their medical licences revoked. The law made no exceptions for pregnancies caused by rape or incest. The heartbeat law was also blocked by District judge. This Circuit court also supported the District court judgement.

### **Matter before Supreme Court**

The 2018 Mississippi law — which banned abortion if “the probable gestational age of the unborn human” was determined to be more than 15 weeks, except in cases of medical emergencies or “a severe foetal abnormality” — reached the Supreme Court in December 2021. The Supreme Court gave its judgement on June 24.

### **Why is the decision of the Supreme Court important?**

The issue of abortion has sharply split opinion among conservatives and liberals in the US for decades.

Until a few years ago, a challenge to ‘Roe v. Wade’ would have been unlikely to succeed, but the changes in the character of the Supreme Court following the appointments of conservative judges during the Donald Trump presidency gave rise to a fresh spurt of litigation around the issue.

The clear conservative majority in the Supreme Court gave the conservatives their best chance for decades to overturn ‘Roe’.

### **What will happen in the US now?**

Since there is no federal law protecting the right to abortion in the US, the overturning of ‘Roe’ leaves abortion laws entirely up to the states. Conservative states will likely bring back restrictive laws that prohibited abortions before the Supreme Court set the foetal viability standard in 1973.

The New York Times had earlier estimated that legislatures in 22 states would “almost certainly” move to ban or substantially restrict access to abortion, and poorer women would bear the brunt in most cases. Activists and progressive politicians have said that the availability of clinics, insurance payouts, are crucial issues that form part of the struggle of many women even with the backing of ‘Roe’. With this legal backing gone, access could become even harder.

### **What is the position on abortion in India?**

India’s Medical Termination of Pregnancy Act, 1971 allows abortion until 20 weeks of pregnancy. Through an amendment in 2021, the ceiling for abortions was raised to 24 weeks, but only for special categories of pregnant women such as rape or incest survivors, that too, with the approval of two registered doctors.

In case of foetal disability, there is no limit to the timeline for abortion, but that is allowed by a medical board of specialist doctors set up by the governments of states and union territories.

In approximately 16 countries around the world, abortion is entirely prohibited and even criminalised. But several Catholic majority nations such as Ireland and Mexico have decriminalised abortion in the last decade.

**Source: The Indian Express**

## **39. 14th BRICS Summit**

### **Relevant for GS Prelims & Mains Paper II; International Organisations**

Prime Minister Shri Narendra Modi led India’s participation at the 14th BRICS Summit, convened under the Chairmanship of President Xi Jinping of China on 23-24 June 2022, in a virtual format. President Jair Bolsonaro of Brazil, President Vladimir Putin of Russia, and President Cyril Ramaphosa of South Africa also participated in the Summit

### **Tangible outcomes of BRICS**

BRICS 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.

Indeed, ever since the first summit in Yekaterinburg in 2009, BRICS has had more than its fair share of naysayers, particularly in the West, and has been derided as a talk shop.

### **14th Summit Highlights:**

### **Common Approach**

1. Representation in Global Governance: 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”.

2. 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.

### **Differences**

That points to another summit take-away: 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.

1. Expansion of UNSC: India and Brazil have made common cause on pushing for an expanded UN Security Council, yet China has suggested it is not in favour of a permanent seat for India.

2. Terrorism: 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.

3. Ukraine conflict: On Ukraine, the bloc affirmed a commitment to respect 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.

**Source: The Hindu**

## **40. India must seek the extradition of Sajid Mir for his role in the Mumbai attacks**

**Relevant for GS Prelims & Mains Paper II; Bilateral Relations**

### **Sajid Majeed Mir conviction in Pakistan**

Reports in Pakistan’s newspapers, that a Pakistani court has convicted Sajid Majeed Mir, one of the men who planned the Mumbai 26/11 attacks, on terror financing charges, is welcome proof that the search for each of the masterminds must never be given up on.

In the case of Mir, Pakistan’s security agencies had gone so far as to falsely declare him “dead”. He was reportedly sentenced to more than 15 years in jail and is serving his term in a Lahore jail.

### **Terrorism connection**

Mir, the LeT’s former deputy chief of “international operations”, has been wanted for his role in recruitment for the 26/11 attacks, being the handler for David Headley, who carried out the reconnaissance for the LeT during several visits to India, and for being in the Karachi “control room” during the Mumbai siege. Headley named Mir in his deposition to a U.S. court, after he was given a “plea bargain” by the U.S. government, as well as in depositions via video link for the 26/11 trial in India. Mir is also wanted for LeT conspiracies to attack a Danish newspaper accused of publishing blasphemous cartoons and bomb a nuclear installation in Australia. He was also convicted by a French court for recruiting LeT operatives, and is believed to have also recruited terror-volunteers in the “Virginia Paintball Jihad” case in the U.S.

## **FATF meetings**

The timing of Mir's conviction appears to be linked to the final stages of Pakistan's grey listing at the FATF this June, that voted to allow on-site visits in Pakistan with a view to de-listing it in the next few months. While Mir is not actually on the UN Security Council's 1267 list of terror-designated individuals that the FATF is mandated to pursue, the West has frequently brought his name up at FATF proceedings in demanding that Pakistan successfully convict leaders of terrorist groups.

### **Need to extradite to India**

If Mir is in fact behind bars, New Delhi must move quickly to demand his extradition to stand for trial in India. Admittedly, this is a virtually impossible task, given the poor state of bilateral ties. New Delhi must also rectify the error in not pursuing Mir's addition to the UNSC list thus far, and launch a concerted international effort for Mir to be prosecuted for the number of terror attacks he has been involved in — not just for terror financing. As with Hafiz Saeed, Zaki-ur-Rahman Lakhvi and other LeT members, it is necessary to keep the spotlight on Mir, given the predilection of Pakistan's legal authorities for reversing convictions and reducing the sentencing of terrorists once the heat from international agencies reduces. This will be particularly important, especially as Pakistan is expected to receive a full reprieve at the FATF in October, and it must be made clear that the Government will continue to pursue the legal process against each of the men behind the Mumbai attacks, until they are brought to justice.

**Source: The Hindu**

## **41. What is the US-led 'Partners in the Blue Pacific' initiative to counter China?**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

Amid China's aggressive push to increase its Pacific sphere of influence, the US and its allies — Australia, New Zealand, Japan and the United Kingdom — have launched a new initiative called 'Partners in the Blue Pacific' for "effective and efficient cooperation" with the region's small island nations. The geostrategic competition in the region has intensified of late after China took concrete steps to push for a sweeping, common cooperation agreement with 10 Pacific nations.

### **What is Partners in the Blue Pacific (PBP) initiative?**

The PBP is a five-nation "informal mechanism" to support Pacific islands and to boost diplomatic, economic ties in the region. Announced on June 24, it speaks of enhancing "prosperity, resilience, and security" in the Pacific through closer cooperation. It simply means that through the PBP, these countries — together and individually — will direct more resources here to counter China's aggressive outreach.

The areas where PBP aims to enhance cooperation include "climate crisis, connectivity and transportation, maritime security and protection, health, prosperity, and education".

### **How is China trying to transform its ties in the Pacific?**

As China signed a security pact with Solomon Islands in April, the deal flagged serious concerns about the Chinese military getting a base in the southern Pacific, close to the US island territory of Guam, and right next to Australia and New Zealand.

The deal, which boosted Beijing's quest to dominate crucial shipping lanes criss-crossing the region, rattled the US and its allies. It also triggered urgent moves to counter China's growing Pacific ambition amid a power vacuum fuelled by apparent lack of US attention.

But Beijing followed up on that win with its Foreign Minister Wang Yi undertaking a multi-nation tour to push 10 Pacific nations to endorse a "game-changing" agreement called the "Common Development Vision". The draft agreement, spoke about China wanting to work with "traditional and non-traditional security," and expand law enforcement cooperation with these countries.

This intention became even more clear on June 27, as the ABC reported that China was trying to arrange a virtual meeting between Wang Yi and the leaders of 10 Pacific Island states on the sidelines of the high-level Pacific Islands Forum gathering in Fiji in mid-July.

China and the US are among 21 PIF dialogue partners, but this year the regional forum had decided not to engage with the dialogue partners in-person during the Fiji meet.

### **What is being done by the US and its allies to counter China?**

Before launching the PBP this month, the US and its partners started the Indo-Pacific Economic Framework for Prosperity (IPEF), a trade-boosting play in the region with 13 nations — Australia, Brunei, India, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Thailand, Fiji and Vietnam — as partners.

Away from the Pacific, the G7 on Monday (June 27) announced a plan — Partnership for Global Infrastructure and Investment (PGII) — to rival China's Belt and Road Initiative by promising to raise \$600 billion to fund development projects in low and middle-income countries.

### **Why is the Pacific region strategically important?**

In its 2019 strategy report, the US Department of Defence called the Indo-Pacific the “single most consequential region for America's future”. It said: “Spanning a vast stretch of the globe from the west coast of the United States to the western shores of India, the region is home to the world's most populous state (China), most populous democracy (India), and largest Muslim-majority state (Indonesia), and includes over half of the earth's population.

“Among the 10 largest standing armies in the world, 7 reside in the Indo-Pacific; and 6 countries in the region possess nuclear weapons. Nine of the world's 10 busiest seaports are in the region, and 60 percent of global maritime trade transits through Asia, with roughly one-third of global shipping passing through the South China Sea alone.” The US has long maintained a balance of power in the region with its hub-and-spoke system where America is the hub and its allies are spokes whose security is guaranteed by the US military power.

China, analysts believe, is trying to make its own version of the same system, even as it insists the sole aim of the US policy of having overwhelming influence in the region is to contain Beijing's rise.

**Source: The Indian Express**

## **42. What is the Iskander-M missile system Russia has promised to arm Belarus with?**

### **Relevant for GS Prelims & Mains Paper II; International Issues**

Russia has promised its ally Belarus delivery of nuclear-capable missiles in the coming months to take on an “aggressive” West. Russian President Vladimir Putin made the announcement as Belarusian leader Alexander Lukashenko arrived in Moscow. In a televised broadcast, Putin said: “In the coming months, we will transfer to Belarus Iskander-M tactical missile systems, which can use ballistic or cruise missiles, in their conventional and nuclear versions.”

What is the Iskander-M missile system, and what is Russia trying to achieve by offering them to Belarus?

### **What is the Iskander-M missile system?**

Codenamed “SS-26 Stone” by NATO, Iskander-M is a term used by Russia to define both the transporter-erector launch system and the short-range ballistic missile (SRBM) it fires. The system

can also fire ground-launched cruise missiles (GLCMs) – the SSC-7 and the SSC-8. The Iskander-M system has been exclusively used by the Russian military, whereas Iskander-E is the one meant for export.

### **What is the missile's capability and range?**

The Iskander-M missile has a range of 500 km and it can carry a payload of up to 700 kg. It is capable of carrying both conventional and nuclear warheads. The conventional warheads can be equipped with include cluster bombs, electromagnetic pulse (EMP) warheads and bunker-buster munitions, according to US-based Missile Defence Advocacy Alliance (MDAA). The export variant, Iskander-E, has a range of 280 km with a reduced 480 kg payload.

### **When was it inducted and first used in combat?**



While the Iskander system was inducted by Russia in 2006, its development picked pace in the late 1980s after the “Oka” SRBM or the OTR-23 was banned under the Intermediate Nuclear Forces Treaty.

The Oka was Russia’s first attempt to replace the Soviet Scud missiles. Iskander was the second. Russia first used the Iskander in combat in Georgia in 2008.

US-based think tank, the Center for Strategic and International Studies (CSIS), says that the Iskander missiles are designed to confuse missile defences by flying on a low trajectory and manoeuvring in flight to strike targets within 2 to 5 metres accuracy.

#### **What does its proposed delivery to Belarus mean?**

Russia has made the announcement at the time when the G-7 meets in Germany. It is also one more time that Putin has raised nuclear weapons as a sort of warning to the West against climbing the escalation ladder in the Ukraine war.

In the past too, Russia has used the Iskander system to project power against Europe, more so because of its ability to be fitted with tactical nuclear warheads. In 2012, Moscow said that the weapon could be used to target Europe’s missile defences. The Iskander system has already been deployed in Kaliningrad, a Russian exclave, from where it can be fired to target NATO forces in Poland, the Baltic States, and Sweden.

**Source: The Indian Express**

### **43. The G7’s infrastructure investment plan to counter China’s Belt and Road Initiative**

#### **Relevant for GS Prelims & Mains Paper II; International Organisations**

The G7 countries, who are meeting during the ongoing Leaders’ Summit in Germany, have officially launched the Partnership for Global Infrastructure and Investment (PGII), a joint initiative to fund infrastructure projects in developing countries. The project, launched on June 27, is being seen as the bloc’s counter to China’s ‘Belt and Road Initiative.

US President Joe Biden said on Twitter, “Collectively, we aim to mobilise nearly \$600 billion from the G7 by 2027 to invest in critical infrastructure that improves lives and delivers real gains for all of our people.”

#### **What is G7’s PGII?**

The infrastructure plan was first announced in June 2021 during last year’s G7 Summit in the UK. Back then, US President Joe Biden had called it the Build Back Better World (B3W) framework. However, it did not register much progress and details regarding the plan’s time period or funding source were unclear.

This time around, the initiative was officially launched as PGII.

Essentially, G7 countries — the US, Canada, Italy, the UK, France, Germany, and Japan — and the EU have noted the infrastructure projects being undertaken and funded by China at a global level and decided to present their alternative mechanism for it.

The stated purpose of both the PGII and the BRI is to help secure funding for countries to build critical infrastructure such as roads, ports, bridges, communication setups, etc. to enhance global trade and cooperation.

However, the G7 say their initiative is meant to be transparent, focused on building climate change-resilient infrastructure, and help in achieving objectives of gender equality and health infrastructure development.

#### **Where are funds being directed under the plan?**

In India, the US International Development Finance Corporation, the development bank of the country, will invest up to \$30 million in the Omnivore Agritech and Climate Sustainability Fund 3, described as “an impact venture capital fund that invests in entrepreneurs building the future of agriculture, food systems, climate, and the rural economy,” as per a statement by the White House.

The fund will invest in companies that “increase food security and promote both climate resilience and climate adaptation in India, as well as improve the profitability and agricultural productivity of smallholder farms.”

Apart from India, projects have been announced in countries across West Africa, Southeast Asia, and South America.

### **What has been China’s response to the PGII announcement?**

When asked about the PGII, Chinese foreign ministry spokesman Zhao Lijian, according to Reuters, said: “China continues to welcome all initiatives to promote global infrastructure development.”

“We believe that there is no question that various related initiatives will replace each other. We are opposed to pushing forward geopolitical calculations under the pretext of infrastructure construction or smearing the Belt and Road Initiative,” he added.

### **What is China’s BRI?**

China began the Belt and Road Initiative in 2013 under its President Xi Jinping. It aims to revive the ancient trade routes crossing to and from China—from Rome in Europe to East Asia.

Under this, the Chinese government helped in providing loans for infrastructure projects to various countries, and in many cases, Chinese companies were awarded contracts for carrying out the work. This helped China mark its footprints at a global level.

However, China was criticised in the West and by some other countries for providing unsustainable debts to countries that will be unable to repay them. According to a 2019 World Bank report, among the 43 corridor economies for which detailed data was available, 12 could face a situation where debts were not sustainable, which could lead to public assets being handed over to foreign contractors or China itself.

The report adds if issues of environmental degradation, high debts, and corruption are successfully countered and the BRI is fully implemented to its potential, it could increase trade between 1.7 and 6.2 percent for the world, increasing global real income by 0.7 to 2.9 percent.

In 2019, Chinese Foreign Minister Wang Yi said at a press conference that since the launch of the BRI, “the trade volume between China and countries joining the BRI has surpassed 6 trillion US dollars, with more than 80 billion US dollars of Chinese investment in those countries,” creating nearly 300,000 jobs for local people.

India opposed the BRI as it included the China-Pakistan Economic Corridor, which connected Kashgar in China with the Gwadar port in Pakistan via Pakistan-occupied Kashmir. India’s External Affairs Minister S Jaishankar said in 2021: “Any serious connectivity initiative must be transparent and conform to the most basic principle of respect for sovereignty and territorial integrity.”

### **Is there any overlap between the two schemes?**

While the US has been critical of BRI, other countries of the G7 have had varying responses to it. Italy became the first G7 member to be a part of the BRI in 2019, and the British finance minister Philip Hammond described the policy as a “vision” in the same year, though it is not officially a part of the BRI.

“The UK is committed to helping to realise the potential of the BRI and doing so in a way that works for all whose lives are touched by the project,” he said, as reported by Reuters.

Germany and France, while not directly participating in the BRI, have also partnered with China in building rail networks and other projects for connectivity.

**Source: The Indian Express**

## **44. How a G-7 ban on Russian gold would work**

**Relevant for GS Prelims & Mains Paper II; International Issues**



Russia appears to have defaulted on its foreign debt for the first time since the 1917 Bolshevik Revolution, and the US and its allies are taking aim at the former Soviet Union's second largest export industry after energy — gold.

On Tuesday, the Group of Seven nations will formally announce a ban on Russian gold imports in the latest round of sanctions over Vladimir Putin's invasion of Ukraine.

The US says Russia has used gold to support its currency as a way to circumvent the impact of sanctions. One way to do that is by swapping gold for a more liquid foreign exchange that is not subject to current sanctions.

Some experts say since only a few countries are implementing the gold ban, the move is largely symbolic, while others, including those in the administration, say a ban on imports of Russian gold will target its ability to interact with the global financial system.

#### **How a G-7 Russian gold ban would work:**

##### **How much gold does Russia have?**

Secretary of State Antony Blinken told CNN on Sunday that since gold is Russia's second most lucrative export after energy and nearly 90% of the revenue comes from G-7 countries, "cutting that off, denying access to about \$19 billion of revenues a year, that's significant."

Russia began increasing its gold purchases in 2014, after the US issued sanctions on Russia for Putin's invasion of Crimea. Now the country holds \$100 billion to \$140 billion in gold reserves, which is roughly 20% of the holdings in the Russian Central Bank, according to US officials.

##### **How would a gold ban work?**

While Russia will still be able to sell gold to other countries outside the Group of Seven jurisdiction, it will "impact the ability of Russia to earn export revenue," says Chris Weafer, a Russian economy analyst at consulting firm Macro-Advisory.

In practice, it could result in civil or criminal penalties on people who come from countries that have agreed on a gold ban from Russia.

In practice, it could result in secondary sanctions on people who trade with Russia as well as the seizure of gold exports to countries that have participated in the ban.

Swiss customs officials on Friday said they are tracking roughly three tons of Russian gold — worth more than \$202 million — that entered Switzerland from the United Kingdom last month as they monitor potential violations of economic sanctions against Russia.

##### **What other measures have been made on gold trade?**

In March, the US and its allies moved to block financial transactions with Russia's Central Bank that involve gold, aiming to further restrict the country's ability to use its international reserves. That came after calls from members of Congress to restrict Russia's gold trade.

The Treasury Department issued guidance that American individuals, including gold dealers, distributors, wholesalers, buyers, and financial institutions, are generally banned from buying, selling or facilitating gold-related transactions involving Russia and the various parties that have been sanctioned.

##### **How will this move punish Russia?**

Like the thousands of sanctions imposed on Russia through a variety of means, the gold import ban is meant to isolate Russia economically, starve its funding arm and prevent money-laundering.

A White House official told reporters the ban is yet another way to block off paths between the Russian economy and the broader global financial system.

**Source: The Indian Express**

#### **45. The craft traditions behind PM Modi's special gifts for G7 leaders**

## Relevant for GS Prelims & Mains Paper II; International Relations

As PM Narendra Modi met world leaders invited for the **G7 Summit** in Germany over the weekend, he presented them with a **range of art and craft pieces** sourced from various parts of the country, with many of them coming from Uttar Pradesh. We look at who was presented what and the specific craft traditions behind those pieces.

### Black Pottery pieces for Japanese PM

The Black Pottery of Nizamabad in Uttar Pradesh uses a special technique to bring out black colours. This involves ensuring that there is no scope for oxygen to enter the oven as pottery pieces are kept inside and the heat level remains high. The presence of oxygen can turn the pottery red. The glaze on the pottery comes from the high zinc content of the soil and the layer of mustard oil applied before firing the pottery. It comes with and without inlay. The Japanese PM was presented with a set of three such pieces.



*Black Pottery gifted by PM Narendra Modi to his Japanese counterpart*

Dokra art is non-ferrous metal casting art that uses the lost-wax casting technique. This technique has been in use for over 4,000 years in India, and is still practised by artisans in central and eastern India. It is in great demand in domestic and foreign markets because of its primitive simplicity, folk motifs and forceful form.

An art-piece from Chattisgarh, a figure of 'Nandi – The Meditative Bull', was presented to the Argentinean president. According to Hindu mythology, Nandi is considered as the vehicle (mount) of Lord Shiva. For South Africa's President, the art-piece was based on the Ramayana theme.

### Gulabi Meenakari brooch, cufflink set to US president

Gulabi Meenakari is a GI-tagged art-form of Varanasi in Uttar Pradesh. A piece of pure silver is moulded into a base form, and a chosen design is embossed in the metal. The embossed shapes are then filled with great dexterity with crushed meena glass mixed with natural anardana (pomegranate seeds) glue. This is then fired to transform into a translucent coloured patch. What distinguishes it from other meenakari is the layer of white meena which acts as an opaque canvas for hand-painted motifs. The paint is fired layer by layer for permanence. The motifs primarily use the colour pink (Gulabi), which lends its name to the craft. These cufflinks were prepared for the US president with a matching brooch for the First Lady.

### Hand painted tea set to UK PM

A tea set from Bulandshahr district was presented to the British PM, with its base form hand painted and fired at 1,200 degrees Celsius. In this craft form, the embossed outlines are laid on manually with a mehendi cone and require an extremely confident hand. Each shape is then separately filled with colour and the entire cup is fired again. The crockery was outlined with platinum metal paint in honour of the Queen's platinum jubilee being celebrated this year.

### Itr bottles in Zardozi box to French president

Crafted in Lucknow, the Zari Zardozi box was hand embroidered on khadi silk and satin tissue in colours of the French National Flag. The motifs were traditional Indo-Persian, lotus flowers hand-embroidered with metal wire in blue, and a pendant used in Kashmiri carpets and motifs from

Awadhi architecture. This box contained a selection of fragrances from Kannauj, produced using the 5,000-year-old traditional deg and bhapka method.

The scents included Attar Mitti — a unique attar where petrichor, the fresh odour of first rain coming on earth is captured over sandalwood oil; Attar Shamama, capturing the essence of herbs and spices of age-old Vedic formulation; Attar Gulab — having odour most close to natural rose petal; Exotic Musk, a modern fragrance crafted with jasmine, rose and musk; and Garam Masala, to celebrate the French appreciation for good cuisine.



*Itr bottles in Zardozi box gifted to the French president*

#### **Marble inlay table top for Italy's PM**

Pietra Dura or marble inlay has its origins in opus sectile — a form of Pietra Dura popularised in the ancient and medieval Roman world where materials were cut and inlaid into walls and floors to make a picture or pattern.

This particular table top from Agra was made of semi-precious stones with gradients in their colour, making it very similar to Italian marble inlay work.

To make this art work, a predefined pattern is engraved on the marble item. Small pieces of semi-precious stones are then cut delicately and then slipped into grooves.

#### **Metal Marodi carving matka for German Chancellor**

This nickel coated, hand-engraved brass vessel is a masterpiece from Moradabad, the “brass city” of Uttar Pradesh. After casting the pot, the design that has to be engraved is first sketched on paper. An outline of the whole design is done with a fine engraving tool hammered with a wooden block. This particular type of engraving is called Marodi, owing to the curved lines used to fill up the negative space in this design. The importance of the engraving craft of Moradabad is in its ability to elevate items of everyday use into objects of intrigue.

#### **Moonj baskets, cotton durries for Senegal's president**

In Senegal, the tradition of hand weaving is passed down from mother to daughter, adding to its importance as a vehicle for cultural expression and family livelihood – driven by strong women. The same is done in Prayagraj, Sultanpur and Amethi districts of the state of Uttar Pradesh, where Moonj or Saccharum Bengalense plant is now acting as a sustainable source of income for rural women. Like Senegalese baskets, Moonj craft also utilises bright, jewel tone colours. This particular piece is by a master craftswoman from Prayagraj. The cotton durries are handwoven in Sitapur.

#### **Lacquerware Ram Durbar to Indonesian president**

The GI-tagged lacquerware art-form has its roots in the temple town of Varanasi. The process is a tedious one, requiring assembly of a base wooden form with separate limbs, which is covered layered by layer with distemper or lac-based paint. True to their city of origin, lacquerware items always come in bright, jewel tones. This particular piece is made of Goolar wood. The principal characters in the artwork are Lord Ram, Sita, Hanuman and Jatayu. It is believed that the Indonesian version of Ramayana was written during the Medang Kingdom (8th to 11th century) in Central Java. The story of Ramayana was narrated to the people through shadow puppetry (wayangkulit and wayangpurwa).





*Lacquerware Ram Durbar for Indonesian president*

#### **Hand-knotted Kashmiri silk carpet to Canada's PM**

The hand-knotted silk carpets are famous all over the world for their softness and craftsmanship. Each Kashmiri silk carpet is considered to be a never-before-seen piece of hand-made art. The Kashmiri silk carpets, made predominantly in Srinagar, are hand-knotted on the warp threads, one at a time, in accordance to a strict code of colours in the order of their appearance in the pattern. The knotted product is clipped with shears to smoothness, and then treated with several brightening processes.

**Source: The Hindu**

**46. China's interventions in the Horn of Africa: Is Beijing moving away from its policy of non-intervention in Africa? How are different African states reacting to these developments?**

**Relevant for GS Prelims & Mains Paper II; International Issues**

#### **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, the Sino-African Declaration on Climate Change and the Declaration of the Eighth Ministerial Conference of FOCAC.

During the COVID-19 pandemic, China donated over 3,00,000 vaccines to Ethiopia and Uganda, and 2,00,000 vaccines to Kenya and Somalia. Sudan and Eritrea have also benefited from China's vaccine diplomacy.

Beijing has also initiated the "2035 vision for China-Africa cooperation"; it aims to transform the health sector, alleviate poverty, promote trade and investments, and expand digital innovation. The vision also focuses on green development, capacity building, improving people-to-people exchanges and facilitating peace and security in the continent.

### **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. China accounts for 67% of Kenya's bilateral debt. In 2022, China promised to provide \$15.7 million assistance to Eritrea.

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. South Sudan, a source for petroleum products, has had continued Beijing investment in the industry since the latter's initial entry in 1995.

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.

### **Has the Horn of Africa been welcoming of China's presence?**

Africa has been keen on interacting with China. Despite the wariness surrounding China's projects in Africa, the governments have mostly been welcoming. When conflict broke out in Tigray in November 2020, Addis Ababa appreciated Beijing for respecting Ethiopia's sovereignty. In December 2021, Kenya defended Chinese projects in the country; President Uhuru Kenyatta maintained that China-Africa partnership was mutually beneficial. In November 2021, Uganda's President Yoweri Museveni suggested that China give access to its markets, in a fashion similar to the U.S. or Europe.

Similarly, in May 2022, the East African Community (EAC) Secretary General Peter Mathuki said the EAC would welcome Chinese investors to work in East Africa for the prosperity of the people.

### **Is China's new focus on peace in the Horn a shift from Beijing's principle of non-intervention?**

Peace and stability is a mutual requirement for China and Africa. For Africa, Chinese investments could lead to stable environments which could help the countries achieve their peace and development objectives. For China, conflict in the region comes at a heavy cost. In Ethiopia, when the conflict broke out, over 600 Chinese nationals, working on different projects, were evacuated, putting several investments at risk. From a trading perspective, the region plays a significant role in achieving the objectives of the China-Africa Cooperation Vision 2035.

China's move towards peace in Africa indicates a shift in its principle of non-intervention. It is China's message that its presence in the continent has a larger objective and is not likely to be limited to the Horn of Africa. This includes an aim to project itself as a global leader and boost its international status. Further, the recent developments imply that China is focussing on a multifaceted growth in the continent for the long run. For Africa, China's presence is an alternative to the European powers, many of whom are facing criticism from African governments. Further, African governments, which do not conform to Western standards of democracy, interact better with powers like China and Russia.

**Source: The Hindu**

#### **47. The G7 plan to counter the Belt and Road initiative: How is the Partnership for Global Infrastructure and Investment going to enhance development in low and middle income countries?**

**Relevant for GS Prelims & Mains Paper II; International Issues**

On June 26, U.S. President Joe Biden along with his G7 allies unveiled the ambitious Partnership for Global Infrastructure and Investment (PGII), announcing the collective mobilisation 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 in Asia, Europe, Africa, and Latin America.

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

The West has been sceptical 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. PGII is therefore, a relaunch of Mr. Biden's B3W plan.

The factsheet put out by the White House described the PGII as 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 mobilise \$600 billion by 2027 to invest in sustainable and quality infrastructure projects in developing countries, including India, and strengthen global supply chains. Mr. Biden announced the country's pledge to channel \$200 billion in grants, public financing, and private capital over the next five years for the PGII. European Commission President Ursula von der Leyen declared Europe's pledge of mobilising 300 billion euros for the partnership over the same period.

#### **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.

Mr Biden announced the flagship projects for PGII that have either commenced or are set to begin. The U.S International Development Finance Corporation (DFC), along with the G7 nations and the EU are disbursing a \$3.3 million technical assistance grant to build a vaccine facility in Senegal, having a potential yearly capacity of manufacturing "millions of doses of COVID-19 and other vaccines". Ms. Leyen said that the European Commission's Global Gateway initiative is also undertaking projects supporting the PGII such as mRNA vaccine plants in Latin America and a fibre-optic cable linking Europe to Latin America among others.

In India, the U.S. DFC will invest up to \$30 million in Omnivore Agritech and Climate Sustainability Fund 3, an impact venture capital fund that invests in entrepreneurs building the future of agriculture, food systems, climate, and rural economy in India.

### **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 Stanley 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 mobilised 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. Studies have shown that 89% of the contractors participating in BRI projects are Chinese. According to Engineering News Record's 2019 data, seven out of the world's 10 biggest construction contractors based on foreign revenue were Chinese. Large number of Chinese workers are employed in BRI projects; for instance 1.82 lakh were working in Africa by late 2019.

While G7 leaders emphasised '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. Sri Lanka, for instance, had to cede its key Hambantota Port on a 99-year lease to China. Mr. Biden has said meanwhile, that PGII aims to build projects through grants and investments.

A PGII project has already been announced in India but India had opted out of China's BRI, being wary of Beijing's aim to increase its influence in the Indian Ocean Region by roping in Pakistan as a major BRI recipient.

**Source: The Hindu**



### **48. The significance of Sajid Mir's conviction in Pakistan**

#### **Relevant for GS Prelims & Mains Paper II; Bilateral Relations**

Sajid Mir, described as the Lashkar-e-Taiba's (LeT) "project manager" of the 26/11 Mumbai attacks of 2008, was convicted on charges of terror financing by a Pakistan anti-terrorism court earlier this month. This sentencing has largely been seen as a move by Pakistan to get itself off the Financial Action Task Force's (FATF) grey list.

#### **Who is Sajid Mir and how has he been arrested and convicted?**

The conviction of Sajid Mir, described by the U.S. as the mastermind behind the 2008 Mumbai terror attacks, is the most significant action taken by Pakistan against Mir. The U.S. State Department's 2020 review of global terrorism, released in December 2021, specifically pointed out that Pakistan did not take steps to prosecute Mumbai "mastermind" Mir, and Masood Azhar, founder of the Jaish-e-Muhammad (JeM). Placing Mir and Azhar in the same category is testimony to the importance of the two individuals. Mir was also responsible for recruiting terrorists for Lashkar's international operations, which brought him under the American radar.

In November 2020, Lashkar chief Hafiz Saeed was sentenced to jail time on multiple counts of terror funding; convictions that were reported in both the Pakistani and international press. However, Mir's sentencing was an altogether different affair. "It all happened so quietly that no one came to know about such an important court verdict in such a high-profile case, except for a very brief report in one of the newspapers..." the Dawn reported on June 25. Another Pakistani newspaper, The News, reported that Mir



had been “missing” since the November 2008 terror strike on Mumbai, and that “rumours of his death were spread for some time”.

Far from being missing or dead, Mir’s conviction indicates that Pakistan was aware of his whereabouts. Given the close links between Lashkar and Pakistan’s intelligence agencies, Mir’s conviction relieves some of the pressure building up on Pakistan to conform to international norms for the moment. It also shows that Pakistan protects Lashkar “assets” as its own and proceeds against them only when forced. The shadowy nature of Mir’s arrest and conviction also implies that only Pakistan’s intelligence agencies were/are aware of his location.

#### **What was Sajid Mir’s role in the Mumbai terror strikes?**

According to the U.S. treasury department in 2012, Mir “trained and provided guidance to the [10] operatives involved in the attacks and directed the execution of hostages taken during the operation”. The terror leader also “directed the pre-operation target surveillance conducted by LeT operative David Coleman Headley for the attacks”. Mir, a senior member of the Lashkar since 2001, was in charge of the LeT’s international operations. He was also personal secretary to Zaki-ur-Rehman Lakhvi, known to have been the military chief of the Lashkar, who has been in and out of Pakistani jails. Also a key figure in the Mumbai terror strikes, Lakhvi like Mir and Saeed, has never been prosecuted for his actual role in the 2008 Mumbai attacks.

In the same year, Mir and Headley met to plot a possible attack on the Jyllands-Posten newspaper in Copenhagen, Denmark. In August 2011, Mir was also charged as a co-conspirator by the U.S. for the Mumbai attacks. It remains to be seen whether the U.S. will seek Mir’s extradition. The FBI has offered up to \$5 million for information leading to his arrest. An arrest warrant for Mir was issued by the U.S. in April 2011.

#### **Why did Pakistan take action against Mir now?**

Since June 2018, Pakistan has been on the “grey” list of the FATF, the international counter-terror financing and anti-money laundering body. The conviction of Mir is a step forward in convincing the FATF and its affiliated bodies that Pakistan is serious about addressing concerns when it comes to senior terror functionaries involved in terror financing. Saeed, Lakhvi and now, Mir, have all been convicted for terror financing by Pakistani courts. The FATF, in its June deliberations, has said it will conduct an on-site visit to ensure Pakistani compliance. Continued presence on the grey list would have serious implications for Pakistan to do business with the rest of the world.

#### **What role does the Lashkar-e-Taiba play ?**

Unlike groups such as the Tehreek-e-Taliban Pakistan (TTP) or the (JeM), the Lashkar is not known to have conducted any terror strikes inside Pakistan nor has it called for the overthrow of the elected Pakistani government.

The Lashkar has been nurtured and used by the Pakistani Inter-Services Intelligence (ISI) Directorate against India for several decades. It has been focused on India, which is in line with the ISI Directorate’s policy of using non-state actors to commit acts of terrorism in India.

#### **What are the dangers of not reining in groups like the Lashkar-e-Taiba?**

Given that the Lashkar as an organisation has got away scot free for the Mumbai attacks and its relationship with the ISI remains intact, the group retains the ability to target civilians in India. The dramatic arrest of Ajmal Kasab, one of the 10 Mumbai attackers, who was captured alive during the attack by a Mumbai policeman, Tukaram Omble, gave the game away for Pakistan. Nearly 14 years after the Mumbai strikes, Pakistan is yet to cut its umbilical links with the Lashkar, a sign that the state is yet to align itself away from jihadist groups. India and Pakistan nearly came to war in 2008. Both Islamabad and Rawalpindi must be aware that the strategic cost of any major attack on India from Pakistani territory will extract a high price.

**Source: The Hindu**

#### **49. Modi’s two summits: G7 and UAE**

**Relevant for GS Prelims & Mains Paper II; Bilateral Relations**



Prime Minister Narendra Modi is attending two summits this week – he is a ‘special invitee’ at the 48th G7 Summit at Schloss Elmsau in Germany. After that, he has a bilateral summit in Abu Dhabi with the UAE President Sheikh Mohammed bin Zayed Al-Nahyan on June 28. Though the pundits may consider the second event as a sideshow, some statistics are enough to prove them wrong.

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 their 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 summits are important to India, but unlike the interlocutors in the Bavarian Alps, our Prime Minister is unlikely to be hectoring in Abu Dhabi about where not to buy oil from or how much Indian wheat and sugar must be sold. The agenda is likely to be more constructive and benign.

India-UAE synergy

The current India-UAE synergy and amity are largely due to Prime Minister Modi’s tending. This would be his fourth visit to Abu Dhabi and sixth summit with Sheikh Mohammed over the past seven years. These have re-energised this historic, but long-dormant, relationship. The visits have plenty to show — from Emirati investments in Jammu and Kashmir to a CEPA. After a COVID-19-induced three-year hiatus, a Modi-Sheikh Mohammed summit was desirable to infuse a fresh momentum.

In protocol terms, Mr. Modi would commiserate the passing away of UAE President Sheikh Khalifa bin Zayed on May 13 and the appointment of Sheikh Mohammed, 61, as his successor. As Sheikh Mohammed has been the de facto President since Sheikh Khalifa suffered a stroke in 2014, the change at the helms means little in the practical term. However, this being the only second transition at the top since the formation of the UAE in 1971, it is significant. It symbolises political stability and continuity in a turbulence-prone region. Mr. Modi would probably be the first non-Arab leader to be received in Abu Dhabi after the 40-day State mourning ended on June 22. Thus, the Abu Dhabi summit would be a useful opportunity to recalibrate the bilateral ties and open new vistas following the operationalisation of the bilateral CEPA from May 1.

### **Changes since the pandemic**

Significant changes in the bilateral, regional and global context have taken place since the two leaders last met in August 2019. 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 larger Indian imports, trade is likely to grow even higher in 2022-23. The corrective mechanism built into CEPA would, hopefully, prevent the deficit from going out of hand. 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 labour 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.

### **A complex area**

The South West Asian region is a complex and evolving area. The UAE has disrupted the longstanding Arab Israeli stalemate by normalising relations 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. Similarly, Abu Dhabi has developed some ruction with the Biden presidency in the U.S. and is diversifying its strategic options with Russia and China. It has conspicuously ignored the plea by the U.S. and other Western countries to raise its oil

production. India, the UAE’s second-largest trading partner, and largest source of tourists and manpower, can be a useful ally.

Against this ongoing regional and global flux, the India-UAE summit is both topical and opportune and can have an impact beyond the bilateral context.

**Source: The Hindu**

## 50. Russia’s fight for Sievierodonetsk, and its parallels with Mariupol

**Relevant for GS Prelims & Mains Paper II; International Issues**



*Smoke rises after a military strike on a compound of Sievierodonetsk's Azot Chemical Plant, amid Russia's attack on Ukraine, Lysychansk, Luhansk region, Ukraine June 10, 2022. (Reuters)*

As the Russia-Ukraine war crosses over 100 days, the battlefield has shifted from Kyiv, Kharkiv and Mariupol to the eastern city of Sievierodonetsk in the strategically significant Donbas region.

Donbas, an industrial region comprising of Luhansk and Donetsk provinces, is partially under the control of Russia-backed rebel fighters. Since May, the fighting has focused on Sievierodonetsk, a city in Luhansk province around 140 km away from the nearest Russian border. It is home to several production plants, chemical and machine-building factories. As of June 15, 80 per cent of the city is reportedly under Russian control.

### **What we know of Sievierodonetsk’s Azot factory**

In Sievierodonetsk, as the Russian troops advance nearer to its goal of occupying the whole city, hundreds of civilians, including children and the elderly, have taken refuge in the city’s huge Azot chemical plant. Also known as the Sievierodonetsk Azot Association, the plant is owned by Group DF’s OSTCHEM holding. It is one of the group’s four mineral fertiliser producers in Ukraine, along with the Azot plant in Cherkasy, the Concern Stirol plant in Horlivka and the Rivne Azot in Rivne, according to the official website.

In a statement issued on June 9, Group DF said that the factory was shelled repeatedly, resulting in damage at “at least two workshops of the chemical enterprise including a major one, i.e. 1-B ammonia production facility”.

“No discharge of toxic elements into the environment was recorded, as all the fertilizers and chemicals were removed from the territory of the enterprise on the 2nd day of the war,” it said in a press release, after speculation emerged of leakage of harmful raw materials, including ammonia.

The group's communication head framed the attack as an attempt to disrupt the grain and fertilizer exports by attacking the Nika-Tera seaport, a medium-sized seaport located in the Black Sea. The port offers services in storing and shipping of grain cargos, mineral fertilisers, liquid bulk cargos, packaged-piece cargos, and vegetable oils of sunflower, rapeseed and soya, among others.

"This is not just an aggressive attempt to seize the territory of Sievierodonetsk. This is a barbaric attempt to undermine food security. They knowingly attack our Nika-Tera seaport, which is a major grain terminal, and hit a fertilizer manufacturer. We face a planned, cynical instigation of a food crisis on a global scale. Ukraine will not be affected by the food crisis, as the country produces much more food than is needed. Indeed, they seek to provoke the global food crisis," said Oleg Arestarkhov, Head of Corporate Communications, Group DF in an official statement.

