

April (Week 3)

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Prelims

NATIONAL

The functioning of the Enforcement Directorate

(Source: [The Hindu](#))

Context: *The Enforcement Directorate (ED) is in the news now and often. It goes back to May 1, 1956, when an 'Enforcement Unit' was formed in the Department of Economic Affairs, for handling Exchange Control Laws violations under the Foreign Exchange Regulation Act (FERA). The ED today is a multi-dimensional organisation investigating economic offences under the Prevention of Money Laundering Act (PMLA), Fugitive Economic Offenders Act, Foreign Exchange Management Act and FERA.*

From where does the ED get its powers?

- When proceeds of crime (property/money) are generated, the best way to save that money is by parking it somewhere, so one is not answerable to anyone in the country.
- Therefore, there was a need to control and prevent the laundering of money.
- The PMLA was brought in for this exact reason in 2002, but was enacted only in 2005. The objective was to prevent parking of the money outside India and to trace out the layering and the trail of money.
- So as per the Act, the ED got its power to investigate under Sections 48 (authorities under act) and 49 (appointment and powers of authorities and other officers).
- If money has been laundered abroad, the PMLA court (constituted as per the Act) has the right to send a letter of rogatory under Section 105 (reciprocal arrangements regarding processes) of the Code of Criminal Procedure.
- The said government can then share the documents and evidence needed by the agency. The preventive part is to create a deterrent and fear in the minds of people.

At what stage does the ED step in when a crime is committed?

- Whenever any offence is registered by a local police station, which has generated proceeds of crime over and above ₹1 crore, the investigating police officer forwards the details to the ED.
- Alternately, if the offence comes under the knowledge of the Central agency, they can then call for the First Information Report (FIR) or the chargesheet if it has been filed directly by police officials.
- This will be done to find out if any laundering has taken place.

What differentiates the probe between the local police and officers of the ED?

- Consider the following scenario: If a theft has been committed in a nationalised bank, the local police station will first investigate the crime.
- If it is learnt that the founder of the bank took all the money and kept it in his house, without being spent or used, then the crime is only theft and the ED won't interfere because the amount has already been seized.
- But if the amount which has been stolen is used after four years to purchase some properties, then the ill-gotten money is brought back in the market; or if the money is given to someone else to buy properties in different parts of the country, then there is 'laundering' of money and the ED will need to step in and look into the layering and attachment of properties to recover the money.
- If jewellery costing ₹1 crore is stolen, police officers will investigate the theft. The ED, however, will attach assets of the accused to recover the amount of ₹1 crore.



What are the other roles and functions of the ED?

- The ED carries out search (property) and seizure (money/documents) after it has decided that the money has been laundered, under Section 16 (power of survey) and Section 17 (search and seizure) of the PMLA.
- On the basis of that, the authorities will decide if arrest is needed as per Section 19 (power of arrest).
- Under Section 50 (powers of authorities regarding summons, production of documents and to give evidence etc), the ED can also directly carry out search and seizure without calling the person for questioning. It is not necessary to summon the person first and then start with the search and seizure.
- If the person is arrested, the ED gets 60 days to file the prosecution complaint (chargesheet) as the punishment under PMLA doesn't go beyond seven years.
- If no one is arrested and only the property is attached, then the prosecution complaint along with attachment order is to be submitted before the adjudicating authority within 60 days.

The PMLA being relatively new, can the ED investigate cases of money laundering retrospectively?

- If an ill-gotten property is acquired before the year 2005 (when the law was brought in) and disposed off, then there is no case under PMLA.
- But if proceeds of the crime were possessed before 2005, kept in cold storage, and used after 2005 by buying properties, the colour of the money is still black and the person is liable to be prosecuted under PMLA.
- Under Section 3 (offence of money laundering) a person shall be guilty of the offence of money-laundering, if such person is found to have directly or indirectly attempted to indulge or knowingly assist a party involved in one or more of the following activities — concealment; possession; acquisition; use; or projecting as untainted property; or claiming as untainted property in any manner.

Digital Banking Units

(Source: [Indian Express](#))

Context: Finance Minister Nirmala Sitharaman reiterated her Budget announcement on setting up 75 digital banking units in 75 districts of the country this year. This is to take forward the government's agenda of digital financial inclusion.

What are these DBUs?