### **Parallels with Mariupol siege**

As fighting continues, it has emerged that the situation in Sievierodonetsk could turn out to be similar to that of Mariupol in the past few months. In May, hundreds of civilians and fighters who were **holed up in the city's sprawling Azovstal steelworks plant** had laid down arms and surrendered to the Russian forces after weeks of desperate resistance.

The surrender — though Ukraine refused to term it as such — had been touted as a rare victory for Russian President Vladimir Putin. However, it had sparked concerns over the conditions of surrendered Ukrainian troops, many of whom were reportedly sent to a Russian prison colony.

### **What next?**

As was done in Mariupol, attempts are being made to evacuate civilians from Sievierodonetsk via a humanitarian corridor, though it remains to be seen how successful that attempt would be. In Mariupol, several attempts to establish safe passage for civilians failed after the ceasefire was broken due to various issues. On Wednesday, Russia said it had opened a humanitarian corridor from Azot to allow civilians to escape the territory it controls and accused Ukraine's forces of using civilians as human shields, which Kyiv has denied.

Meanwhile, Russia on Monday called on the Ukrainian troops holed up in a Sievierodonetsk chemical plant to lay down their arms. Russian news agency Interfax reported that the head of the country's National Defence Management Centre asked the fighters to "stop their senseless resistance and lay down arms" from 8 am Moscow time (0500 GMT). However, Ukrainian troops ignored this ultimatum.

The city's mayor, Oleksandr Stryuk, said Ukrainian troops were still defending the city, even though all of its river bridges had been destroyed, reported news agency *Reuters*.

While the exact number of those sheltering in the plant is unknown, Ukraine puts the number at over 500 civilians, including 40 children, besides soldiers. However, the separatists in the area said the actual number is over double the official estimates, claiming over 1,200 civilians may be inside, said the *Reuters* report.

**Source: The Indian Express**

## **Economics**

### **1. India's changing goal posts over coal**

#### **Relevant for GS Prelims & Mains Paper III; Economics**

In April, Finance Minister Nirmala Sitharaman said India's transition away from coal as a fuel for power would be hampered by the Russia-Ukraine war. "One calculation which I think we had in our mind was that the transition [away from coal] ... will be enabled by natural gas," she said, adding that "lowering dependence on coal, and the speed with which we want to get out of it, will now be challenged."

#### **Why is the 'move away from coal' so important?**

The threat of global warming looms over the planet, promising to bring about unprecedented natural calamities.

An effective way to keep the danger at bay is to cut the use of fossil fuels — coal, natural gas and oil. About 80% of the world's energy requirements are met by these three fuels. They have likely brought on the climate crisis we now face, as they trigger the emission of carbon dioxide. However, the worst culprit of them all is coal, which emits nearly twice as much carbon dioxide as natural gas and about 60% more than oil, on a kilogram-to-kilogram comparison. Combusting coal also leaves behind partially-burnt carbon particles that feed pollution and trigger respiratory disorders. The consequence of these chemical reactions gains great significance because, the power sector in India accounts for 49% of total carbon dioxide emissions, compared with the global average of 41%.

#### **What is the extent of India's dependence on coal?**

As of February 2022, the installed capacity for coal-based power generation across the country was 2.04 lakh megawatt (MW). This accounts for about 51.5% of power from all sources. This compares with about 25,000 MW of capacity based on natural gas as fuel, or a mere 6.3% of all installed capacity. Renewable power accounted for 1.06 lakh MW or 27%.

Coal-based power stations are retired periodically which happens all the time. But is not fast enough nor are new additions being halted. And with good reason – coal is still inexpensive compared with other sources of energy.

For FY20, for example, India added 6,765 MW power capacity based on coal as fuel. But only 2,335 MW was retired. According to the IEA's Coal Report 2021, India's coal consumption will increase at an average annual rate of 3.9% to 1.18 billontonnes in 2024.

So, it is not easy to shift away from coal overnight. As the World Coal Association CEO Melissa Manook put it while on her India visit recently, "Coal will still be a significant contributor in the energy sector even in 2040!"

#### **How has war made India's move away from coal difficult?**

Natural gas has been dubbed as the transition fuel in India's plans to move away from coal. The international cost of natural gas has zoomed in the recent past from a level that was considered already too high to be financially viable. On May 17, 2022, the price per MMBTU of gas was ₹1,425, compared with ₹500 in April, 2021.

Even back in November last, well before the war made things difficult, the government put in place a committee to ensure that natural gas prices remained stable. Of the 25,000 MW of gas-based power plants, about 14,000 MW remains stranded, or idle, because they are financially unviable.

While renewable energy sources are cheaper than coal, their ability to generate power consistently is subject to the whims of nature — the wind and the Sun. Coal can give you power on demand. Storage technologies are still not mature enough to help renewable energy sources become reliable generators of power.

#### **Is there a coal availability crisis that is exacerbating our problems?**

It appears that the pent-up demand returning in the economy which was in a pandemic-induced stupor for a while has caught policymakers off guard. From having asked States only recently to stop importing coal, the power Ministry urged States earlier this month to step up coal imports as the private sector would take till about 2025 to produce significant amounts of coal.

As per a letter by the Ministry, Coal India, the country's largest supplier of the dry fuel is set to import coal for the first time since 2015. The aim of the exercise is to avoid a repeat of the power outage crisis that India faced in April — the worst in more than six years. Following the issue of the letter dated May 28 to all state utilities, officials at the States and the Centre, including to the Coal Secretary, the central government has asked States to place import tenders on hold with a view to cut procurement costs using government-to-government channels.

An internal power Ministry presentation is said to point to a 42.5 million tonne (MT) coal shortage in the quarter ending September on the back of high demand for power supply. The shortage is 15% higher than earlier anticipated. Domestic supply of coal is expected to be 154.7 MT, compared with the projected requirement of 197.3 MT. The previously anticipated shortage was 37 MT. The projections for

requirements for the year ending March are 3.3% higher than earlier anticipated at 784.6 MT. Without imports, utilities are likely to run out of coal supplies by July.

**Source: The Hindu**

## **2. Are fears of stagflation impacting markets?**

### **Relevant for GS Prelims & Mains Paper III; Economics**

Authorities worldwide, particularly central bankers, are feverishly trying to formulate the appropriate set of policies to ensure that inflation, currently running at multi-decade highs in some advanced economies including the U.S., is cooled without triggering a recession. Former Federal Reserve Chairman Ben Bernanke told The New York Times last month that he foresaw a period in the near future “where growth is low, unemployment is at least up a little bit and inflation is still high”, adding, “So you could call that stagflation”.

#### **What exactly is stagflation?**

Most economists typically focus on the three key macroeconomic gauges to assess the health of an economy. Economic output measured by gross domestic product, the level of unemployment and thirdly inflation or the pace at which the prices of goods and services are rising in the economy.

The challenge for policymakers, especially central banks, is to ensure optimum conditions whereby output grows at a healthy pace, helping businesses in the economy to create jobs at a steady pace and thus keeping unemployment low, and most crucially having all of this happen in an atmosphere when prices remain relatively stable.

However, in the real world, more often than not, high economic growth invariably spurs faster inflation which is why many central banks have a specific mandate of ensuring that the pace of price gains does not exceed a specified target level or range.

The most difficult and messy problem for policymakers is when inflation runs high even as economic output either stagnates or, worse, shrinks. The slowdown in economic activity, in turn, leads businesses to shed jobs and the resultant situation is termed as ‘stagflation’.

#### **How does it manifest?**

One of the classic instances when most economies including the U.S. faced ‘stagflation’ was during the ‘oil shock’ of the early 1970s when an embargo led by the oil producers’ cartel OPEC caused the price of crude to almost quadruple in a period of just under six months.

“Countries like the U.S. that imported a lot of oil experienced both high inflation and recession,” Veronika Dolar, an Assistant Professor of Economics at SUNY Old Westbury in the U.S., wrote in an article published by the online journal The Conversation in March. “The Consumer Price Index exceeded 10% for the first time since the 1940s, unemployment jumped from 4.6% in 1973 to 9% in 1975, and the GDP plunged,” she observed.

#### **What has sparked the latest concerns about stagflation?**

While the outbreak of the COVID-19 pandemic and the curbs imposed to contain the spread of the virus caused the first major recent economic slowdown worldwide, the subsequent fiscal and monetary measures taken to address the downturn, including substantial increases in liquidity in most of the advanced economies, fuelled a sharp upsurge in inflation.

While the Fed and the Bank of England are among central banks that have started raising interest rates to cool soaring prices, the ongoing war in Ukraine following Russia’s invasion of its southern neighbour and the consequent Western sanctions on Moscow have caused a fresh and as yet hard-to-quantify ‘supply shock’.

With the prices of commodities ranging from oil and gas to foodgrains, edible oils and fertilizers all surging sharply in the wake of the conflict, authorities face an uphill battle to contain inflation that is now



less a function of demand (and so can be controlled by regulating credit) and almost entirely caused by supply factors that are far harder to manage.

To add to the concerns, several business leaders including Tesla's Elon Musk and JP Morgan Chase & Co.'s Jamie Dimon are warning of an impending 'recession'.

#### **What lies ahead?**

Current Fed Chairman Jerome Powell summed it last month at the post-federal open market committee press conference when asked if a recession was inevitable to tame inflation. "Basically, we've been hit by historically large inflationary shocks since the pandemic. This isn't anything like regular business... it's been a series of inflationary shocks that are really different from anything people have seen in 40 years. So we have to look through that and look at the economy that's coming out the other side. And we need to somehow find price stability out of this. And it's obviously going to be very challenging."

**Source: The Hindu**

### **3. Why are FPIs dumping Indian stocks?**

#### **Relevant for GS Prelims & Mains Paper III; Economics**

Foreign portfolio investors (FPIs) have been on a selling spree in India. May figures of about ₹44,000 crore formed the highest monthly quantum of sell-off since March 2020 when India announced a nationwide lockdown. Last month was also the eighth on the trot that FPIs had sold net of their assets — i.e., sold more than they had purchased.

Their selling actions have triggered a significant decline in benchmark indices resulting in a drop in market capitalisation of companies.

#### **What are FPIs?**

Foreign portfolio investors are those that invest funds in markets outside of their home turf. Their investments typically include equities, bonds and mutual funds. They are generally not active shareholders and do not exert any control over the companies whose shares they hold. The passive nature of their investment also allows them to enter or exit a stock at will and with ease.

#### **What factors spur FPI moves?**

Promise of attractive returns on the back of economic growth draws investors including FPIs into a country's markets. For example, as per data from the National Securities Depositories Ltd. (NDSL), FPIs brought in about ₹3,682 crore in 2002. This grew to ₹1.79 lakh crore in 2010. This correlates with the concurrent expansion of economic output in that period, despite the 2008 global financial crisis which saw FPI sell-offs in that time-frame in the country. The year 2017 saw FPI inflows exceed ₹2 lakh crore.

Likewise, FPIs withdrew ₹1.18 lakh crore in March 2020 alone — the month when India announced a nationwide lockdown, triggering concerns around economic growth. In tandem, benchmark stock index Sensex fell from 42,270 in February 2020 to 25,630 in March 2020.

FPIs also show keenness to invest in bonds when there is a favourable differential between the real interest rates on offer in the country they aim to invest in, and other markets, but more specifically, compared with the largest economy in the world, the U.S.

#### **Why have FPIs been selling India holdings?**

FPIs sold assets worth ₹44,000 crore in May 2022. This is the second highest sell-off in a month since 1993, after March 2020. Post-pandemic, recovery in the Indian economy has been uneven. The second wave of the COVID-19 pandemic in 2021 devastated lives and livelihoods. The economy stuttered again when a third, albeit less severe, wave saw the spread of the Omicron variant early this year. Add to this the return of pent-up demand in economies worldwide as the pandemic subsided. The pace of recovery caught suppliers off guard, contributing to supply-side shortages.

Even as industry was grappling with this challenge, Russia launched an attack on Ukraine. Sunflower oil and wheat supplies, for example from these two nations were impacted, leading to a rise in global prices

for these crops. As supplies in general tightened across the globe, commodity prices too rose and overall inflation accelerated. India witnessed a quickening pace in price rise that stayed above the Reserve Bank's upper comfort level of 6% for four months running, touching 7.8% in April. Industrial production too has seen a bumpy ride without giving confidence of a full and final recovery from the pandemic. Consumption expenditure too has remained weak in the subcontinent.

With each of these factors contributing to a decline in confidence of robust economic performance, foreign portfolio investors have been reducing market investments over these past months. Add to the mix the U.S. Federal Reserve raising the benchmark interest rate starting March this year. The key rate went up from 0-0.25% in March to 0.75-1% in May and is expected to rise by 50 basis points at each of the next two Fed meetings. When the differential between the interest rates in the U.S. and other markets narrows, and if such an occurrence is accompanied by the strengthening of the dollar, then the ability of investors to realise

healthy returns is impacted. For returns are measured not only by the value appreciation of assets but also by exchange rate changes. If the dollar strengthens against the rupee, then an investor is able to realise fewer dollars for a given quantum of rupee assets liquidated. Further, if inflation quickens in the overseas market where the investor has placed funds, then the real returns are even further impacted. They then tend to exit assets seen as 'risky' such as in emerging markets like India, Brazil or South Africa.

#### **What impact does an FPI sell-off have?**

When FPIs sell their holdings and repatriate funds back to their home markets, the local currency takes a beating. After all, they sell rupees in exchange for their home market currency. As supply of the rupee in the market rises, its value declines. In this instance, the rupee has recently been seeing all-time lows. About a year ago, it was trading in the region of 73 to a U.S. dollar; it is now flirting with the 78 level. With a weaker rupee, we have to shell out more funds to import the same unit of goods. The most telling impact is on the cost of our crude oil imports that contribute to 85% of our oil needs.

**Source: The Hindu**

#### **4. Of what good is a bad bank?**

##### **Relevant for GS Prelims & Mains Paper III; Economics**

Finance Minister Nirmala Sitharaman 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. While the problem of bad loans has been a perennial one in the Indian banking sector, the decision to set up a bad bank was taken by the Union government during the Budget presented last year in the aftermath of the nationwide lockdowns, and the moratorium was subsequently extended to borrowers by the Reserve Bank of India (RBI).

It should be noted that the health of the balance sheets of Indian banks has improved significantly over the last few years with their gross non-performing assets (GNPA) ratio declining from a peak of 11.2% in FY18 to 6.9% in Q2FY22.

#### **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. The idea of a bad bank has been tried out in countries such as the U.S., Germany, Japan and others in the past.

The troubled asset relief program, also known as TARP, implemented by the U.S. Treasury in the aftermath of the 2008 financial crisis, was modelled around the idea of a bad bank. Under the program, the U.S. Treasury bought troubled assets such as mortgage-backed securities from U.S. banks at the peak of the crisis and later resold it when market conditions improved. It is estimated that the Treasury through its operations earned a nominal profit of anything between \$11 billion to \$30 billion, although some contest these figures.

Many critics, however, have pointed to several problems with the idea of a bad bank to deal with bad loans. 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. There is little reason to believe that a mere transfer of assets from one pocket of the government to another will lead to a successful resolution of these bad debts when the set of incentives facing these entities is essentially the same.

Other analysts believe that unlike a bad bank set up by the private sector, a bad bank backed by the government is likely to pay too much for stressed assets. While this may be good news for public sector banks, which have been reluctant to incur losses by selling off their bad loans at cheap prices, it is bad news for taxpayers who will once again have to foot the bill for bailing out troubled banks.

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

A key reason behind the bad loan crisis in public sector banks, some critics point out, is the nature of their ownership. 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.

Further, 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. After all, the safety net provided by a bad bank gives these banks more reason to lend recklessly and thus further exacerbate the bad loan crisis.

#### **Will it help revive credit flow in the economy?**

Some experts believe that by taking bad loans off the books of troubled banks, a bad bank can help free capital of over ₹5 lakh crore that is locked in by banks as provisions against these bad loans. This, they say, will give banks the freedom to use the freed-up capital to extend more loans to their customers. This gives the impression that banks have unused funds lying in their balance sheets that they could use if only they could get rid of their bad loans. It is, however, important not to mistake banks' reserve requirements for their capital position. This is because what may be stopping banks from lending more aggressively may not be the lack of sufficient reserves which banks need to maintain against their loans.

Instead, it may simply be the precarious capital position that many public sector banks find themselves in at the moment. In fact, many public sector banks may be considered to be technically insolvent, as an accurate recognition of the true scale of their bad loans would show their liabilities to be far exceeding their assets. So, 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.

**Source: The Hindu**

### **5. The RBI plan to link credit cards with UPI**

#### **Relevant for GS Prelims & Mains Paper III; Economics**

The Reserve Bank of India has proposed to allow the linking of credit cards with the Unified Payments Interface (UPI). While making the announcement in his monetary policy speech Wednesday, RBI Governor Shaktikanta Das said that the integration will first begin with the indigenous RuPay credit

cards. Both the RuPay network and UPI are managed by the same organisation – the National Payments Corporation of India (NPCI).

### **What is the significance of the move?**

Industry experts believe that the linkage of UPI and credit cards could possibly result in credit card usage zooming up in India given UPI's widespread adoption. The integration also opens up avenues to build credit on UPI through credit cards in India, where in the last few years, a number of startups like Slice, Uni, One etc. have emerged. The move could also be a push to increase adoption by banking on UPI's large user base. So far, UPI could only be linked to debit cards and bank accounts.

“This will provide additional convenience to the users and enhance the scope of digital payments,” Das said.

### **What could be the hurdles?**

There are some regulatory areas that would have to be addressed before the linkage happens. For instance, it is not clear how the Merchant Discount Rate (MDR) will be applied to UPI transactions done through credit cards.

The MDR is a fee that a merchant is charged by their issuing bank for accepting payments from their customers via credit and debit cards. According to a norm that has been in effect since January 2020, UPI and RuPay attract zero-MDR, meaning that no charges are applied to these transactions, which is a key reason behind the prolific adoption of UPI both by users and merchants. However, the norm has faced pushback from the payments industry, which has argued that it limits the aggregators' ability to “invest in and maintain the financial infrastructure” of the payment ecosystem that they have built. Applicability of zero-MDR on UPI could also be a reason why other card networks such as Visa and Mastercard may not have been onboarded to UPI for credit cards yet.

### **What is the big picture?**

“UPI has become the most inclusive mode of payment in India with over 26 crore unique users and five crore merchants on the platform. The progress of UPI in recent years has been unparalleled. Many other countries are engaged with us in adopting similar methods in their countries,” RBI Governor Das said.

In May, UPI processed 5.95 billion transactions worth over Rs 10 trillion, a record high since its launch in 2016. NPCI is looking to soon process a billion transactions a day. Additionally, even as the central bank increases benchmark rates to rein in the surging inflation, a move like this could be aimed at boosting credit-led consumption in the country.

**Source: The Indian Express**

## **6. Why bond yields are rising, and what it means for markets and investors**

### **Relevant for GS Prelims & Mains Paper III; Economics**

With the Reserve Bank of India hiking rates to rein in inflation, which is expected to remain above 7% until at least September, bond yields have risen to their highest levels in three years. What does that mean for the markets and investors?

### **The big jump**

The yield on benchmark 10-year government bonds has shot up by 149 basis points to 7.50% in the last one year. Since the start of the year, long-term yields have risen by over 100 bps, and short-term yields by over 150 bps.

Bond yields have been rising across the world amid higher inflation and plans for policy normalisation. Seeing the writing on the wall, buyers of government bonds have been demanding higher yields. “Data showing further increase in inflation leading to higher-for-longer inflation expectations may result in further increase in bond yields and correction in markets. We expect inflation in India to trend down sharply in the second half of FY23 on high base effects but note upside risks to inflation from higher-than-expected domestic food prices and global fuel prices,” said a report from Kotak Securities.

### **What it means**

The rise in yields means markets have already factored in the worst of the rate movements. This also hints at the possibility of overnight rates rising to 6%-plus over the medium term. With current repo rates at 4.90%, this implies incremental rate hikes of more than 100 bps have been factored into bond yields. The rise indicates that the cost of funds in the financial system is rising and so are interest rates. A section of the market also attributes the rise in yields to the RBI's plan to exit from its accommodative stance and tighten interest rates in the coming months.

The rise means the government will have to pay more as yield (or return to the investors), leading to a rise in cost of borrowings. This will put upward pressure on general interest rates in the banking system. Further, if the RBI opts for normalisation of the monetary policy and intervenes less in the market, interest rates are bound to go up.

Analysts say expectations of higher inflation and the possibility of a rate hike can trigger a flight of capital from bank fixed deposits to RBI sovereign guaranteed bonds, as the difference in yields is now almost 150 bps.

### **Bond investors...**

The rise in yields means investors expect higher interest rates and are selling their bonds, because higher rates would result in a decline in the bond price of existing bonds (and thereby capital loss on sale before maturity). Debt investors are set to get impacted. When yields rise and bond prices fall, net asset values of debt funds, which hold a sizeable chunk of government securities in their portfolios, will also decline. It will also impact corporate bonds, which are priced higher than government bonds.

The RBI's change of stance on liquidity is likely to impact corporate spreads, especially AAA-rated bonds, when compared to government securities. The yield curve presents material opportunities for investors in the 4-7-year segment, and also offers a significant safety margin given the steepness of the curve. For investors with a medium-term investment horizon (3 years+), incremental allocations may offer significant risk reward opportunities. For investors with a short-term horizon (6 months-2 years), floating rate strategies are attractive as interest rate resets and premiums offer competitive "carry" and low volatility, said Kotak Securities.

### **... and equity investors**

Rising bond yields are generally not good news for equity investors as they raise the cost of funds for companies and start hurting their earnings. It thus leads to outflow of funds from equities towards a less risky debt instrument. The CIO-debt of a leading mutual fund said that if a sovereign instrument starts paying 8%, it definitely attracts investors, "However, since the earnings of companies continue to be strong as of now, the impact will not be much. As and when higher interest rates start hurting companies' earnings per share, it will put pressure on equity markets as outflows from equities will be higher."

Traditionally, bond yields have an inverse relationship with equities as a rise in bond yields means that the risk premium on equities will have to go up.

### **What to expect now**

Market participants say it is tough to figure out the peak in the current market as global uncertainties remain. However, markets have already factored in a rate hike of another 100 basis points by RBI. While the yields may rise by another 25-50 basis points depending on the government's borrowing programme and global oil prices, debt fund managers say investors can go for short-term duration investment for 1-2 years. "A 3-year AAA-rated paper is trading at a yield of around 7.25%. Even if the yields were to rise by 50 bps over the next one year, if an investor remains invested for two years, he can make an annual return of 7%, which is good," said the CIO of a leading mutual fund.

**Source: The Indian Express**

## **7. The Indian patent regime and its clash with the U.S. norms**

**Relevant for GS Prelims & Mains Paper III; Economics**



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. Among the issues raised in the report are India's inconsistencies regarding patent protection, including concerns about what can be patented, waiting time for obtaining patents, burdensome reporting requirements, and doubts about data safety. India had undertaken an intellectual property review exercise last year, where a Parliamentary Standing Committee examined this subject.

### **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.

In its India section, the report highlighted a range of issues in domains ranging from copyright and piracy to trademark counterfeiting and trade secrets, saying that India "remained one of the world's most challenging major economies with respect to protection and enforcement of IP."

It said patent issues continued "to be of particular concern in India," highlighting the threat of patent revocations, lack of presumption of patent validity and narrow patentability criteria as issues which "impact companies across different sectors."

The USTR had also released a similar report in 2021, addressing much of the same concerns.

These, and general issues regarding IPR were extensively tackled by the Parliamentary Standing Committee which undertook a 'review of the intellectual property rights regime in India,'. The Committee tabled its findings before the Rajya Sabha and Lok Sabha in July last year.

### **Article 3(d) of the Indian Patent Act**

This offered an insight into the landscape of Indian intellectual property law and where it is reasonably in sync with American patent laws and where it diverges. One of the main points of contention between India and the U.S. has been 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 substancerepetitive . This prevents, what is known as “evergreening” 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, 2021, 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.

India and the U.S. will continue to engage on IP matters, the report says, especially through the Trade Policy Forum’s Intellectual Property Working Group.

**Source: The Hindu**

## **8. What are SEBI’s concerns around crypto assets?**

### **Relevant for GS Prelims & Mains Paper III; Economics**

The Securities and Exchange Board of India (SEBI), the watchdog which regulates the securities and commodities market, has reportedly told the Parliamentary Standing Committee on Finance led by Jayant Sinha that regulation of crypto assets would be difficult given the nature of technology that sustains them. It was reported last month that the Reserve Bank of India (RBI) had also shared its worries about cryptocurrencies with the committee.

### **What exactly did the SEBI tell the committee?**

SEBI has essentially flagged the problems with regulating crypto assets because they “are maintained in decentralised distributed ledgers, which are nested in computer nodes spread all across the globe.”

Crypto assets is usually used as an umbrella term to encompass cryptocurrencies (e.g., Bitcoin, Ether) as also non-currency tokens such as utility tokens (which provide a certain utility within an ecosystem) and non-fungible tokens (which help establish ownership of unique items), among others. The underlying technology for crypto assets is the same — distributed ledgers that aren't controlled by any one entity.

### **What else did SEBI say?**

As per media reports, SEBI has elaborated upon the possible need for different regulators to deal with different aspects of a crypto asset market. Crypto exchanges, for instance, represent one such aspect. These exchanges, in case of a cross-border transaction, in effect enable the use of a cryptocurrency as a bridge to convert one nation's official currency to another. These exchanges, SEBI has suggested, could be brought under the regulatory purview of the RBI. The idea is to implement what are called KYC/AML/CFT (Know Your Customer/Anti-Money Laundering/Combating of Financing of Terrorism) norms. For some years now, the RBI has implemented a set of these guidelines in regulating banks so as to prevent them from being used by criminal elements.

The subscribers or customers of crypto assets form another important part of the market. SEBI has suggested that the Consumer Protection Act of 2019 be invoked to make sure their interests are safeguarded. It has also sought clarity on whether cryptocurrencies can be legally classified as securities. Right now, they aren't. According to media reports, SEBI has said that crypto assets are not part of the definition of what constitutes as securities under the Securities Contracts (Regulation) Act of 1956, also known as SCRA. It is to be noted that what constitutes as securities under the SCRA is what is used under the SEBI Act.

### **Why is this important?**

In December 2021, it was widely reported that the government was looking to get SEBI to regulate crypto assets by bringing in legislation around that time. Though such a legislation — the Cryptocurrency and Regulation of Official Digital Currency Bill, 2021 — did not materialise at that time, the talk that the government wants to treat cryptocurrencies as digital assets, rather than as currencies, has not ebbed. Ajay Tyagi, former chairman of SEBI, had in March said that the regulator has made several representations to the government regarding cryptocurrency regulation since November last year.

### **Has SEBI also flagged issues about celebrity endorsements?**

Yes. It has proposed to the committee that celebrities should not be allowed to endorse cryptocurrencies. A Hindu BusinessLine report quoted a source who spelt out SEBI's stance thus: "Given that crypto products are unregulated, prominent public figures including celebrities, sportsmen, etc, or their voice shall not be used for endorsement/advertisement of crypto products." It was also mentioned that they must be held responsible for making any endorsement of crypto products.

### **What did the RBI tell the committee?**

According to a report by PTI, top RBI officials told the committee that cryptocurrencies can lead to "dollarisation" of a part of the economy. This, they said, was against India's sovereign interest. "Almost all cryptocurrencies are dollar-denominated and issued by foreign private entities, it may eventually lead to dollarisation of a part of our economy which will be against the country's sovereign interest," the officials were reported as saying. They linked this to a possible undermining of RBI's ability to regulate money supply in the economy.

### **What has been the stance of the government?**

Over the last few years, the government's stance has definitely changed. But there is still ambiguity around what it really wants to do. A Bill that was sought to be introduced last year signalled its intention to ban cryptocurrencies outright. It, however, didn't see the light of day.

The idea that the administration doesn't consider cryptocurrencies desirable has been made clear from time to time for some years now. It started as statements in the Budget but then an inter-ministerial report recommended an outright ban. Such currencies were and are considered problematic as they can easily evade official scrutiny, bypass and weaken the monetary system, and fuel illegal trade. Around this time, an RBI circular sought to bar banks from dealing in such currencies, only for the Supreme Court to strike it down.

The cryptocurrency industry saw a window of hope earlier this year when Finance Minister Nirmala Sitharaman imposed a tax for the first time on crypto assets. The tax, at 30%, was seen at first to settle the question of legality of such currencies. But, Ms. Sitharaman, in a TV interview indicated that taxability was an issue that is not to be linked to legitimacy.

Legislative clarity is still awaited. Meanwhile, the Sinha-led committee has in recent months been holding extensive conversations with the financial regulators, who being statutory bodies, report to Parliament. The committee last November also met with representatives of the crypto industry. The Bill aims to set up a facilitative framework for creation of the official digital currency to be issued by the RBI.

**Source: The Hindu**

## **9. The crypto conundrum**

### **Relevant for GS Prelims & Mains Paper III; Economics**

Sticking true to its unpredictable nature, cryptocurrencies are registering huge losses in value. From the fall of Terra (Luna), the current bear market is showing a downfall for most cryptocurrencies like Bitcoin, Ethereum etc. In this article dated November 1, 2021, Prashanth Perumal talks about the fundamental lack of value offered by cryptocurrencies which make them risky assets as well as volatile investments.

Bitcoin and other private cryptocurrencies have been on a bull run recently. Unlike previous rallies, the current rally in bitcoin has witnessed the increasing participation of retail investors in India. Since 2020, when the Supreme Court overturned an order by the Reserve Bank of India dated April 6, 2018, restricting the use of cryptocurrencies, traffic in domestic cryptocurrency exchanges in India has grown many-fold. Yet, the future of bitcoin and other cryptocurrencies is unlikely to be as bright as many believe it to be.

#### **A case of speculative mania?**

The most important feature of cryptocurrencies that is flaunted by their enthusiasts is their limited supply. In a world where central banks create a lot of money out of thin air, it is natural for investors who are looking to protect their wealth to seek abode in alternative assets whose supply cannot be cranked up as easily. Money creation by central banks causes the price of all goods to rise and also tends to accelerate the adoption of alternative assets as currencies. When central banks create a lot of money, it leads to an increase in the prices of not just goods such as food and cars but also that of commodities such as gold and silver, considered to be alternative forms of money. Yet, for various reasons, the rally in bitcoin may be no more than a case of speculative mania.

For one, scarcity alone is not sufficient to facilitate the adoption of cryptocurrencies as money. Any asset must have either use value or exchange value in order for it to possess any fundamental value. This fundamental value, in turn, is reflected in the price of these assets in the long run. Stocks and bonds, for instance, possess exchange value that is based on the expected future cash flow from these assets. Commodities such as oil and steel possess use value because these assets are used to run vehicles and build real estate. Bitcoin and other cryptocurrencies may be scarce but it is questionable whether they possess any use value or exchange value. Gold and silver have traditionally served as hedges against inflation because they possess fundamental value derived from their use as jewellery and money. But bitcoin and other cryptocurrencies neither offer direct use value nor possess significant exchange value — bitcoin can buy you very few real goods and services. In short, cryptocurrencies possess no significant fundamental value to sustain their current high prices.

Yet, many believe that the rising prices of cryptocurrencies reflect their likely future value as a currency. It is possible that investors are bidding up the price of bitcoin because they foresee a future in which private currency is widely accepted as money. After all, all investments are forward-looking. One may also grant that the extreme volatility seen in the price of cryptocurrencies, which seems unrelated to any similar fluctuations in their fundamentals, may be due to the nascent, illiquid nature of the cryptocurrency market. However, the more cryptocurrencies are accepted in exchange for goods and services, the greater the chances of governments cracking down on them.

#### **Issuance of money**

The monopoly that governments (and central banks) possess over the issuance of money is at the root of their power and influence. This allows governments to fund their budget deficits, particularly during times of crises such as the current pandemic when tax revenues have taken an unprecedented hit. It also allows central banks to tinker with the money supply under the mandate of managing aggregate demand in the economy. In essence, monopoly control over money allows governments to indirectly tax citizens by increasing the supply of currencies, thus devaluing them. If cryptocurrencies like bitcoin are going to challenge fiat currencies like the U.S. dollar as a medium of exchange, they would essentially be challenging the authority of the government to print and spend. This is not an assault that governments will tolerate for long. They will allow cryptocurrencies to exist only as long as these currencies remain a speculative asset and not a medium of exchange.

This is not to say that governments are justified in their crackdown against cryptocurrencies. China recently imposed a complete ban on all cryptocurrencies and plans to issue its own central bank-issued digital currency. Private alternatives to fiat currencies offer people greater choice in what currencies they choose to use as a medium of exchange. The benefits of free market competition in money were elaborated by economist Friedrich Hayek in *The Denationalization of Money*. Most notably, competition between currencies to cater to the demands of customers would ensure that fiat currencies that are printed indiscriminately simply go out of use. This is the outcome that governments fear and would fight to avoid at any cost.

**Source: The Hindu**

## **10. Why are markets, rupee falling?**

**Relevant for GS Prelims & Mains Paper III; Economics**

Domestic stock markets and the rupee faced rough weather in early trading on Monday as the sharp rise in US inflation triggered concerns over more aggressive rate hikes and stronger capital outflows. The benchmark Sensex was quoting 1,422 points down at 52,881.23 and the Nifty Index was trading 408 points lower at 15,793.15 as of 12.15 noon IST. The rupee plunged below the 78 mark to 78.28 against the dollar in the opening session.

### **Why the crash?**

Indian stocks fell 2.6 per cent in the opening session as equity markets across the globe are witnessing a sell-off after US May inflation data accelerated to four decades high of 8.6 per cent, raising concerns about aggressive rate hikes by the US Federal Reserve in the upcoming monetary policy meeting due on Wednesday. US treasury yields surged to a 14-year high at 3.15 per cent while the dollar index spiked above 104 levels. US futures are also down by one per cent after the big sell-off on Friday. Apart from this, the market would continue to remain cautious ahead of various central banks meetings this week.

On the domestic side, as India's inflation data is due on Monday, investors are nervous about the RBI's next plan of action. If retail inflation rises further and crosses 8 per cent level in India, the RBI could increase the policy rates again this month. Yield on India's 10-year benchmark bond has risen by 7 basis points to 7.59 per cent on Monday.

Overall, domestic and global worries are hurting the sentiment in India. The withdrawal of liberal accommodative policies in India and other countries, mainly the US, is prompting the investors to press the sale button. Capital outflows by foreign portfolio investors are likely to continue in such a scenario.

### **Why is the rupee down?**

The rise in US inflation, rate hike worries and the stock market fall are weighing on the rupee sentiment. More rate hikes by the US Fed will lead to higher outflows on the part of foreign portfolio investors (FPIs) who have already pulled out Rs 18,814 crore from the stock markets in June so far. FPIs have taken out Rs 2.40 lakh crore from India since January this year, putting pressure on the rupee.

The rupee fell below the 78 level against the dollar on Monday morning as the RBI was not seen selling dollars. The fall in the rupee is likely to make imports costlier and exports lucrative. "We might see more weakness ahead of the FOMC meeting on June 15, where the Fed is expected to hike rates by 50 bps and



showcase a more aggressive tone. However, runaway depreciation might not happen amid RBI intervention,” said Jigar Trivedi, Research Analyst, Anand Rathi Shares & Stock Brokers.

### **When will markets recover?**

The Indian market will stabilise only when the US market stabilises and the rate hikes by the US Fed stop. The market will bounce back when FPIs return and start pumping money again. “Therefore, investors may wait and watch till clarity emerges on the market trend. One silver lining is the 7.1 per cent increase in IIP which indicates that the Indian economy is doing well,” said V K Vijayakumar, Chief Investment Strategist at Geojit Financial Services.

Analysts said investors should stay invested if they have a long-term investment plan and mutual fund investors should continue their SIP plan without breaking the investment. On the other hand, the big correction will give an opportunity to investors to pick up good quality stocks at attractive levels. “Investors should wait and watch the unfolding situation before making any major commitments. Buying should be confined to stocks/ segments which are fairly valued or have good earnings visibility,” said an analyst.

**Source: The Indian Express**

## **11. The world of crypto lending**

### **Relevant for GS Prelims & Mains Paper III; Economics**

Major U.S. cryptocurrency lending company Celsius Network froze withdrawals and transfers on Monday, citing “extreme” market conditions, sparking a sell-off across crypto markets.

Here’s what you need to know about crypto lending – a corner of the digital asset market that has boomed over the last two years during soaring interest in cryptocurrencies.

### **What’s the deal?**

Crypto lending is essentially banking – for the crypto world.

Just as customers at traditional banks earn interest on their savings in dollars or pounds, crypto users that deposit their bitcoin or ether at crypto lenders also earn money, usually in cryptocurrency.

While savings at traditional banks offer paltry returns due to historically low interest rates, crypto lenders offer much higher returns – at the very top end as much as 20%, though rates depend on the tokens being deposited.

Crypto lenders make money by lending – also for a fee, typically between 5%-10% – digital tokens to investors or crypto companies, who might use the tokens for speculation, hedging or as working capital. The lenders profit from the spread between the interest they pay on deposits and that charged on loans.

### **High returns? So crypto lenders must be popular**

They are.

Crypto lending has boomed over the past two years, along as decentralised finance, or “DeFi,” platforms. DeFi and crypto lending both tout a vision of financial services where lenders and borrowers bypass the traditional financial firms that act as gatekeepers for loans or other products.

The sites say they are easier to access than banks, too, with prospective clients facing less paperwork when lending or borrowing crypto.

The total value of crypto at DeFi sites soared to a record \$110 billion in November, up fivefold from a year earlier and reflecting record highs for bitcoin, according to industry site DeFi Pulse.

Traditional investors and venture capital firms, from Canada’s second-biggest pension fund Caisse de Depot et Placement du Quebec to Bain Capital Ventures, have backed crypto lending platforms.

**Is there a catch?**

There are several.

Unlike traditional regulated banks, crypto lenders aren't overseen by financial regulators – so there are few rules on the capital they must hold, or transparency over their reserves.

That means that customers who hold their crypto at the platforms could lose access to their funds – as happened with Celsius on Monday.

Crypto lenders also face other risks, from volatility in crypto markets than can hit the value of savings to tech failures and hacks.

**Who are the biggest players?**

New Jersey-based Celsius is among them, with over \$11 billion assets in its platform.

Other major lenders are also based in the United States. New York-based Genesis originated loans of \$44.3 billion in the first quarter, with \$14.6 billion in active loans as of March.

Other big names include U.S. lender BlockFi, which has some \$10 billion of assets under management, and London-based Nexo, which has \$12 billion.

**Regulators must be worried, then?**

Crypto lenders are in the sights of U.S. securities watchdogs and state regulators, who say that interest-bearing products are unregistered securities.

In February, BlockFi agreed to pay \$100 million in a landmark settlement with the U.S. SEC and state authorities over its yield product.

Those same state regulators issued a similar cease and desist order to Celsius in September, calling its Earn product an unregistered security.

More widely, DeFi is throwing up risks for investors as it evolves to mirror traditional markets, a global body for securities regulators said in March, including a lack of disclosure of products and systems, patchy reliability and problems operating at scale.

**Source: The Indian Express**

**12. Why is the crypto market crashing?****Relevant for GS Prelims & Mains Paper III; Economics**

The sell-off in the crypto market continued Tuesday with Bitcoin and Ether falling to new 18-month lows. Bitcoin is the world's largest cryptocurrency, while Ether is the number two token. But not just the top two, all major cryptocurrencies have been trading in the red lately, with the fall testing even long-term investors. What has triggered this latest crash, and is there a respite in sight for investors?

**What has triggered the latest sell-off?**

The fall began last week Friday in sync with the sell-off in the US stock markets triggered by higher-than-expected rise in inflation and the fears of more aggressive interest rate hikes by the US Federal Reserve. While crypto markets should ideally perform independently of the traditional markets, they have, in the past too, been sensitive to movements in the mainstream financial world.

Monday brought more bad news as top cryptocurrency lending firm, Celsius Network, froze withdrawals. In a blog post, New Jersey-based Celsius announced that it had frozen withdrawals and transfers between accounts "to stabilise liquidity and operations while we take steps to preserve and protect assets". It blamed "extreme market conditions" for the move and said that this action was aimed at putting "Celsius in a better position to honor, over time, its withdrawal obligations". As of now, it has given out no timeline for resumption of withdrawals.

Earlier in May, the crypto market had taken a major hit after the stunning crash of the TerraUST, an 'algorithmic' stablecoin with its value backed by a sister token known as Luna.

The deep-red crash, which had wiped out \$40 billion of investor funds, had shaken the system because stablecoins are not prone to wild fluctuations like other cryptocurrencies.

### **What is Celsius, why does its ban on withdrawals matter?**

Celsius is a crypto lender, which essentially means it is a bank of the crypto world.

Crypto lenders allow customers to deposit their coins with them for an interest, and then lend out cryptocurrencies to earn a return.

With assets around \$11.8 billion, Celsius is a big player in the market of crypto lending. Savings in crypto parked with these lenders are known to offer returns to the tune of 17% to 20%.

These financial services are easier to access than the traditional banks, but on the flip side have no regulatory oversight.

According to a Financial Times report, the value of assets parked with Celsius on May 17 was less than \$12 billion against over \$24 billion in December 2021.

### **How bad is the crisis?**

This is the second major meltdown of the crypto market within a month. Given the overall negative risk sentiment, a reversal of fortune seems unlikely soon.

In this latest crash, the crypto market's value slumped under \$1 trillion for the first time since January 2021.

After reaching the record high of \$69,000 in November last year, Bitcoin has fallen nearly 70%. It was trading in the zone of \$22,000 Tuesday. The number two token, Ether, is down 75% from its November-high of \$4,869.

The latest crash is likely to hasten the process of government oversight. In the US, two Senators Tuesday proposed legislation to create a regulatory framework for the cryptocurrency industry, reported the Associated Press.

**Source: The Indian Express**

## **13. Consolidation in the sky as antitrust watchdog OKs AI acquisition of AirAsia India**

### **Relevant for GS Prelims & Mains Paper III; Economics**

The Competition Commission of India (CCI) has approved the acquisition of AirAsia India's entire equity share by Tata Group-owned Air India. Currently, Tata Sons, the holding company of the Mumbai-based conglomerate, has 83.67% share in AirAsia India, while the remaining is held by Malaysia's AirAsia Bhd.

### **Formal approval**

This is the first formal regulatory approval to Tata Group's plan to consolidate its aviation portfolio. "CCI approves acquisition of the entire shareholding in AirAsia India by Air India, a wholly-owned subsidiary of Tata Sons," the antitrust panel said.

### **Significance**

AirAsia India operates low-cost airline services in domestic sectors in India. The airline was founded as a joint-venture between the Tata Group and Tony Fernandes-led AirAsia Bhd in 2014. Tata Group later launched full-service airline Vistara in a 51:49 joint-venture with Singapore Airlines and bought 100% stake in Air India, along with its low-cost subsidiary Air India Express earlier this year.

The conglomerate is in process of consolidating its aviation portfolio. It is also learnt to be moving all its aviation brands to a single corporate office in Gurugram.

**Source: The Indian Express**

#### **14. The fall in unemployment rate in the 2020-21 labour survey, what it means**

**Relevant for GS Prelims & Mains Paper III; Economics**

##### **Reduction in Unemployment**

Labour indicators recorded a sharp, all-round improvement in 2020-21 (July-June) compared with the previous three years, data released by the National Statistical Office (NSO) on Tuesday showed.

The annual report of the Periodic Labour Force Survey for July 2020 to June 2021 showed that the unemployment rate, as per usual status (reference period of last 365 days preceding the survey), eased to 4.2 per cent from 4.8 per cent in 2019-20.

As per the current weekly status (reference period of one week) — contrary to perceived expectations of a likely hit on jobs — unemployment rate eased to 7.5 per cent in 2020-21 from 8.8 per cent. But there is a catch: while the overall employment situation showed improvement, the rise was seen mostly in low-quality, unpaid work.

##### **The headline numbers**

The headline employment numbers show an improvement in the employment situation. The unemployment rate of 4.2 per cent in 2020-21, the lowest since the first PLFS showed an unemployment rate of 6.1 per cent in 2017-18. According to the report, the labour force participation rate (LFPR), or those working or seeking or available for work in the labour force, was the highest in four years at 39.3 per cent in 2020-21, as was the worker population ratio (WPR) at 36.3 per cent. WPR is defined as the percentage of employed persons in the population.

The unemployment rate was higher for males in rural areas than females. In rural areas, the unemployment rate was 3.9 per cent in 2020-21, while that for females was 2.1 per cent. In urban areas, the unemployment rate for females was 8.6 per cent, while that for males was 6.1 per cent.

##### **Rise of agricultural share, unpaid work**

While the overall employment situation showed improvement, the rise was seen in low-quality, unpaid work.

Employment in the unpaid self-employed category continued to show an increase in 2020-21 by rising to 17.3 per cent from 15.9 per cent in 2019-20 and 13.3 per cent in 2018-19. Rural unpaid employment also showed increase to 21.3 per cent in 2020-21 from 20.0 per cent in the previous year, while that for urban areas increased to 6.3 per cent from 5.7 per cent.

Unpaid self-employment for females increased to 42.8 per cent in rural areas in 2020-21 from 42.3 per cent a year ago, while that for rural males increased to 11.0 per cent from 10.4 per cent.

In urban areas, unpaid self-employment for females showed a significant increase to 12.4 per cent in 2020-21 from 11.1 per cent in 2019-20, while that for males increased to 4.5 per cent from 4.1 per cent.

The PLFS data shows that the share of the labour force engaged in agriculture continued to show a rise in 2020-21, increasing to 46.5 per cent from 45.6 per cent in 2019-20 and 42.5 per cent in 2018-19 — a reversal of the decades-long decline in the labour force participation in agriculture.

This suggests that the movement of labour out of agriculture, which had gathered pace post 2004-05, seems to have been stymied by the economic slowdown and the pandemic. The reverse migration of labour from cities to villages would have only increased the pressure on agriculture to absorb the workers.

The increase in share of agricultural employment was seen more for urban areas than rural areas. In urban areas, male employment in agriculture increased to 5.3 per cent in 2020-21 from 5.0 per cent in 2019-20, while that for females increased to 10.4 per cent in 2020-21 from 8.2 per cent.

**Source: The Indian Express**

### **15. Fed rate hike: Likely impact on India, and what investors should do**

**Relevant for GS Prelims & Mains Paper III; Economics**

Experts say that the aggressive Fed rate hike of 75 basis points is likely to push the Reserve Bank of India for more rate hikes in the coming two or three quarters, and thereby will have a direct bearing on GDP growth and market movement.

#### **How much could rates be hiked?**

Economists, who had been expecting an additional rate hike of 75-100 basis points over the next three quarters in India, now say the RBI could go for additional rate hike of up to 125 basis points this fiscal, taking the overall rate hike to over 200 basis points.

That may not only impact overall demand in the economy and GDP growth, but will also lead to a correction in the market on account of outflow of funds by foreign portfolio investors and downward revision in earning projections of listed entities as a result of higher cost of funds and input cost.

The day after the Fed announced its rate hike by 75 basis points, the Sensex had fallen 2% to close at an over 12-month low of 51,495. According to provisional data released by exchanges, FPIs sold equity holdings worth Rs 3,257 crore on Thursday, and in June they have sold holdings worth Rs 31,500 crore putting pressure on domestic equities. Domestic institutional investors have invested a net of Rs 24,225 crore in the same period.

#### **What should investors do?**

A large part of the inflation concerns is on account of the Russia-Ukraine war. If an early resolution of the conflict may revive market sentiments, there is a feeling that a prolonged war could only hurt these further as it could lead to spike in oil prices and food items.

Given the continuing rise in interest rates and uncertainty on where the yields may stabilise, while debt investors can go for short-term products of 1-2 years, market participants feel equity markets in current times should only be considered with an investment horizon of at least 3 years.

Market participants tracking economic activity say India is very well positioned for higher growth over the next three to five years and companies across sectors are already in the process of fresh capital investment, which is expected to gain momentum over the coming months. Although the decline in equity markets has weakened investor sentiment for now, equity investments should be done keeping the future in mind. Systematic investment plans should be the preferred mode, as these will help investors capitalise on any further dip in the market. Also, to beat inflation, investors need to go with equities, which have traditionally performed better when inflation is high.

For a large number of investors who entered the markets over the last couple of years as day traders, it is high time they stopped taking speculative positions. Many feel the market uncertainty is way too high for such investors who are looking to make money on a daily basis, and who may only end up losing.

**Source: The Indian Express**

### **16. The reasons behind the crashing crypto market**

**Relevant for GS Prelims & Mains Paper III; Economics**

Bitcoin and many other cryptocurrencies have been crashing since they hit an all-time high late last year. Bitcoin has lost more than two-thirds of its value since it hit a peak of around \$69,000 in November last year and is currently trading at around the \$22,000 mark. Ethereum, another cryptocurrency popular among investors, has lost almost 80% from its peak. As a result, the overall market capitalisation of cryptocurrencies has dropped under \$1 trillion for the first time since January 2021. The crash, which



shows no signs of reversal yet, seems to have led to a drop in investor enthusiasm with trading volumes in Indian cryptocurrency exchanges dropping by 90% from their peak.

### **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. Such extreme volatility simply seemed to reflect investor behaviour that bordered on gambling. These sceptics also pointed to the fact that even though cryptocurrency prices were rising aggressively, 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. It would also affect the ability of governments to fund their spending by creating fresh money as citizens could then opt to switch to alternative currencies.

### **Will cryptocurrencies rise again?**

Cryptocurrency enthusiasts argue that cryptocurrencies such as Bitcoin have always been subject to extreme price swings and that the current crash is a good time to buy these virtual currencies at a tremendous bargain. To be fair, many crypto-enthusiasts have been handsomely rewarded in the past when they bought cryptocurrencies during times of panic selling. They argue that cryptocurrencies, just like gold, protect investors against the risk of price inflation. It should be noted that, unlike fiat currencies issued by central banks, the supply of various cryptocurrencies is limited by design. By holding their wealth in cryptocurrencies that either maintain their value or even appreciate in value over time, investors can protect themselves against the debasement of their wealth by central banks.

Sceptics, however, believe that the current crash could very well be the end of the road for cryptocurrencies. Even if cryptocurrencies manage to recover from the current crash, they may still not manage to hold on to their gains, because cryptocurrencies possess no fundamental value as money. In fact, some have argued that the real value of cryptocurrencies is somewhere close to zero. They point out that even the most popular cryptocurrencies such as Bitcoin are still not used very much in the daily purchase and sale of goods and services in the real economy. It should be noted that investors generally believe that the price of an asset gravitates towards its intrinsic or fundamental value in the long-run even though it may diverge from its fundamental value in the short-term.

Crypto-enthusiasts, however, argue that while cryptocurrencies may not be widely accepted as a currency, they still represent an independent asset class like gold that can help investors protect their wealth from central banks. This argument is still prone to the criticism that cryptocurrencies do not possess any independent value of their own to be compared to gold and silver, and thus cannot offer any wealth protection over the long-run.

Precious metals such as gold and silver are far more acceptable than cryptocurrencies, which is what

gives them their intrinsic value. In fact, precious metals served as currencies for centuries and have been widely used for industrial and other purposes.

No cryptocurrency has such a record. The fact that precious metals are limited in supply definitely helped boost their value. But limited supply alone cannot make cryptocurrencies like Bitcoin a valuable asset like gold and silver.

**Source: The Hindu**

### **17. The move to link credit cards with UPI :What are the primary motivations behind this move? Will the proposed linking increase the scope of the Unified Payments Interface?**

#### **Relevant for GS Prelims & Mains Paper III; Economics**

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. While announcing the move, RBI Governor Shaktikanta Das stated that RuPay credit cards issued by the RBI-promoted National Payments Corporation of India (NPCI) will be enabled first, and will become available after system developments. The UPI, also managed by the NPCI, was first introduced in 2016.

#### **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.

#### **When will the facility be made available?**

This facility would be available after the required system development is complete. The RBI will issue necessary instructions to NPCI separately to facilitate the change. To begin with, the indigenous RuPay credit cards would be linked to the UPI platform. It is likely to be followed by other card networks such as Visa and MasterCard that would bring in more users.

#### **What is the benefit of this provision?**

The arrangement is expected to provide an additional avenue for payment to customers and hence enhance convenience. The linking of credit cards to UPI has been proposed to further deepen the reach and usage of credit cards.

#### **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. People 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 — currently, spending through the use of credit cards is more than double the average spend via debit cards. More spending is generally a force multiplier for the economy.

Besides accelerating digital transactions this measure is also expected to affect the average ticket size of financial transactions. Currently the average ticket size per transaction is ₹1,600 while it is ₹4,000 in credit cards. So, with the new development the UPI transaction ticket size is likely to go up to somewhere around ₹3,000 to ₹4,000, analysts claim. 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.

Kirana stores where credit cards are not accepted would likely find it convenient to accept credit card payments through UPI.

### **Will a merchant discount rate be applicable for these payments?**

There is no word yet on the merchant discount rate (MDR) applicable on transactions using credit card numbers via UPI, other than for RuPay, which attracts no such charge. Today, since foreign card issuers such as Visa and MasterCard have a lion's share of the credit card network business, part of the fees goes to them. However, the Indian government has shown its intent to promote the indigenous RuPay card system. It remains to be seen if it indeed does turn out more economical for merchants to accept payments from users with credit cards from foreign issuers.

**Source: The Hindu**

## **18. What is a black swan event?**

### **Relevant for GS Prelims & Mains Paper III; Economics**

A study by the Reserve Bank of India (RBI) has spoken about the possibility of **capital outflows to the tune of \$100 billion** (around Rs 7,80,000 crore) from India in case of a major global risk scenario or a "black swan" event.

### **What is a 'black swan' event?**

A black swan is a rare, unpredictable event that comes as a surprise and has a significant impact on society or the world. These events are said to have three distinguishing characteristics – they are extremely rare and outside the realm of regular expectations; they have a severe impact after they hit; and they seem probable in hindsight when plausible explanations appear.

### **When did the term originate?**

The black swan theory was put forward by author and investor Nassim Nicholas Taleb in 2001, and later popularised in his 2007 book – *The Black Swan: The Impact of the Highly Improbable*. The Sunday Times described his work as one of the 12 most influential books since World War II.

In his book, Taleb does not try to lay out a method to predict such events, but instead stresses on building "robustness" in systems and strategies to deal with black swan occurrences and withstand their impact.

The term itself is linked to the discovery of black swans. Europeans believed all swans to be white until 1697, when a Dutch explorer spotted the first black swan in Australia. The metaphor 'black swan event' is derived from this unprecedented spotting from the 17th century, and how it upended the West's understanding of swans.

### **When have such events occurred in the past?**

Interestingly, Taleb's book predated the 2008 global financial crisis – a black swan event triggered by a sudden crash in the booming housing market in the US. The fall of the Soviet Union, the terrorist attack in the US on September 11, 2001, also fall in the same category.

### **Is the Covid-19 pandemic a black swan event?**

Taleb does not agree with those who believe it to be one. In an interview to Bloomberg in 2020, he called it a "white swan", arguing that it was predictable, and there was no excuse for companies and governments not to be prepared for something like this.

While the outbreak of any pandemic is difficult to individually predict, the possibility of one occurring and having a major impact on systems around the world was known and documented.

**Source: The Indian Express**

## **19. Why RBI has stopped credit lines from fintech firms like Simpl and Amazon Pay**

### **Relevant for GS Prelims & Mains Paper III; Economics**

The Reserve Bank of India (RBI) has issued a notification disallowing non-bank prepaid wallets and prepaid cards from loading credit lines — preset borrowing limits — into these platforms. This comes in the backdrop of a boom in credit instruments such as fintech-driven credit cards and buy-now-pay-later wallets.

#### **What has RBI said in its notification?**

The banking regulator has clarified that its master direction on prepaid payment instruments (PPIs) does not permit loading of PPIs from credit lines — a practice being undertaken by several fintech credit card companies. These companies typically tie up with banks or NBFCs and offer credit lines into their prepaid wallets.

“Such practice, if followed, should be stopped immediately. Any non-compliance in this regard may attract penal action under provisions contained in the Payment and Settlement Systems Act, 2007,” the RBI noted.

#### **What are PPIs?**

The RBI defines prepaid payment instruments (PPIs) as payment instruments that facilitate the buying of goods and services, including the transfer of funds, financial services, and remittances, against the value stored within or on the instrument. PPIs are in the form of payment wallets, smart cards, mobile wallets, magnetic chips, vouchers, etc. As per the regulations, banks and NBFCs can issue PPIs.

#### **What is a credit line?**

A credit line is a preset borrowing limit that allows an individual or a business access to credit at any time, as per need. It can be tapped into by the customer till the limit offered is not exceeded. It is like a flexible loan as against a lump-sum loan where a fixed amount is borrowed.

#### **Why has the RBI issued this notification?**

With credit products infiltrating the market, there is a renewed push by the regulator to clampdown in the interest of consumer safety. While some fintechs tie up with banks like SBM Bank, RBL Bank, Federal Bank, etc. to offer these products, some tie up with NBFCs. In some cases, the credit lines are also extended by the fintech’s NBFC partners. Recently, RBI Governor Shaktikanta Das had said that the regulator would soon issue norms to regulate the digital payments space.

#### **Which are the fintechs offering credit products in India?**

Today, most fintechs offer a credit product alongside their main offerings. Companies like Paytm, Amazon Pay, LazyPay, Simpl, etc offer postpaid wallets with small credit lines. Others such as Slice, Uni, Fi, OneCard, etc. offer credit cards in partnership with banks and NBFCs.

**Source: Indian Express**

### **20. Why has the telecom PLI scheme been extended?**

#### **Relevant for GS Prelims & Mains Paper III; Economics**

The Department of Telecommunications (DoT) **has extended** the production-linked incentive (PLI) scheme for telecom by one year, and has amended the scheme to raise the incentive rate by an additional 1 per cent, aimed towards incentivising design-led manufacturing in the sector.

The amendment comes days after the country took its first step towards **5G rollout** as the Union Cabinet cleared a proposal to invite applications for spectrum auctions. “With the objective to build a strong ecosystem for 5G, the Union Budget 2022-23 has proposed to launch a scheme for design-led manufacturing as part of the existing PLI scheme.

#### **What are the incentives under the amended telecom PLI?**

The design-led manufacturing scheme is open for both medium and small-scale enterprises (MSMEs) and non-MSMEs, including domestic and global companies. The DoT also said applications for design-led manufacturing will be prioritised over other manufacturers. The scheme requires an investment threshold of Rs 10 crore for MSMEs and Rs 100 crore for non-MSMEs, excluding land and building cost.

The Centre will provide additional incentives of over Rs 4,000 crore under the amended scheme. The incentives will be based on incremental sales of the manufactured goods, and range between 4 per cent to 7 per cent for different categories over the years. MSMEs will get an additional 1 per cent incentive in the first, second, and third years. The DoT has also approved 11 new telecom and network products to the existing list of products that can be manufactured under the scheme.

“For promoting design-led manufacturing, DoT is inviting applications from Design-led manufacturers as well as others, for availing incentive under the PLI Scheme for five years commencing from 1st April 2022. Investment made by successful applicants in India from 1st April 2022 onwards and up to Financial Year 2025-2026 shall be eligible, subject to qualifying incremental annual thresholds,” the Ministry of Communications said in a statement.

#### **How has the telecom PLI fared so far?**

The DoT notified the PLI scheme for telecom and networking products on February 24, 2021, with a financial outlay of Rs 12,195 crore, over five years. In October, it approved 31 proposals entailing an investment of Rs 3,345 crore over the next four and a half years. The shortlisted entities included the likes of Nokia India, HFCL, Dixon Technologies, Flextronics, Foxconn, Coral Telecom, VVDN Technologies, Akashastha Technologies, and GS India.

According to the government’s dashboard, so far, Rs 451 crore has been invested in the scheme, led primarily by global companies who account for more than Rs 240 crore of the total investment. Additionally, the scheme has generated over 5,000 employment opportunities and sales worth more than Rs 9,000 crore have taken place under the scheme.

**Source: The Indian Express**

## **21. Indian interests at the WTO Ministerial Conference**

### **Relevant for GS Prelims & Mains Paper III; Economics**

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’s Director-General Ngozi Okonjo-Iweala referred to as the “Geneva Package.” India saw some successes at the MC12 with respect to the above mentioned sectors.

#### **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. It encouraged member countries with available surplus to release them on international markets in compliance with WTO regulations. Moreover, it instituted a



work programme to come up with measures to help LDCs (least-developed countries) and NFIDCs (Net Food Importing Developing Countries) enhance their domestic food security and bolster agricultural production.

#### **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.

Several LDCs have suffered in their efforts to combat the now nearly three-year-old pandemic, owing to factors such as a stressed balance of payments situation, different levels of development, financial capabilities and varying degrees of import dependence on those products.

Within the next six months, members are expected to decide on increasing the scope of the agreement to cover the production and supply of COVID-19 diagnostics and therapeutics as well.

**Source: The Hindu**

## **22. Why is there a worldwide oil-refining crunch?**

### **Relevant for GS Prelims & Mains Paper III; Economics**

Drivers around the world are feeling pain at the pump with fuel prices soaring, and costs are surging for heating buildings, power generation and industrial production. Prices were already elevated before Russia invaded Ukraine on Feb. 24. But since mid-March, fuel costs have surged while crude prices are up only modestly. Much of the reason is a lack of adequate refining capacity to process crude into gasoline and diesel to meet high global demand.

#### **How much can the world refineries produce daily?**

Overall, there is enough capacity to refine about 100 million barrels of oil a day, according to the International Energy Agency, but about 20% of that capacity is not useable. Much of that unuseable capacity is in Latin America and other places where there is a lack of investment. That leaves somewhere around 82-83 million bpd in projected capacity.

#### **How many refineries have closed?**

The refining industry estimates that the world lost a total of 3.3 million barrels of daily refining capacity since the start of 2020. About a third of these losses occurred in the United States, with the rest in Russia, China, and Europe. Fuel demand crashed early in the pandemic when lockdowns and remote work were widespread. Before that, refining capacity had not declined in any year for at least three decades.

#### **Will refining pick up?**

Global refining capacity is set to expand by 1 million barrels per day in 2022 and 1.6 million bpd in 2023. The United States, China, Russia and Europe are all operating refineries at lower capacity than before the pandemic. US refiners shut nearly one million bpd of capacity since 2019 for various reasons.

Nearly 30% of Russia's refining capacity was idled in May, sources told Reuters. Many Western nations are rejecting Russian fuel.

China has the most spare refining capacity, refined product exports are only allowed under official quotas, mainly granted to large state-owned refining companies and not to smaller independent companies that hold much of China's spare capacity.

As of last week, run rates at China's state-backed refineries averaged around 71.3% and independent refineries were around 65.5%. That was up from earlier in the year, but low by historic standards.

#### **What else is contributing to high prices?**

The cost to carry products on vessels overseas has risen due to high global demand, as well as sanctions on Russian vessels. In Europe, refineries are constrained by high prices for natural gas, which powers their operations.

Some refiners also depend on vacuum gasoil as an intermediate fuel. Loss of Russian vacuum gasoil has prevented certain from restarting certain gasoline-producing units.

#### **Who is gaining from the current situation?**

Refiners, especially those that export a lot of fuel to other countries, such as US refiners. Global fuel shortages have boosted refining margins to historic highs, with the key 3-2-1 crack spread nearing \$60 a barrel. That has driven big profits for US-based Valero and India-based Reliance Industries.

India, which refines more than 5 million bpd, according to the IEA, has been importing cheap Russian crude for domestic use and export. It is expected to boost output by 450,000 by year-end, the IEA said.

**Source: The Indian Express**

### **23. What FPIs' market exit means**

**Relevant for GS Prelims & Mains Paper III; Economics**

The FPI sell-off is being attributed to the tightening of monetary policy by the US Fed which has been on a rate hiking spree to control inflation.

Sustained capital outflows from the capital market have unnerved the stock markets and led to a weakening of the rupee amid rising inflation across the globe. With the US Federal Reserve set to hike rates further, outflows are likely to continue, putting pressure on the Indian currency.

### **Why is capital flowing out?**

Foreign portfolio investors (FPIs), which own around 19.5% of the market capitalisation, have pulled out Rs 42,000 crore in June so far, taking the total outflows to Rs 260,000 crore (\$33 billion) since October 2021. The FPI sell-off is being attributed to the tightening of monetary policy by the US Fed which has been on a rate hiking spree to control inflation. Other central banks, including in Britain and the Eurozone, are following suit.

When the global economy took a hit, central banks across the world slashed interest rates and announced liberal monetary policies. While this helped the economies recover and led to higher consumption, the surplus liquidity in the financial system led to inflation. This is why central banks have started tightening monetary policies and hiking interest rates. In India, inflation surged to an eight-year high of 7.79% in April, prompting the RBI to hike the repo rate by 90 basis points to 4.90%.

### **How does it impact the markets and the rupee?**

The pullout is dampening sentiment in equity and forex markets. The benchmark Sensex has plunged by 16% from the October 2021 high of 62,245.43 to 52,266.72 on June 23. The impact of FPI selling on markets is visible, with increase in volatility and declining equity prices. While this selling by foreign investors has been absorbed by domestic investors led by domestic institutional investors (DIIs) to a large extent till now, fund flow from retail investors and domestic institutions has slowed down of late. Between November 2021 and June 2022, DIIs have invested a net of Rs 2,84,488 crore (over \$37 billion) in Indian equities, providing some counterbalance. Experts say, however, that the retail flow and DII inflow is weakening now, and the markets could weaken further if the FPI outflows continue.

India's foreign exchange reserves have fallen \$46 billion in the last nine months to \$596.45 billion as on June 10, 2022, mainly due to the dollar appreciation and FPI withdrawals. The rupee has plunged 7.3% to an all-time low of 78.30/32 against the dollar. Rupee depreciation is never good for the overall equity market, and foreign investors pulling out can result in a decline in stocks and equity mutual fund investments. Foreign investors generally keep away when the currency is declining and interest rates are rising in the US and developed markets.

Analysts said a lower rupee against the dollar keeps import bills higher, pushing inflation even higher than it is now. Higher inflation is detrimental to the overall market. If the rupee does not strengthen, FPI outflows will continue, which is another negative. A strong dollar is good for export-oriented companies, but bad for import-oriented industries such as oil, gas and chemicals. With the dip in the rupee, oil imports and other imported components will get costlier, which will further lead to higher inflation. Travellers and students studying abroad will have to shell out more rupees to buy dollars from banks. People are directly impacted by the rupee fall as fuel prices shoot up.

### **How do FPIs operate?**

In times of global uncertainty, foreign investors embrace a risk-off trade, meaning they move money from risky assets such as equities and add more of bonds and gold. When interest rates rise in the US and other advanced economies, they withdraw money from emerging markets such as India and invest in the bonds in their domestic markets. The 10-year US bond has shot up from a low of 0.54% in July 2020 to over 3.30% now.

“The global investing scenario has been plagued by the risk-off trade since October 2021, as central bankers hinted at policy tightening with inflation moving from being ‘transitory’ in nature to somewhat of a medium-term headache. This aided the bond trade globally as yields started to become attractive, nudging investors to allocate a higher portion towards Fixed Income as an asset class,” said an Axis Mutual Fund report. The rise in global yields is not good news for Indian stocks and investors. The FPI sell-off has led to a decline in the valuation of top-500 companies, with some of them losing 15-20% in the last 9 months.

### **How big are they in India?**

FPIs are the largest non-promoter shareholders in the Indian market and their investment decisions have a huge bearing on the stock prices and overall direction of the market. Holding of FPIs (in value terms) in companies listed on NSE stood at Rs 51.99 lakh crore as on March 31, 2022, a decrease of 3.36% from Rs 53.80 lakh crore as on December 31, 2021, due to the sustained sell-off since October 2021.

FPIs hold sizeable stakes in private banks, tech companies and big caps like Reliance Industries. The US accounts for a major chunk of FPI investments at Rs 17.57 lakh crore as of May 2022, followed by Mauritius Rs 5.24 lakh crore, Singapore Rs 4.25 lakh crore and Luxembourg Rs 3.58 lakh crore, according to data available from the National Securities Depository Ltd (NSDL).

### **Will the rupee fall further?**

The rupee has continued to depreciate beyond the general expectation of a gradual weakening despite the RBI selling dollars from its forex kitty to stabilise the currency. At current dollar-rupee spot levels, year-end forward pricing has moved above its projection of 79 per dollar by end-2022, a Bank of America Securities report said. "We believe the risks are still skewed towards more depreciation for the rupee as the fundamental outlook has deteriorated further primarily due to higher oil and other commodities. We have adjusted our projection higher from 79 currently to 81 per dollar for year-end 2022. We, however, see the RBI's strong reserves as a mitigating factor against tail-risks," it said.

The rise in US inflation, rate hike worries and the stock market fall are weighing on the rupee sentiment. On the other hand, more rate hikes by the Fed will lead to higher outflows from foreign portfolio investors.

### **What should investors do?**

If FPIs continue with the outflow and there is a dip in retail and DII participation, which market participants have noticed over the recent past, the equity markets may witness further correction. However, while other markets may correct further from the current levels, experts say that investors should stick with their existing investments in domestic equities.

"Even as the weakness is likely to continue in the markets, investors should not look to redeem their holdings in the current market. They should stay with them as a rebound in economic activity, which is on the way and could gather momentum over the next one to two years, would result in

revival of the markets going forward and thereby gains for investors," said the CIO with an asset management company. He further said investors should not go for lumpsum investments and should instead continue with the systematic investment plan mode.

**Source: The Indian Express**

## **24. TDS on transfer of virtual digital assets, applicable from July 1 — what the guidelines say**

### **Relevant for GS Prelims & Mains Paper III; Economics**

The CBDT has defined four primary VDAs — bitcoin, ether, USD Tether, and USD Coin — for the purpose of tax deduction on lesser known cryptocurrencies.

The Central Board of Direct Taxes (CBDT) on Wednesday (June 22) issued detailed guidelines on the tax deducted at source (TDS) rule for virtual digital assets (VDAs) such as cryptocurrencies, and laid down the various scenarios under which tax would be applicable and on whom the onus of deduction would lie.

The Finance Act, 2022 introduced Section 194S in The Income Tax Act, 1961, under which a TDS of 1 per cent will be levied on the transfer of VDAs effective July 1 if the value of transactions exceeds Rs 10,000 in a year.

### **On whom does the onus to pay TDS on crypto lie?**

In the guidelines, the Tax Department has defined the responsibilities of deducting the tax in various scenarios.



For example, in cases where the transfer of VDA takes place on or through an exchange, and the VDA being transferred is not owned by the exchange, tax may be deducted by the exchange making the payment to the seller.

However, when the payment between the seller and the exchange is being done through a broker, the responsibility to deduct tax shall be on both the exchange and the broker.

In cases where transfer of VDA takes place on or through an exchange, and the VDA being transferred is owned by this exchange, the primary responsibility to deduct tax remains with the buyer or his broker.

However, as an alternative, the exchange may enter into a written agreement with the buyer or his broker that in regard to all such transactions the exchange would be paying the tax on or before the due date for that quarter.

This mainly deals with situations where the transfer of a VDA is being made against money. The tax department has also given examples of cases where the transfer of VDA happens in exchange for another VDA.

For example, if two different crypto currencies — say, bitcoin and ether — are being exchanged, both the persons would be considered buyers as well as sellers. Therefore, both will need to pay tax with respect to the transfer of cryptocurrency.

The guidelines also allow the exchanges that are facilitating such transactions to deduct tax in these cases.

#### **How will TDS be levied if the transfer of VDA is in kind, through an exchange or broker?**

Where VDA is transferred for consideration in kind, or partly in cash and partly in kind, through an exchange, tax may be deducted by the exchange. This alternative approach can be exercised based on a written agreement between the exchange and the buyers/ sellers. The exchange would be required to deduct tax on both legs of the transaction (buyers/ sellers) and report it as such.

#### **How has taxation been defined in case of transfer of VDAs in kind?**

The CBDT has defined four primary VDAs — bitcoin, ether, USD Tether, and USD Coin — for the purpose of tax deduction on lesser known cryptocurrencies.

“For example, in case of trade for Monero to Deso...the exchanges shall immediately execute a market order for converting this tax deducted in kind (1% Monero/ 1% Deso in the above example) to one of the primary VDAs (BT, ETH, USDT, USDC) which can be easily converted into INR. This step will ensure that the tax deducted under Section 194S of the Act in the form of non-primary VDAs like Deso/ Monero is converted to an equivalent of primary VDAs which have a ready INR market,” it has said.

#### **What have tax experts said on the VDA guidelines?**

AKM Global Tax Partner Amit Maheshwari said: “Broadly, the responsibility to deduct TDS has been put on the exchanges which will increase the regulatory and compliance burden for them... The exchanges have to further disclose these transactions in their tax return and maintain a proper trail. However, this would be helpful to the buyers and sellers both since they can enter into contracts with the exchange for passing the responsibility to deduct tax on their behalf in VDA to VDA transfers or otherwise as well.”

Gopal Bohra, Partner, N A Shah Associates, said: “If the buyer is acquiring VDA through exchange and making payment to exchange, exchange will deduct TDS while making payment to the owner of VDA or broker of the VDA owner, or even when exchange itself is the owner of the VDA, buyer can enter into written agreement with exchange wherein exchange will be paying taxes on such transaction.

“Similarly, where one VDA is exchanged through another VDA, the exchange will deduct TDS @1% on both parties as in this case, both the parties are buyers of another VDA in lieu of transfer of the VDA owned by them. Thus, the clarification provided by CBDT will ease out much of the compliance on the part of the buyer of the VDA. However, the buyer will be required to comply with this provision if he is acquiring the VDA directly from the owner or broker without involvement of the exchange.”



Neeraj Agarwala, Partner, Nangia Andersen LLP, said: "Overall, the CBDT has successfully clarified several open issues which were being debated in the professional circles. However, several of the recommendations made by the CBDT, especially with regard to the documents required to be maintained between the transacting parties, for example agreement, challans, undertakings etc., may not be practical, and hence may result in several clarifications issued under this circular being made redundant."

**Source: The Indian Express**

## **25. The problems plaguing thermal power generators**

### **Relevant for GS Prelims & Mains Paper III; Economics**

On June 10, India's power demand touched a record high of 211 MW even as the coal shortage continued with coal stocks available only for eight days. In the last two months, as temperatures soared and the economy recovered, the power demand breached the 200 MW level on several occasions. But the coal stock position at power plants remained worrisome. Consequently, the Ministry of Power sprang into action. To bridge the gap between shortage in domestic supply and increasing demand, power-generating companies or 'gencos' were directed to use imported coal for 10% of their requirement, failing which their domestic supplies would be cut.

#### **How did India get here?**

India is the second largest producer of coal, with reserves that could last up to 100 years. Despite that, year after year, the shortage of coal supplies continues to be an issue. Why does India have a recurring power crisis? As seen in chart 1, the domestic production of coal stagnated between FY18 and FY21, but revived in FY22. The power demand too surged owing to economic recovery and hotter weather conditions. In a press release published on May 27, the Ministry of Power noted that "despite efforts to increase the supply of domestic coal, there is still a gap between the requirement of coal and the supply of coal."

Until FY20, domestic sources contributed to about 90% of the power sector's coal receipts; the remaining was filled by imports. But by FY22, the reliance on imports dwindled to 3.8% which built pressure on domestic supplies. As chart 2 shows, the coal imported by power plants declined to 27 MT in FY22 from 66.06 MT in FY17. Coal imported for blending purposes by power plants that run on indigenous coal declined to 8 MT in the last financial year, from 19.7 MT in FY17. Past data show that importing coal for blending has always seen few takers. A bulk of imports was made by power plants designed for imported coal. Notably, their share of imports too saw a decline of 60% in FY22 since FY17. Out of 15 such import-based power plants in India, five had little or no coal stock as of June 15.

This dip in imports can be attributed to the skyrocketing prices of coal in the international markets (chart 3). The price of imported coal is nearly 5-6 times higher than domestic supply. It is in this scenario that the Power Ministry asked the gencos to import coal. However, States are wary of using imported coal as it would raise the cost of power substantially. The shortfall in domestic supplies and the rising cost of imports have put power plants in a precarious situation (chart 4). About 79 of the 150 plants that depend on domestic coal had critical stocks (<25% of the required stock) as of June 15. Eight import-based coal plants were also at critical levels.

#### **Perennial bottlenecks**

The use of imported coal will also push up the price of power supply to the power distribution companies or 'Discoms,' often dubbed as the weakest link in the power sector chain. Discoms owe long-standing dues to the tune of ₹1.16 lakh crore to the gencos. Delays in payments by discoms create a working capital crunch for generating companies which in turn inhibits them from procuring an adequate quantity of coal.

According to the 2019-20 report by the Power Finance Corporation, discoms had accumulated losses up to ₹5.07 lakh crore and were therefore unable to pay generators on time. Discoms in Tamil Nadu, Rajasthan and Uttar Pradesh are the most financially stressed.

Discoms are bleeding because the revenue they generate is much lower than their costs. This is evident from the gap between the average cost of supply and average revenue realised. Tamil Nadu, Jammu and Kashmir, and Rajasthan have the widest gap between revenues and expenses of discoms. Apart from providing power at cheaper rates, some State governments do not revise tariffs periodically. Further, the delay in getting compensation from the government also compounds the woes of cash-strapped discoms.

**Source: The Hindu**

## **26. Niti Aayog's report on India's gig economy: what has the think-tank recommended?**

### **Relevant for GS Prelims & Mains Paper III; Economics**

Government think-tank Niti Aayog has proposed fiscal incentives, like tax breaks or startup grants, for companies with about one-third of their workforce as women and people with disabilities. This is in an attempt to increase the participation of women in the gig economy.

In a report titled 'India's Booming Gig and Platform Economy', the organisation also recommended extending social security measures such as income support, paid sick leaves, insurance and pension plans to people working for platform companies like Swiggy, Zomato, Ola, and Uber.

#### **What were some of Niti Aayog's observations?**

The organisation, in its report, noted that female labour force participation in India has remained low, oscillating between 16 per cent to 23 per cent in the last few years. Similarly, persons with disabilities, who make up for 2.11 to 10 per cent of India's population, have a labour force participation rate of 36 per cent.

"Structural barriers like access to education and lack of skilling have hindered participation of the two demographic groups in the country's labour force," the report stated.

Based on a survey conducted across urban centres of India, the report also said women are more likely to take up platform jobs after their education and marriage.

#### **What are Niti Aayog's recommendations for the gig economy?**

NITI Aayog has said, "Fiscal incentives such as tax-breaks or startup grants may be provided for businesses that provide livelihood opportunities where women constitute a substantial portion (say, 30 per cent) of their workers. Likewise, a platform with high accessibility or high degree of participation of PwDs too may be rewarded with fiscal incentives."

Apart from incentivising platforms that focus on recruiting women workers, the report recommended that businesses have a higher share of women managers and supervisors in the organisation to ensure that communication to workers does not perpetuate gender stereotypes.

The report also recommended firms adopt policies that offer old age or retirement plans and benefits, and other insurance cover for contingencies such as injury arising from work that may lead to loss of employment and income. "Such plans and policies may be uniquely designed by a firm, in partnership with insurance companies, or could be designed and offered in collaboration with the government, as envisaged under the Code on Social Security, 2020," it said. A social security cover out of a corpus fund can also help gig workers in case of contingencies, it added.

The Aayog's report also said that social security benefits be extended to workers in a partnership mode, as envisaged in the Code on Social Security, 2020 — as such, the report said businesses should consider providing income support to workers as it would be a "critical step in providing assured minimum earnings and social security from income loss in the wake of uncertainty or irregularity in work". It also suggesting offering paid sick leave to workers apart from insurance cover.

#### **Lack of benefits**

Gig workers are typically hired by companies on a contractual basis and are not considered employees. They do not receive some of the benefits that an on-roll staff does.

#### **How big is the workforce engaged in the gig economy?**

Niti Aayog estimates that more than 7.5 million workers were engaged in the gig economy in 2020-21. This could grow to 23.5 million workers in the next eight years, making up for 4.1 per cent of total livelihood in India.

According to the report, at present, about 47 per cent of the gig work is in medium skilled jobs, about 22 per cent in high skilled, and about 31 per cent in low skilled jobs.

Gig workers can be broadly classified into platform and non-platform workers. Platform workers are those whose work is based on online software apps or digital platforms, while non-platform gig workers are generally casual wage workers, working part-time or full-time.

### **Why are Niti Aayog's recommendations significant?**

While platform companies have created avenues of employment, it has often been marred by low wages, unequal gender participation, and a lack of possibility for upward mobility within an organisation. This has triggered protests from workers at companies like Swiggy, Zomato, Ola, Uber, and Urban Company, among others.

Gig workers are typically hired by companies on a contractual basis and are not considered their employees. As a result, they do not receive some of the benefits that an on-roll employee of the company may have — this means they often do not receive benefits like paid sick and casual leaves, travel and housing allowances, and provident fund savings, among other things.

**Source: The Indian Express**

## **Environment**

### **1. What is liquid nano urea, produced by IFFCO, which can potentially revolutionise the use of nitrogen fertilisers in India?**

#### **Relevant for GS Prelims & Mains Paper III; Environment**

During his visit to Gujarat this week, Prime Minister Narendra Modi officially inaugurated the country's first liquid nano urea plant at Kalol. This patented product is expected to not only substitute imported urea, but to also produce better results in farms.

#### **In what respects is the indigenous liquid nano urea a better bet than imported urea?**

The liquid nano urea produced by Indian Farmers Fertiliser Cooperative (IFFCO) Limited comes in a half-litre bottle priced at Rs 240, and carries no burden of subsidy currently. By contrast, a farmer pays around Rs 300 for a 50-kg bag of heavily subsidised urea.