- Earlier this month, the Reserve Bank of India announced the guidelines for DBUs, following the report of a working group of the Indian Banks Association.
- A digital banking unit is a specialised fixed point business unit or hub housing certain minimum digital infrastructure for delivering digital banking products and services as well as servicing existing financial products and services digitally in self-service mode at any time.

Who will set up these DBUs?

- Commercial banks (other than regional rural banks, payment banks and local area banks) with past digital banking experience are permitted to open DBUs in tier 1 to tier 6 centres, unless otherwise specifically restricted, without having the need to take permission from the RBI in each case.

What are the services that will be provided by these units?

- As per the RBI, each DBU must offer certain minimum digital banking products and services. Such products should be on both liabilities and assets side of the balance sheet of the digital banking segment. Digitally value-added services to conventional products would also qualify as such.
- The services include savings bank accounts under various schemes, current accounts, fixed deposits and recurring deposit accounts, digital kit for customers, mobile banking, Internet banking, debit cards, credit cards, and mass transit system cards, digital kit for merchants, UPI QR code, BHIM Aadhaar and point of sale (PoS).
- Other services include making applications for and onboarding of customers for identified retail, MSME or schematic loans.
- This may also include end-to-end digital processing of such loans, starting from online application to disbursement and identified government sponsored schemes that are covered under the national portal.

How will these DBUs compete with fintechs?

- Currently, fintechs operating as neobanks offer digital banking services but they do so in partnership with non-banking financial companies (NBFCs).
- Some of the neobanks offering services in India are Jupiter, Fi Money, Niyo, Razorpay X.
- Compared to conventional banks with online and mobile banking facilities, neobanks or digital banks excel at product innovation and offer far better digital solutions.
- However, given the arrangement they have currently with NBFCs or scheduled banks to conduct the actual banking part, some in the industry have pegged these digital banks as “glorified digital distribution companies”.

Noise and noise pollution

(Source: [Indian Express](#))

Context: *An ultimatum by Raj Thackeray, president of the Maharashtra Navnirman Sena (MNS), that repercussions would follow if speakers on mosques were not removed by May 3, has created political turmoil in the state. The Maharashtra government is relying on provisions of The Noise Pollution (Regulation and Control) Rules, 2000 to negotiate the controversy over the use of loudspeakers by mosques.*

What constitutes ‘noise’ under the law?

- As per the Central Pollution Control Board’s mandate for noise pollution, ‘noise’ is defined as unwanted sound.
- Sound, which pleases the listener, is music and that which causes pain and annoyance is noise.
- At times, what is music for some can be noise for others. Any unwanted sound that causes annoyance, irritation and pain to the human ear is termed ‘noise’.

What do The Noise Pollution (Regulation and Control) Rules, 2000 say?

- Section 2 (a) of the Air (Prevention and Control of Pollution) Act, 1981 includes noise in the definition of ‘air pollutant’.
- Noise pollution and its sources are regulated under The Noise Pollution (Regulation and Control) Rules, 2000 under The Environment (Protection) Act, 1986.
- The Act has defined ambient acceptable noise levels, silence zones, restrictions on the use of loudspeakers, horns, sound-emitting construction equipment, and bursting of crackers.
- It has also laid down the responsibility for enforcement.

What is the threshold for acceptable level of noise?



- Noise pollution Rules have defined the acceptable level of noise in different zones for both daytime and nighttime. In industrial areas, the permissible limit is 75 decibels (unit of sound; tenth of a 'bell', symbol dB) for daytime, and 70 dB for night.
- Daytime is defined as the period from 6 am to 10 pm, and night is 10 pm to 6 am of the following day.
- In commercial areas, these ceilings are fixed at 65 dB and 55 dB, while in residential areas they are 55 dB and 45 dB during daytime and night respectively.
- In silence zones, i.e., an area comprising not less than 100 metres around hospitals, educational institutions and courts, it is 50 dB in the daytime and 40 dB during the night.

What are the rules around the use of loudspeakers?

- The noise level at the boundary of the public place, where a loudspeaker or public address system or any other noise source is being used, shall not exceed 10 dB (A) above the ambient noise standards for the area or 75 dB (A), whichever is lower.
- The rules also state that a loudspeaker or a public address system shall not be used except after obtaining written permission from the designated authority.
- The state government can provide exemption during any cultural or religious festive occasion of a limited duration not exceeding 15 days in all during a calendar year.
- In a report filed with the National Green Tribunal (NGT) on June 12, 2020, the Central Pollution Control Board (CPCB) listed fines for the violation of noise pollution norms.
- The violation of norms regarding the use of loudspeakers/public address systems can result in seizure of the equipment, and a fine of Rs 10,000.

How can noise pollution impact health?

- While noise pollution does not receive as much attention as air and water pollution, it is known to impact the health of people.
- According to the World Health Organisation (WHO), about 1.1 billion young people (aged between 12–35 years) are at the risk of hearing loss due to noise exposure.
- The WHO has stated that there is sufficient evidence that noise exposure at night causes self-reported sleep disturbance and noise-induced sleep disturbance is viewed as a health problem.
- WHO also states there is evidence, albeit limited, that disturbed sleep causes fatigue, accidents and reduced performance.
- Various physical disorders due to higher noise include temporary deafness, headache and an increase in blood pressure.

Niti Aayog's draft battery swapping policy

(Source: [Indian Express](#))

Context: Government think-tank Niti Aayog has prepared a draft battery swapping policy, under which it has proposed offering incentives to electric vehicles (EVs) with swappable batteries, subsidies to companies manufacturing swappable batteries, a new battery-as-a-service business model, and standards for interoperable batteries, among other measures.

What is battery swapping?

- Battery swapping is a mechanism that involves exchanging discharged batteries for charged ones.
- This provides the flexibility to charge these batteries separately by de-linking charging and battery usage, and keeps the vehicle in operational mode with negligible downtime.

- Battery swapping is generally used for smaller vehicles such as two-wheelers and three-wheelers with smaller batteries that are easier to swap, compared to four-wheelers and e-buses, although solutions are emerging for these larger segments as well.

What are some of the key proposals?

- The draft policy has suggested that the GST Council consider reducing the differential across the tax rates on Lithium-ion batteries and electric vehicle supply equipment. Currently, the tax rate on the former is 18 per cent, and 5 per cent on the latter.
- The policy also proposes to offer the same incentives available to electric vehicles that come pre-equipped with a fixed battery to electric vehicles with swappable batteries. “The size of the incentive could be determined based on the kWh (kilowatt hour) rating of the battery and compatible EV,” the draft policy states.
- “An appropriate multiplier may be applied to the subsidy allocated to battery providers to account for the float battery requirements for battery swapping stations in different battery swapping ecosystems,” the draft policy said.
- The government will also specify a minimum contract duration for a contract to be signed between EV users and battery providers to ensure they continue to provide battery swapping services after receiving the subsidy.
- The policy also requires state governments to ensure public battery charging stations are eligible for EV power connections with concessional tariffs. It also proposes to bring such stations under existing or future time-of-day (ToD) tariff regimes, so that the swappable batteries can be charged during off-peak periods when electricity tariffs are low.
- Transport Departments and State Transport Authorities will be responsible for easing registration processes for vehicles sold without batteries or for vehicles with battery swapping functionality, the draft says. Municipal corporations will be responsible for planning, zoning permissions and land allocation for battery swapping stations.
- The policy also proposes to assign a unique identification number (UIN) to swappable batteries at the manufacturing stage to help track and monitor them. Similarly, a UIN number will be assigned to each battery swapping station.
- It also proposes to install battery swapping stations at several locations like retail fuel outlets, public parking areas, malls, kirana shops and general stores etc.

What is the battery-as-a-service model?

- Niti Aayog said battery swapping will fall under the battery-as-a-service (BaaS) business model, and such models would have to ensure interoperability between EVs and batteries for a successful mainstreaming of battery swapping as an alternative.
- “Given the nascency of battery swapping, interoperability between EV batteries and other components within a battery swapping ecosystem is adequate for eligibility under the policy, as long as all components within the ecosystem adhere to the technical and performance standards defined for BaaS and battery swapping services,” the draft policy says.
- Apart from the batteries themselves, major battery providers will be encouraged to sign data-sharing agreements to provide information on battery health and performance, and to enable more flexibility to consumers through peer-to-peer roaming networks.
- “For the classification of collected data under the broad categories of proprietary, restricted-access, private and open-data, a non-restrictive detailed guideline will be developed for adherence by all industry players,” the draft adds.
- “This policy requires ecosystems to be ‘open’ to allow participation from other market players in order to be considered for support under the policy”. The policy will only support batteries using Advanced Chemistry Cells (ACC), with performance that is equivalent or superior to EV batteries supported under the government’s FAME-II scheme.