"The international market price of a bag of urea is between Rs 3,500 and Rs 4,000, and significant quantities of it is imported," said Alok Jaiswal, senior manager (process), and operations head of IFFCO's liquid nano urea plant.

According to IFFCO, a bottle of the nano urea can effectively replace at least one bag of urea.

The Prime Minister spoke about the high fertiliser subsidy bill of the government, as India is dependent on imports.

of the widely used fertiliser. The government's fertiliser subsidy payout this financial year will be Rs 2 lakh crore, up 25 per cent from the Rs 1.6 lakh crore it paid last year.

#### **But what exactly is liquid nano urea, and how does it work?**

It is essentially urea in the form of a nanoparticle. Urea is a chemical nitrogen fertiliser, white in colour, which artificially provides nitrogen, a major nutrient required by plants.

The product has been developed at IFFCO's Nano Biotechnology Research Centre (NBRC) at Kalol. Apart from reducing the country's subsidy bill, it is aimed at reducing the unbalanced and indiscriminate use of conventional urea, increase crop productivity, and reduce soil, water, and air pollution.

While conventional urea has an efficiency of about 25 per cent, the efficiency of liquid nano urea can be as high as 85-90 per cent. Conventional urea fails to have the desired impact on crops as it is often applied incorrectly, and the nitrogen in it is vaporised or lost as gas. A lot of nitrogen is also washed away during irrigation.

Liquid nano urea is sprayed directly on the leaves and gets absorbed by the plant. Fertilisers in nano form provide a targeted supply of nutrients to crops, as they are absorbed by the stomata, pores found on the epidermis of leaves, officials said. IFFCO advises that 2-4 ml of nano urea should be mixed a litre of water and sprayed on crop leaves at active growth stages.

Liquid nano urea has a shelf life of a year, and farmers need not be worried about "caking" when it comes in contact with moisture.

According to IFFCO, liquid nano urea contains 4 per cent total nitrogen (w/v) evenly dispersed in water. The size of a nano nitrogen particle varies from 20-50 nm. (A nanometre is equal to a billionth of a metre.)

IFFCO says the product has been tested on more than 90 crops across 11,000 locations in collaboration with Krishi Vigyan Kendras of the Indian Council of Agricultural Research (ICAR-KVKs), research institutes, state agriculture universities, and progressive farmers. "The trials began in November 2019 and was meant to test the product on the farm under different climatic and soil conditions," Jaiswal said.

#### **How much chemical fertilisers does Gujarat use?**

Gujarat is expected to see a 19 per cent growth in the use of chemical fertilisers during the upcoming kharif season, 2022. The Gujarat government will provide a subsidy of Rs 5,278 crore to farmers for an estimated 19.95 lakh tonne of fertilisers that are expected to be used this kharif season. Along with the spend during the rabi season, the state's fertiliser subsidy bill is more than Rs 10,000 crore.

Gujarat government officials said "natural" farming is still at a nascent stage, and it will be a few years before it can have an impact on the use of chemical fertilisers. However, the government has already begun cutting down on chemical fertilisers.

For instance, under the Krishi Vaividhyakaran Yojana or the Agriculture Diversification Project implemented for tribal farmers in 14 districts, the government has started substituting chemical fertilisers with organic fertilisers in the kits it hands out. In Dangs, which has been declared a 100 per cent natural farming district, no chemical fertilisers are being given under this scheme this year.

Officials said that apart from helping cut the use of conventional fertilisers, liquid nano urea is also comparatively safe for the environment.

#### **What is planned for the future with regard to liquid nano urea production?**

IFFCO commissioned the Kalol liquid nano urea plant, the country's first, in August 2021. Over 3.6 crore bottles of this urea have been produced, of which 2.5 crore have been sold.

IFFCO is setting up additional facilities for production of nano fertilisers at Aonla, Phulpur, Bengaluru, Paradeep, Kandla, Deoghar and Guwahati, besides expanding the Kalol plant, for the production of nano urea, nano DAP and nano micronutrients. These units will have a production capacity of 2 lakh bottles per day.

**Source: The Indian Express**

## **2. Gecko found in Andhra, Odisha turns out to be a new species**

**Relevant for GS Prelims & Mains Paper III; Environment & Biodiversity**





*An uncollected live specimen of Eublepharis pictus. (Pic: Zeeshan A Mirza)*

A gecko found in Visakhapatnam in 2017, then thought to belong to a known species, has now been identified as a member of a new species. The species, *Eublepharis pictus*, also known as the Painted Leopard Gecko, has been described in the journal *Evolutionary Systematics*.

Researchers Zeeshan A Mirza (National Centre for Biological Sciences, Bengaluru) and C Ganeswar of (Madras Crocodile Bank Trust) had initially identified the specimen, which they had found dead in a water tank, as an East Indian Leopard Gecko (*Eublepharis hardwickii*). Now, a phylogenetic study and morphological comparisons have distinguished it as a new species, which appears to be common in the forests of Andhra Pradesh and Odisha.

The gecko genus *Eublepharis* now has 7 species. Before *Eublepharis pictus*, Mirza had also previously described *Eublepharis satpuraensis*. “The new species differs from all members of the genus *Eublepharis* except for *E. hardwickii*... Geographically the two species appear to be separated by the Brahmani River,” Mirza and Ganeswar wrote in their paper.

*E. hardwickii* has been recorded from several places in West Bengal, Jharkhand, Odisha and Andhra Pradesh. While noting that the new species is distributed across Odisha and Andhra Pradesh, the researchers wrote. “We here refrain from providing accurate locations of the species to ensure protection from illegal collection for the pet trade.”

The species occurs outside protected areas. The authors pointed out that most leopard geckos are killed when encountered, and called for raising awareness about the fact that the species is actually harmless. “Based on IUCN (International Union for the Conservation of Nature) conservation prioritization criteria we propose to list *E. pictus*... and *E. hardwickii* as Near Threatened (NT) pending further information on local population estimates, especially in protected areas,” the researchers wrote.

**Source: The Indian Express**

### **3. Which is the largest plant in the world, spread over 20,000 football fields?**

**Relevant for GS Prelims & Mains Paper III; Environment**

The world’s largest plant has recently been discovered off the West Coast of Australia: a seagrass 180 km in length.



But stretching across 150 km — which is about the distance between Mumbai and Pune – is not even the only remarkable thing about the plant.

The ribbon weed, or *Posidonia australis*, has been discovered in Shark Bay by a group of researchers from Flinders University and The University of Western Australia. These researchers have also found that the plant is 4,500 years old, is sterile, has double the number of chromosomes than other similar plants, and has managed to survive the volatile atmosphere of the shallow Shark Bay.

**So how remarkable is this plant’s size?**

The ribbon weed covers an area of 20,000 hectares. The next on the podium, the second largest plant, is the clonal colony of a quaking Aspen tree in Utah, which covers 43.6 hectares. The largest tree in India, the Great Banyan in Howrah’s Botanical Garden, covers 1.41 hectares.

**If it is so large, how come it has just been discovered?**

The existence of the seagrass was known, that it is one single plant was not. Researchers were interested in what they then thought was a meadow because they wanted to study its genetic diversity, and collect some parts for seagrass restoration.

The University of Western Australia quotes UWA student researcher and lead author of the study, Jane Edgeloe, as saying that the team “sampled seagrass shoots from across Shark Bay’s variable environments and generated a ‘fingerprint’ using 18,000 genetic markers.”

“The answer blew us away – there was just one!” Edgeloe was quoted as saying. “That’s it, just one plant has expanded over 180km in Shark Bay, making it the largest known plant on earth.”

The findings were published in the journal Proceedings of the Royal Society B.



**A 4,500-YEAR OLD PLANT, SPREAD OVER 20,000 FOOTBALL FIELDS**

The world's largest plant has recently been discovered off the West Coast of Australia: a seagrass

**180 km**  
IN LENGTH

*Posidonia australis*

**SHARK BAY**

**AUSTRALIA**

The ribbon weed, *Posidonia australis*, has been discovered in Shark Bay by a group of researchers from Flinders University and The University of Western Australia

Graphic: Dinkar Sasi

**How did it grow, and survive for, so long?**

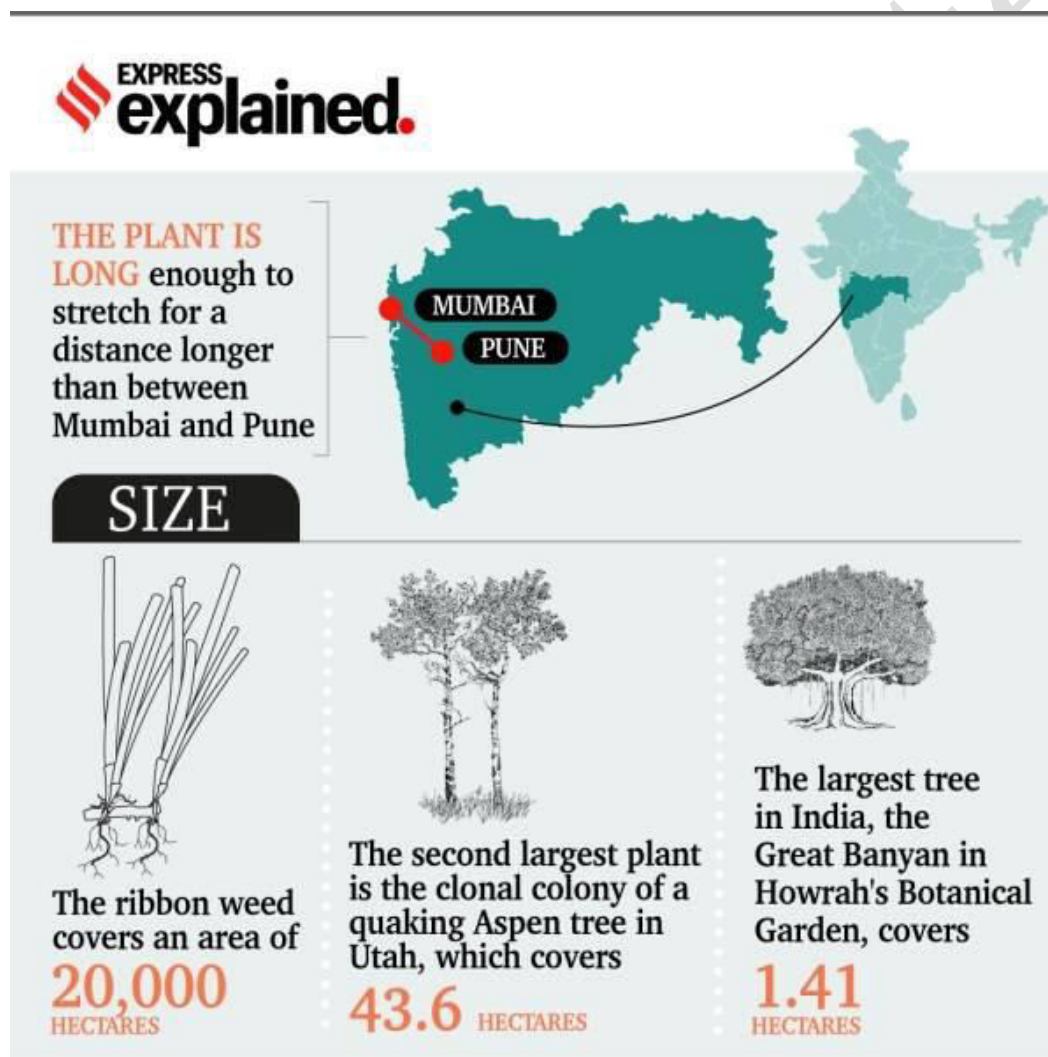
Sometime in the Harappan era, a plant took root in the Shark Bay. Then it kept spreading through its rhizomes, overcoming everything in its way, and here we are today.

Ribbon weed rhizomes can usually grow to around 35cm per year, which is how the scientists arrived at its lifespan of 4,5000 years.

The researchers found that the ribbon weed cannot spread its seeds, something that helps plants overcome environmental threats. Also, Shark Bay sees fluctuations in temperature and salinity and gets a lot of light, conditions challenging for any plant.

Yet the ribbon weed has managed to survive, and a part of the reason may be that it is a polyploid – instead of taking half-half genome from both parents, it took 100 per cent, something not unheard of in plants. Therefore, this ribbon weed has twice the number of chromosomes other plants of the same variety have.

“Polyploid plants often reside in places with extreme environmental conditions, are often sterile, but can continue to grow if left undisturbed, and this giant seagrass has done just that,” the University of Western Australia quoted Dr Elizabeth Sinclair, a senior author of the study, as saying.



**All that is cool, but why should I be excited about some grass in Australia?**

Because seagrass performs a vital role in the environment, and if some of it is hardy, it is good news for everyone in a world threatened by climate change.

In India, seagrass is found in many coastal areas, most notably in Gulf of Mannar and Palk Strait. Apart from being home to a variety of small organisms, seagrass trap sediments and prevent water from getting muddy, absorb carbon from the atmosphere, and prevent coastal erosion.

The Shark Bay ribbon, thus, has served as sinkhole, hospitable city, and firewall for centuries. And it has done all this without mating, so maybe it has one more distinction – being one of the oldest champions of sologamy.

**Source: The Indian Express**

#### **4. World's first fishing cat census done in Chilika**

**Relevant for GS Prelims & Mains Paper III; Environment**

The Chilika Lake, Asia's largest brackish water lagoon, has 176 fishing cats, according to a census done by the Chilika Development Authority (CDA) in collaboration with the Fishing Cat Project (TFCP).

This is the world's first population estimation of the fishing cat done outside the protected area network. According to the CDA, phase 1 of the estimation was conducted in 2021 in the 115 sq.km marshland in the north and north-eastern section of Chilika and its surrounding areas. Phase 2 was conducted in 2022 in the Parikud side along the coastal islands of Chilika.

A total of 150 camera traps were deployed in two phases with each fixed in the field for 30 days. Spatially explicit capture recapture method was used to analyse the data, the CDA said in a statement.

##### **'Participatory spirit'**

"It was truly participatory in spirit since local fishermen and villagers of Chilika were the primary participants in this exercise. Without their support, the world's first such population estimation outside protected areas on this globally threatened cat, would not have been possible," said Susanta Nanda, Chief Executive Officer, CDA.

"Ten graduate and postgraduate students also volunteered during the exercise. Chilika Wildlife Division staff actively facilitated and participated in the estimation. Such a participatory effort involving multiple stakeholders for studying this elusive and threatened species sets a wonderful precedent," said Partha Dey, co-founder, TFCP.

The CDA said the globally threatened cats are found in wetlands in major South and Southeast Asian river basins starting from the Indus in Pakistan till the Mekong in Vietnam and in Sri Lanka and Java. They are found in 10 Asian countries but have stayed undetected in Vietnam and Java since the last decade or so.

"Wetlands in Asia are being lost at alarmingly rapid rates and proper data on their current status or even baseline data are missing. The status of many wetland species remains understudied and highly threatened. Tracking specialist species such as the fishing cat gives us an indication of what might be happening to these ecosystems, which are safeguards against climate change and droughts," said Tiasa Adhya, the co-founder of TFCP.

**Source: The Hindu**

#### **5. What are 'green jobs', mentioned by the PM in his Environment Day speech?**

**Relevant for GS Prelims & Mains Paper III; Environment**

At an event to mark World Environment Day recently, Prime Minister Narendra Modi spoke about India's consistent efforts to combat climate change. During his speech, he also mentioned India's efforts to create 'green jobs', and said: "There is another aspect of these efforts of India (in fighting climate change) which is rarely discussed and that is the subject of green jobs. The way India is taking decisions in the interest of the environment and implementing them rapidly, is also generating a large number of green job opportunities. This is also a topic that should be thought about."

##### **What are 'green jobs'?**

'Green jobs' refer to a class of jobs that directly have a positive impact on the planet, and contribute to the overall environmental welfare. Jobs involving renewable energy, conservation of resources, ensuring

energy efficient means are categorised under the same. In all, they're aimed at reducing the negative environmental impact of economic sectors and furthering the process of creating a low-carbon economy.

The idea behind a low-carbon economy or decarbonisation is fairly simple — it is about maintaining a sustainable economy, one that doesn't lead to vast emissions of greenhouse gasses, especially carbon dioxide.

### **India and 'green jobs'**

The Skill Council for Green Jobs was launched by the Union government on October 1, 2015. Aligned to the National Skill Development Missions, it was set up to be a not-for-profit, independent, industry-led initiative. Promoted by the Ministry of New and Renewable Energy (MNRE) and the Confederation of Indian Industry (CII), the council aims to help manufacturers and other service providers in India's 'green business' sector to implement industry-led, collaborative skills push the country on the path to truly realising the real potential and significance of 'green jobs'. According to the Skill Council for Green Jobs, awareness and training individuals regarding green jobs skills will ensure limiting greenhouse gas emissions, minimising waste and pollution, protect and restore ecosystems, support adaptation to the effects of climate change.

### **Scenario across the world**

The United Nations Environment Programme's 2019 Emissions Gap report dictates that it is essential for greenhouse gas emissions to reduce by 7.6% per annum between the years 2020 to 2030 in order to reach the target that was set during the Paris Agreement. Failing to meet the same would consequently result in a failure to effectively combat global warming. Consequently, a decarbonised economy plays a key role in ensuring a greener, safer, healthier and more sustainable planet to inhabit. Globally too, there have been multiple initiatives to further the 'green jobs' sector. The International Labour Organisation, the International Trade Union Confederation, the United Nations Environment Programme and the International Employers Organisation collectively launched the Green Jobs Initiative in 2008, aimed at bettering placements, training and creating opportunities for individuals to work in 'green jobs'.

The United Kingdom is likely to have nearly 694,000 green jobs by the year 2030, projecting an overall 11% increase per year in the green economy.

According to Eliot Whittington, the director of policy at the Cambridge Institute for Sustainability Leadership (CISL), the move to normalising 'green jobs' and making them an unquestionable, inherent part of the economy can only be achieved through systemic shifts, where multiple organisations work in harmony and that isolated innovations do not go a long way in ensuring the same.

### **The way forward**

According to the ILO, India moving to a green economy by the next decade would alone create about 3 million jobs in the renewable energy sector. The renewable energy sector created about 47,000 new jobs in 2017 accounting for a 12% increase in just the span of a year, they said.

For India 'green jobs' can prove immensely useful to the country with sectors like renewable energy, waste management, green transport and urban farming all having great potential to employ a trained workforce. An integrated, systematic approach, experts believe, is crucial to ensuring this.

**Source: The Indian Express**

## **6. What are 'carbon bombs', why environmentalists want them defused?**

### **Relevant for GS Prelims & Mains Paper III; Environment**

A group of environmentalists, lawyers, and activists have come together to identify and 'defuse carbon bombs'— coal, oil and gas projects that have the potential to contribute significantly to global warming.

The usage of the term 'carbon bombs' picked up after an investigative project of The Guardian from May this year. The project reported the plans of countries and private companies all over the world to engage in 195 'carbon bomb' projects. Each such project, it is believed, will release huge amounts of CO<sub>2</sub> emissions into the atmosphere.

### **What are carbon bombs?**

Defining the term in its report, The Guardian said that it is “an oil or gas project that will result in at least a billion tonnes of CO<sub>2</sub> emissions over its lifetime.”

Whenever coal, oil, or gas is extracted it results in pollution and environmental degradation. Further, carbon emissions take place in particularly large amounts when fuel is burned.

In total, around 195 such projects have been identified world over, including in the US, Russia, West Asia, Australia and India. According to the report, they will collectively overshoot the limit of emissions that had been agreed to in the Paris Agreement of 2015.

The agreement was to contain the global rise in average temperature to 2 °C and strive for the target of 1.5 °C as compared to pre-industrial levels – when the widespread use of coal for industry in the beginning in the mid-19th century led to a rapid rise in average global temperatures.

### **What does the investigation say?**

More than 60% of these carbon bomb projects are already underway, according to the investigation. Apart from coal, oil, and gas operations, the report highlighted the threat of methane, which “routinely leaks from gas operations and is a powerful greenhouse gas, trapping 86 times more heat than CO<sub>2</sub> over 20 years”.

It also put the blame on the companies conducting these operations, pointing to present time where multiple factors, especially the Russia-Ukraine crisis, have led to a reduction in supply and rise in the demand for fuel.

As Russian oil has been banned by countries in the West, prices have risen to the benefit of oil and gas producing companies.

The report criticised reliance on fuel from conventional sources and not making use of emerging, green sources of energy. Energy companies such as ExxonMobil, Total, Chevron, Shell and BP (British Petroleum) are all mentioned as having coal bomb projects.

“Under the IEA net zero emissions scenario, and all Paris-aligned scenarios, all energy sources remain important through 2050, and oil and natural gas remain essential components of the energy mix,” an ExxonMobil spokesperson told The Guardian.

This in reference to the International Energy Agency, an international organisation which put together a road map to reduce global carbon emissions to as close to zero as possible by 2050.

Net zero emissions means that all carbon emissions into the atmosphere must be absorbed by methods like increasing the forest cover, and decreasing man-made emissions.

A spokesperson for Shell said: “As a result of [our] planned level of capital investment, we expect a gradual decline of about 1-2% a year in total oil production through to 2030, including divestments.”

In response to the third Intergovernmental Panel on Climate Change (IPCC) report this year, UN Secretary-General Antonio Guterres had spoken of the need to maintain global temperatures: “...We are on a fast track to climate disaster...we are on a pathway to global warming of more than double the 1.5-degree limit agreed in Paris...but high-emitting governments and corporations are not just turning a blind eye; they are adding fuel to the flames. To keep the 1.5-degree limit agreed in Paris within reach, we need to cut global emissions by 45% this decade, but current climate pledges would mean a 14% increase in emissions. Investing in new fossil fuels infrastructure is moral and economic madness.”

### **What is the plan for ‘defusing’ carbon bombs?**

The network working towards this goal is called Leave It In the Ground Initiative (LINGO). Its mission is to “leave fossil fuels in the ground and learn to live without them.” It believes the root of climate change is the burning of fossil fuels, and the 100% use of renewable energy sources is the solution.



On its website, it has listed carbon bomb projects from all over the world. This includes the Carmichael Coal Project owned by the Adani Group, Gevra Coal Mines in Chhattisgarh owned by Coal India, and Rajmahal Coal Mines in eastern Jharkhand owned by Eastern Coalfields.

LINGO aims to organise ground support for protesting such projects, challenge them through litigation, and conduct analysis and studies for the same.

**Source: The Indian Express**

## **7. Environment index and India**

### **Relevant for GS Prelims & Mains Paper III; Environment**

The newly released Environmental Performance Index (EPI) 2022, measured by Yale and Columbia universities, ranks India at the bottom position among 180 countries. The Environment Ministry has issued a rebuttal saying the indicators used in the assessment are based on “unfounded assumptions”.

#### **So, what is this index?**

The EPI is an international ranking system of countries based on their environmental health. It is a biennial index, first started in 2002 as the Environment Sustainability Index by the World Economic Forum in collaboration with the Yale Center for Environmental Law and Policy and Columbia University Center for International Earth Information Network.

EPI 2022 uses 40 performance indicators to assess and rank 180 countries. The report says it uses the most recent data, and the indicators “measure how close countries are to meeting internationally established sustainability targets for specific environmental issues”.

The 40 indicators are under the broad categories of climate change performance, environmental health, and ecosystem vitality. The 2022 EPI has included new parameters to its earlier assessments, with projections of progress towards net-zero emissions in 2050, as well as new air quality indicators, and sustainable pesticide use.

#### **How poor is the EPI assessment of India?**

With a rank of 180 and a score of 18.9, India has fallen from rank 168 and a score of 27.6 in 2020. India comes after Pakistan, Bangladesh, Vietnam and Myanmar, the poorest performers. Denmark tops the list with a score of 77.9.

India ranks close to the bottom on a number of indicators including ecosystem vitality (178th), biodiversity (179th), biodiversity habitat index (170th), species protection index (175th), wetland loss, air quality (179th), PM 2.5 (174th), heavy metals such as lead in water (174th), waste management (151st) and climate policy (165th) including projected greenhouse gas emissions (171st).

India has also scored low on rule of law, control of corruption and government effectiveness, according to the report.

#### **What objections has India raised?**

In a statement on Wednesday, the Ministry of Environment, Forest and Climate Change: “Some of these indicators used for assessing performance are extrapolated and based on surmises and unscientific methods.”

Ministry officials cited two major concerns – that baseline data does not seem to have been used, and that there has been no explanation for the weightages assigned to certain indicators. “It is not like comparing apples to apples but apples to oranges,” said an official.

The Ministry said the shifting of weightage on many indicators has resulted in India’s low ranking. For example, for black carbon growth, India’s score actually improved from 32 in 2020 to 100 (the top score) in 2022, but the weightage of this indicator has been reduced to 0.0038 in 2022 from 0.018 in 2020.

The government has objected to calculations of greenhouse gas projections for 2050, which ties into countries' net zero goals. India has set a net zero target for 2070, unlike developed nations that have set 2050.

### **What is the objection with the projection?**

The government said the projection for greenhouse gas emissions has been computed based on the average rate of change in emission of the last 10 years rather than modelling that takes into account a longer period, extent of renewable energy capacity and use, additional carbon sinks, energy efficiency etc. It said crucial carbon sinks that mitigate GHG, such as forests and wetlands, have not been taken into account. India's low emissions trajectory, unlike high historical trajectories of developed countries, has been ignored, it said.

The government has objected to the low weightage given to per-capita GHG emissions (2.6%). "No indicator talks about the renewable energy, energy efficiency and process optimization," it said.

Among other objections raised: the index emphasises the extent of protected areas rather than the quality of protection that they afford; the computation of biodiversity indices does not factor in management effectiveness evaluation of protected areas the index computes the extent of ecosystems but not their condition or productivity; indicators such as agro biodiversity, soil health, food loss and waste are not included even though they are important for developing countries with large agrarian populations.

### **Do environmental scientists agree with the report?**

Dr Navroz Dubash of the Centre for Policy Research, among the authors of the latest report of the International Report on Climate Change (IPCC), said the climate change parameter of the EPI report is "highly problematic".

"Of course weightages are the agency's discretion, but giving climate change such a high weightage is problematic. The EPI 2022 makes an assumption that every country has to reach net-zero by 2050 — whereas the understanding is that developing countries will need more time. GHG emissions will continue to grow in poorer countries for a time, unlike many developed countries which have peaked. We can't be expected to forgo energy for development. The EPI 2022 is neither ethically correct nor reflects the political reality. Moreover, the methodology that EPI has used for its 2050 projections, using last decade's emissions, is extremely crude," Dubash said.

In developing countries, of which many like India have low emissions trajectories, the contribution is not that emissions reduce but to "avoid locking into higher emissions trajectories". "That is what is expected of developing countries, but this methodology doesn't allow for that and the government is correct in pointing this out," he said. He said the EPI assumes every country is in the same position economically, developmentally and environmentally.

IIT Delhi professor and air pollution expert Dr Sagnik Dey said the low weightage given to per-capita GHG emissions automatically reduces the ranks of countries like India and China. "Even if air pollution declines steadily, in countries like India and China, by virtue of their large populations the overall figure of the health burden or DALY for instance, will always be high and therefore will always fall in the bottom of the pile, if per-capita GHG emissions are given lower weightage."

### **So, how seriously should the findings be taken?**

Dr Dey cautioned that despite the inconsistencies, the government should not ignore the fact that India was at 168th rank in 2020 and has never been in the top 150 countries since the index was started.

Dr Dubash said that despite issues with the EPI, India does have severe local environmental issues, which have been highlighted in the report and need to be addressed.

Dr Ravi Chellam, Coordinator, Biodiversity Collective, said: "Much smaller and poorer countries have done better. I don't think we should get carried away by only the rank. If other countries perform poorer, India's rank will improve. It is vital to focus on sustainable developmental pathways we need to immediately adopt."

**Source: The Indian Express**

## 8. Coal use to be banned in NCR, what impact could this have?

### Relevant for GS Prelims & Mains Paper III; Environment

The use of coal as a fuel will be banned across the National Capital Region (NCR) from January 1, 2023, the Commission for Air Quality Management (CAQM) said on Wednesday. Once the ban is in force, coal can no longer be used for industrial or domestic purposes, but thermal power plants will be exempted from the ban. From October 1, 2022 onward, a ban on coal use will be applicable in areas where PNG infrastructure and supply is already available.

#### Why has the use of coal been banned?

The CAQM said in a note issued on Wednesday that coal dominates industrial fuels in the NCR and industries in the region consume around 1.7 million tonnes of coal annually, “with about 1.4 million tonnes being consumed in six major industrial districts of NCR alone”. The move is meant to phase out the use of coal as a fuel to deal with concerns of air pollution across the NCR.

According to a source apportionment study done by The Energy and Resources Institute in 2018, which showed source contributions for the year 2016, within the 30 per cent contribution of the industrial sector in PM<sub>2.5</sub> level in winter in Delhi, industries using coal, biomass, pet-coke and furnace oil contributed around 14 per cent, while 8 per cent was contributed by the brick manufacturing sector, 6 per cent by power stations, and 2 per cent by stone crushers. All 1,607 industrial units in Delhi have now switched to running on PNG, according to the Delhi government.

#### Is the ban likely to have an impact on air quality in the NCR?

It could help chip away at the use of dirty fuel in the NCR, experts say. “If we want a regional-level clean-up, we need to get rid of all dirty fuel,” said Anumita Roychowdhury, executive director, research and advocacy, Centre for Science and Environment. Coal is currently the dominant industrial fuel in the NCR, and it is important to have clean fuel across sectors, while looking for significant reduction in air pollution levels, she said.

Overall, from an air quality perspective, the move is desirable, said Karthik Ganesan, fellow and director of research coordination at the Council on Energy, Environment and Water. “It is a move that will definitely have implications, since 1.7 million tonnes is a sizable amount of coal. It is a big quantum, but that number is distributed among many entities, which may be using small amounts of coal for various purposes. Many of these might be MSMEs. What would have been good is to go after the top ones, where capital investment might be easier for them,” he said.

On the exemption given to thermal power plants, Roychowdhury said it was possible for Delhi to shut down its coal power plants, but at the NCR level, there is a need to plan where electricity will come from.

“The PM<sub>2.5</sub> emissions attributable to industries in the NCR is reasonably high. However, by the time these emissions make their way to Delhi their impact is reduced. The impact of the coal ban will be a boon for the regions outside NCT as they are bearing the brunt of the emissions, which locally worsen air quality,” Ganesan said.

#### What could be the challenges in enforcing the ban, and what does it mean for industries currently running on coal?

“The implementation will involve thousands of small point sources, and compliance monitoring will be that much more of a challenge, when compared to large sources,” Ganesan said.

Pricing of gas could be a critical area while trying to enforce the ban, Roychowdhury said. “Natural gas is now more expensive than coal. If we can find the correct pricing policy, industries will be willing to shift,” she said. To enable proper implementation of the ban, infrastructure needs to be scaled up along with building the supply, she added.

J N Mangla, president of the Gurgaon Industrial Association which has around 400 members, said pipelines for gas were yet to reach some places. Besides, switching over to operating on gas will involve changes in the equipment that can be expensive. “The expenses for the equipment can be difficult to bear

and subsidising it is important,” he said. The deadline could also be difficult to meet. “Slowly, industries will be able to switch, but making the switch quickly could be difficult particularly for small industries,” he added.

Ganesan said, “The challenge will be of expenses. For the entities, product costing could be difficult when it comes to competing with manufacturers outside the NCR. You will then have to ensure these entities are compensated and their ability to market the product in the NCR is not compromised on account of the costing. Gas (price) has shot through the roof, which makes this a double whammy. It will come as a challenge for small entities.”

In the NCR districts of Haryana, 408 industrial units out of 1,469 identified for shifting to gas had made the switch, according to data from the CAQM in August last year. In the NCR districts of Uttar Pradesh, 1,161 industrial units out of 2,273 had shifted to gas, while 124 units out of 436 in the NCR area of Rajasthan had shifted to gas.

**Source: The Indian Express**

### **9. Why is the discovery of microplastics in fresh Antarctic snow troubling?**

#### **Relevant for GS Prelims & Mains Paper III; Environment**

For the first time, microplastics have been found in freshly fallen snow in Antarctica. The pollutant, scientists argue, poses a growing threat to the region’s ecosystem and could increase the melting of ice and snow.

Alex Aves, a PhD student from the University of Canterbury in New Zealand, collected snow samples from 19 sites in the Ross Island region of Antarctica and found that all contained microplastics. The research was published in a peer-reviewed article in a scientific journal, *The Cryosphere* on June 7.

While microplastics have been found across the world, from the world’s deepest ocean floors to the peak of Mount Everest, researchers say that this is the first time that they have been found in freshly fallen snow in Antarctica.

#### **What are microplastics?**

Microplastics are tiny plastic debris that are smaller than 5 mm in length, tinier than even a grain of rice.

There are two types of microplastics. Primary microplastics are tiny particles that are purposely designed as such for commercial use, like in cosmetics, nurdles-plastic pellets used in industrial manufacturing and in fibres from synthetic textiles like nylon.

Secondary microplastics are formed through the degradation of larger plastic items like bottles, fishing nets and plastic bags. This occurs through exposure to the environment, like radiation from the sun, wind and ocean waves.

#### **How did they reach Antarctica?**

The study found an average of 29 particles of microplastic per litre of melted snow. These particles, due to their light weight and low density, might have travelled through air from more than 6,000 km away. However, researchers argued that there is also a possibility that the human presence in Antarctica created a microplastic ‘footprint’.

Of the 13 different plastic types found, the most common was polyethylene terephthalate (PET), a type of plastic used in everyday items such as clothes, plastic bottles, packaging etc. PET was found in 79 per cent of all samples.

The most likely sources of the airborne microplastic are local research stations, due to the clothing worn by staff, broken fragments of plastic equipment and mismanaged waste. There was a much larger concentration of microplastics (nearly 3 times higher) in the samples next to local base camps, such as Scott Base and McMurdo Station in Ross Island, as compared to those from more remote sites.

Wayfinding flags, made of synthetic polyamide fabric which identify safe routes for travel, might also release microplastic, according to the report.

### **Why is this discovery troubling?**

It shows that the spread of microplastics is so widespread, that even the remotest and least habitable places in the world are now infested by these particles.

The presence of these particles can pose a huge threat to Antarctica's distinctive ecosystem. Microplastics are not biodegradable and once they are found in the environment, they begin to accumulate. They can be toxic for plants and animals.

The report claims that ingestion of microplastics by various life forms in the region, from microorganisms like zooplankton to larger predators like king penguins can disrupt their usual biological processes and negatively impact the entire Antarctic food chain.

The presence of microplastics in Antarctica can also worsen the impact of climate change. Ice sheets and glaciers are already rapidly melting, and the report suggests that the microplastics deposited in ice and snow can accelerate the melting of the cryosphere — regions where water is in solid form, like the planet's North and South Poles.

Dark-coloured microplastics, which constituted 55% of the samples collected in Aves' study, are even more harmful than lighter colours, as they are better at absorbing sunlight and retain more heat.

Further, the study shows the ubiquitous presence of microplastics in not only land and water, but the air as well.

When snow travels in the atmosphere, it binds itself to airborne particles and pollutants, which are then deposited on Earth's surfaces. This phenomenon is called "scavenging" and according to scientists is a significant way in which microplastics are able to travel and further pollute land and water. When carried by the snow, rain and wind, they can also lead to the risk of possible inhalation of microplastics by humans and wildlife.

**Source: The Indian Express**

## **10. What are 'carbon bombs', why environmentalists want them defused?**

### **Relevant for GS Prelims & Mains Paper III; Environment**

A group of environmentalists, lawyers, and activists have come together to identify and 'defuse carbon bombs'— coal, oil and gas projects that have the potential to contribute significantly to global warming.

The usage of the term 'carbon bombs' picked up after an investigative project of The Guardian from May this year. The project reported the plans of countries and private companies all over the world to engage in 195 'carbon bomb' projects. Each such project, it is believed, will release huge amounts of CO<sub>2</sub> emissions into the atmosphere.

### **What are carbon bombs?**

Defining the term in its report, *The Guardian* said that it is "an oil or gas project that will result in at least a billion tonnes of CO<sub>2</sub> emissions over its lifetime."

Whenever coal, oil, or gas is extracted it results in pollution and environmental degradation. Further, carbon emissions take place in particularly large amounts when fuel is burned.

In total, around 195 such projects have been identified world over, including in the US, Russia, West Asia, Australia and India. According to the report, they will collectively overshoot the limit of emissions that had been agreed to in the Paris Agreement of 2015.

The agreement was to contain the global rise in average temperature to 2 °C and strive for the target of 1.5 °C as compared to pre-industrial levels – when the widespread use of coal for industry in the beginning in the mid-19th century led to a rapid rise in average global temperatures.



### **What does the investigation say?**

More than 60% of these carbon bomb projects are already underway, according to the investigation. Apart from coal, oil, and gas operations, the report highlighted the threat of methane, which “routinely leaks from gas operations and is a powerful greenhouse gas, trapping 86 times more heat than CO<sub>2</sub> over 20 years”.

It also put the blame on the companies conducting these operations, pointing to present time where multiple factors, especially the Russia-Ukraine crisis, have led to a reduction in supply and rise in the demand for fuel.

As Russian oil has been banned by countries in the West, prices have risen to the benefit of oil and gas producing companies.

The report criticised reliance on fuel from conventional sources and not making use of emerging, green sources of energy. Energy companies such as ExxonMobil, Total, Chevron, Shell and BP (British Petroleum) are all mentioned as having coal bomb projects.

“Under the IEA net zero emissions scenario, and all Paris-aligned scenarios, all energy sources remain important through 2050, and oil and natural gas remain essential components of the energy mix,” an ExxonMobil spokesperson told *The Guardian*.

This in reference to the International Energy Agency, an international organisation which put together a road map to reduce global carbon emissions to as close to zero as possible by 2050.

Net zero emissions means that all carbon emissions into the atmosphere must be absorbed by methods like increasing the forest cover, and decreasing man-made emissions.

A spokesperson for Shell said: “As a result of [our] planned level of capital investment, we expect a gradual decline of about 1-2% a year in total oil production through to 2030, including divestments.”

In response to the third Intergovernmental Panel on Climate Change (IPCC) report this year, UN Secretary-General Antonio Guterres had spoken of the need to maintain global temperatures: “...We are on a fast track to climate disaster...we are on a pathway to global warming of more than double the 1.5-degree limit agreed in Paris...but high-emitting governments and corporations are not just turning a blind eye; they are adding fuel to the flames. To keep the 1.5-degree limit agreed in Paris within reach, we need to cut global emissions by 45% this decade, but current climate pledges would mean a 14% increase in emissions. Investing in new fossil fuels infrastructure is moral and economic madness.”

What is the plan for ‘defusing’ carbon bombs?

The network working towards this goal is called Leave It In the Ground Initiative (LINGO). Its mission is to “leave fossil fuels in the ground and learn to live without them.” It believes the root of climate change is the burning of fossil fuels, and the 100% use of renewable energy sources is the solution.

On its website, it has listed carbon bomb projects from all over the world. This includes the Carmichael Coal Project owned by the Adani Group, Gevra Coal Mines in Chhattisgarh owned by Coal India, and Rajmahal Coal Mines in eastern Jharkhand owned by Eastern Coalfields.

**Source: The Indian Express**

### **11. Why is single-use plastic being banned in India from July 1?**

**Relevant for GS Prelims & Mains Paper III; Environment**

The Centre has banned the use of ‘single-use plastic’ from July 1. The Ministry for Environment, Forest and Climate Change had issued a gazette notification last year announcing the ban, and has now defined a list of items that will be banned from next month.

“The manufacture, import, stocking, distribution, sale and use of following single-use plastic, including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the 1st July, 2022,” says the Ministry notification.

### **What is single-use plastic?**

As the name suggests, it refers to plastic items that are used once and discarded. Single-use plastic has among the highest shares of plastic manufactured and used — from packaging of items, to bottles (shampoo, detergents, cosmetics), polythene bags, face masks, coffee cups, cling film, trash bags, food packaging etc.

A 2021 report by one of the Australian philanthropic organisations the Minderero Foundation said single-use plastics account for a third of all plastic produced globally, with 98% manufactured from fossil fuels. Single-use plastic also accounts for the majority of plastic discarded – 130 million metric tonnes globally in 2019 — “all of which is burned, buried in landfills or discarded directly into the environment”, the report said.

On the current trajectory of production, it has been projected that single-use plastic could account for 5-10% of greenhouse gas emissions by 2050.

The report found that India features in the top 100 countries of single-use plastic waste generation – at rank 94 (the top three being Singapore, Australia and Oman. With domestic production of 11.8 million metric tonnes annually, and import of 2.9 MMT, India’s net generation of single-use plastic waste is 5.6 MMT, and per capita generation is 4 kg.

### **What are the items being banned?**

The items on which the Central Pollution Control Board (CPCB) have announced a ban are earbuds; balloon sticks; candy and ice-cream sticks; cutlery items including plates, cups, glasses, forks, spoons, knives, trays; sweet boxes; invitation cards; cigarette packs; PVC banners measuring under 100 microns; and polystyrene for decoration.