- As of now, two-wheel EV maker Bounce has launched an electric scooter with a swappable battery. Under the company's business model, customers can pay to swap their battery at one of their stations, whenever it runs out of juice.

Does the draft policy talk about EV safety?

- To ensure a high level of protection at the electrical interface, a rigorous testing protocol will be adopted, the draft said, to avoid any unwanted temperature rise at the electrical interface.
- The battery management system, which is a software that controls battery functions, will have to be self-certified and open for testing to check its compatibility with various systems, and capability to meet safety requirements, it added.
- This particularly assumes significance given the recent incidents of electric two-wheelers bursting into flames.
- "Batteries shall be tested and certified as per AIS 156 (2020) and AIS 038 Rev 2 (2020) standards for safety of traction battery packs, as well as additional tests that may be prescribed for swappable batteries which are subject to multiple coupling/decoupling processes at the connectors," the draft said.
- Additionally, for better protection of assets, swappable batteries will have to be equipped with advanced features like IoT-based battery monitoring systems, remote monitoring and immobilisation capabilities.
- The Aayog has proposed that all metropolitan cities with a population of more than 40 lakh will be prioritised for the development of battery swapping networks under the first phase, which is within 1-2 years of the draft policy getting finalised.
- Other major cities such as state capitals with a population greater than 5 lakh will be covered under the second phase.

How central and state governments procure wheat?

(Source: [Indian Express](#))

Context: *Wheat procurement is underway in various states of the country. The Centre procures wheat by paying the minimum support price (MSP) announced for the crop while states do it under two systems—the centralised one, also called non-decentralised procurement system (non-DCP) and the decentralised one, also called DCP.*

How does the government procure wheat?

- Under the first system, the Food Corporation of India (FCI) directly or through state government agencies procure wheat from the purchase centres established across the states based on various parameters like moisture, lustre, broken/shrivelled etc.
- In Punjab and Haryana, farmers sell their crop to the central agency or state agencies through *arhtiyas* (commission agents). The wheat procured by the state agencies is handed over to the FCI for storage or for transportation to the consuming states.
- The FCI, which is the central nodal agency for wheat procurement, pays the cost of procured wheat to the state agencies.
- FCI officials said that under the decentralised system, which was brought in the late 1990s to promote local procurement and save the transportation cost and time, the state government or its agencies procure, store and distribute wheat against the Centre's allocation for targeted public distribution system and other weaker sections etc with the state, and that the excess stocks procured by the state and its agencies are handed over to the FCI for the central pool.

- The expenditure incurred by the state government on the procurement, storage and distribution of stocks under the decentralised system are reimbursed by the Centre.
- Apart from paying the MSP, which is announced by the government before the rabi harvesting on the recommendations of the Commission for Agriculture Cost and Price and other factors, the Centre also reimburses the *arhtiyas*' commission, administrative charges, *mandi* labour charges, transportation charges, custody and maintenance charges, interest charges, the gunny bag cost and statutory taxes.
- The cost of excess stocks handed over to the FCI is reimbursed to the state government or agencies as per the Centre's policies.
- Procurement agencies ensure that the stocks brought to *mandis* are purchased as per the specifications fixed by the government and farmers are not compelled to sell their crop below the MSP. But if a farmer gets a better price from private players, he can sell to them.

From how many states is wheat procured for the central pool?

- The main purpose of procuring for the central pool is ensuring the MSP as well as the country's food security by making food available to the weaker sections at affordable prices.
- There are 15 states on the procurement list for the central pool, but the contributions from seven of the states are negligible. Only Punjab, Haryana, Madhya Pradesh, Uttar Pradesh and Rajasthan are the main contributors to the central pool. Bihar also contributed to some extent in the last season.

How much wheat is procured for the central pool by the FCI every year?

- According to the records of the FCI, from 2011 to 2021, procurement for the central pool was between 25-40 per cent of the total wheat production.
- The procurement has doubled in the past one decade as 22.5 million tonnes of wheat was procured in 2011 and 43.3 million in 2021. The current season of procurement is going on.

What is the procurement scale against the total production of wheat in India?