The Ministry had already banned polythene bags under 75 microns in September 2021, expanding the limit from the earlier 50 microns. From December, the ban will be extended to polythene bags under 120 microns. Ministry officials have explained that the ban is being introduced in phases to give manufacturers time to shift to thicker polythene bags that are easier to recycle. While manufacturers can use the same machine for 50- and 75-micron bags, the machinery will need to be upgraded for 120 microns.

According to the Plastic Waste Management Rules, 2016, there is also a complete ban on sachets using plastic material for storing, packing or selling gutkha, tobacco and pan masala.

### **Why these items?**

Ministry officials have said that the choice for the first set of single-use plastic items for the ban was based on “difficulty of collection, and therefore recycling”.

“The enemy is not that plastic exists per se, but that plastic exists in the environment. When plastic remains in the environment for long periods of time and does not decay, it turns into microplastics – first entering our food sources and then the human body, and this is extremely harmful. We have chosen these items as they are difficult to collect, especially since most are either small, or discarded directly into the environment – like ice-cream sticks. It then becomes difficult to collect for recycling, unlike the much larger items,” said a Ministry official.

Satish Sinha of the environmental group Toxic Links described the items chosen as “low-hanging fruit”. “Of the single-use plastic industry – the production and sale of these items is miniscule. The largest share of single-use plastic is that of packaging – with as much as 95% of single use belong to this category – from toothpaste to shaving cream to frozen foods. The items chosen are of low value and of low turnover and are unlikely to have a big economic impact, which could be a contributing reason. Having said that, we do need to start with something, and it is a beginning,” said Sinha.

### **How will the ban be enforced?**

The ban will be monitored by the CPCB from the Centre, and by the State Pollution Control Boards (SPCBs) that will report to the Centre regularly. Directions have been issued at national, state and local levels — for example, to all petrochemical industries — to not supply raw materials to industries engaged in the banned items.

Directions have also been issued to SPCBs and Pollution Control Committees to modify or revoke consent to operate issued under the Air/Water Act to industries engaged in single-use plastic items. Local authorities have been directed to issue fresh commercial licenses with the condition that SUP items will not be sold on their premises, and existing commercial licences will be cancelled if they are found to be selling these items.

Last week, the CPCB issued one-time certificates to 200 manufacturers of compostable plastic and the BIS passed standards for biodegradable plastic.

Those found violating the ban can be penalised under the Environment Protection Act 1986 – which allows for imprisonment up to 5 years, or a penalty up to Rs 1 lakh, or both.

Violators can also be asked to pay Environmental Damage Compensation by the SPCB. In addition, there are municipal laws on plastic waste, with their own penal codes.

### **How are other countries dealing with single-use plastic?**

Earlier this year, 124 countries, parties to the United Nations Environment Assembly, including India, signed a resolution to draw up an agreement which will in the future make it legally binding for the signatories to address the full life of plastics from production to disposal, to end plastic pollution.

Bangladesh became the first country to ban thin plastic bags in 2002. New Zealand became the latest country to ban plastic bags in July 2019. China issued a ban on plastic bags in 2020 with phased implementation.

As of July 2019, 68 countries have plastic bag bans with varying degrees of enforcement.

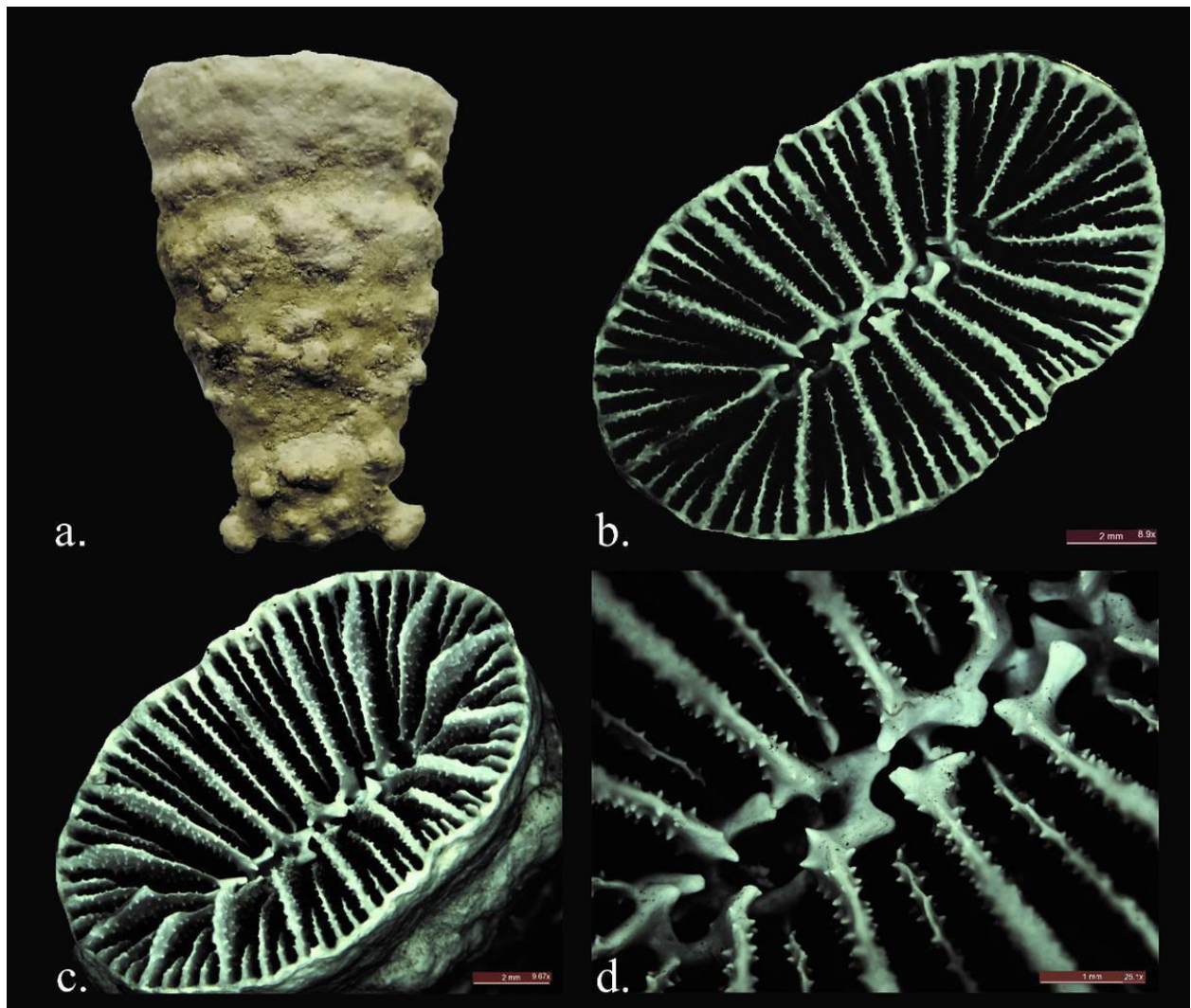
Eight states in the US have banned single-use plastic bags, beginning with California in 2014. Seattle became the first major US city to ban plastic straws in 2018.

On July 2, 2021, the Directive on Single-Use Plastics took effect in the European Union (EU). The directive bans certain single-use plastics for which alternatives are available; single-use plastic plates, cutlery, straws, balloon sticks and cotton buds cannot be placed on the markets of the EU member states. The same measure applies to cups, food and beverage containers made of expanded polystyrene, and all products made of oxo-degradable plastic.

**Source: The Indian Express**

## **12. Four new corals recorded from Indian waters**

**Relevant for GS Prelims, Environment**



- a. *Truncatoflabellum crassum*
- b. *T. incrustatum*
- c. *T. aculeatum*
- d. *T. irregulare*

#### 4 new species of corals

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.

#### Azooxanthellate corals

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 zooxanthellate 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.

Mr. Mondal said azooxanthellate 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," he added.

**Source: The Hindu**

### **13. What are Eco-Sensitive Zones and why are there protests in Kerala against them?**

#### **Relevant for GS Prelims & Mains Paper III; Environment**

Farmers in Kerala continue to protest across several high ranges of the state against the Supreme Court's recent order to establish 1-km Eco-Sensitive Zones around all protected areas, wildlife sanctuaries and national parks.

The widespread unrest, which has hit districts like Idukki, Kottayam, Pathanamthitta and Wayanad, is borne out of the fear of farmers losing their livelihood, and has found support from the state government, opposition parties and the Catholic Church.

On June 18, almost two weeks after the court order, the Union government said that it will hold discussions with the Kerala government and file an affidavit in the Supreme Court on the matter.

#### **What are Eco-Sensitive Zones?**

As per the National Wildlife Action Plan (2002-2016), issued by the Union Ministry of Environment, Forest and Climate Change, land within 10 km of the boundaries of national parks and wildlife sanctuaries is to be notified as eco-fragile zones or Eco-Sensitive Zones (ESZ).

While the 10-km rule is implemented as a general principle, the extent of its application can vary. Areas beyond 10-km can also be notified by the Union government as ESZs, if they hold larger ecologically important "sensitive corridors."

#### **Why are Eco-Sensitive Zones created?**

According to the guidelines issued by the Environment Ministry on February 9, 2011, ESZs are created as "shock absorbers" for the protected areas, to minimize the negative impact on the "fragile ecosystems" by certain human activities taking place nearby. Furthermore, these areas are meant to act as a transition zone from areas requiring higher protection to those requiring lesser protection.

The guidelines also state that the ESZs are not meant to hamper the daily activities of people living in the vicinity, but are meant to guard the protected areas and "refine the environment around them".

To do so, the guidelines list the activities prohibited in an ESZ, such as commercial mining, saw mills, commercial use of wood, etc., apart from regulated activities like felling of trees. Lastly, there

are permitted activities like ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, among others.

#### **What is the recent SC judgment that has caused an uproar in Kerala?**

On June 3, a three-judge bench of the Supreme Court heard a PIL which sought to protect forest lands in the Nilgiris in Tamil Nadu, but was later expanded to cover the entire country.

In its judgment, the court while referring to the 2011 guidelines as "reasonable", as reported by Live Law, directed all states to have a mandatory 1-km ESZ from the demarcated boundaries of every protected forest land, national park and wildlife sanctuary.

It also stated that no new permanent structure or mining will be permitted within the ESZ.

If the existing ESZ goes beyond 1-km buffer zone or if any statutory instrument prescribes a higher limit, then such extended boundary shall prevail, the court, as per the Live Law report, said.

#### **Why are people protesting against it?**

Protests erupted across the high ranges of Kerala in response to the apex court's directions. Due to the high density of human population near the notified protected areas, farmer's groups and political parties have been demanding that all human settlements be exempt from the ESZ ruling.

Alex Ozhukayil, the chairman of Kerala Independent Farmers' Association (KIFA) claimed that the court's decision would severely impact the livelihoods of farmers.



He said, “The total extent of the wildlife sanctuaries in Kerala is eight lakh acres. If one-km of ESZ is demarcated from their boundaries, around 4 lakh acres of human settlements, including farmlands, would come within that purview. This is a matter of sheer survival of lakhs of people.”

The ruling Left Democratic Front and the Congress-led United Democratic Front have both called for strikes in Idukki and Wayanad districts over the past weeks to oppose the 1-km order.

Before the SC judgment, the Kerala state government had stated during an expert committee meeting of the Union Environment Ministry in March that all human settlements should be excluded from the buffer zones.

The Kerala state government had proposed that for some national parks, such as the Thattekad Bird Sanctuary, the extent of the ESZ area should be reduced from the proposed uniform 1-km, to an ESZ ranging from zero to 1 km in the eastern and south-eastern side of the national park.

This was because the villagers occupying the densely populated settlements in these areas believed that the ESZ would restrict their agricultural and related activities.

#### **Have similar protests taken place before in Kerala?**

This is not the first time that Kerala has faced such protests. In 2013, hartals first erupted in Idukki and Wayanad after the Kasturirangan committee report recommended that 60,000 km of the Western Ghats, covering 12 of Kerala’s 14 districts, be notified as ecologically sensitive areas.

Similar protests had taken place in Karnataka as well.

In December 2021, the Karnataka Chief Minister Basavaraj Bommai said he opposed the decision to declare the Western Ghats as an ecologically sensitive zone, because it would “adversely affect the livelihood of the people in the region”.

**Source: The Indian Express**

## **14. Why Germany is pushing for a ‘climate club’**

**Relevant for GS Prelims & Mains Paper III; Environment**

Germany is hosting this year’s meeting of leaders from the Group of Seven leading economies in the Bavarian resort of Elmau. Before the invasion of Ukraine by Russia triggered a cascade of crises over food, energy and international security, the main focus of the meeting was meant to be on climate change.

The German government under Chancellor Olaf Scholz still plans to get the G-7 to commit to collective progress on curbing global warming, and one of the ideas being discussed is the creation of a climate club’ for countries that want to speed ahead when it comes to tackling the issue.

#### **What is a climate club?**

The idea was first floated by Yale economist and Nobel Prize winner William Nordhaus, who said the voluntary nature of existing climate agreements hasn’t resulted in sufficient progress.

He proposed that countries which were serious about reducing their emissions could come together and form a club which would jointly set ambitious targets and exempt each other from climate-related trade tariffs that non-members would be subject to.

#### **Who might join?**

Germany’s Scholz hopes to get the whole G-7 behind the idea. France and Italy are virtually given, since both countries are also members of the European Union that is itself a club with strong climate targets. Canada is keen to finalize a long-discussed trade agreement with the EU and membership of the climate club could help.

Britain left the EU in 2020 and is skeptical about joining any arrangement with the bloc. But a club that includes members beyond the EU would likely be acceptable to London, especially if the United States is in.

Washington has always had a problem entering into binding agreements on climate change, particularly due to Republican opposition. President George W. Bush withdrew America's signature under the 1997 Kyoto treaty and President Donald Trump pulled the U.S. out of the 2015 Paris accord — a much less stringent pact.

The US rejoined Paris under President Joe Biden, however, and there is growing realization that a go-it-alone approach may not be in America's interest, especially if it wants to force China to pull its weight on reducing emissions.

Japan may also be swayed by the prospect of putting pressure on its big neighbor and privileged access to European and North American markets.

### **What about China?**

The world's biggest emitter of greenhouse gas isn't likely to join straightaway. But if it wants to export its wares to the rest of the world without having climate tariffs slapped on them, it may have to join.

Expect Beijing to be sharply critical of the idea, just as it has been of the EU's planned "carbon border adjustment mechanism" — which also entails tariffs for polluters who don't play by the bloc's rules.

China has tried to rally other emerging economies such as South Africa and Indonesia in opposition to the plan. That's one reason why Scholz has invited both of those countries attend the G-7 as guests, and made clear that the climate club is open to all.

### **Will the idea take off?**

Experts say a critical mass of countries will need to join the club for it to become attractive enough that others feel compelled to apply too.

The exact details of how the club's rules would work are still sketchy. General support by the G-7, without any formal commitments, could help put the idea on the agenda at upcoming meetings, particularly the UN climate summit in November. An endorsement there would show that the club isn't the exclusive preserve of rich nations but a genuine addition to existing climate efforts.

**Source: The Indian Express**

## **15. Invasive weeds in Kaziranga**

### **Relevant for GS Prelims & Mains Paper III; Environment**

Kaziranga has had to deal with encroachment, poaching, and annual floods for decades. But none of these has been as damaging to the health of the 1,300-sq. km tiger reserve as the green invaders that have gone under the radar until now.

### **18 invasive weeds**

Soon after taking over as the Kaziranga's Field Director a few months ago, JatindraSarma began identifying the invasive plants and documented 18 of them silently taking over the landscape at the cost of indigenous grasses, shrubs and trees the herbivores of the park sustain on.

The list he submitted to the Wildlife Institute of India (WII) did not contain the "usual culprits" of many protected areas in India – parthenium and lantana that threaten more than 40% of India's tiger reserves, according to a global study in 2020.

It did mention ipomoea (*Ipomoea carnea*) and mimosa (*Mimosa himalaica*) but marked them as largely controlled and not much of a worry now.

### **Common invasive weeds**

Parthenium (*Parthenium hysterophorus*) is believed to have come to India as contaminants in a consignment of wheat imported from the U.S. in the 1950s while lantana (*Lantana camara*) was brought by the British as ornamental plants from South America two centuries ago.

### **Harmful impacts**

The herbivores usually avoid the invasive plants which regenerate at an alarming speed and threaten to edge out the indigenous flora. Some of the invasive plants have a toxic impact on the landscape after remaining underwater, which is often for two months every monsoon.

Some weeds have herbal properties, but their toxicity outweighs their utility. For instance, wild boars love to gorge on the succulent rootlets of the *Leea macrophylla* or 'kukurathengia' that is fast clogging the patrolling paths and grasslands.

Another one is the *Cestrum diurnum* or day-blooming jasmine of West Indies origin "coming up gregariously" on the Brahmaputra sandbars. The plant is otherwise a source of Vitamin D3.

**Source: The Hindu**

## **16. Udaipur's 'bird village' to be declared wetland**

### **Relevant for GS Prelims & Mains Paper III; Environment**

Recognised as the "bird village" following community-driven conservation efforts, Menar in Udaipur district is set to be notified as Rajasthan's new wetland. This will pave the way for getting the Ramsar site status for this rural heartland of the Mewar region. The two lakes in the village – the Brahma and Dhandh – play host to a large number of migratory birds in the winter season.

More than 150 species of local and migratory birds inhabit the two lakes in the winter season. They include greater flamingo, white-tailed lapwing, pelican, marsh harrier, bar-headed goose, common teal, greenshank, pintail, wagtail, green sandpiper and red-wattled lapwing. Bird lovers and tourists flock to the village after the arrival of migratory birds from as far as Central Asia, Europe and Mongolia.

The State government's Forest Department has initiated the process for notification of Menar as a wetland, which will recognise its role in the storage of sediment and nutrients and enable the local authorities to maintain the Brahma and Dhandh lakes. With the status of wetland, the two lakes will be strengthened for increasing vegetation of aquatic plants and protecting biodiversity.

### **Other Ramsar Sites in Rajasthan**

At present, Rajasthan has two wetlands recognised as Ramsar sites – Keoladeo Ghana in Bharatpur district and Sambhar Salt Lake in Jaipur.

**Source: The Hindu**

## **17. A history of the Sterlite Copper plant in Thoothukudi**

### **Relevant for GS Prelims & Mains Paper III; Environment**

In the last four years, teams from Sterlite Copper, a part of the Vedanta Group have been running around to get its legal issues fixed in order to re-open its plant at Thoothukudi which was closed in 2018. But now — even as the case is in the Supreme Court— the company suddenly announced that it is selling off the plant, raising eyebrows of the local people, industries, politicians and environmentalists who have been constantly tracking them.

### **Is the Vedanta Group living off its copper plant in Tamil Nadu?**

On June 20, the Vedanta Group put out an advertisement which said that Sterlite Copper, Thoothukudi is up for sale. Vedanta, in conjunction with Axis Capital, has invited expression of interest (EOI) for the sale of its copper plant along with its other units, which includes the smelter complex (primary and secondary), sulphuric acid plant and copper refinery among others. The last day for submission of bids is July 4.

### **Why is the Sterlite copper plant up for sale?**

Ever since the plant was sealed in 2018 by the Tamil Nadu government after seeking advice from the Tamil Nadu Pollution Control Board (TNPCB), the company has been running from pillar to post to re-open the plant.

Sterlite Copper has also been incurring a loss of five crore per day since it went under lock and key. During recent interactions the company officials indicated that even if the Supreme Court allowed them to re-open the company, it would need around ₹800 to ₹1,000 crore to revamp the plant. When questioned about the reason for the sale the company issued a statement in which it said that it was exploring options to make sure that the plant and the assets are best utilised to meet the growing copper demands of the nation.

### **Why was the plant under lock and key?**

Trouble starting brewing for the company ever since it set foot in the Pearl city. The first blow for the company came from the fishermen in the region. The fishermen, backed by the MarumalarchiDravidaMunnetraKazhagam (MDMK) a political party in Tamil Nadu, were worried that the effluents discharged by the plant would pollute the sea which will in turn ruin their livelihoods. In 2010, the Madras High Court ordered immediate closure of the plant for not complying with environmental norms. The Supreme Court later stayed the High Court's order. The company got into troubled waters again in 2013 after a sulphur dioxide leak. But the Supreme Court allowed them to function after the payment of a fine of ₹100 crore for polluting land and water by running the company without approval for a considerable period of time. 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 fired which led to the death of 13 civilians. A week later the Tamil Nadu government sealed the plant.

### **What has the company said about the many allegations against it?**

Officials at Sterlite have always emphasised the fact that the plant is equipped with full-fledged air pollution control measures and adequate solid waste management facilities. In the last four years, senior management has stressed that the plant follows Zero Liquid Discharge since inception — all the effluent is treated and recycled back into operations, so that there is no effluent discharge.

They also said that the regulator, TNPCB, carries out regular monthly sampling across all village bore wells and has found no abnormalities. All the allegations have already been dealt with in both the Supreme Court 2013 judgment and the National Green Tribunal 2013 judgment.

### **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 copper 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 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.

### **Why was a part of the Sterlite plant allowed to function during the COVID-19 pandemic?**

On April 27, 2021, when the second wave of the pandemic was at its peak the Supreme Court granted permission to re-open two oxygen plants at Sterlite Copper's Thoothukudi plant.

While granting permission a bench comprising of Justices D.Y. Chandrachud, L. Nageswara Rao and S. Ravindra Bhat noted that this was done because of national need and that it does not mean they are favouring the Vedanta Group.

The Tamil Nadu government immediately constituted a seven-member committee headed by the then district collector to oversee proper functioning of the oxygen plants.

# Science & Technology

## 1. Astra Mk-1 air-to-air missile — features, strategic significance

### Relevant for GS Prelims & Mains Paper III; Science & Technology

The Ministry of Defence said on Tuesday (May 31) that it has signed a contract with the Hyderabad-based public-sector Bharat Dynamics Ltd (BDL) for supply of the Astra Mark-1, at a cost of Rs 2,971 crore, for deployment on fighter jets of the Indian Air Force and Indian Navy. The Astra Mk-1 is a beyond visual range (BVR), air-to-air missile (AAM).

#### Astra and its variants

The missile has been designed and developed by the Defence Research and Development Organisation (DRDO) for deployment on fighter jets like Sukhoi-30 MKI and Tejas of the IAF and the Mig-29K of the Navy.

BVM missiles are capable of engaging beyond the range of 20 nautical miles or 37 kilometers. AAMs are fired from an airborne asset to destroy an airborne target. DRDO officials told The Indian Express that the Astra project was officially launched in the early 2000s with defined parameters and proposed future variants. Around 2017, the development phase of Mk-1 version was complete.

Several successful tests have been conducted since 2017 from Sukhoi-30 MKIs. While the range for Astra Mk-1 is around 110 km, the Mk-2 with a range over 150 km is under development and Mk-3 version with a longer range is being envisaged. One more version of Astra, with a range smaller than Mk-1 is also under development.

#### The contract

The purchase will be under the Buy (Indian-IDD) category of defence acquisition — procurement of products from an Indian vendor that have been “indigenously designed, developed and manufactured” with a minimum of 50 per cent indigenous content calculated on the basis of cost of the total contract value.

The Ministry has said that until now, the technology to manufacture missiles of this class indigenously was not available. The transfer of technology from DRDO to BDL for production of Astra Mk-1 missile and all associated systems has been completed and the production at BDL has already started. The Ministry said the project will create opportunities for several MSMEs in aerospace technology for at least 25 years. “The project essentially embodies the spirit of ‘Atmanirbhar Bharat’ and will help facilitate realising our country’s journey towards self-reliance in Air to Air Missiles.” the MoD said.

More than 50 private and public industries, including the IAF and Hindustan Aeronautics Limited (HAL), have contributed in building the Astra systems.

#### Strategic significance

The missile has been designed based on requirements specified by the IAF for BVR as well as close-combat engagement, reducing the dependency on foreign sources. AAMs with BVR capability provides large stand-off ranges to own fighter aircraft which can neutralise adversary airborne assets without exposing themselves to adversary air defence measures. Stand-off range means the missile is launched at a distance sufficient to allow the attacking side to evade defensive fire from the target.

The MoD has said that Astra is technologically and economically superior to many such imported missile systems. The missile can travel at speeds more than four times that of sound and can reach a maximum altitude of 20 km, making it extremely flexible for air combat.

The missile is fully integrated on the Sukhoi 30 MKI I and will be integrated with other fighter aircraft in a phased manner, including the Light Combat Aircraft (LCA) Tejas. The Indian Navy will integrate the missile on the MiG-29K fighter aircraft which are deployed on the Navy’s aircraft carriers, thus adding to the lethality of India’s Aircraft carriers.



**Source: The Indian Express**

## **2. The key monkeypox symptoms to watch out for**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

The Union health ministry Tuesday released guidelines on surveillance, identification and management of monkeypox. So far, 300 suspected or confirmed cases of monkeypox have been detected in non-endemic countries. What are the symptoms of the disease, and what is the treatment?

#### **What are the key symptoms of monkeypox?**

According to the US Centers for Disease Control and Prevention (CDC), monkeypox begins with a fever, headache, muscle aches, back ache, and exhaustion. It also causes the lymph nodes to swell (lymphadenopathy), which smallpox does not.

The World Health Organisation underlines that it is important not to confuse monkeypox with chickenpox, measles, bacterial skin infections, scabies, syphilis and medication-associated allergies.

#### **How long does it take for symptoms to show after infection?**

Monkeypox is usually a self-limiting disease with symptoms lasting from two to four weeks. The incubation period (time from infection to symptoms) for monkeypox is usually 7-14 days but can range from 5-21 days.

The Health Ministry notes that the period of communicability is "1-2 days before the rash until all the scabs fall off/get subsided".

#### **How does the disease progress?**

The disease goes through four different phases. The first invasion period, which is between 0-5 days, is characterised by fever, headache and lymph node swelling.

The swelling of the lymphnodes is one of the characteristic features of monkeypox and is not observed in similar rash causing diseases like measles and chickenpox.

Patients also show generalized weakness or lack of energy.

Skin eruptions usually show up within two days of fever. The rash is more concentrated on the face as is apparent in 95 per cent cases. In 75 per cent cases, it is found in the palm and sole of the feet. It affects the oral mucous membrane in 70 per cent of the cases. The conjunctiva, cornea of the eye and the genital area can also get affected.

The skin eruption stage can last between 2 and 4 weeks, during which the lesions harden and become painful, fill up first with a clear fluid and then pus, and then develop scabs or crusts.

The Union Ministry of Health says that patients should isolate and watch out for pain in eye or blurring of vision, shortness of breath, and decrease in urine output.

#### **Monkeypox: What is the treatment?**

There is no proven treatment for monkeypox yet. The WHO recommends supportive treatment depending on the symptoms. Those infected are advised to isolate immediately.

According to the Ministry of Health guidelines on supportive management of monkeypox, skin rashes should be cleaned with simple antiseptic, and covered with light dressing in case of extensive lesions. Oral ulcers should be managed with warm saline gargles.

Doctors say monkeypox is a very well-understood condition that can be managed efficiently with available clinical remedies. "We urge individuals to not panic and most importantly, not confuse monkeypox with another common viral infection," said Dr Hemlata Arora, Senior Consultant, Internal Medicine and Infectious Diseases, Nanavati Hospital.

**Source: The Indian Express**

### **3. Who are the Tamagotchi Generation, the digital children of the future?**

#### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

A new book has predicted that by the third quarter of this century, parents will have the choice of having digital offspring. Which means that if you are in your teens now, you may look forward to playing with a grandchild who will exist only in the immersive digital world of the metaverse.

This will be the ‘Tamagotchi Generation’, says British behavioural psychologist and user experience (UX) professional Catriona Campbell, author of ‘AI By Design: A Plan for Living With Artificial Intelligence’ (CRC Press, 2022).

“Virtual children may seem like a giant leap from where we are now, but within 50 years technology will have advanced to such an extent that babies which exist in the metaverse are indistinct from those in the real world,” Campbell writes. “As the metaverse evolves, I can see virtual children becoming an accepted and fully embraced part of society in much of the developed world.”

#### **Why ‘Tamagotchi’ kids?**

The name comes from the digital pet created by the Japanese toy manufacturer Bandai, which was a global rage in the 1990s and early years of this century. As of last year, more than 80 million Tamagotchi toys had been sold worldwide.

The toy is an egg-shaped video game the size of a keychain, which has a screen and buttons. Once the pet is activated, an egg appears on the screen, and hatches into a pet for the player to raise. The pets feel hungry, happy, sick, and want to go to the toilet etc., and the player can care as much or as little for the pet as they desire. What the pet grows up to be depends on how it has been trained and raised by the player.

#### **What will the kids look like?**

Today’s technology is unrecognisable from the time when the Tamagotchi toy was developed, and according to Campbell the virtual children of the future can be built to look like their parents, and will be able to provide a range of emotional responses. This, according to an article in The Guardian, will include speech, “which will range from ‘googoo gaga’ to backchat, as they grow older”.

You will have to put on a virtual reality headset to bring the child to life — and a report in The Telegraph quoted Campbell as suggesting that wearing “high-tech gloves able to deliver tactile feedback” while handling the Tamagotchi kid “might reproduce the physical sensations of cuddling, feeding and playing with one’s offspring”.

A report in The Mail Online quoted Campbell as saying parents would be able to interact with their digital kids in digital environments such as a park, swimming pool or living room. “They will also be able to choose how quickly the children grow up, if at all, and can share conversations and listen to a baby’s coo and giggle as part of the vision for the futuristic technology,” the Mail Online report said.

#### **But what’s wrong with real kids?**

There is nothing wrong — the Tamagotchis will just be the metaverse version for those who might want them. And the metaverse is seen as the inevitable future of the Internet.

However, Campbell has mentioned what she sees as specific advantages to preferring a virtual kid to a real one — among them, the fact that they will cost virtually nothing to bring up, they will consume very little resources in a world that is already bursting at the seams and where the spectre of food shortages looms large, and they will have a tiny environmental footprint from beginning to end.

The Telegraph report quoted a 2020 YouGov study into why couples chose not to have children found that nearly 1 in 10 are concerned about overpopulation, and another 10 per cent are worried about the cost of raising a child.

“Make no mistake that this development, should it indeed take place, is a technological game-changer which, if managed correctly, could help us solve some of today’s most pressing issues, including overpopulation,” the Mail Online report quoted Campbell as saying.

All of this sounds so fantastical and improbable.

It may not be. The Internet and mobile phones also sounded like bizarre ideas to many when they were first proposed. Tech experts have repeatedly predicted that the metaverse and Internet of Things, powered by advanced telecoms networks of the future, will change almost every aspect of the ways in which we live and work.

So far as digital babies go, a proof of principle is already in existence. Several years ago, the Laboratory for Animate Technologies at the University of Auckland said it was working on “an interactive animated virtual infant prototype” called BabyX, a “computer-generated psychobiological simulation...incorporating computational models of the basic neural systems that are involved in interactive behaviour and learning”.

The New Zealand company Soul Machines, led by AI researcher Dr Mark Sagar (who worked on the special visual effects of Hollywood films ‘King Kong’, ‘Avatar’, and ‘Rise of the Planet of the Apes’), has since pioneered research into progressing human-machine collaboration, and built BabyX with her own digital brain which, according to the company, “autonomously animates BabyX in real-time, creating a natural interaction between human and machine”.

**Source: The Indian Express**

**4. As India gets world’s first liquid-mirror telescope for astronomy, what is it and how will it be used?**

**Relevant for GS Prelims & Mains Paper III; Science & Technology**



*Top view of the ILMT located at the Devasthal Observatory of ARIES showing the liquid mercury mirror covered by a thin mylar film. (PIB)*

In early 2022, India's first liquid-mirror telescope, which will observe asteroids, supernovae, space debris and all other celestial objects from an altitude of 2,450 metres in the Himalayas, saw its first light as it peered into the zenith from the Devasthal observatory in Uttarakhand.

Having entered the commissioning phase, it became the world's first liquid-mirror telescope to be commissioned for astronomy. The Indian Express explains what the telescope is, how it is different from a conventional one and what its uses are.

### **What is a liquid-mirror telescope?**

The International Liquid-Mirror Telescope (ILMT) has been set up at the Devasthal Observatory campus owned by Aryabhata Research Institute of Observational Sciences (ARIES), Nainital in Uttarakhand.

Located at 2,450 metres above mean sea level, there are two firsts with this — it's the only one to have been developed for astronomy research and is also the only one of its kind to be operational anywhere in the world.

The handful of liquid-telescopes that were previously built either tracked satellites or were deployed for military purposes. ILMT will be the third telescope facility to come up at Devasthal — one of the world's pristine sites for obtaining astronomical observations. With ILMT set to commence full-scale scientific operations in October this year, it will work along with the 3.6-metre Devasthal Optical Telescope (DOT), the largest telescopes operating in India (of the 4-metre class). Also operating at the location is the 1.3-metre Devasthal Fast Optical Telescope (DFOT) inaugurated in 2010.

### **How is it different from a conventional telescope?**

A conventional telescope is steered to point towards the celestial source of interest in the sky for observations. The liquid-mirror telescopes, on the other hand, are stationary telescopes that image a strip of the sky which is at the zenith at a given point of time in the night. In other words, a liquid-mirror telescope will survey and capture any and all possible celestial objects — from stars, galaxies, supernovae explosions, asteroids to space debris.

Conventional telescopes have highly polished glass mirrors — either single or a combination of curved ones — that are steered in a controlled fashion to focus onto the targetted celestial object on specific nights. The light is then reflected to create images.

As opposed to this, as is evident by the name, the liquid-telescope is made up of mirrors with a reflective liquid, in this case, mercury — a metal which has a high light-reflecting capacity. About 50 litres (equal to 700kgs) of mercury filled into a container will be rotated at a fixed constant speed along the vertical axis of the ILMT. During this process, the mercury will spread as a thin layer in the container forming a paraboloid-shaped reflecting surface which will now act as the mirror. Such a surface is ideal to collect and focus light. The mirror has a diameter of 4 metre.

Another difference between the two is their operational time. While conventional telescopes observe specific stellar sources for fixed hours as per the study requirement and time allotted by the respective telescope time allotment committee, ILMT will capture the sky's images on all nights — between two successive twilights — for the next five years starting October 2022.

For protecting it from moisture during monsoon, the ILMT will remain shut for operations between June and August.

#### **Which countries are involved in its development?**

India, Belgium, Canada, Poland and Uzbekistan are the main countries who have collaborated to set up the ILMT. The telescope was designed and built at the Advanced Mechanical and Optical Systems Corporation and the Centre Spatial de Liège in Belgium.

The funding, estimated to range between Rs 30 to Rs 40 crore, was jointly provided by Canada and Belgium. The operations and up-keep of this telescope is to be done by India. Along with ARIES, the other international institutes involved in the development process include the Institute of Astrophysics and Geophysics, Liège University, Belgium; the Canadian Astronomical Institutes from Vancouver, University of British Columbia; University of Montreal, University of Toronto, University of Victoria, York University, Laval University, Poznan Observatory, Poland; Ulugh Beg Astronomical Institute of Uzbek Academy of Sciences and the National University of Uzbekistan.

#### **What is the data that will be generated and how will it be used?**

It is estimated that the ILMT is capable of generating 10-15 GB/night. With ILMT set for operations every night during nine months a year for the next five years starting October 2022, there will be data generated in gigantic volumes.

According to international norms, the data generated by a new telescope facility will be cleaned, maintained and archived at either of the host/participating institutes, in this case, the ARIES. The norms also mandate that for an initial stipulated period, the data will be open only for researchers from these participating institutes. At a later stage, the data will be accessible to all global scientific communities.

In order to sieve, process and analyse the large datasets, the ILMT will deploy the latest computational tools, like Artificial Intelligence, Machine Learning and big data analytics.

Another advantage for having such large data sets is that the select data can be culled out as base data which can then be followed-up for further focused studies using spectrographs, near-Infrared spectrograph mounted on the in-house DOT.

**Source: The Indian Express**

### **5. What is D2M technology, and how could it change your mobile behaviour?**

#### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

The Department of Telecommunications (DoT) and India's public service broadcaster Prasar Bharati are exploring the feasibility of a technology that allows to broadcast video and other forms of multimedia content directly to mobile phones, without needing an active internet connection.

The technology, called 'direct-to-mobile' (D2M) broadcasting, promises to improve consumption of broadband and utilisation of spectrum.

#### **What is direct-to-mobile broadcasting?**



The technology is based on the convergence of broadband and broadcast, using which mobile phones can receive terrestrial digital TV. It would be similar to how people listen to FM radio on their phones, where a receiver within the phone can tap into radio frequencies. Using D2M, multimedia content can also be beamed to phones directly.

The idea behind the technology is that it can possibly be used to directly broadcast content related to citizen-centric information and can be further used to counter fake news, issue emergency alerts and offer assistance in disaster management, among other things. Apart from that, it can be used to broadcast live news, sports etc. on mobile phones. More so, the content should stream without any buffering whatsoever while not consuming any internet data.

#### **What could be the consumer and business impact of this?**

For consumers, a technology like this would mean that they would be able to access multimedia content from Video on Demand (VoD) or Over The Top (OTT) content platforms without having to exhaust their mobile data, and more importantly, at a nominal rate. The technology will also allow people from rural areas, with limited or no internet access, to watch video content.

For businesses, one of the key benefits of the technology is that it can enable telecom service providers to offload video traffic from their mobile network onto the broadcast network, thus helping them to decongest valuable mobile spectrum. This will also improve usage of mobile spectrum and free up bandwidth which will help reduce call drops, increase data speeds etc.

#### **What is the government doing to facilitate D2M technology?**

The Department of Telecommunications (DoT) has set up a committee to study the feasibility of a spectrum band for offering broadcast services directly to users' smartphones, DoT Secretary K Rajaraman said on Wednesday. "Band 526-582 MHz is envisaged to work in coordination with both mobile and broadcast services. DoT has set up a committee to study this band," he said. At the moment, this band is used by the Ministry of Information & Broadcasting across the country for TV transmitters.

Public service broadcaster Prasar Bharati had last year announced a collaboration with IIT Kanpur to test the feasibility of the technology.

#### **What are the possible challenges to the technology's rollout?**

While still at a nascent stage, Prasar Bharati's CEO has said bringing key stakeholders like mobile operators onboard will be the "biggest challenge" in launching D2M technology on a wide scale. Information and Broadcasting Ministry Secretary Apurva Chandra said a mass roll out of the technology will entail changes in infrastructure and some regulatory changes.

**Source: The Indian Express**

### **6. What are the latest guidelines on monkeypox?**

#### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

India's Health Ministry has issued guidelines on the management of the monkeypox disease. So far, no cases of the virus have been confirmed in India but reports of the virus' spread in non-endemic countries have led to guidelines being issued.

#### **What do the guidelines say?**

The 23-page document, available on the Health Ministry website, is an information sheet that lists out the global prevalence of the disease as of May 31, its epidemiology or disease characteristics including the kind of virus that causes the disease, its likely origins, incubation period, how long before symptoms manifest and so forth.

It also highlights how long it takes to subside, modes of transmission, symptoms, the probable modes of exposure, the test to confirm the presence of the virus, the government's surveillance strategy in place to identify cases and clusters of infection.

#### **What are the most important recommendations?**

The guidelines recommend that contacts be monitored every day for the onset of signs/symptoms for a period of 21 days (as per case definition) from the last contact with a patient or their contaminated materials during the infectious period. Suspected cases of monkeypox include a person of any age with a history of travel to affected countries within the last 21 days and presenting an unexplained acute rash and one or more of symptoms, including swollen lymph nodes, fever, head/body ache and profound weakness.

Other symptoms include pain in the eye or blurring of vision, shortness of breath, chest pain, difficulty in breathing, altered consciousness, seizure, decrease in urine output, poor oral intake and lethargy.

A case of monkeypox is confirmed in a laboratory by detection of unique sequences of viral DNA either by polymerase chain reaction (PCR) and/or sequencing, much like a test for COVID-19. However, there are no commercial tests for monkeypox yet and all clinical specimens are to be transported to the apex laboratory of the ICMR-NIV (Pune) routed through the Integrated Disease Surveillance Programme (IDSP) network of the respective district/State.

There is no treatment protocol or medicines specific to monkeypox and a patient has to be managed on the basis of the symptoms they present. For instance, dehydration ought to be treated with oral fluids; fever with sponging and paracetamol, nausea and vomiting with antiemetics.

### **How prevalent is monkeypox globally?**

The World Health Organization has said that cases of monkeypox have been reported from 12 member states that are not endemic for monkeypox virus. Reported cases thus far do not have established travel links to endemic areas. Based on currently available information, cases were mainly, but not confined to, men who have sex with men (MSM) seeking care in primary care and sexual health clinics.

To date, all cases whose samples were confirmed by PCR testing have been identified as being infected with the West African clade of the virus. The genome sequence from a swab sample from a confirmed case in Portugal, indicated a close match of the monkeypox virus causing the current outbreak, to exported cases from Nigeria to the U.K., Israel and Singapore in 2018 and 2019.

Countries where the virus was endemic are, according to the WHO, Benin, Cameroon, the Central African Republic, the Democratic Republic of the Congo, Gabon, Ghana (identified in animals only), Ivory Coast, Liberia, Nigeria, the Republic of the Congo, Sierra Leone, and South Sudan.

### **Are there vaccines?**

Historically, vaccination against smallpox had been shown to be protective against monkeypox. While one vaccine (MVA-BN) and one specific treatment (tecovirimat) were approved for monkeypox, in 2019 and 2022 respectively, they aren't widely available. A vaccination with small pox is said to be protective against monkeypox but this vaccine would be in individuals over 40-50 years of age, who've been inoculated with the small pox vaccine and here too it's unclear how long lasting the protection is.

**Source: The Hindu**

## **7. What 46-km flight in Gujarat could mean for future of drone delivery**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

In what potentially lays the ground for postal delivery by drones, Gurugram-based drone startup TechEagle delivered a parcel this week in Gujarat under a pilot project in collaboration with India post.

**DELIVERY & PURPOSE:** The drone flight delivered a parcel in the Kutch region of Gujarat, travelling a distance of 46 km in less than 30 minutes. In a statement, TechEagle said that this was five times faster than the speed of surface transportation. Notably, the drone delivery was among the longest single delivery flights made by a drone in the country. It travelled when the wind speed was up to 30 kph.

Last month, the company launched a hybrid-electric vertical take-off and landing (VTOL) drone called 'VertiplaneX3' with a payload capacity of 3 kg, a range of 100 km and a top speed of 120 kph. The VTOL drone has the capability to take off and land vertically like a helicopter from a small area of 5mx5m.

Anshu Abhishek, co-founder-COO at TechEagle, said the project was aimed at enabling faster deliveries across the country, be it in urban cities or any rural village. “The learnings from the project would help stakeholders to scale up and commercialise the drone delivery of mail across the country,” he said.

**OTHER TRIALS:** Bengaluru-based logistics and delivery platform Swiggy last month began deployment of drones on a trial basis to make deliveries from its grocery service Instamart. For these trials, which are being conducted in two phases, the company has roped in four ‘drone-as-a-service’ operators, of which TechEagle is one.

Several other drone operators have partnered with state governments and other authorities to conduct trials of vaccines and healthcare supplies deliveries through drones. Logistics services company Delhivery in December announced the acquisition of California-based Transition Robotics, which develops drone platforms.

Globally, internet giant Alphabet’s drone delivery unit Wing recently delivered its first consignment in a major US metropolitan area by supplying boxes of medicines from Walgreens in Dallas, Texas.

**Source: The Indian Express**

## **8. How ceramic implants can regenerate broken bones**

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

When people need a bone replacement following a fracture, it is often based on a metal part. But metal parts are sometimes toxic over time, and will not help the original bone regrow.

Calcium phosphate ceramics, the Tokyo Medical and Dental University (TMDU) noted in a press release, are in principle an ideal alternative to conventional metals because bone can eventually replace the ceramic and regrow. Calcium phosphate ceramics are substitutes for the bone mineral hydroxyapatite. However, applications of such ceramics in medical settings have been limited, because there is insufficient control over the rate of absorption and replacement by bone after implantation.

Now, in a study recently published in *Science and Technology of Advanced Materials*, researchers from TMDU and collaborators have studied the transformation of a ceramic into the bone mineral. This work will help move bone regeneration research from laboratories to medical use.

“Medical professionals have long sought a means of healing bone fractures without using implanted medical devices, but the underlying science that can make this dream a reality isn’t yet fully elaborated. Our careful analysis of the effect of the ceramic’s ester alkyl chain length on hydroxyapatite formation, in a simulated body fluid, may help develop a novel bone-replacement biomaterial,” the release quoted lead author Taishi Yokoi as saying.

The researchers have reported that most of the studied ceramics underwent chemical transformations into particulate or fibrous hydroxyapatite within a few days.

“We now have specific chemical knowledge on how to tailor the rate of hydroxyapatite growth from calcium phosphate ceramics. We expect that this knowledge will be useful for bench researchers and medical practitioners to more effectively collaborate on tailoring bone reformation rates under medically relevant conditions,” Yokoi was quoted as saying.

The releases said the results of this study are important for healing bone fractures after surgery. By using chemical insights to optimise the rate of bone reformation after implantation of calcium phosphate ceramics, patient outcomes will improve, and returns to the hospital years later for further repairs will be minimised, it said.

Paper: Taishi Yokoi et al, ‘Transformation behaviour of salts composed of calcium ions and phosphate esters with different linear alkyl chain structures in a simulated body fluid modified with alkaline phosphatase’, *Science and Technology of Advanced Materials*.

**Source: The Indian Express**

### **9. What is norovirus, the stomach bug that infected two students in Kerala?**

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

At least two cases of norovirus have been found in Thiruvananthapuram among lower primary school students.

Health department officials said the infection, which causes vomiting, diarrhoea and fever as symptoms, was diagnosed after samples were tested at a government analytical lab. More samples have been sent for examination. So far, it is believed that students got food poisoning from mid-day meals distributed at the schools.

#### **What is norovirus?**

Norovirus is a highly contagious virus that is also sometimes referred to as the 'stomach flu' or the 'winter vomiting bug'. It can be transmitted through contaminated food, water, and surfaces. The primary route is oral-faecal.

It is similar to diarrhoea-inducing rotavirus and infects people across age groups. Disease outbreaks typically occur aboard cruise ships, in nursing homes, dormitories, and other closed spaces.

According to the WHO, emerging evidence suggests that "norovirus infection is associated with intestinal inflammation, malnutrition and may cause long-term morbidity". It adds that an estimated 685 million cases of norovirus are seen annually, including 200 million cases amongst children under 5.

#### **What are the symptoms?**

The initial symptoms of norovirus are vomiting and/or diarrhoea, which show up one or two days after exposure to the virus.

Patients also feel nauseous, and suffer from abdominal pain, fever, headaches and body aches. In extreme cases, loss of fluids could lead to dehydration.

#### **What precautions can one take?**

One may get infected multiple times as the virus has different strains. Norovirus is resistant to many disinfectants and can withstand heat up to 60°C. Therefore, merely steaming food or chlorinating water does not kill the virus. The virus can also survive many common hand sanitisers.

The basic precaution is also the most obvious — repeatedly washing hands with soap after using the lavatory or changing diapers. It is important to wash hands carefully before eating or preparing food. During outbreaks, surfaces must be disinfected with a solution of hypochlorite at 5,000 parts per million.

The US Centre for Disease Control and Prevention suggests that those infected should avoid contact with others and avoid preparing food for others while sick and for two days after symptoms stop.

#### **What is the treatment?**

The disease is self-limiting. The infection, even though it takes a lot out of the patient, normally lasts only two or three days, and most individuals who are not very young, very old, or malnourished can ride it out with sufficient rest and hydration.

Diagnosis is done by real-time reverse transcription-polymerase chain reaction. No vaccines are available for the disease.

It is important to maintain hydration in the acute phase. In extreme cases, patients have to be administered rehydration fluids intravenously.

**Source: The Indian Express**

### **10. The status of eVTOL: a soon to be reality?**

## Relevant for GS Prelims & Mains Paper III; Science & Technology

The Union Civil Aviation Minister, Jyotiraditya Scindia, has said that 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. The Minister had been on a visit to the U.S. and Canada in April and in his interactions with key players in the industry, it was said that several eVTOL players were 'keen on setting up production centres' in the country. In late May, while speaking at "India@2047", which was part of the seventh edition of the India Ideas Conclave in Bengaluru, the Minister also said that India is in 'conversation' with a number of eVTOL producers — the implication being a futuristic vision for India.

### 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 eVTOLs 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, eVTOLs 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 helicopters.

### Why are the developments in powering eVTOLs?

An article in Avionics International says the roles eVTOLs adopt depends on battery technology and the limits of onboard electric power. Power is required during the key phases of flight such as take off, landing and flight (especially in high wind conditions). There is also the important factor of weight. BAE Systems, for example, is looking at formats using a variety of Lithium batteries. Nano Diamond Batteries is looking at "Diamond Nuclear Voltaic (DNV) technology" using minute amounts of carbon-14 nuclear waste encased in layered industrial diamonds to create self-charging batteries. There are some industry experts who are questioning the use of only batteries and are looking at hybrid technologies such as hydrogen cells and batteries depending on the flight mission. There is even one that uses a gas-powered generator that powers a small aircraft engine, in turn charging the battery system. But whatever the technology, there will be very stringent checks and certification requirements.

### What are the challenges?

As the technology so far is a mix of unpiloted and piloted 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 powerplant 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.

### How did it begin?

There is general agreement that the eVTOL world is moving forward based on the spark provided by NASA researcher Mark D. Moore who came up with the concept of a personal (one man) air vehicle while working towards his doctorate. Called the "Puffin" and thought of in 2009-10, it was about four metres tall and with a wingspan of 4.4 metres. It had 60hp electric motors that powered two propellers. Its other specifications included a four-point landing gear, a weight of 272kg, 45kg of batteries, a pilot payload of about 90kg, fetching it a total weight of 407 kg. Its top speed was under 245 kmph with a range of about



80km. A prototype was unveiled in 2010 and the concept was discussed at a conference on aeromechanics in 2010, according to an article in Electric VTOL News. In his paper, “NASA Puffin Electric Tailsitter VTOL Concept”, Moore described “electric propulsion as offering dramatic new vehicle mission capabilities, ... but the only penalising characteristic” being “the current energy storage technology level”.

### **Are there any big players now?**

Since then there have been a number of ideas by industry, such as the Volocopter VC1 from Germany and the Opener BlackFly from the U.S. The top aircraft manufacturers, Airbus and Boeing, have also joined the race. Airbus unveiled its prototype, Vahana Alpha One or the Airbus Vahana (from the Sanskrit Vahana), at the Paris Air Show in 2017. It was pitched as a “cost-comparable replacement for short-range urban transportation” based on a fan-run tilt-wing design. Prototypes made test flights. Airbus then shifted to the “CityAirbus” project (air taxi) which has propellers and direct-drive electric motors.

Boeing is working on the Boeing Passenger Air Vehicle, as an “American autonomous personal air vehicle prototype”. However, the major disruptors have been start-ups, backed by huge dollar flow.

A company, Lilium, started in 2015, which claims to be the “developer of the first all-electric vertical take-off and landing eVTOL jet”, says that it is moving towards developing prototypes “designed to extract over 100kW of power from a system weighing just over 4kg” — which gives us an idea of the advancements. Its Lilium Jet theory has been designed for concepts such as private flights, six-seater passenger flights, or no seating for the zero-emissions logistics market.

It says that the concept looks to connect towns and cities (40km-200km) at speeds of up to 300km/h. It has called this as aimed at Regional Air Mobility, which it clarifies is not to be confused with Urban Air Mobility (UAM) — connecting intra-city points over shorter distances, or less than 20 km. It is also working on a seven-seater model, for use in existing helipads; In the U.S., for example, this would mean approximately 14,000 possible locations. The power demand across different phases of flight and the predicted range have been discussed in detail in a technology paper.

China, Israel and the U.K too have programmes to look out for.

### **How does one get an idea of the kinds of eVTOLs?**

Electric VTOL News, for instance, has a World eVTOL Aircraft Directory. Started in 2016 and listing half-a-dozen known designs, it has now progressed to categorising almost all known electric and hybrid-eVTOL concepts. Categories are: “Vectored Thrust”, where any thruster is used for lift and cruise; “Hover Bikes/Personal Flying Devices”, which are single-person eVTOL aircraft and in multicopter-type wingless configurations; “Lift and Cruise”, where independent thrusters are used for cruise and lift without any thrust vectoring; “Wingless (Multicopter)”, or where there is no thruster for cruise but only for lift; and “Electric Rotorcraft” or eVTOLs that use a rotor, such as an electric helicopter or autogyro.

### **What about certification?**

Some companies have concepts that are aimed at dual certifications by regulatory agencies in the western world. In March this year, the Federal Aviation Administration (FAA) and the United Kingdom Civil Aviation Authority announced being engaged in discussions focused on “facilitating certification and validating new eVTOL aircraft, their production, continued airworthiness, operations, and personnel licensing”. Both bodies also highlighted the need to maintain very high safety standards. Further to this, eVTOL technology is to use

existing regulatory frameworks despite being in the form of new and emerging technologies. The FAA has clarified that it plans to certify eVTOLs as powered-lift aircraft (an existing category) but in future, “develop additional powered-lift regulations” for innovation in operations and pilot training. It plans to use a “special class” process in 14 CFR 21.17(b) to oversee the unique features of emerging powered-lift models. But this certification will use the performance-based airworthiness standards found in Part 23 of the FAA regulations. The FAA’s important clarification that the changes will be gradual has been welcomed by eVTOL developers, who are leaning on the Part 23 framework as the bedrock for type certification.

EVTOL certification is also complex because of planned operations within urban areas, new battery systems and the need for higher levels of automated redundancy.

### **How has the progress been?**

The Paris summer Olympics 2024 is expected to be the big moment, according to an article in Bloomberg. France is working on two dedicated routes to transport passengers. Landing and takeoff zones at the Pontoise-Cormeilles-en-Vexin hub are being tested on parameters such as noise levels, integration of drones and eVTOLs with existing air traffic, battery charging and also maintenance.

### **How will it be in India?**

Mr. 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. An official from Blade India told The Hindu that Blade is an urban air mobility company that aims to connect places that are heavily congested and also not well connected by air services. The concept of 'Advanced Air Mobility' comes in, i.e., connecting places through vertical aircraft and thus skipping road travel. This is being done now by helicopters, but eVTOLs will step into this space.

The official said that Blade U.S. is currently working with electric vertical aircraft (EVA) manufacturers such as Beta Technologies and has partnered with them for an all electric fleet by the year 2024. eVTOLs are noise free, have a zero carbon footprint and are more affordable. Beta technologies and other EVA manufacturers have been extended an invitation to manufacture in India.

Amit Dutta, Managing Director, Blade India is the chairperson of the Confederation of Indian Industry (CII) Taskforce for Urban Air Mobility. In his suggestions for policy and regulation changes to better integrate EVAs, he has advised regulatory authorities in India to look at: formulating regulations for pilotless vehicles, airworthiness certifications, and the need for a pilot's licence; implementing efficient energy management systems, onboard sensors, collision detection systems and advanced technologies such as artificial intelligence; having in place infrastructural support such as take-off and landing zones, parking lots, charging stations and what are called vertiports; creating a robust air traffic management system that is integrated with other modes of transportation, and putting in place a database to ensure operational and mechanical safety.

In addition to this, there are psychological barriers that need to be overcome when it comes to flying in a fully autonomous aircraft. Therefore, the official added, there needs to be a document that outlines compliance for eVTOLs and also aligns frameworks to meet the standards adopted in commercial aviation, especially when it comes to safety. The current timeline for certification with India's Directorate General of Civil Aviation is two years. The Blade India official says that there is a need for a committee to spell out the guidelines for eVTOL operations and speed up the process.

### **What is the value of the market?**

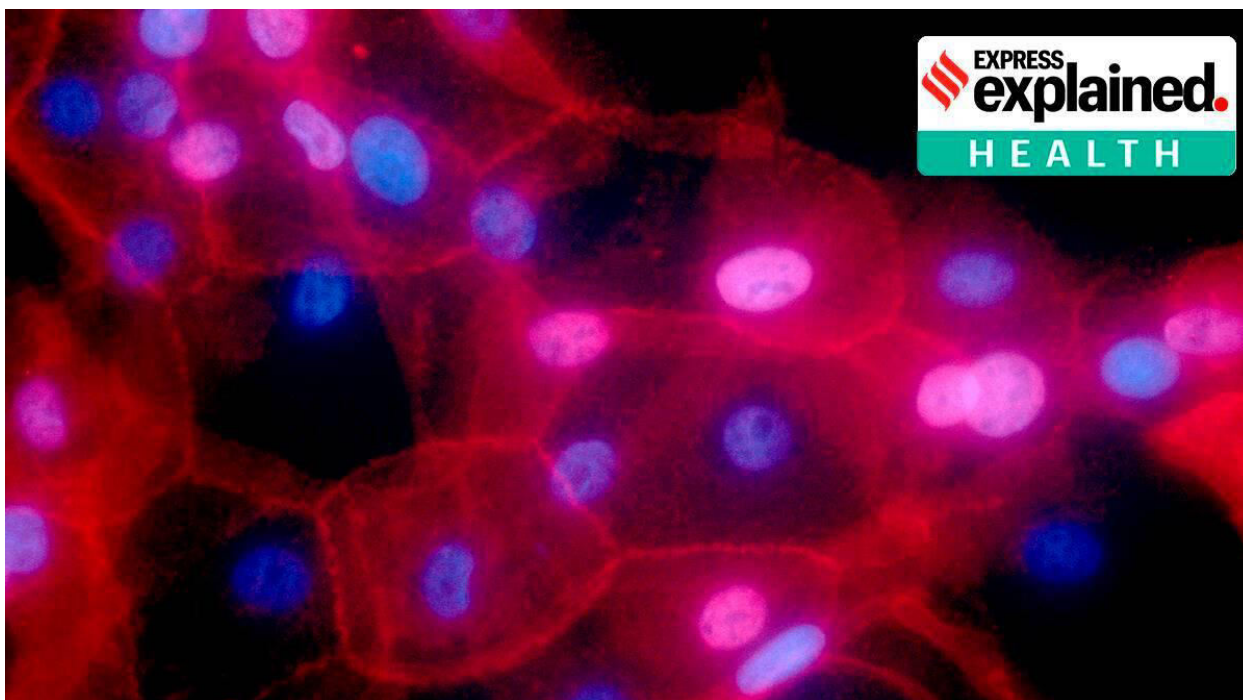
The global market for eVTOLs was put at \$8.5 billion in 2021 and is to grow to \$30.8 billion by 2030. The demand will be on account of green energy and noise-free aircraft, cargo carrying concepts and the need for new modes of transport.

According to the Blade India official, the UAM market is expected to expand at a compound annual growth rate of 25% between 2018-25. By 2025, it is anticipated to be a \$74 billion market. This includes the eVTOLs market since UAM ideally focuses on the use of eVTOLs, the official added.

**Source: The Hindu**

## **11. The science behind the cancer cure, and the therapy's future in India**

**Relevant for GS Prelims & Mains Paper III; Science & Technology**



*This fluorescence-colored microscope image shows a culture of cancer cells. (Ewa Krawczyk/National Cancer Institute via AP)*

In a medical trial, results of which were published in The Indian Express on Wednesday, 12 patients in the United States were completely cured of rectal cancer without requiring any surgery or chemotherapy. The trial used a monoclonal antibody called dostarlimab every three weeks for six months for the treatment of a particular kind of stage two or three rectal cancer. The study was done by doctors from the Memorial Sloan Kettering Cancer Centre in New York, and its results have been published in the New England Journal of Medicine.

#### **What are the findings?**

The trial showed that immunotherapy alone – without any chemotherapy, radiotherapy, or surgery that have been staples of cancer treatment – could completely cure the patients with a particular kind of rectal cancer called ‘mismatch repair deficient’ cancer”.

All 12 patients had completed the treatment and were followed for six to 25 months after.

“No cases of progression or recurrence had been reported during the follow-up,” the study said. The response too was rapid, with symptoms resolving in 81% of the patients within nine weeks of starting the therapy.

#### **What is this deficiency, and how was it cured?**

‘Mismatch repair deficient’ cancer is most common among colorectal, gastrointestinal, and endometrial cancers. Patients suffering from this condition lack the genes to correct typos in the DNA that occur naturally while cells make copies.

The immunotherapy belongs to a category called PD1 blockades that are now recommended for the treatment of such cancers rather than chemotherapy or radiotherapy. PD1 is a type of protein that regulates certain functions of the immune system, including by suppressing T cell activity, and PD1 blockade therapy looks to release the T cells from this suppression.

“The anomalies in the DNA result in cancerous growths in patients with mismatch repair deficient cancers. If you imagine the immune system to be a car, PD1 acts as the brakes for the T cells of the immune system. By giving the PD1 blockades, we release the brakes and allow the T cells to destroy the cancerous growth,” said Dr P K Julka, former professor of radiotherapy at the All India Institute of Medical Sciences, New Delhi and the current chairman for Max Oncology Daycare Centre. Dr Julka did the first immunotherapy treatment in India while at AIIMS in 2015. He was not involved in the US study.

India has a couple of PD1 blockades available, although not the one used for this study.

### **If PD1 therapy was already in use, what's new in the trial?**

Earlier, this therapy was used post-surgery, but the study has shown that a surgery may not be required.

“Although the therapy is usually used for cancers that have metastasised (spread to locations other than where the cancer formed), it is now recommended for all mismatch repair deficient cancers as they result in quicker improvement and lesser toxicity as compared to traditional chemo and radiotherapy. So far, we have been using the therapy after a patient undergoes surgery; it is used for 10 to 15 indications. This study shows that even the surgery was not needed in these patients,” Dr Julka said.

Speaking about his own practice, Dr Julka said that in all tumours, they now look for mismatch repair deficiency to see whether immunotherapy can be used.

Eliminating other treatments can improve a patient's quality of life by preserving fertility, sexual health, and bladder and bowel functions.

### **When can such a treatment be accessible in India?**

Cost is believed to be a major hurdle.

Dr M D Ray, professor of surgical oncology at AIIMS-Delhi, who disagrees with the immunotherapy approach, said: “These patients can be well managed with chemotherapy and radiotherapy as well. Around 10 to 15% of cancer patients actually do not need surgeries. The problem with immunotherapies is that they are expensive and unaffordable for most people in India, and certainly for those coming to AIIMS. A genetic test can also cost up to Rs 30,000, the patients here cannot afford all this.”

He added that precision medicine, such as using particular immunotherapy drugs for particular types of cancers, is still at a nascent stage in India. “Precision medicine for cancer treatment is happening in India, but it is still in nascent stages. It would take at least ten years for it to become commonplace,” he said.

### **So, how much does immunotherapy cost?**

An immunotherapy treatment can cost around Rs 4 lakh per month, with patients needing the treatment for six months to a year.

“People may end up using their life-savings for the treatment. We usually end up giving the treatment only to those who can bank on schemes such as CGHS for sponsoring their treatment or receive free doses from the companies as part of their assistance programme,” said Dr Julka.

However, he added: “One day, cancer will be like any other chronic disease. Like people with diabetes go to work after taking a tablet, cancer patients would too. The future of cancer treatment is molecular oncology – you find a mutation in one gene, you give a particular medicine for it; you find it in another, you give another medicine.”

**Source: The Indian Express**

## **12. Testosterone deficiency & the safety of replacement therapy**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

Hypogonadism is a condition caused by the deficiency of the male sex hormone, testosterone, and a new study in Lancet Health Longevity looks at the short- to medium-term safety of testosterone treatment. Analysis of data from more than 3,400 patients with hypogonadism from 17 clinical trials found little evidence that testosterone treatment increases the risk of cardiovascular events such as arrhythmia, heart attack, and stroke, in the short to medium terms.

Testosterone replacement therapy is the standard treatment for hypogonadism, which can cause sexual dysfunction, weakening of bones and muscles, and reduced quality of life. Risk factors include ageing (as testosterone levels decline with age), obesity and diabetes. Contacted via email, Dr Channa Jayasena,

Reader in Reproductive Endocrinology, Imperial College London and study author, said that worldwide, 2% of men aged over 40 are affected, and this is growing as the population gets older.

Despite being widely used, the cardiovascular safety of testosterone treatment had so far remained unclear due to inconsistent findings. Most previous clinical studies relied on aggregate data, rather than individual participant data and have not published details of individual adverse events.

“Prescribing of testosterone for hypogonadism is increasing globally, but conflicting messages about its safety may have led to many patients not receiving the treatment. Ongoing studies should help to determine the longer-term safety of testosterone but, in the meantime, our results provide much-needed reassurance about its short-to-medium term safety. Our findings could have important implications for the treatment of men with hypogonadism worldwide,” lead author Jemma Hudson from the University of Aberdeen said in the report.

Funded by the UK National Institute for Health Research Health Technology Assessment Programme, the study identified 35 eligible clinical trials published since 1992, of which 17 provided individual participant data. None of the studies were from India, Dr Jayasena said.

In the 17 trials, 1,750 participants received testosterone and 1,681 were given a placebo. The average length of testosterone treatment was 9.5 months. The rate of cardiovascular events was not significantly higher for participants receiving testosterone treatment (7.5%) compared to placebo (7.2%). Fewer deaths were reported during testosterone treatment (0.4%) than in the placebo group (0.8%]), but these numbers were too small to establish whether testosterone reduced mortality risk, according to the study authors.

The researchers found that testosterone significantly reduced serum total cholesterol, HDL, and triglycerides compared with placebo.

However, there were no significant differences in LDL, blood pressure, glycaemic parameters, diabetes incidence, and prostate adverse outcomes between the testosterone and placebo groups, according to the report.

The authors have acknowledged some limitations to their study. There was little available data evaluating the cardiovascular safety of testosterone treatment beyond 12 months, and the very small number of deaths recorded during testosterone trials hampered the authors’ ability to analyse why they occurred. However, the longer-term safety of testosterone treatment is currently being investigated in another clinical trial, Dr Jayasena said.

**Source: The Indian Express**

### **13. After ExpressVPN, why Surfshark shut down its servers in India**

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

Surfshark is shutting down its Indian servers in response to the country’s cybersecurity rules. The norms, released by the Indian Computer Emergency Response Team (CERT-In) in April, require VPNs to record and keep users’ logs for 180 days as well as store a range of information for five years. The company said its users’ would still be able to use its services via “virtual” servers located in Singapore and London.

Surfshark follows ExpressVPN, which also pulled its India servers last week in the aftermath of the cybersecurity rules, which have received widespread criticism from VPN providers along with other stakeholders.

#### **Why has Surfshark removed its India servers?**

In a blog post, the Netherlands-based company said India’s cybersecurity rules “go against the core ethos” of the company’s “no logs” policy.

“The infrastructure that Surfshark runs on has been configured in a way that respects the privacy of our users and we will not compromise our values – or our technical base,” it said. “Ultimately, collecting



excessive amounts of data within Indian jurisdiction without robust protection mechanisms could lead to even more breaches nationwide”.

Surfshark runs a network of over 3,200 servers in more than 65 countries.

Surfshark said India’s cybersecurity directive “is not good for its burgeoning IT sector”.

Citing its own data, it said that since 2004, around 15 billion accounts have faced data breaches, out of which more than 250 million belonged to Indian users. “The situation is extremely worrying in terms of lost data points, considering that per every 10 leaked accounts in India, half are stolen together with a password. Taking such radical action that highly impacts the privacy of millions of people living in India will most likely be counterproductive and strongly damage the sector’s growth in the country,” the company said.

#### **How have other VPN providers reacted?**

Last week, ExpressVPN pulled its India servers, saying it “refuses to participate in the Indian government’s attempts to limit internet freedom”.

Surfshark may not be the last provider to shut down its India servers. Panama-based NordVPN has also been considering going the same route if the rules are implemented in their current form.

#### **What are India’s rules related to VPNs?**

The guidelines, released by CERT-In on April 28, asked VPN service providers along with data centres and cloud service providers to store information such as names, e-mail IDs, contact numbers, and IP addresses. among other things, of their customers for a period of five years.

While the government has said it wants these details to fight cybercrime, the industry argues that privacy is the main selling point of VPN services, and such a move would be in breach of the privacy cover provided by VPN platforms.

However, despite these concerns, Minister of State for Electronics and IT Rajeev Chandrashekhar had earlier said that VPNs who would not adhere to the rules are free to exit the country.

The rules will come into effect on June 27.

#### **What happens to Indian users of Surfshark?**

Despite the company shutting down its servers, Surfshark said its Indian users will continue to be able to access its services. “Surfshark’s physical servers in India will be shut down before the new law comes into power. Up until then, users will be able to connect to servers in India as usual. After the new regulations come

into effect, we’ll introduce our virtual Indian servers – which will be physically located in Singapore and London. Users will be able to find them in our regular list of servers,” Surfshark said.

“Virtual servers are functionally identical to physical ones – the main difference is that they’re not located in the stated country. They still provide the same functionality – in this case, getting an Indian IP,” it added.

While it is possible that connecting to virtual servers may face some lag, Surfshark’s users in India who don’t use Indian servers will not notice any differences.

**Source: The Indian Express**

### **14. What is Amyloidosis, the ailment afflicting ex-Pak President Pervez Musharraf?**

**Relevant for GS Prelims; Science & Technology**

As news about his death was doing the rounds on social media on Friday, former Pakistan President General Pervez Musharraf's (retired) family clarified that he is in a serious condition after his health worsened in the last three weeks.

Explaining his condition, Musharraf's family, via a statement, said: "He is not on the ventilator. Has been hospitalized for the last 3 weeks due to a complication of his ailment (Amyloidosis). Going through a difficult stage where recovery is not possible and organs are malfunctioning. Pray for ease in his daily living."

We take a look at what Amyloidosis is, its causes and modes of treatment.

### **What is Amyloidosis?**

Amyloidosis is a rare disease that occurs when an abnormal protein, called amyloid, builds up in one's organs, affecting their shape and functioning. Amyloid deposits can build up in the heart, brain, kidneys, spleen and other parts of the body, leading to life-threatening conditions like organ failure.

Amyloid isn't normally found in the body, but can be formed from several different types of proteins. Some varieties of amyloidosis occur in association with other diseases. These types may improve with treatment of the underlying disease. Some varieties of amyloidosis may lead to life-threatening organ failure.

Amyloidosis may be secondary to a different health condition or can develop as a primary condition as well. Sometimes, it is due to a mutation in a gene, but usually, the cause of amyloidosis remains unknown.

### **What is the cause of the disease?**

Many different proteins can lead to amyloid deposits, but only a few lead to major health problems. The type of protein and where it collects tell the type of amyloidosis one has. Amyloid deposits may collect throughout one's body or in just one area.

Moreover, while some varieties are hereditary, others are caused by outside factors, such as inflammatory diseases or long-term dialysis.

There are also different amyloidosis that are prevalent:

Light-chain (AL) amyloidosis is the most common type in developed countries which can affect the kidneys, spleen, heart, and other organs. People with conditions such as multiple myeloma or a bone marrow illness are more likely to have AL amyloidosis.

This starts in plasma cells within the bone marrow. Plasma cells create antibodies with both heavy chain and light chain proteins. If the plasma cells undergo abnormal changes, they produce excess light chain proteins that can end up in the bloodstream. These damaged protein bits can accumulate in the body's tissues and damage vital organs such as the heart.

Another type is the AA amyloidosis. Previously known as secondary amyloidosis, this condition is the result of another chronic infectious or inflammatory disease, such as rheumatoid arthritis, Crohn's disease, or ulcerative colitis. It mostly affects one's kidneys, digestive tract, liver, and heart. AA refers to the amyloid type A protein that causes it.

Dialysis-related amyloidosis is more common in older adults and people who have been on dialysis for more than 5 years. This form of amyloidosis is caused by deposits of beta-2 microglobulin that build up in the blood. Deposits can build up in many different tissues, but it most commonly affects bones, joints, and tendons.

Transthyretin amyloidosis can be inherited from a family member and is hence commonly referred to as familial amyloidosis. Transthyretin is a protein that is also known as prealbumin made in the liver. As such, this often affects the liver, nerves, heart, and kidneys and many genetic defects are linked to a higher chance of amyloid disease.

### **What are the symptoms?**

Symptoms of amyloidosis are often subtle and can vary greatly depending on where the amyloid protein is collecting in the body. As amyloidosis progresses, the deposits of amyloid can harm the heart, liver, spleen, kidneys, digestive tract, brain or nerves.

The general signs or symptoms would include:

- Severe fatigue
- Loss of weight
- Swelling in the belly, legs, ankles or feet
- Numbness, pain or tingling in hands or feet
- Changes in skin colour
- Purple spots (purpura) or bruised-looking areas of skin around the eyes
- Bleeding more than usual after an injury
- Swelling of the tongue
- Shortness of breath

### **Diagnosis and treatment**

One or more imaging procedures to take a look at the body's internal organs, such as an echocardiogram, nuclear heart test or liver ultrasound, are the normal tests to diagnose the condition.

The goals of amyloidosis treatment are to slow the progression, reduce the impact of symptoms, and prolong life. The actual therapy depends on which form of amyloidosis one has. Chemotherapy is one form of treatment as some medicines used to kill cancer cells or stop them from growing can also stop the growth of cells that are making the abnormal protein in people with AL amyloidosis.

A bone marrow transplant, where the stem cells are removed from one's blood, and then chemotherapy is used to kill the abnormal cells in the bone marrow, is another form of treatment. The stem cells are then infused back into one's body where they travel to the bone marrow and replace the unhealthy cells destroyed by the chemotherapy.

Secondary (AA) amyloidosis is treated by controlling the underlying disorder and with powerful anti-inflammatory medicines which fight inflammation.

The United States Food and Drug Administration has also recently approved multiple medications for transthyretin amyloidosis. These medicines work by either "silencing" the TTR gene or by stabilizing the TTR protein. As a result, further amyloid plaque should not deposit in the organs. The medication for one will depend on one's symptoms and the hereditary form of TTR amyloidosis.

**Source: The Indian Express**

## **15. What the WHO says on Covid-19's origins, how to prepare for next pandemic**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

A panel of experts drafted by the World Health Organization (WHO) to investigate the origins of the Covid-19 pandemic and prepare a framework to investigate future outbreaks has published its first report.

The panel, set up in October, comprises 26 experts from around the world and is called the Scientific Advisory Group for the Origins of Novel Pathogens (SAGO).

Its work follows a previous WHO-China report on COVID-19, and a US intelligence inquiry, both of which pointed towards a natural origin for the pandemic, likely from bats, rather than a lab leak.

### **What does the WHO report say about bats?**

The new report says a zoonotic origin is the most likely explanation for the emergence of the novel coronavirus. The first human cases were reported in December 2019 in the central Chinese city of Wuhan.

However, it says that neither the original animal source, the intermediate host, nor the moment the virus crossed over into humans, has been identified.

#### **Why has the origin not been identified?**

That is chiefly because a lot of data is missing, the report says, particularly from China.

Chinese scientists have provided more information, including on blood samples from 40,000 Chinese donors in Wuhan from September to December 2019 when the pandemic emerged.

Of these, more than 200 samples initially tested positive for Sars-CoV-2 antibodies, the virus causing COVID-19, but confirmatory tests were negative, the Chinese scientists said.

The WHO has requested more information on this and on other elements.

#### **Can the lab leak theory be true?**

The panel also said that no further information has been provided on whether the coronavirus may have reached humans via a laboratory incident, meaning more data and investigations remained important.

#### **What is the next step?**

It called for a number of studies to be carried out both in China and globally to shed further light on the pandemic's origins.

These include additional studies on the first human cases in China, as well as efforts to trace whether the virus was circulating in China – and elsewhere – before the first cases were found.

Further work on potential animal hosts, particularly in bats, as well as on farm workers and animal products that were in the Wuhan market – identified early on as a potential spillover site – were also key, the WHO said.

#### **What are the aims of the panel?**

The WHO says the main aims of the SAGO panel are to draw up a framework for investigating future outbreaks more effectively.

The report includes a list of the work that should urgently be done to achieve this, which would ideally be in cooperation with the country where an outbreak begins and WHO teams.

The studies needed include “early investigation” work into things such as modes of transmission and the extent of human-to-human transmission, SAGO said, as well as research on early cases and their travel history and exposure to animals.

It said there should also be plans for visits and the “systematic recording of information from the site of the earliest detected cases”, as well as early specimen collection from animals, humans and the wider environment.

It will continue to meet to discuss progress on this, and will also discuss work on identifying the origins of some of the Sars-CoV-2 variants, as well as the spread of known pathogens, such as the recent monkeypox outbreak.

The panel also recommended more work on biosafety and security.

**Source: The Indian Express**

### **16. Mix and match dose: About Booster doses for Covid-19**

#### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

With the number of COVID-19 cases creeping up the curve since May 24, a certain sense of guarded concern has naturally crept into pandemic control activities. With the number of cases, rising by the thousands on a daily basis, (on June 11, in a span of 24 hours, over 8,000 fresh cases were reported),

repeat infections, breakthrough infections for those who have had the double dose of vaccine, the debate about getting a booster or precaution dose has gotten shriller.

### **What is the vaccine strategy?**

Currently, the government supports vaccination through its healthcare network only for senior citizens, with or without co-morbidities, and certain categories including frontline workers and healthcare workers. It has given the private sector the go-ahead to vaccinate eligible groups with the precaution dose for a price. The debate has also increasingly called to question the appropriate vaccine to use in the precautionary dosage, whether it should be homologous, the same vaccine that was administered as primary dose, or if it should be heterologous — any vaccine other than the primary dose, for a better immune response.

### **Are heterologous booster shots better?**

There is a growing body of scientific evidence to prove that when heterologous doses are used as booster shots, the immune response is more efficient.

In a May 23 article, in eBioMedicine, part of Lancet Discovery Science, Zoltán Bánki et al, basing their conclusions on a single-blinded, three-arm, partially randomised clinical trial, said: “This study clearly shows the immunogenicity and safety of heterologous AZ/BNT vaccination and encourages further studies on heterologous vaccination schedules.”

In the March 17 issue of the New England Journal of Medicine, Robert L. Atmar et al discuss this point: “Heterologous prime-boost strategies may offer immunologic advantages to extend the breadth and longevity of protection provided by the currently available vaccines.” Demonstrating with the AstraZeneca base vaccine supplemented by an mRNA vaccine booster, the authors concluded that “the heterologous boost immunisation strategy provides an immune response that may prove to be beneficial for durable prevention and control of COVID-19.”

The arguments of an April 23 study conducted in Chile and published in Lancet Global Health by Alejandro Jara et al re-emphasised the pressing need to come to a conclusion about the most effective booster to be used: “Policy makers urgently need evidence of the effectiveness of additional vaccine doses and its clinical spectrum for individuals with complete primary immunisation schedules, particularly in countries where the primary schedule used inactivated SARS-CoV-2 vaccines.”

Many countries have restricted vaccine boosters to people at high risk of SARS-CoV-2 infection or related complications, including older adults, healthcare workers, and individuals with underlying health conditions, making it all the more important to prioritise the use of appropriate vaccines that would also enable a fair and equitable distribution of the doses.

The authors reported: “Our results suggest that a homologous or heterologous booster dose for individuals with a complete primary vaccination schedule with CoronaVac provides a high level of protection against COVID-19, including severe disease and death.” Without a doubt, in this study, heterologous boosters showed higher vaccine effectiveness than a homologous booster for all outcomes, providing additional support for a mix and match approach.

### **What are the other advantages?**

In the NEJM paper, the authors pointed out that “an option to use heterologous booster vaccines could simplify the logistics of administering such vaccines, since the booster formulation could be administered regardless of the primary series.”

Since the first introduction of a vaccine for COVID-19 several more vaccines have entered the market. More options are now available across the spectrum, made from various vaccine candidates. While their availability in numbers might be low, the fact that there are more vaccines available in the market is likely to level the playing field.

### **What is the way ahead?**

A comment on the Jara Lancet paper by Mine DurusuTanriover and Murat Akova highlights how the results of the study provide insights to policy makers on how to manage the booster dose strategy after two doses of CoronaVac vaccination.



“It is now clear that, in a world where vaccine equity is a utopia, scientists can only strive for how to best use the available vaccines to reach for a maximum attainable benefit. A mix and match vaccination strategy, including inactivated vaccines for priming and heterologous boosters thereafter, seems to be a realistic policy.”

It would be prudent for governments, including in India, to switch to a heterologous booster regimen to allow more persons eligible for the vaccine and able to pay for it, access it in the market. As a community health move, it will also be easy for health administrators to deploy newer vaccines in the market as part of the public vaccination programme. Shortages of vaccines will not be an issue when the reliance on just a few vaccines disappears, public health experts said.

**Source: The Hindu**

## **17. BrahMos, 21 and developing**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

On June 12, 2001, the BrahMos supersonic cruise missile was first tested from a land-based launcher in Chandipur. In the 21 years since, BrahMos has been upgraded several times, with versions tested on land, air and sea platforms. A look at the 21-year journey of the versatile asset, which recently bagged an export order from the Philippines.

#### **Background and development**

Since the early 1980s, the Integrated Guided Missile Development Programme, conceived and led by Dr A P J Abdul Kalam, started developing a range of missiles including Prithvi, Agni, Trishul, Akash and Nag, with a wide spectrum of capabilities and ranges.

In the early 1990s, India’s strategic leadership felt the need for cruise missiles — guided missiles that traverse the majority of their flight path at almost constant speed and deliver large warheads over long distances with high precision. The need was felt primarily following the use of cruise missiles in the Gulf War.

An Inter-Governmental Agreement was signed with Russia in Moscow in 1998 by Dr Kalam, who headed the Defence Research and Development Organisation (DRDO), and N V Mikhailov, Russia’s then Deputy Defence Minister. This led to the formation of BrahMos Aerospace, a joint venture between DRDO and NPO Mashinostroyeniya (NPOM), the Indian side holding 50.5% and the Russians 49.5%.