- In 2011 the total production of wheat was 88 million tonnes while it was around 109 million tonnes in 2021.
- And the government's procurement was 26 per cent and around 40 per cent in 2011 and 2021 respectively.
- The procured grain is used for export purposes, the public distribution system and maintaining a particular stock for an emergency period.
- The remaining 60 per cent of the production goes to the bakery industry and other wheat-related businesses. Farmers also keep some of this wheat for their self-consumption.

What is the share of wheat contribution of various states to the central pool?

- Barring 2020, Punjab has been the number one wheat contributor to the central pool. The state has increased its contribution from 102.09 lakh tonnes in 2011 to 132.22 lakh tonnes in 2021.
- Haryana has also increased its contribution from 63.47 lakh tonnes to around 84.93 lakh tonnes in the same period.
- Madhya Pradesh's contribution was 35.38 lakh tonnes in 2011, which jumped to the highest among all states—129.42 lakh tonnes—in 2020 and was 128.16 lakh tonnes last year.
- Uttar Pradesh's contribution increased from 16.45 lakh tonnes to 56.41 lakh tonnes, and Rajasthan's contribution rose from 4.76 lakh tonnes to 23.40 lakh tonnes in the same period.

How government procures wheat

(Source: [Indian Express](#))

Context: *The procurement of wheat is underway in several states. The government procures foodgrains — rice, wheat, and coarse grains — in order to ensure farmers receive the minimum support price (MSP), and a stock is maintained to distribute to the poor under the public distribution system (PDS) and other schemes.*

How is the procurement carried out?

- The Food Corporation of India (FCI), along with state government agencies (SGAs), procures wheat. The FCI's wheat procurement system can be decentralised (DCP) or centralised (non-DCP).
- “Under centralised procurement system, the procurement of foodgrains in Central Pool is undertaken either by FCI directly or by State Govt. Agencies (SGA),” FCI says on its website.
- Central pool refers to stocks procured through MSP operations for welfare schemes and calamity relief. “Quantity procured by SGAs is handed over to FCI for storage and subsequent issue against GoI (Government of India) allocations in the same State or movement of surplus stocks to other States. The cost of the foodgrains procured by State agencies is reimbursed by FCI as per Provisional per cost-sheet issued by GOI as soon as the stocks are delivered to FCI,” FCI says.
- Under the centralised system, in states like Punjab and Haryana, FCI/ state agencies procure wheat from farmers through arhtiyas (commission agents) as per the state APMC Act. In other states, wheat (or paddy) is procured directly from the farmers by FCI or SGAs.
- Under the decentralised procurement system, state governments or their agencies procure, store, and distribute — against the GoI's allocation for the targeted public distribution system and other welfare schemes (OWS) — rice, wheat, or coarse grains in the state.
- According to FCI, “The excess stocks (rice & wheat) procured by the State/ its agencies are handed over to FCI in Central Pool. The expenditure incurred by the State Government on procurement, storage and distribution of DCP stocks are reimbursed by Government of India on the laid down principles.
- “The expenses such as MSP, arhatiya/society commission, administrative charges, mandi labour charges, transportation charges, custody & maintenance charges, interest charges, gunny cost, milling charges and statutory taxes are reimbursed on actual basis. The cost of excess stocks handed over to FCI is reimbursed by FCI...”
- As per the portal, wheat is being procured under the DCP from eight states — Madhya Pradesh (since 1999-2000), Chhattisgarh (since 2001-02), Uttarakhand (since 2003-04), Gujarat (since 2004-05), West Bengal (since 2010-11), Bihar (since 2014-15), Punjab (since 2014-15), and Maharashtra (since 2020-21).

What is the price the government pays?

- The government buys wheat at the MSP, which it declares before the sowing of the crop every year on the recommendation of the Commission for Agricultural Cost and Prices (CACP). The MSP of wheat for the 2022-23 rabi marketing season is Rs 2,015 per quintal. States can pay bonus over and above this MSP.
- MSPs are currently applicable on 23 farm commodities, including wheat and rice. However, there is no statutory backing for MSPs, or any law mandating their implementation.
- The farmers who led the year-long agitation against the three farm laws in 2020-21 wanted a legal guarantee for MSP, which the government declined to concede. Currently, the government carries out procurement for only some of the 23 of these commodities.
- While procurement agencies ensure that stocks brought to mandis are purchased as per specifications, a farmer who gets a better price from a private player is free to sell elsewhere.