In 1999, work on development of missiles began in labs of DRDO and NPOM after BrahMos Aerospace received funds from the two governments. The first successful test in 2001 was conducted from a specially designed land-based launcher. The missile system has since reached some key milestones, with the first major export order of \$375 million received from the Philippines Navy this year.

#### **Strategic significance**

BrahMos is a two-stage missile with a solid propellant booster engine. Its first stage brings the missile to supersonic speed and then gets separated. The liquid ramjet or the second stage then takes the missile closer to three times the speed of sound in cruise phase. The missile has a very low radar signature, making it stealthy, and can achieve a variety of trajectories. The ‘fire and forget’ type missile can achieve a cruising altitude of 15 km and a terminal altitude as low as 10 m to hit the target.

Cruise missiles such as BrahMos, called “standoff range weapons”, are fired from a range far enough to allow the attacker to evade defensive counter-fire. These are in the arsenal of most major militaries in the world.

The BrahMos has three times the speed, 2.5 times flight range and higher range compared to subsonic cruise missiles. With missiles made available for export, the platform is also seen as a key asset in defence diplomacy.

## MILESTONES

**2001:** Maiden launch from land-based launcher in anti-ship mode from ITR, Chandipur

**2002:** Launch in land-to-sea configuration from ITR

**2003:** Maiden launch from Naval warship

**2005:** Navy receives first batch of BrahMos

**2007:** BrahMos land system delivered

to Indian Army

**2013:** Launch from a submerged platform in Bay of Bengal

**2017:** Cruise missile's maiden launch from Su-30MKI

**2020:** Su-30MKI equipped with BrahMos inducted in an IAF formation

**2022:** First mega export order from Philippines Navy

An extended range version of the BrahMos air-launched missile was tested from a Sukhoi-30 MKI recently. On January 11, an advanced sea-to-sea variant of BrahMos was tested from the newly commissioned INS Visakhapatnam.

The BrahMos is also said to have been involved in a recent controversy. Pakistan claimed that an unarmed Indian missile had landed in its territory on March 9, and the Ministry of Defence said a technical malfunction had led to accidental firing. While the government, which ordered a high-level court of enquiry, did not officially identify the missile, experts felt its trajectory suggested the signature of BrahMos.

### Present and future

Senior DRDO scientists say what makes the missile system unparalleled is its extreme accuracy and versatility. Land-based BrahMos formations along the borders, BrahMos-equipped Sukhoi-30s at bases in Northern theatre and Southern peninsula, and BrahMos-capable ships and submarines deployed in sea together form a triad.

With requirements evolving in multi-dimensional warfare, the BrahMos is undergoing a number of upgrades and work is on to develop versions with higher ranges, manoeuvrability and accuracy.

Versions currently being tested include ranges up to 350 km, as compared to the original's 290 km. Versions with even higher ranges, up to 800 km, and with hypersonic speed are said to be on cards. Efforts are also on to reduce the size and signature of existing versions and augment its capabilities further.

Versions deployed in all three Armed forces are still being tested regularly, and so are versions currently under development.

**LAND-BASED:** The land-based BrahMos complex has four to six mobile autonomous launchers, each with three missiles on board that can be fired almost simultaneously. Batteries of the land-based systems have been deployed along India's land borders in various theatres.

The upgraded land attack version, with capability of cruising at 2.8 Mach, can hit targets at a range up to 400 km with precision. Advanced versions of higher range and speed up to 5 Mach are said to be under development. The ground systems of BrahMos are described as 'tidy' as they have very few components.

**SHIP-BASED:** The Navy began inducting BrahMos on its frontline warships from 2005. These have the capability to hit sea-based targets beyond the radar horizon. The Naval version has been successful in sea-to-sea and sea-to-land modes. The BrahMos can be launched as a single unit or in a salvo of up to eight missiles, separated by 2.5-second intervals. These can target a group of frigates with modern missile defence systems.

**AIR-LAUNCHED:** On November 22, 2017, BrahMos was successfully flight-tested for the first time from a Sukhoi-30MKI against a sea-based target in the Bay of Bengal. It has since been successfully tested multiple times.

BrahMos-equipped Sukhoi-30s, which have a range of 1,500 km at a stretch without mid-air refuelling, are considered key strategic deterrence for adversaries both along land borders and in the strategically important Indian Ocean Region. The IAF is said to be integrating BrahMos with 40 Sukhoi-30 fighter jets across the various bases.

**SUBMARINE-LAUNCHED:** This version can be launched from around 50 m below the water surface. The canister-stored missile is launched vertically from the pressure hull of the submarine, and uses different settings for underwater and out-of-the-water flights. This version was successfully tested first in March 2013 from a submerged platform off the coast of Visakhapatnam.

**Source: The Indian Express**

## 18. What is Web 5.0 – the blockchain-powered digital network Twitter’s ex-CEO wants to build?

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

Former Twitter CEO Jack Dorsey recently announced his vision for a new decentralized web platform that is being called Web 5.0 and is being built with an aim to return “ownership of data and identity to individuals”. What is Web 5.0, and how will it be different from Web 3.0 and Web 2.0?

### **What do the terms Web 1.0, Web 2.0 and Web 3.0 mean?**

Web 1.0 was the first generation of the global digital communications network. It is often referred to as the “read-only” Internet made of static web-pages that only allowed for passive engagement.

The next stage in the evolution of the web was the “read and write” Internet. Users were now able to communicate with servers and other users leading to the creation of the social web. This is the world wide web that we use today.

Web 3.0 is an evolving term that is used to refer to the next generation of Internet – a “read-write-execute” web – with decentralization as its bedrock.

It speaks about a digital world, built leveraging the blockchain technology, where people are able to interact with each other without the need of an intermediary. Web 3.0 will be driven by Artificial Intelligence and machine learning where machines will be able to interpret information like humans.

### **What is Web 5.0?**

Being developed by Dorsey’s Bitcoin business unit, The Block Head (TBH), Web 5.0 is aimed at “building an extra decentralized web that puts you in control of your data and identity”.

Talking about the idea on its website, the TBH says: “The web democratized the exchange of information, but it’s missing a key layer: identity. We struggle to secure personal data with hundreds of accounts and passwords we can’t remember. On the web today, identity and personal data have become the property of third parties.”

Simply put, Web 5.0 is Web 2.0 plus Web 3.0 that will allow users to ‘own their identity’ on the Internet and ‘control their data’.

Both Web 3.0 and Web 5.0 envision an Internet without threat of censorship – from governments or big tech, and without fear of significant outages.

Replying to a Twitter question if there was any difference between Web 5.0 and Web 3.0, Dorsey argued that Web 3.0 isn’t truly decentralized or owned by its users, but is instead controlled by various “venture capitalists and limited partners”.

### **What are the use cases for Web 5.0?**

On its website, the TBT presents two use cases for how Web 5.0 will change things in the future.

About changing the “control of identity”, it says: “Alice holds a digital wallet that securely manages her identity, data, and authorizations for external apps and connections. Alice uses her wallet to sign in to a new decentralized social media app. Because Alice has connected to the app with her decentralized identity, she does not need to create a profile, and all the connections, relationships, and posts she creates through the app are stored with her, in her decentralized web node. Now Alice can switch apps whenever she wants, taking her social persona with her.”

Talking about giving users control over their own data, it cites example of another user, Bob, and describes him as a music lover who hates having his personal data locked to a single vendor as it forces him to regurgitate his playlists and songs over and over again across different music apps.

“Thankfully there’s a way out of this maze of vendor-locked silos: Bob can keep this data in his decentralized web node. This way Bob is able to grant any music app access to his settings and preferences, enabling him to take his personalized music experience wherever he chooses,” it adds.

**Source: The Indian Express**

### **19. Can the new Google chatbot be sentient?**

#### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

Blake Lemoine, a U.S. military veteran, identifies himself as a priest, an ex-convict and an Artificial Intelligence (AI) researcher. He was engaged by Google to test for bias/hate speech in the Language Model for Dialogue Applications (LaMDA), Google’s nextGen conversational agent. He was sent away on paid leave after claiming that the updated software is now sentient. He claims that the neural network with deep learning capacity has the consciousness of a child of seven or eight years old. He argues that consent from the software must be obtained before experiments are run on it. Google and many tech experts have dismissed the claim. However, this episode, which came on the heels of Google firing TimnitGebru over her warnings on their unethical AI, has caused ripples in social media.

#### **Is AI technology here?**

AI technology appears futuristic. However, Facebook’s facial recognition software which identifies faces in the photos we post, the voice recognition software that translates commands we bark at Alexa, and the Google Translate app are all examples of AI tech already around us.

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'. We use the reverse Turing test, CAPTCHA, to limit technology access to humans and keep the bots at bay.

#### **Which were the first chatbots to be devised?**

As electronics improved and first-generation computers came about, Joseph Weizenbaum of the MIT Artificial Intelligence Laboratory built ELIZA, a computer programme with which users could chat. ALICE (Artificial Linguistic Internet Computer Entity), another early chatbot developed by Richard Wallace, was capable of simulating human interaction. In the 1930s, linguist George Kingsley Zipf analysed the typical human speech and found that most of the utterances began with 2,000 words. Using this information, Wallace theorised that the bulk of commonplace chitchat in everyday interaction was limited. He found that just about 40,000 responses were enough to respond to 95% of what people chatted about. With assistance from about 500 volunteers, Wallace continuously improved ALICE’s responses repertoire by analysing user chats, making the fake conversions look real. The software won the Loebner Prize as “the most human computer” at the Turing Test contests in 2000, 2001, and 2004.

#### **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. Using complex algorithms, the ANN's mathematical system extracts particular characteristics like the line that curves from right to left at a certain angle, edges or several lines that merge to form a larger shape from each cat image. The software learns to recognise the key patterns that delineate what a general 'cat' looks like from these parameters.

Early machine learning software needed human assistance. The training images had to be labelled as 'cats', 'dogs' and so on by humans before being fed into the system. In contrast, access to big data and a powerful processor is enough for the emerging deep learning softwares. The App learns by itself, unsupervised by humans, by sorting and sifting through the massive data and finding the hidden patterns.

### **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. The chatbot is not yet public, but users are permitted to interact with it. Google claims that LaMDA can make sense of nuanced conversation and engage in a fluid and natural conversation. The LaMDA 0.1 was unveiled at Google's annual developer conference in May 2021, and the LaMDA 0.2 in 2022.

### **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. For instance, try chatting about the weather with Ask Disha or about the Ukrainian crisis with the Amazon chat app. 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. Such advanced conversational agents could revolutionise customer interaction and help AI-enabled internet search, Google hopes.

### **How intelligent are AI's?**

The Turing test is a powerful motivator for developing practical AI tools. However, scholars, such as philosopher John Searle, use the 'Chinese Room Argument' to demonstrate that passing the Turing test is inadequate to qualify as intelligent.

Once I used Google Translate to read WhatsApp messages in French from a conference organiser in France and in turn replied back to her in French. For some time, she was fooled into thinking that I could speak French. I would have passed the 'Turing test', but no sane person would claim that I know French. This is an example of the Chinese room experiment. The imitation game goes only so far.

Further scholars point out that AI tech uses a false analogy of learning. A baby learns a language from close interaction with caregivers and not by ploughing through a massive amount of language data. Moreover, whether intelligence is the same as sentience is a moot question. However, the seemingly human-like conversational agents rely on pattern recognition, not empathy, wit, candour or intent.

### **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.



**Source: The Hindu**

## **20. Why is NordVPN removing its India servers?**

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

NordVPN has become the third virtual private network (VPN) provider to remove its servers from India in response to the country's cybersecurity directive. It follows the likes of ExpressVPN and Surfshark who have already pulled their servers from the country in the aftermath of the rules. The norms, released by the Indian Computer Emergency Response Team (CERT-In) in April, require VPNs to record and keep users' logs for 180 days as well as store a range of information for five years.

"In the past, similar regulations were typically introduced by authoritarian governments in order to gain more control over their citizens," NordVPN said in a statement. "If democracies follow the same path, it has the potential to affect people's privacy as well as their freedom of speech. One way or another, this law will likely have a negative impact on people's privacy and digital security."

### **Why has NordVPN removed its India servers?**

The Panama-based company said that due to the logging and storage requirement of the rules, "a VPN company with servers in India may no longer be able to guarantee privacy for its users".

The firm is "concerned" about the possible effect this regulation may have on people's data. "From what it seems, the amount of stored private information will be drastically increased throughout hundreds or maybe thousands of different companies. It is hard to imagine that all, especially small and medium enterprises, will have the proper means to ensure the security of such data," it said.

NordVPN will remove its servers on June 26, a day before the cybersecurity norms come into effect. NordVPN is among the largest VPN providers globally, with more than 14 million users globally and more than 5,500 servers in 60 countries.

### **How have other VPN providers reacted?**

Last week, Surfshark pulled its India servers, saying that the cybersecurity rules "go against the core ethos" of the company's "no logs" policy. Before that, ExpressVPN had removed its servers from the country, saying it "refuses to participate in the Indian government's attempts to limit internet freedom".

### **What are India's rules related to VPNs?**

The guidelines, released by CERT-In on April 28, asked VPN service providers along with data centres and cloud service providers to store information such as names, e-mail IDs, contact numbers, and IP addresses. among other things, of their customers for a period of five years.

While the government has said it wants these details to fight cybercrime, the industry argues that privacy is the main selling point of VPN services, and such a move would be in breach of the privacy cover provided by VPN platforms.

However, despite these concerns, Minister of State for Electronics and IT Rajeev Chandrashekhar had earlier said that VPNs who would not adhere to the rules are free to exit the country.

The rules will come into effect on June 27.

### **What happens to Indian users of NordVPN?**

The firm said that its Indian servers will remain until June 26, and in order to ensure that its users are aware of this decision, NordVPN will send notifications with the full information via its app starting 20 June.

While the firm is yet to announce how the move will impact its India users, other VPNs who have removed their servers said that they will service users in the country via virtual servers located in other countries.

**Source: The Indian Express**

## 21. Quantum diamond microscope to image magnetic fields

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

### **Microscope that can image magnetic fields change over milliseconds**

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.

### **Why is this microscope special?**

The ideal frame rate to capture a changing magnetic field is one that captures data at twice the frequency of the changing field. 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 microscope built by researchers works in the millisecond range.

### **How does this microscope work?**

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).

The fluorescence emitted from these NV centres encodes the magnetic field information. During the measurement of ultra-small magnetic fields, the change in the fluorescence levels is extremely small and therefore, limits the imaging frame rate and degrades the signal-to-noise ratio of the measurement.

In order to overcome this limitation, the researchers employed a “lock-in detection scheme” which selects light fluctuations of a small frequency range, rejecting others, and thereby improving the sensitivity to small changes in fluorescence.

A special diamond crystal, one micrometre thick, embedded with a high density of such NV centres is created. This acts as a sensor when a thin two-dimensional sample is brought close to it — less than 10 micrometre. Using this technique, the researchers can image a 150 micrometre by 150 micrometre field of view, which is quite an achievement.

### **Improved frame rates**

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. It enables imaging of millisecond scale magnetisation changes in micro-magnets.

**Source: The Hindu**

## 22. The 5G auction plan: Expected Timeline, Concerns of Telcos and Captive private networks

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

The Union Cabinet approved auction of 5G spectrum bands, and said it has reserved a portion of airwaves for captive private networks, a proposal opposed by telecom service providers. The auction of over 72 GHz of airwaves is set to be held by the end of July.

### **What set the ball rolling for 5G technology in India?**

The world's second-largest telecom market is one of the few major countries without 5G service. The Union government's delay in auctioning off spectrum bands is a result of its rounds of consultations with various stakeholders to decide on bands that can be sold, block sizes, and the reserve price. The telecom service providers are ready to commercially roll out 5G to customers. In January, Reliance Jio said it

completed next generation network coverage planning for nearly 1,000 cities in the country. A year ago, Airtel demonstrated 5G over a live commercial network in Hyderabad. Vodafone, before its merger with Idea, in 2017 said it had “upgraded entire radio network to all-IP technology, ready even for 5G”.

### **What are captive private networks and why do they need spectrum bands?**

Private wireless networks are cellular networks built specifically for individual enterprises. These networks are often deployed at a single unit, for example a factory. They can also be used in a wide-area setting, for instance to monitor a mine in real-time. Airports and ports can also have their own private 5G cellular network to process imaging data coming from surveillance cameras to manage the facility. Several enterprises around the world are working on setting up private 5G networks as they offer reliable, fast, and secure wireless communication.

According to an Economist Impact survey of 216 technology executives in Germany, Japan, the U.K. and the U.S., over half said they plan to deploy a private 5G network within six-24 months. That is on top of nearly 30% executives who have already deployed or are in the process of deploying private 5G networks in their organisations. The key reason driving this adoption is the need for greater data privacy and security. Unlike unlicensed Wi-Fi service available at several private places, licensed spectrum bands offer greater data privacy, security and faster connection speeds.

### **How does Industry 4.0 relate to 5G?**

Cellular technology has come a long way in the last four decades. Each generation has added a layer of sophistication over another starting with voice. Over the years, three generations of cellular airwaves enabled users to text, use Internet and view live-streaming video all at the same time.

Unlike its predecessors, the latest wireless iteration opens a new paradigm in cellular connectivity. That's because the true benefits of 5G largely apply to industrial enterprises than individual users. Think about industrial AI-enabled robots on shop floors and warehouses, autonomous vehicles on the road, and mixed-reality headsets with advanced mobile applications that train workers. Each of these scenarios require high-speed computing using real-time data at low latency. This is at the core of the fourth industrial revolution where devices talk to each other to perform various tasks. Big tech firms like Google have been seeking direct allocation of spectrum to use in machine learning applications, connected devices and general AI advancement.

### **How does the government plan to set aside spectrum for private network operators?**

The Department of Telecommunications (DoT) has said that private firms can set up a 5G network by either getting a slice of public network from a licensed telecom company, establishing an isolated on premises network from the telecom service provider's spectrum, or obtaining spectrum directly from the Department of Telecom or by sub-leasing it from telcos.

The notice inviting the offer also states that spectrum auction to private enterprises will follow after a demand study and based on TRAI's recommendation on pricing and modalities of block allocations. The telecom regulator expects its recommendations to result in increased sharing of network resources.

### **Is it a setback for telcos?**

The Cellular Operators Association of India (COAI) is of the firm view that “there is no justification whatsoever for allocating spectrum to industry verticals for operating private captive networks. It said that there will be no business case for 5G rollout in such a scenario. This stems from their concern that 5G technology has more industry use case than for individual consumers. So, telcos worry that providing industries 5G spectrum allocation to set up private networks will diminish their own revenue from the next generation of cellular services.

**Source: The Hindu**

## **23. What are bird strikes and how they can affect flights**

**Relevant for GS Prelims & Mains Paper III; Science & Technology**

Sunday saw at least two bird strike incidents happen — one involving a SpiceJet plane flying Patna-Delhi and the second on an IndiGo aircraft flying Guwahati-Delhi. Following both of these incidents, the aircraft had to return back to their origin airports and were grounded for maintenance.

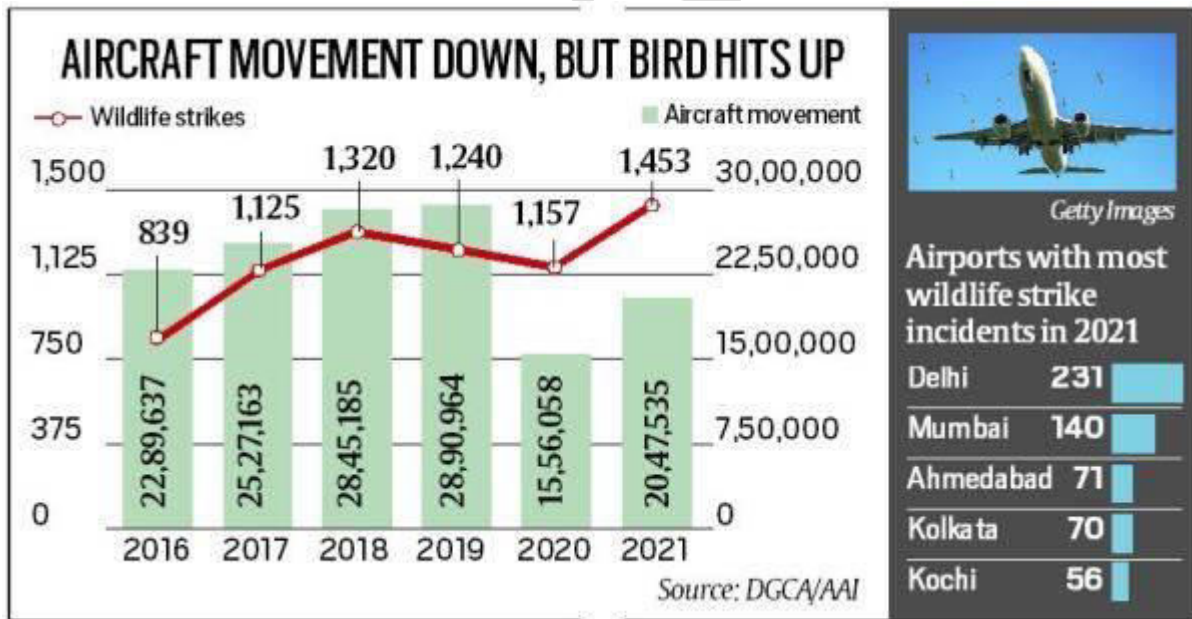
**What happened on these flights?**

An IndiGo A320neo aircraft took off from Guwahati on Sunday morning and its left engine was damaged after suffering a bird hit when it was at an altitude of 1,600 feet. The pilots then declared an emergency and returned back to Guwahati. The aircraft is being held on the ground there for necessary inspections. In the case of the SpiceJet flight on Sunday afternoon, the pilots of a Boeing 737-800 plane suspected a bird strike during the take-off roll but continued to climb. Following the take-off rotation, they were informed by the cabin crew of sparks emanating from the plane’s left engine. Subsequently, the pilots were also informed of smoke coming from one of their aircraft engines by the air traffic control on the ground. This led to pilots declaring an emergency and landing back in Patna.

**What are bird strikes and what can happen as a result of a strike?**

Bird strikes are among the most common threats to aircraft safety, and they typically occur during the take-off or landing phases of a flight. Dozens of bird strike incidents happen each day but some can be more dangerous than others. Typically, when birds will collide with an aircraft’s airframe, it is unlikely to cause significant problems for the pilots flying. But there are cases — like the ones that happened on Sunday — where the aircraft engine ingested the birds causing damage to the power plants. This can lead to a loss of thrust for the engine and cause manoeuvrability problems for the crew. In these cases, where a jet engine ingests a bird, procedures would generally call for pilots to get the plane on the ground at the closest airport.

However, while most airframe bird strikes are not considered critical to air safety, if the collision has happened with a window or a windscreen resulting in cracking of the structure, pilots will look to land the plane as early as possible.



**Could bird strikes be critical to air safety?**

Smaller planes would generally be more susceptible to the dangers of bird strikes than larger ones. Also, modern jetliners are built with a number of redundancies and common passenger aircraft like Boeing 737 or Airbus A320 are designed to safely land with even a single-engine. However, given that bird strikes mostly happen during take-offs and landings, these incidents could distract the pilots during what are highly critical phases of a flight that demand the complete attention of the crew.

**What causes bird strikes and what are some of the solutions to this problem?**

In the simplest of terms, the presence of birds around an airfield increases the chances of a bird strike. In monsoons, as water puddles emerge in open grounds attracting insects to breed, it also increases the

presence of birds in these regions. In some cases, bird hits also happen at higher altitudes when a plane is cruising. These are more dangerous than the low-altitude hits given that they can cause rapid depressurisation of cabins. Other reasons for bird activity around an airfield could be the presence of landfills or waste disposal sites that attract a large number of birds.

For example, in 2019, the Ahmedabad airport saw 11 wildlife strike events every 10,000 flights. One of the key reasons behind this was the dismantling of a large garbage dump in Ahmedabad that was located almost directly in the trajectory of flights approaching the airport, a move that has caused the birds circling the landfill to disperse. The Ministry of Civil Aviation and the DGCA have recognised wildlife strikes, including bird and animal hits, to aircraft as one of the “State Safety Priority”, and the aviation regulator regularly carries out aerodrome inspections that are

considered critical with regard to wildlife strikes. Aviation authorities, along with local agencies, work on reducing wildlife presence around airports from time to time.

**Source: The Indian Express**

## **24. A new global standard for AI ethics: UNESCO’s global agreement on the ethics of AI can guide governments and companies alike**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

Artificial intelligence (AI) is more present in our lives than ever. From predicting what we want to see as we scroll through social media to helping us understand weather patterns to manage agriculture, AI is ubiquitous. AI algorithms can also be partially credited for the rapidity with which vaccines were developed to tackle COVID-19. The algorithms crunched complex data from clinical trials being undertaken in all corners of the world, creating global collaborations that could not have been imagined even a decade ago.

#### **Issues in AI**

But AI-related technology cannot be said to always be beneficial. The data used to feed into AI often aren't representative of the diversity of our societies, producing outcomes that can be said to be biased or discriminatory. For instance, while India and China together constitute approximately a third of the world's population, Google Brain estimated that they form just 3% of images used in ImageNet, a widely used dataset. Similarly, there are problems emerging in facial recognition technologies, which are used to access our phones, bank accounts and apartments, and are increasingly employed by law-enforcement authorities, in identifying women and darker-skinned people. For three such programs released by major technology companies, the error rate was 1% for light-skinned men, but 19% for dark-skinned men, and up to 35% for dark-skinned women. Biases in facial recognition technologies have led to wrongful arrests. These challenges are not surprising when we look at how AI is developed. Only one in 10 software developers worldwide is a woman. These women come overwhelmingly from western countries.

These issues are of particular importance to India, which is one of the world's largest markets for AI-related technologies, valued at over \$7.8 billion in 2021. Indeed, the National Strategy on Artificial Intelligence released by NITI Aayog in 2018 highlights the massive potential of AI in solving complex social challenges faced by Indian citizens across areas such as agriculture, health, and education, in addition to the significant economic returns that AI-related technologies are already creating.

To ensure that the full potential of these technologies is reached, the right incentives for ethical AI governance need to be established in national and sub-national policy. India has made great strides in the development of responsible and ethical AI governance, starting with NITI Aayog's #AIForAll campaign to the many corporate strategies that have been adopted to ensure that AI is developed with common, humanistic values at its core.

However, until recently, there was no common global strategy to take forward this importance agenda. This changed last November when 193 countries reached a groundbreaking agreement at UNESCO on how AI should be designed and used by governments and tech companies. UNESCO's Recommendation on the Ethics of Artificial Intelligence took two years to put together and involved thousands of online consultations with people from a diverse range of social groups. It aims to fundamentally shift the balance



of power between people, and the businesses and governments developing AI. Indeed, if the business model of how these technologies are developed does not change to place human interests first, inequalities will grow to a magnitude never before experienced in history; access to the raw material that is data is key.

Countries which are members of UNESCO have agreed to implement this recommendation by enacting actions to regulate the entire AI system life cycle, ranging from research, design and development to deployment and use. This means they must use affirmative action to make sure that women and minority groups are fairly represented on AI design teams. This could take the form of quota systems that ensure that these teams are diverse or the form of dedicated funds from their public budgets to support such inclusion programmes.

The Recommendation also underscores the importance of the proper management of data, privacy and access to information. It establishes the need to keep control over data in the hands of users, allowing them to access and delete information as needed. It also calls on member states to ensure that appropriate safeguards schemes are devised for the processing of sensitive data and effective accountability, and redress mechanisms are provided in the event of harm. All of this takes enforcement to the next level.

Additionally, the broader socio-cultural impacts of AI-related technologies are also addressed, with the Recommendation taking a strong stance that AI systems should not be used for social scoring or mass surveillance purposes; that particular attention must be paid to the psychological and cognitive impact that these systems can have on children and young people; and that member states should invest in and promote not only digital, media and information literacy skills, but also socio-emotional and AI ethics skills to strengthen critical thinking and competencies in the digital era. This is all critical for ensuring accountability and transparency of AI-related technologies, underpinning a strong rule of law that adapts to new digital frontiers.

In a number of countries, the principles of the Recommendation are already being used in AI regulation and policy, demonstrating their practical viability. Finland provides an example of good practice of this regard, with its 2017 AI Strategy. This was the first of its kind in any European country and demonstrated how governments can effectively promote ethical AI use without compromising the desire to be on the cutting edge of new technologies.

### **A common rulebook**

The new agreement is broad and ambitious. It is a recognition that AI-related technologies cannot continue to operate without a common rulebook. Over the coming months and years, the Recommendation will serve as a compass to guide governments and companies, to voluntarily develop and deploy AI technologies that conform with the commonly agreed principles it establishes – similar moves happened after UNESCO’s declaration on the human genome set out norms for genetic research. Second, it is hoped that governments will themselves use the Recommendation as a framework to establish and update legislation, regulatory frameworks, and policy to embed humanistic principles in enforceable accountability mechanisms. To accompany countries in the realisation of the full potential of AI and with the aim of building the institutional capacity of countries and all the relevant stakeholders, UNESCO is in the process of developing tools to help them assess their readiness in the implementation of the Recommendation and identify, monitor and assess the benefits, concerns and risks of AI system.

With this agreement, we are confident of putting AI to work where it can have the most impact: hunger, environmental crises, inequalities and pandemics. We are optimistic of having built the momentum for real change.

**Source: The Hindu**

## **25. Open network for digital commerce**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

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. The announcement was made by Commerce and Industry Minister Piyush Goyal. “After UPI, another game changing idea to democratise commerce — ONDC soft launch today to select consumers, sellers and logistics providers. Get ready for a world of choice, convenience and transparency,” Mr Goyal had tweeted.

### **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 led to formation of ONDC?**

The Department for Promotion of Industry and Internal Trade (DPIIT), under Ministry of Commerce and Industries, conducted an outreach during the outbreak of the COVID-19 pandemic to understand its impact on small sellers and hyperlocal supply chain functioning. Post which, it found that there is a huge disconnect between the scale of online demand and the ability of the local retail ecosystem to participate. Following this, consultations were held with multiple ministries and industry experts and “ONDC was envisioned to revolutionise digital commerce in India,” as per the strategy paper.

The paper added that ONDC has been envisaged as an entity which should be able to work without the need for day-to-day guidance and advisory from the shareholders/members. The independence of the management is linked to the financial independence of the entity, and therefore, the entity will be required to get funding independently and have a self-sustaining financial model.

### **What is the current status?**

Presently, ONDC is in its pilot stage in five cities — Delhi NCR, Bengaluru, Bhopal, Shillong and Coimbatore — with a target of onboarding around 150 retailers.

The government has also constituted an advisory council to analyse the potential of ONDC as a concept and to advise the government on measures needed to accelerate its adoption. Its members include Nandan M. Nilekani, Non- Executive Chairman, Infosys; R.S. Sharma, CEO, National Health Authority; Dilip Asbe, Managing Director and CEO, NPCI; Anjali Bansal Founder and Chairperson, Avaana Capital; Suresh Sethi, Managing Director and CEO, Protean eGov Technologies Ltd.; Arvind Gupta Co-Founder & Head, Digital India Foundation; Kumar Rajagopalan CEO, Retailers Association of India; Adil Zainulbhai Chairman, Quality Council of India and Capacity Building Commission; and Anil Agrawal, Additional Secretary, Department for Promotion of Industry and Internal Trade.

Over the next five years, the ONDC expects to bring on board 90 crore users and 12 lakh sellers on the network, enabling 730 crore additional purchases and an additional gross merchandising value (GMV) of ₹3.75 crore. The GMV for the digital commerce retail market in India was ₹2.85 lakh crore (\$38 billion) in 2020, which is only 4.3% of the total retail GMV in India.

### **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.

**Source: The Hindu**

## **26. Fighting Diabetes Pandemic**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

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. Pioneering research work from the Madras Diabetes Research Foundation (MDRF) has shown that Type 2 diabetes, which does not always need external insulin, is largely lifestyle-based, and is higher in prevalence (11.6%) among the urban populations than (2.4%) in the rural areas (Journal of Indian Medical Association, 2002).

#### **Huge disease burden**

While this study from the Madras Diabetes Research Foundation (MDRF) is largely based in South India, a paper by Sadikot and coworkers in Diabetes Research and Clinical Practice has studied 18,000 people across 77 centres across India. They estimate 4.3% of the total Indian population to suffer from diabetes, 5.9 % of the urban population and 2.7% of the rural population.

An Indian Council of Medical Research (ICMR)-funded study has estimated that there are about 77 million diabetic patients across India today. There are some ways to fight against, or delay diabetes. As staple food, it is best to consume a high-fibre diet, with low carbohydrate intake. The MDRF offers one such high-fibre rice. While rice is the staple food in most parts of South India, people in the North are wheat eaters.

Wheat has higher fibre content, more proteins, calcium and minerals. And the rice we use is 'white' or polished with no husk and bran. (On an aside, recall how Mahatma Gandhi advised us not to use polished rice).

It would thus be healthier for rice eaters to include wheat in their food, plus high-protein grains, maize, carrots, cabbage, pulses and vegetables in their daily diets. For non-vegetarians, eggs, fish and mutton included in the diet offer high fibre and proteins.

Preventable

#### **Is Type 2 Diabetes preventable?**

The study from Harvard University, United States says yes. The individual needs to lose small amount of weight, eat a healthy diet, reduce total carbon intake in the food, and do physical exercise regularly. Exercise smarter, not longer. Consider high intensity exercise such as power walking for 10 minutes regularly, and also do breathing exercises, as in meditation.

Indeed, our physiotherapists and Ayurvedic practitioners too, advise deep breathing and regular exercises.

#### **Ten exercises**

The site heathline.com lists as many as 10 different exercises that will be useful for people who are pre-diabetic, or prone to Type 2 diabetes, or getting to be senior citizens. Of the 10, some are easily done without any need to go to a gymnasium. The first exercise is to walk: go for a brisk 30-minute-walk five

times a week, or even more often. Several diabetologists suggest that such brisk walking can be done even at home daily.

The second is cycling. This can be done in a nearby school campus, or the city park. Cycling for 10 minutes a day is very beneficial. Indeed, cycling can be done even at home by putting the cycle on stand, and cycling for ten minutes at home.

The third is weight-lifting. Here again, your own home can be a gym. Lift heavy objects (5 kg or even 8-10 kg, but do check with your doctor) such as filled water buckets, other household stuff. Doing this daily or on alternate days will be helpful.

The above site lists several other exercises such as swimming, calisthenics and so on, but we have listed only those which can be easily done by families at home or nearby.

Benefits of yoga: But one that is mentioned among the 10 exercises is yoga, which is of particular interest to Indians.

**Source: The Hindu**

## **27. Implications of India's new VPN rules**

### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

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 (Computer Emergency Response Team) within six hours of the crime. The new directives, if passed, will be effective from June 28. In response to the CERT-In rules, Nord VPN, one of the world's largest VPN providers, has said it is moving its servers out of the country. Two other firms, Express VPN and Surfshark, said they will shut down their physical servers in India and cater to users in India through virtual servers located in Singapore and the U.K.

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

CERT-In directions are applicable to data centres, virtual private server (VPS) providers, cloud service providers, virtual asset service providers, virtual asset exchange providers, custodian wallet providers and government organisations. 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 resources of the physical server. Multiple virtual servers can run on a single physical server.

Virtualising servers helps reallocate resources for changing workloads. Converting one physical server into multiple virtual servers allows organisations to use processing power and resources more efficiently by running multiple operating systems and applications on one partitioned server. 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 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. This helps contain security attacks and malicious behaviour inside the 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.

#### **Can server relocation and virtualisation help VPN providers circumvent the new rules?**

The FAQs published by the Ministry of Electronics and Information Technology (MeiTY) regarding the cybersecurity directions offers some clarity on relocation and virtualisation. It says the rules are applicable to “any entity whatsoever” in the matter of cyber incidents and cyber security incidents, regardless of whether they have a physical presence in India or not, as long as they deliver services to Indian users. The service providers who do not have a physical presence in India but offer services to the users in the country, have to designate a point of contact to liaise with CERT-In. Also, logs may be stored outside India as long as the obligation to produce logs to CERT-In is adhered to by the entities in a reasonable time.

VPN companies, like Surfshark, on the other hand believe that by removing their physical servers to countries outside India they will comply with the laws applicable to their activities.

#### **Does China have similar rules regarding VPN usage?**

Though not all VPNs are officially banned in China, only government-approved VPNs are officially permitted to function. Visitors and Chinese citizens use VPNs to circumvent China’s Great Firewall, which has blocked access to many websites, keywords and even IP addresses.

Government-approved VPNs have to register with the Chinese government and have to comply with data requests during investigations. However, cases of tourists being penalised for using non- government approved VPNs have not been reported.

**Source: The Hindu**

### **28. CAPSTONE: NASA’s satellite, newly launched**

#### **Relevant for GS Prelims & Mains Paper III; Science & Technology**

On 29<sup>th</sup> June, NASA launched CAPSTONE, a microwave oven-sized CubeSat weighing just 55 pounds (25 kg). CAPSTONE, short for Cislunar Autonomous Positioning System Technology Operations and Navigation Experiment, is designed to test a unique, elliptical lunar orbit.

#### **CAPSTONE to review near-rectilinear halo orbit**

The satellite, **launched on Rocket Lab’s Electron rocket** from the Rocket Lab Launch Complex 1, is heading toward an orbit intended in the future for Gateway, a Moon-orbiting outpost that is part of NASA’s Artemis program.

As a pathfinder for Gateway, CAPSTONE aims to help reduce risk for future spacecraft by validating innovative navigation technologies, and by verifying the dynamics of the halo-shaped orbit.

The orbit is known as a near-rectilinear halo orbit (NRHO). It is significantly elongated, and is located at a precise balance point in the gravities of Earth and the Moon. This offers stability for long-term missions like Gateway.

At the Moon, CAPSTONE will enter NRHO, where it will fly within 1,600 km of the Moon’s North Pole on its near pass and 70,000 km from the South Pole at its farthest. The spacecraft will repeat the cycle every six-and-a-half days and maintain this orbit for at least six months to study dynamics.

CAPSTONE will gain experience with small dedicated launches of CubeSats beyond low-Earth orbit, to the Moon, and beyond, NASA said.

**Source: The Indian Express**

## **Social Issues**

### **1. What is sologamy or ‘self-marriage’?**

**Relevant for GS Prelims & Mains Paper I; Social Issues**



A 24-year-old Vadodara woman, Kshama Bindu, announced that she would marry herself later this month, in what she described as an “act of self-love”. The wedding, being seen as one of the first instances of self-marriage or “sologamy” in the country, is slated for June 11.

### **What is sologamy?**

Sologamy is the act of marrying oneself in a public ceremony, also referred to as self-marriage or autogamy. While such a marriage has no legal sanction or status, the symbolic ceremony is used by many as an act to emphasize their self-love and independence.

### **When did the trend begin?**

It can be traced back to Linda Baker, a dental hygienist from the US, who married herself in 1993. It is widely considered the first publicized act of self-marriage which was attended by around 75 of Baker’s friends, where the bride said “I do” to honour herself in sickness and in health until the day she’s not there.

A sologamy divorce was also reported last year when a Brazilian model, Cris Galera (33), announced she was ending her solo-marriage after just 90 days as she had fallen in love with someone else.

### **What kind of ceremonies does self-marriage involve?**

There are no rules or social norms. They can be similar to traditional two-people weddings, or not. Since the trend picked up, service providers too have come up in different corners of the world to help their self-marrying clients.

“Marry Yourself” in Canada offers consulting and wedding photography, while IMarriedMe.com in San Francisco offers sologamy ceremony kits, including wedding band and vows. In Kyoto, Cerca Travel offers a two-day self-wedding package.

Announcing her plans to marry herself, Bindu said that she will have a wedding complete with all rituals like pheras and applying sindoor.

### **Why is the trend finding resonance across the globe?**

Alexandra Gill, the founder of Marry Yourself Vancouver, told CBC News, “Today, for the first time in history, women can afford to live on their own, build their careers, buy their homes, create their own lives, have children if they choose. Our mothers and grandmothers didn’t have this option....The idea of sologamy could involve the practice of self-marriage, but it’s also turning the stigma of the sad, lonely spinster on its head. Women are tired of being told they’re failures if they haven’t married by a certain expiry date.”

In her book ‘Quirkyalone’, author and life coach Sasha Cagen writes: “The common theme in most of the stories (about self-marriage) that I hear is a commitment to take care of oneself as one hopes or imagines that a lover would. Women also frame self-matrimony as a unique solution to the problem of women sacrificing their own needs in a relationship. Marry yourself first, they say, before marrying anyone else.”

### **How is sologamy seen in popular culture?**

Self-marriages have featured on popular TV shows like Sex and the City, Glee and Doctor Who. In a 2003 episode of Sex and the City, Carrie Bradshaw was shown wedding herself, with a USA Today report later saying that to some this fictional character is the “godmother of sologamy”.

**Source: The Indian Express**

## **2. How NAS survey assesses what school students have learnt; what it has found**

### **Relevant for GS Prelims & Mains Paper I; Social Issues**

A nationwide survey carried out by the Union Ministry of Education has found that between 2017 and 2021, the literacy and numeracy skills of school students in India worsened considerably across subjects and grades.

The outcomes of the National Achievement Survey (NAS), the latest edition of which was carried out in the shadow of the prolonged closure of schools due to the Covid-19 pandemic, are supposed to guide interventions by authorities across the country to bridge the learning gaps among students enrolled in Classes 3, 5, 8 and 10.

### **What is the objective of the NAS?**

The NAS is a periodic exercise carried out broadly in alternate years to monitor the health of the country's school education system. It has been designed by the Ministry of Education along with the National Council for Educational Research and Training (NCERT) to provide a snapshot of learning outcomes in key subjects — essentially “what students know and can do” — at the end of Classes 3, 5, 8 and 10. These classes are generally seen to mark important stages in the development of a child's cognitive abilities.

### **Since when has the NAS been carried out?**

The first edition of NAS was carried out in 2001. In the beginning, the survey was supposed to be an independent project of the NCERT, but it was soon brought under the ambit of the Sarva Shiksha Abhiyan, the government's flagship programme to achieve universalisation of elementary education (UEE), which has now been subsumed into the overarching Samagra Shiksha Abhiyan.

Over the years, the structure of the survey has undergone changes. Between 2001 and 2015, each cycle of the survey covered students of just one grade — so, students of Class 3 were covered in 2003, 2007, 2012, and 2015; students of Class 5 were surveyed in 2001, 2005, 2009, and 2014; those of Class 8 were surveyed in 2002, 2007, 2010, and 2015; and students of Class 10 were covered in 2015 and 2018.

### **What is the current structure of the survey?**

In 2017-18, the NAS was redesigned. For the first time, students of all four grades were covered on the same day. Also, instead of states, districts were made units of reporting, leading to a much bigger sample size.

So, until 2017-18, each cycle of NAS had a sample size of 1-2 lakh students; in 2017-18, over 20 lakh students were covered on the same day. The latest (2021) round covered 34 lakh students in 1.18 lakh schools across 720 rural and urban districts.

### **And what exactly does the NAS assess?**

Until 2015-16, the survey assessed the competency of students based on the core curriculum followed by states and UTs. In 2017-18, the focus moved to mapping the progress of learning outcomes as listed under the Right to Education Rules as amended in 2017.

Questions asked by the NAS are framed to assess whether students can read, and carry out simple mathematical operations that are required in daily life. The levels of difficulty and complexity of the questions vary from one grade to another. In the higher classes, the survey also assesses the knowledge acquired by students in areas related to the Constitution of India.

The survey covers schools run by the central and state/UT governments, government-aided schools, and private unaided schools. Language, mathematics and environmental science are assessed in Classes 3 and 5; language, maths, science and social science in Class 8; and maths, social science, science and English are assessed for students in Class 10.

### **So what does NAS 2021 show?**

Compared with 2017 (in 2018 only Class 10 students were assessed), performance has taken a hit across grades. A comparative analysis shows that the national average scores of students across subjects have dropped by up to 47 marks. Consider:

In Class 3, the average scores of students in language, maths and EVS have dropped by 13, 15 and 14 marks respectively.

In Class 5, the scores in language, maths and EVS have dropped by 10, 26 and 27 marks. Class 8 has seen national average scores of language, maths, science and social science come down by 5, 14, 24, and 23

marks respectively. And in Class 10, maths, science, social science, and modern Indian language scores have dropped by 34, 47, 23 and 6 marks respectively. Only the English score has risen by 24 marks.

### **Are there regional-, gender-, or community-wise variations?**

Except for Punjab and Rajasthan, the performance of nearly all states have declined compared to 2017 levels. In terms of 2021 numbers, 14 states and four UTs performed below the national average in Class 3; four UTs and 18 states performed below the national average in Class 5; 16 states and three UTs performed below the national average in Class 8.

There were no marked differences between the scores of boys and girls. There were some variations among communities, though.

For instance, in the case of Class 8 science, the scores of general category students have dropped by 9 marks, as compared to 28, 26, and 19 marks for SCs, STs, and OBCs respectively. There is a distinct rural-urban divide — the maths scores of Class 8 students in rural schools have dropped by 12 marks as against 4 marks shedded by their urban counterparts.

### **What are the implications of the findings?**

According to Rukmini Banerji, CEO of Pratham Foundation which publishes the Annual Status of Education Report (ASER), the NAS findings once again highlight the need for urgent interventions to improve foundational learning levels.

“All data that is coming out is indicating that we need to seriously work on foundational learning and NAS is no exception. It has come at the right time and as the new year school begins, and schools reopen after the summer holidays, the work is cut out for authorities. What NAS says is what we have all been worried about,” Dr Banerji said.

**Source: The Indian Express**

## **3. Textbook controversy in Karnataka**

### **Relevant for GS Prelims & Mains Paper I; Social Issues**

The Karnataka textbook revision committee, headed by Rohith Chakrathirtha, has included a speech by Rashtriya Swayamsevak Sangh (RSS) founder K.B. Hedgewar in the Class 10 Kannada (first language State syllabus) textbook. Works by several authors associated with the progressive stream in Kannada literature have been left out. As a mark of protest, many writers have written to the BJP government withdrawing permission to use their works in textbooks. In another development, seers associated with the Veerashiva-Lingayat and Vokkaliga castes, two powerful communities of Karnataka, have raised objections to some comments of Mr. Chakrathirtha.

### **What is the genesis of the controversy?**

When COVID-19 struck two years ago, to manage the burden of a heavy syllabus in a truncated academic year, the government reduced 30% of the syllabus for all classes. In the process, lessons on Tipu Sultan, Sangolli Rayanna, Rani Chennamma and a few other historical figures were excluded for that year from the social science syllabus of Class 6 to Class 8.

Around the same time, the Karnataka Brahmin Mahasabha submitted a memorandum to the Primary and Secondary Education Minister B.C. Nagesh and Commissioner of the Department of Public Instruction demanding revision of some lessons in the Class 6 and Class 8 social science textbooks which they said “hurt the sentiments of the Brahmin community.” On the basis of this memorandum, the government formed a 16-member textbook revision committee and appointed Mr. Chakrathirtha as the chairperson in September 2021. Initially, the government had announced that the committee would only revise Class 6 and Class 8 social science textbooks which “hurt community sentiments.” However, eventually, the committee was given the responsibility of all the textbooks from Classes I to 10. The committee took around six months and submitted its report to the government in March, 2022.

### **What are the major changes in the textbooks?**

While Hegdewar's speech was added, the committee dropped texts of writers P. Lankesh, Sara Aboobacker, Aravind Malagatti, Neela, B.T. Lalita Naik, A.N. Murthy Rao among others, known for their progressive views. The committee included works of writers including Bannanje Govindacharya, Shatavadhani R. Ganesh, S.L. Bhyrappa and others. Inclusion of a chapter by ChakravarthiSulibele, a strong defender of the BJP and Prime Minister Narendra Modi, was among the highlights. A chapter on Bhagat Singh authored by Marxist scholar G. Ramakrishna, initially dropped, was later restored.

There was outrage over dropping portions that spoke of social reformer Narayana Guru, Periyar and others, while the government in its defence said they were not dropped but only juggled between texts to make them more contextual. The manner in which details about Basaveshwara as well as Dr. B.R. Ambedkar were edited in Class 9 textbooks has also drawn criticism.

### **What has been the response to the revisions?**

Writers identified with progressive streams, Dalit organisations, student unions and others across the State protested against the "saffronisation" and "Brahminisation" of textbooks. Over 10 writers, including Devanooru Mahadeva and Prof. Ramakrishna, have told the government that they do not wish their writings included in the textbooks revised by the committee. Opposition Congress and Janata Dal (Secular) and other parties have also opposed the changes.

Vokkaliga community organisations, leaders and mutt seers like Dr. Nirmalanandanatha Swamiji have demanded action against Mr. Chakrathirtha on the grounds that he has in the past defamed Jnanpith awardee and literary icon Kuvempu, who belonged to the community, by sharing a distorted version of the "nada geethe" (State anthem) penned by Kuvempu. Various Veerashiva-Lingayat seers have taken exception to the content on Basaveshwara, the 12th century philosopher-poet-social reformer and a proponent of Lingayat philosophy, which has now been partially addressed by a promise to revise it. Dalit organisations are unhappy with the portrayal of B.R. Ambedkar, on which the government has made no promises. Some old tweets and social media posts of Mr. Chakrathirtha have been questioned over their alleged anti-women and casteist stances. Critics also questioned his qualification to head the committee, which the government vociferously defended.

### **What is the government saying?**

The BJP government in Karnataka, which had earlier stuck to its stand that there was no question of rolling back the changes, late on Friday showed signs of buckling under pressure from religious heads. Chief Minister Basavaraj Bommai's statement that the government had an "open mind" followed a prolonged discussion with Minister B.C. Nagesh. While Mr. Bommai announced that the material related to Basaveshwara would be "suitably altered in order not to hurt sentiments", there is no sign of anything else being changed in the textbooks so far. The government in its statement emphasised that the revision committee has been disbanded — the purpose for which it was set up has been met and its term has ended.

**Source: The Hindu**

## **4. The judicial validity of the Talaq-e-Hasan mode of divorce: Does this form of annulment have basis in the Quran? What are the different modes of divorce under the Muslim Personal Law?**

### **Relevant for GS Prelims & Mains Paper I; Social Issues**

A public interest litigation (PIL) seeking to invalidate Talaq-e-Hasan, the prescribed Islamic way of divorce, has been filed in the Supreme Court.

### **What is the PIL about?**

The petition filed by Benazir Hina, a Ghaziabad-based woman, through Advocate-on-Record Ashwani Kumar Dubey, seeks to make the prescribed Islamic way of divorce Talaq-e-Hasan unconstitutional as it is violative of Articles 14, 15, 21 and 25 of the Constitution. Ms. Hina, who claimed to have been unilaterally divorced through the Talaq-e-Hasan mode by her husband Yousuf, also prayed that Section 2 of the Muslim Personal Law (Shariat) Application Act, 1937 that permits Muslims to practise unilateral divorce be declared void. The apex court had declined an urgent hearing on the subject in May this year. However, on June 17 a vacation Bench of Justices A.S. Bopanna and Vikram Nath allowed a plea for urgent hearing of the matter. It was argued that the aggrieved lady and her child would be left without a remedy if no

intervention was made. The first talaq notice was given on April 19 and the second notice was issued on May 19.

The hearing comes almost five years after the five judge Bench headed by then Chief Justice J.S. Khehar, and including Justice R.F. Nariman, Justice Kurian Joseph, Justice U.U. Lalit and Justice S. Abdul Nazeer had invalidated instant triple talaq in their verdict in the ShayaraBano vs the Union of India and others case in August 2017. The invalidation of instant triple talaq where the court held, "What is bad in theology is bad in law as well", led to the enactment of the Muslim Women (Protection of Rights on Marriage) Act 2019.

### **How is Talaq-e-Hasan different from instant triple talaq?**

In instant triple talaq a man pronounces multiple divorce in one go. It has no scope for reconciliation between the feuding couple, and often ends a marriage instantly. It is, as the judges held, not mentioned anywhere in the Quran which prescribes a code of divorce largely through Surah Baqarah, verses 226 to 237 and the opening six verses of Surah Talaq. Incidentally, triple talaq in this manner has been banned in many Muslim countries, including Egypt, Syria, Jordan, Kuwait, Iraq, Malaysia etc.

Unlike instant triple talaq, Talaq-e-Hasan is pronounced with a gap of at least one month or one menstrual cycle. Only a single revocable divorce takes place through the first pronouncement of Talaq-e-Hasan. The husband and wife are supposed to live together after this pronouncement and have the option of rapprochement. If the couple is not able to mend fences in the intervening period and the husband does not annul divorce through word or by establishing intimacy, the talaq stays valid. At the end of this month, the husband has to pronounce divorce for the second time. Likewise for the third time. After the second pronouncement too, the divorce is revocable, and the couple may resume their conjugal relationship anytime they so desire. If, however, the third pronouncement is made after at least one menstrual cycle, then irrevocable divorce takes place. Significantly, no divorce can be administered when the woman is undergoing her menstrual cycle. Even in the case of pregnancy, no divorce takes place. And if such a pronouncement is made, it remains in abeyance till the end of pregnancy.

Ms. Hina argues that her divorce is invalid as she received her divorce notices when she was undergoing her menses. Unlike instant triple talaq, the Quran clearly mentions the process of Talaq-e-Hasan. According to Surah Baqarah, verse 229, "Divorce can be pronounced twice; then either honourable retention or kindly release should follow..." Likewise the opening verse of Surah Talaq states, "O Prophet, when you divorce women, divorce them for their waiting period, and compute the waiting period accurately...Do not turn them out of the homes (during the waiting period) nor should they go away..."

### **Are there other options of divorce apart from the Talaq-e-Hasan?**

The third option of divorce besides Talaq-e-Hasan and the now repudiated instant triple talaq, is Talaq-e-Ahsan. Under this form, a single pronouncement is made. Following the pronouncement, a woman has to go through iddat or a waiting period of three months.

During this period the divorce can be cancelled. However, failure to annul divorce during this period results in it being finalised after which a woman is independent, and free to marry another man or stay single, as she may choose. Both Talaq-e-Hasan and Talaq-e-Ahsan enjoy legal validity in almost all Muslim countries.

Interestingly, women too have a right to end an unsuccessful marriage through Khula. Here a woman gives something to the man in return for annulling the marriage.

In April 2021, the Kerala High Court held this form of divorce valid. The court overruled a 49-year-old verdict in K.C. Moyin vs Nafeesa and Others (1972) that barred Muslim women from dissolving their marriage through non-judicial modes.

There is some debate among Islamic scholars on the ways of Khula. Some hold that the man's consent is necessary in Khula while most say that he enjoys no such privilege.

**Source: The Hindu**



# Internal Security

## 1. What is 'critical information infrastructure', who protects it?

### Relevant for GS Prelims & Mains Paper III; Internal Security

The Union Ministry of Electronics and IT (MeitY) has declared IT resources of ICICI Bank, HDFC Bank and UPI managing entity NPCI as 'critical information infrastructure'. The notification to this effect was issued on June 16. What is 'critical information infrastructure', and who protects it?

#### What is critical information infrastructure?

The Information Technology Act of 2000 defines "Critical Information Infrastructure" as a "computer resource, the incapacitation or destruction of which shall have debilitating impact on national security, economy, public health or safety".

The government, under the Act, has the power to declare any data, database, IT network or communications infrastructure as CII to protect that digital asset.

Any person who secures access or attempts to secure access to a protected system in violation of the law can be punished with a jail term of up to 10 years.

#### Why is CII classification and protection necessary?

World over governments have been moving with alacrity to protect their critical information infrastructure. IT resources form the backbone of countless critical operations in a country's infrastructure, and given their interconnectedness, disruptions can have a cascading effect across sectors. An information technology failure at a power grid can lead to prolonged outages crippling other sectors like healthcare, banking services.

In 2007, a wave of denial-of-service attacks, allegedly from Russian IP addresses, hit major Estonian banks, government bodies – ministries and parliament, and media outlets. It was cyber aggression of the kind that the world had not seen before, and it came in the wake of Estonia's decision to move a memorial to the Soviet Red Army to a location of less prominence. The attacks played havoc in one of the most networked countries in the world for almost three weeks.

On October 12, 2020 as India battled the pandemic, the electric grid supply to Mumbai suddenly snapped hitting the mega city's hospitals, trains and businesses. Later, a study by a US firm that looks into the use of the internet by states, claimed that this power outage could have been a cyber attack, allegedly from a China-linked group, aimed at critical infrastructure. The government, however, was quick to deny any cyber attack in Mumbai.

But the incident underlined the possibility of hostile state and non-state actors probing internet-dependent critical systems in other countries, and the necessity to fortify such assets.

#### How are CIIs protected in India?

Created in January 2014, the National Critical Information Infrastructure Protection Centre (NCIIPC) is the nodal agency for taking all measures to protect the nation's critical information infrastructure.

According to its website, NCIIPC will monitor and forecast national-level threats to CII for policy guidance, expertise sharing and situational awareness for early warning or alerts. The basic responsibility for protecting the CII system shall lie with the agency running that CII, it says.

"In the event of any threat to critical information infrastructure the National Critical Information Infrastructure Protection Centre may call for information and give directions to the critical sectors or persons serving or having a critical impact on Critical Information Infrastructure," the NCIIPC website adds.

**Source: The Indian Express**

# Miscellaneous

## 1. What is HIMARS, the missile system the US is sending to Ukraine

### Relevant for GS Prelims

United States President Joe Biden said in a guest essay published in The New York Times on Tuesday (May 31) evening that in addition to the “significant amount of weaponry and ammunition” already provided to Ukraine, “I’ve decided that we will provide the Ukrainians with more advanced rocket systems and munitions that will enable them to more precisely strike key targets on the battlefield in Ukraine”.

The Biden administration subsequently said it would send Ukraine a small number of high-tech, medium-range rocket systems, a critical weapon that the Ukrainian leadership has repeatedly asked for. Late on June 1 evening India time, newswire services reported, quoting a senior Pentagon official, that the US would send four HIMARS systems to Ukraine to begin with.

### What is the HIMARS missile system?

According to unnamed officials quoted by the AP, the American plan is to send Ukraine the High Mobility Artillery Rocket System, or HIMARS, which is mounted on a truck, and can carry a container with six rockets.

The HIMARS can launch a medium-range rocket, which is the current plan, but is also capable of firing a longer-range missile, the Army Tactical Missile System, which has a range of about 300 km.

It was expected that Ukrainian forces would use the rockets in the eastern region of Donbas, where they could intercept Russian artillery, as well as hit Russian positions in towns where intense fighting is ongoing, such as Sievierodonetsk. It is important for the Russians to capture this city, which is the last holdout of the Ukrainian government in the Luhansk province of the Donbas, before more Western arms shipments arrive.

But the missiles probably will not be used against targets inside Russia. In his essay in The NYT, President Biden said: “We are not encouraging or enabling Ukraine to strike beyond its borders. We do not want to prolong the war just to inflict pain on Russia.”

### HIMARS used against ISIS, Taliban earlier

The M142 HIMARS, a light multiple rocket launcher, was developed for the US Army in the late 1990s. The system is mounted on a standard Army M1140 truck frame, and carries six rockets or one MGM-140 ATACMS missile. The launcher can be transported by C-130 transport aircraft.

Media reports from 2010 said HIMARS had aided the NATO offensive by targeting Taliban hideouts in Kandahar, Afghanistan, and in 2015, the US Army said they had used HIMARS to fire at least 400 rockets at the Islamic State in Iraq.

The following year, HIMARS fired rockets in support of Syrian fighters battling the Islamic State in Syria. Also in 2016, the US announced the deployment of HIMARS in Turkey near its border with Syria, and near Mosul to take on the Islamic State. In 2018, HIMARS missiles killed at least 50 Taliban in Musa Qala, Afghanistan.

**Source: The Indian Express**

## 2. Kolkata, centuries before Job Charnock: What newly excavated finds tell us

### Relevant for GS Prelims

Recent archaeological excavations in Dum Dum, some of them dating back as far as the first century CE, have provided further evidence of human habitation in Kolkata from centuries before the time British administrator Job Charnock was said to have founded the city. The excavations were carried out by the Kolkata Circle of the Archaeological Survey of India (ASI) at a mound outside Clive House in March-April.

### Documented history

Charnock, who worked for the East India Company, has historically been credited with founding the city in 1690 when the Company was consolidating its trade business in Bengal. Calcutta comprised Kalikata, Gobindapur and Sutanuti villages, which the British bought from local landlords. Between the 14th and 16th centuries, the area was under the rule of the Bengal Sultanate of the Mughals.

The view about Charnock being the founder was challenged, and in 2003, Calcutta High Court declared that Charnock ought not to be regarded as the founder. It ordered the government to purge his name from all textbooks and official documents containing the history of the city's founding.

Based on a report from an academic committee, the court found that a "highly civilised society" and "an important trading centre" had existed on the site long before Charnock established his settlement. The committee found that a place called Kalikatah was an important religious centre adjacent to Kalighat village with its Kali temple. The site is mentioned in Bipradas Pipilai's *Manasa Mangala* (1495) and Abul Fazl's *Ain-I-Akbari* (1596). In 1608, Emperor Jehangir granted the jagirdari of Kalikatah to a zamindar family, known as the Sabarna Roy Choudhury family.

### What's been excavated

The new finds include 12 cultural layers of habitations over virgin soil, various types of potteries belonging to various periods (Gupta, post-Gupta, Kushan, Islamic, early mediaeval, mediaeval); coins including some with punch marks and some of copper; broken parts of terracotta figurines; copper antiquities such as hairpin and iron nail; fish hooks, stone beads etc. Soil samples, charcoal and pottery have been sent for scientific dating, and a report will arrive in 6 to 8 months.

"There is definitely a history of this place which predates the colonial era," said Subha Majumdar, Superintending Archaeologist, ASI Kolkata Circle, who is heading the excavation. "Even before the zamindari of Sabarna Roy Choudhury and others, the place had settlements. After preliminary examination of the findings, we can say that there was human settlement in this area dating back to first and second centuries CE. Once we get the report, we will be able to say clearly when the first settlement took place," Majumdar said.



*The new finds include 12 cultural layers of habitations over virgin soil, various types of potteries, coins, broken parts of terracotta figurines etc.*

### Why Clive House

Majumdar said Clive House and the mound outside were selected for excavation for the site's historical significance.

In 2001, an excavation by the ASI at Clive House had found some evidence indicating that the city could have had a history predating the colonial era. Those finds, however, were not scientifically dated. "In 2019, further excavation began. However, the work was suspended due to the pandemic. In March-April, the work resumed," Majumdar said.



*Soil samples, charcoal and pottery have been sent for scientific dating, and a report will arrive in six to eight months.*

Clive House, which itself stands on a mound, is one of the oldest buildings in Kolkata. Some portions of it have been encroached. It is named after Robert Clive, the first British Governor of Bengal Presidency, who used it as a country house. Details are vague as to who built it and when: Some records mention a treaty between Nawab Siraj ud-Daulah and Robert Clive in this building on February 6 or 9, 1757.

It is close to a site called Chandraketugarh, where excavations in the 1950s and 1960s revealed an almost continuous sequence of habitations from six periods from the pre-Mauryan to the Pala periods. "The house was built at a strategic position given it stood en route to Chandraketugarh which once thrived

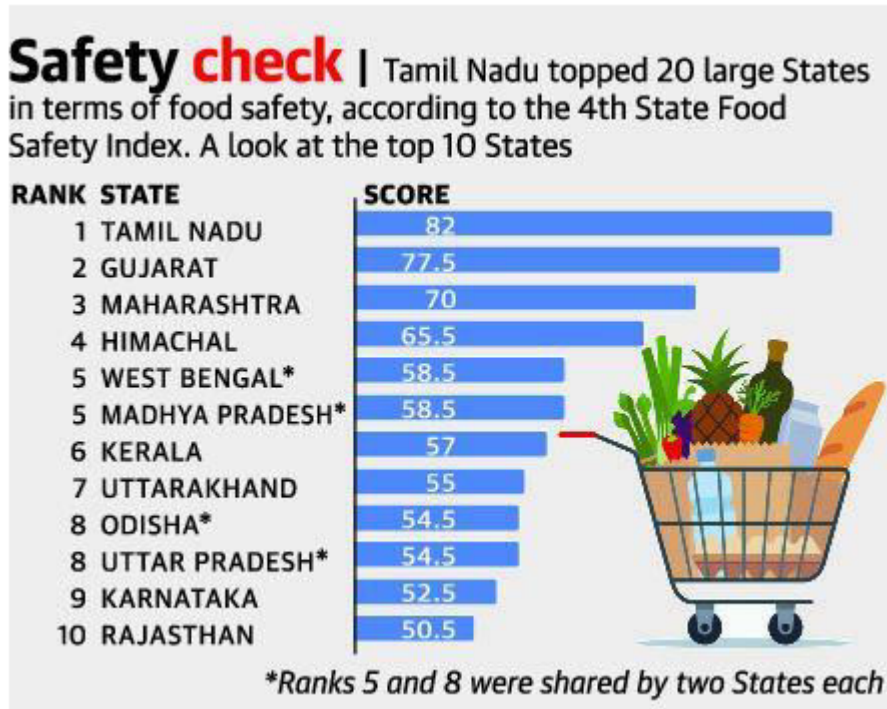


with settlements. And the house was on a mound, which provided a strategic view of the area. After moving in, Clive modified the building,” Majumdar said.

**Source: The Indian Express**

### 3. Tamil Nadu tops food safety index

**Relevant for GS Prelims**



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.

#### About Index

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).

This index is based on performance of State/ UT on five significant parameters, namely, Human Resources and Institutional Data, Compliance, Food Testing – Infrastructure and Surveillance, Training & Capacity Building and Consumer Empowerment.

**Source: The Hindu**

### 4. As Mithali Raj retires from international cricket, a look at the records she holds

**Relevant for GS Prelims**

Veteran Indian women’s cricketer Mithali Raj Wednesday announced her retirement from all forms of international cricket – bringing down the curtains on a glittering career since making her debut for India in 1999.

Mithali has played 12 Tests, 232 ODIS and 89 T20Is for India in her 23-year-old career. Mithali, a right-handed batter, will go down in history for her incredible run-scoring feats, including a record 7,805 runs



to date in ODI matches, almost over 2,000 more than her closest rival, former England captain Charlotte Edwards. She has scored seven centuries and a record 64 fifties in her ODI career.

Here's a look at the feats that Mithali has achieved:

**EXPRESS**  
**explained.**

## END OF RAJ

Calling time on her 23-year-long sparkling career, India cricketer **Mithali Raj** has retired. Here's why she is one of the best cricketers the country has produced, male or female



#QUIXPLAINED

*Mithali Raj, one of India's best cricketers, has retired.*

**EXPRESS**  
**explained.**

In longevity in ODIs cricket, she marginally  
beters Sachin Tendulkar

**22 YEARS**  
**91 DAYS**  
**TENDULKAR**

**22 YEARS**  
**274 DAYS**  
**RAJ**



**#QUIPLAINED**

**2**

*Mithali marginally beters Sachin Tendulkar in terms of longetivity in ODI cricket*



She averaged  
50.6 in ODIs;  
the same figure as  
MS Dhoni's



Mithali holds the record for the highest number of runs

**7805**

best average and most half-centuries

**64**

#QUIXPLAINED

3

Mithali holds the record for the highest number of runs

# EXPRESS explained.

She has captained India in 155 ODIs, only Dhoni (200) and Mohammed Azharuddin (176) has led in more

## WIN PERCENTAGE



**Mithali Raj**



**58.55**



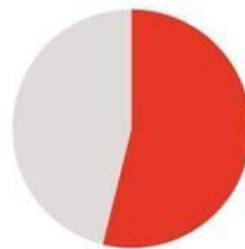
**MS Dhoni**



**59.52**



**Sourav Ganguly**



**53.90**

### #QUIXPLAINED

Mithali has captained India in 155 ODIs

EXPRESS  
**explained.**

She also holds a spate of records:

- Most catches in international cricket

**64**

- Most runs in T20s in a calendar year

**575**

- Most half-centuries in consecutive innings

**7**

- The fastest to 2000 runs in T20 cricket

TEXT: SANDIP G

GRAPHIC:

MITHUN CHAKRABORTY

#QUIXPLAINED



*A list of records Mithali Raj holds*

**Source: The Indian Express**

**5. All you need to know about India's first privately run Bharat Gaurav train**

**Relevant for GS Prelims**





The Indian Railways' southern zone Tuesday **flagged off the country's first privately-run train under the Bharat Gaurav scheme**. Around 11,00 passengers boarded the maiden round trip service from Coimbatore to Shirdi.

"The Bharat Gaurav Train from Coimbatore North to Sainagar Shirdi will commence at 18:00 hours on 14th June 2022 (Tuesday) and reach Sainagar Shirdi at 07:25 hours on 16th June 2022 (Thursday) with stoppages at Tiruppur, Erode, Salem, Yelahanka, Dharmavaram, Mantralayam Road and Wadi," the Ministry of Railways said in a statement.

The Bharat Gaurav policy, launched in November last year, allows private players to operate trains on theme-based circuits.

#### **Who operates the first Bharat Gaurav train?**

South Star Rail is the registered service provider that operates this train. The Coimbatore-based entity is a registered company and is part of the group — Future Gaming & Hotel Services Pvt Ltd. The service provider has paid Rs 1 crore as security deposit to Southern Railway for the rake with a composition of 20 coaches.

"Besides, the company has paid Rs 27.79 lakh for annual Right to Use charges and quarterly fixed haulage charges of Rs 76.77 lakh. In addition, variable haulage charges of Rs 38.22 lakh also have been collected towards the current round trip. All these charges are excluding GST," the ministry said.

#### **What does the train ride offer?**

The trains under the scheme have one first AC coach, three 2 Tier AC coaches and eight 3-tier coaches along with five sleeper class coaches.

There will also be a doctor on board to attend any emergency along with private security engaged along with the Railway Police Force.

"The registered service provider has refurbished the interiors of the coaches and all the coaches will be manned with round-the-clock cleaning staff and a whole team of service professionals to offer passengers a wholesome experience. Public address system has been provided in all coaches for regular communication, playing of devotional songs and mantras," the ministry said.

It added that the registered service provider "also offers a package fare which includes transportation from Coimbatore to Shirdi and back, VIP darshan, bus arrangement, air-conditioned accommodation, facilitation by tour guide".

### **What is the Bharat Gaurav policy?**

According to the Bharat Gaurav policy, any operator or service provider, or virtually anyone, can lease trains from Indian Railways to run on a theme-based circuit as a special tourism package. The tenure of the arrangement is a minimum of two years and maximum of the codal life of the coach. The operator has the freedom to decide the route, the halts, the services provided, and, most importantly, the tariff.

The IRCTC runs such theme-based tourist trains, for instance, the Ramayana Express, which goes on a tour of several places connected to Lord Ram.

In such packaged tours, typically the passengers stop over at a place, stay at hotels, undertake sightseeing, etc. — all organised by tour operators.

The Bharat Gaurav operator will also have to propose a similar business model wherein it takes care of local transport, sightseeing, food, local stays, etc. along with operating the trains.

Anyone can approach Railways to lease the 3,033 conventional Integral Coach Factory-design coaches earmarked for this segment. In fact, if the operator finds it feasible, then it can even purchase rakes from Indian Railway production units and run them.

Each train will have between 14 and 20 coaches (including two guard coaches or SLR. The operator has to, however, take care of end-to-end, comprehensive service like hotel stay, local arrangements, etc. These trains cannot be used as ordinary transport trains between an origin and destination.

### **What is the Indian Railways' role under the policy?**

It will provide staff to drive the trains, guards and also maintenance staff on board for the coaches. Other staff, like housekeeping and catering, etc, will be deployed by the operator. It will also ensure that its entire infrastructure is in place to safely and efficiently host the train in its network. It will also give these priority in its paths, like the Rajdhani and premium trains, so that these trains are not held up or sidelined to make way for regular trains.

**Source: The Indian Express**

## **6. What is Odisha's Mo Bus, recipient of the UN's prestigious public service award?**

### **Relevant for GS Prelims**

Mo Bus, the bus service of Odisha's Capital Region Urban Transport (CRUT) authority, has been recognised by the United Nations as one of 10 global recipients of its annual Public Service Awards for 2022.

The public transport service has been recognised for its role in "promoting gender-responsive public services to achieve the SDGs (Sustainable Development Goals)", the UN said.

Among the other winners of this year's awards, announced by Liu Zhenmin, United Nations Under Secretary-General for Economic and Social Affairs during a virtual event to commemorate the United Nations Public Service Day (celebrated on June 22), were public service initiatives from Thailand, Brazil, Canada, Ireland, Panama, the Philippines, Poland, Saudi Arabia, and Ukraine.

### **Recognition for Odisha**

The UN recognition said the "problem" was that "bus services in the city of Bhubaneswar needed improvement", as a result of which "the majority of people used private vehicles, two-wheelers and auto-rickshaw to commute instead of taking public transportation".

As the "solution", the Odisha government in 2018 "reorganized the public transit services in the city to provide an integrated, reliable and inclusive public bus service system". Mo Bus, the UN noted, has incorporated "real-time technologies like live tracking, travel planner and e-ticketing", and an e-rickshaw system called 'Mo E-Ride' has been introduced as a last-mile feeder service.

The "impact" is that 57 per cent of the city's commuters now use the Mo Bus, the UN said. Mo E-Ride is estimated to reduce pollution by 30-50 per cent. Also, "40 per cent of Mo Bus conductors are women and



100 percent of Mo E-Ride drivers are women, transgender people, and people from disadvantaged communities,” the UN noted.

### **The Mo Bus service**

According to the CRUT website, the Mo Bus service was launched on November 6, 2018 to ensure “transformation of the urban public transport scenario in the city and its hinterland through use of smart technology, service benchmarking and customer satisfaction”.

The buses are designed to integrate smart technologies such as free on-board Wi-Fi service, digital announcements, surveillance cameras, and electronic ticketing. CRUT says that to increase women’s participation in the workforce, and to make women riders feel safer, it is committed to ensuring that 50% of Mo Bus Guides (conductors) are women.

### **Mo Bus’s other honours**

In 2019, the Union Ministry of Housing and Urban Affairs conferred a special award on CRUT the Bhubaneswar City Bus Modernisation Project, popularly known as the Mo Bus service. The citation, awarded during the 12th Urban Mobility India Conference-cum-Expo 2019 in Lucknow, read: “The project is a boost to people’s confidence in the use of affordable intra-city services offering the potential to relieve congestion and timely mobility to commuters.”

In 2020, the MoHUA conferred the 13th Urban Mobility India Award on CRUT for “Innovations undertaken in Urban Transport during Covid-19”, and in 2021, the 14th Urban Mobility India Award on Odisha as the “State which had Implemented the Best Urban Transport Projects during the previous year”.

### **UN Public Service Award**

The UN describes its Public Service Awards as the “most prestigious international recognition of excellence in public service”. It is intended to reward “the creative achievements and contributions of public service institutions that lead to a more effective and responsive public administration in countries worldwide”.

“Through an annual competition, the UN Public Service Awards promotes the role, professionalism and visibility of public service,” it says.

The UN Public Service Day celebrates the value and virtue of public service to the community, highlights its contribution in the development process, recognizes the work of public servants, and encourages young people to pursue careers in the public sector. The first Awards ceremony was held in 2003, and the UN has since received “an increasing number of submissions from all around the world”.

**Source: The Indian Express**

## **7. Who was NadaprabhuKempgowda, whose statue is coming up at the Bengaluru airport?**

### **Relevant for GS Prelims**

A bronze statue of NadaprabhuKempgowda, credited to be the founder of Bengaluru, will be unveiled soon at the premises of the Kempgowda International Airport (KIA), situated on the outskirts of the city.



Also, Karnataka Chief Minister Basavaraj Bommai has announced that a Kempegowda statue will be installed inside the Vidhana Soudha premises within a year.

#### **Who was NadaprabhuKempegowda?**

NadaprabhuKempegowda, a 16th century chieftain of the Vijayanagara empire, is credited as the founder of Bengaluru. It is said that he conceived the idea of a new city while hunting with his minister, and later marked its territory by erecting towers in four corners of the proposed city.

Kempegowda is also known to have developed around 1,000 lakes in the city to cater to drinking and agricultural needs.

He was from the dominant agricultural Vokkaliga community in south Karnataka. His name is everywhere in the city – the Kempegowda International Airport, the Kempegowda Bus Stand, and even the main metro station in the city is called NadaprabhuKempegowda metro station. An arterial road in the old city is called the K G Road or the Kempegowda Road.

When was the airport statue of Kempegowda planned?

The 108-ft bronze statue is being constructed in a 23-acre heritage park on the airport premises. It has a 4,000 kg sword which arrived at the Bengaluru airport from Delhi last month. The sword was brought in a special truck from Delhi.

It was in September 2019 that then Chief Minister B S Yediyurappa had announced plans to install a bronze statue of Kempegowda at the city's international airport at the cost of Rs 100 crore.

Presently, Kempegowda is an iconic figure among Karnataka's second most dominant Vokkaliga community after Lingayats.

**Source: The Indian Express**

### **8. What is Hermit, the Pegasus-like spyware that targeted Android, iOS devices?**

#### **Relevant for GS Prelims**

'Hermit' is the latest sophisticated spyware in the news, and it is believed to have targeted iPhones and Android devices in Italy and Kazakhstan. Hermit's deployment – the spyware has been developed by an Italian vendor called RCS Lab – was first reported by cyber security researchers at the Lookout, a San-



Francisco-based cybersecurity firm. Then Google's Threat Analysis Group (TAG) put out a detailed blog post last week, explaining how they believed Hermit was used to target devices.

### **What is Hermit and what exactly does it do on a device?**

Hermit is a spyware on the lines of Pegasus by NSO Group. Once installed on a device, it can record audio on the device, carry out unauthorised calls, and carry out many unauthorised activities. According to Lookout, the spyware can steal stored account emails, contacts, browser bookmarks/searches, calendar events, etc. It can also take pictures on the device, steal device information such as details about applications, the kernel information, model, manufacturer, OS, security patch, phone number, etc. It can also download and install APK (the app software files on Android) on a compromised phone.

The spyware can also upload files from the device, read notifications, and take pictures of the screen. Because it can gain access to the root or the 'privilege' access of an Android system, Lookout's research showed, it can uninstall apps like Telegram and WhatsApp. According to the researchers, the spyware can silently uninstall/reinstall Telegram. Except the reinstalled version is likely a compromised one. It can also steal data from the old app. For WhatsApp, it can prompt the user to reinstall WhatsApp via Play Store.

So, once Hermit has been deployed to a phone, it can control and track data from all key applications.

**Source: The Indian Express**

## **9. Why has the Maharashtra government renamed Aurangabad city as Shambhaji Nagar?**

### **Relevant for GS Prelims**

In what could turn out to be its last major decision, the Uddhav Thackeray Cabinet on Wednesday (June 29) evening approved the **renaming of Aurangabad city as Shambhaji Nagar**, and Osmanabad city — which is named after the last ruler of Hyderabad, Mir Osman Ali Khan — as Dharashiv.

### **Why have these cities been renamed?**

The renaming is an effort by the Shiv Sena to burnish its Hindutva credentials ahead of the likely collapse of the 31-month-old Maha Vikas Aghadi (MVA) government following the floor test scheduled for June 29.

The opposition BJP has repeatedly mocked the Sena for not sticking to its promise to rename Aurangabad in particular, under pressure from its secular allies NCP and Congress.

The Sena rebels led by Eknath Shinde have over the past week openly questioned the Uddhav Thackeray led Shiv Sena's commitment to Hindutva, and alleged that the party of Balasaheb Thackeray is gradually surrendering its core ideology at the behest of the NCP and Congress.

### **But why Aurangabad specifically?**

Aurangabad was founded in 1610 by Malik Ambar, the Siddi general of the Nizamshahi dynasty of Ahmadnagar. The city was named Khirki or Khadki at the time, and its name was changed to Fatehpur by Malik Ambar's son Fateh Khan following Malik Ambar's death in 1626.

In 1653, the Mughal Emperor Aurangzeb invaded the Deccan and set up his capital in the city, which he renamed Aurangabad. The city has borne the association of its name with Aurangzeb ever since.

Chhatrapati Sambhaji Maharaj, the son and successor of Chhatrapati Shivaji Maharaj, was tortured and killed in brutal fashion on Aurangzeb's orders in 1689.

### **What is the Sena's connection with Aurangabad?**

In the late 1980s, Aurangabad became one of the first major cities outside the Mumbai-Thane belt that the Shiv Sena set its eyes on. The city's 30% Muslim population made it fertile ground for polarisation. Following communal riots that led to the killing of over 25 people, in 1988, the Sena won elections to the Aurangabad Municipal Corporation.

On May 8, 1988, Sena supremo Balasaheb Thackeray announced the renaming of the city to Sambhaji Nagar after Sambhaji Maharaj. In 1995, the Aurangabad Corporation passed a resolution to do so, and the



then Sena-led government in the state issued a notification seeking suggestions and objections from people on this.

**What happened after that?**

The notification was challenged in the High Court by then AMC corporator Mushtaq Ahmed, who belonged to the Congress. While the plea was dismissed by the court stating that no decision had been taken, the renaming remained a contentious issue that resurfaced periodically.

With the Shiv Sena in power, both the BJP and Raj Thackeray's Maharashtra Navnirman Sena (MNS) have over the past two years criticising the party for failing to follow through on Balasaheb's promise. The Sena's MVA allies, Congress and the NCP, have not been keen on the renaming.

In March 2020, as a placatory gesture, the MVA government had cleared a proposal to rename Aurangabad airport as Chhatrapati Sambhaji Maharaj Airport. However, this has not yet got the go-ahead from the Centre.

The Sena has been using Sambhaji Nagar instead of Aurangabad in its political rhetoric and in the party newspaper Saamna, but the actual changing of the city's name could never be done.

**Source: The Indian Express**

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