How is the quality of wheat ensured?

- Farmers bring their produce to procurement centres and dump it in heaps. The quality control manager or technical assistant takes samples to check the quality.
- There have been concerns over the quality of wheat due to high temperatures in March. There have been complaints about shrivelled grains in Punjab.

When does procurement take place?

- It differs from state to state. During the current marketing season, procurement began on April 1 in eight states: Punjab, Haryana, UP, Rajasthan, Uttarakhand, Gujarat, Delhi, and Jammu and Kashmir.
- In MP, it started on March 15. In Himachal Pradesh and Bihar, it began on April 15 and April 20 respectively.
- With the exception of 2020, Punjab has traditionally been the number 1 contributor to the central pool for wheat, having increased its contribution from 102.09 lakh tonnes in 2011 to 132.22 lakh tonnes in 2021. Haryana's contribution increased from 63.47 lakh tonnes to 84.93 lakh tonnes. MP contributed the most in 2020 — 129.42 lakh tonnes.

What is the cost to the government?

- The FCI defines economic cost as “the total cost”, including acquisition and distribution costs. It includes MSP and incidental costs of procurement, including state taxes, commission to arhtiyas or societies, cost of bagging materials, mandi labour, transportation to depot, etc.
- The FCI has pegged the economic cost of wheat at Rs 2,588.70 per quintal for the current season.

What is the annual requirement of wheat for government schemes?

- The annual offtake from the central pool has been around 300 lakh tonnes for distribution under the National Food Security Act, 2013, and other welfare schemes during recent years.
- During 2021-22, total offtake stood at 294.70 lakh tonnes.
- Also, 187.18 lakh tonnes were lifted for programmes like the Pradhan Mantri Garib Kalyan Anna Yojana and Atma Nirbhar Bharat programme for migrant workers during 2021-22 amid the pandemic.

Special Purpose Acquisition Companies

(Source: [Indian Express](#))

Context: *The government is reportedly considering a regulatory framework for **special purpose acquisition companies (SPACs)** to lay the ground for the possible listing of Indian companies through this route in the future. According to reports, the Company Law Committee, which was set up in 2019 to make recommendations to boost ease of doing business in India, has made this suggestion in its report submitted to the government recently.*

Details:

- In March last year, the US Securities and Exchange Commission (SEC) issued an investor alert on SPACs, cautioning investors “not to make investment decisions related to SPACs based solely on celebrity involvement”.
- The concept of SPAC has existed for nearly a decade now, and several investors and company promoters have used this route to take their investments public. The vehicle gained momentum in 2020, which was a record year for SPAC deals; this record was broken in 2021.

The vehicle and its attraction

- An SPAC, or a blank-cheque company, is an entity specifically set up with the objective of acquiring a firm in a particular sector.
- An SPAC aims to raise money in an initial public offering (IPO) without any operations or revenues. The money that is raised from the public is kept in an escrow account, which can be accessed while making the acquisition.
- If the acquisition is not made within two years of the IPO, the SPAC is delisted and the money is returned to the investors.
- According to the American regulator, certain market participants believe that, through an SPAC transaction, a private company can become a publicly-traded company “with more certainty as to pricing and control over deal terms as compared to traditional IPOs”.
- While SPACs are essentially shell companies, a key factor that makes them attractive to investors are the people who sponsor them. Globally, prominent names such as former NBA star Shaquille O’Neal, tennis star Serena Williams, former TikTok CEO Kevin Mayer, Dell Technologies founder and CEO Michael Dell, billionaire and venture capitalist Vinod Khosla etc. have participated in SPACs.

Where India stands

- According to data sourced from SPAC Insider, a portal that maintains a record of SPAC deals, of the 1,145 IPOs by blank-cheque companies since 2009, 248 happened in 2020, 613 in 2021, and 58 in 2022 so far. The gross proceeds raised by SPACs amounted to over \$83 billion in 2020 and \$162 billion in 2021. The number for 2022 has crossed \$10 billion already.
- Early last year, renewable energy producer ReNew Power announced an agreement to merge with RMG Acquisition Corp II, a blank-cheque company, in what became the first involving an Indian company during the latest boom in SPAC deals.
- As things stand now, the Indian regulatory framework does not allow the creation of blank cheque companies. The Companies Act, 2013 stipulates that the Registrar of Companies can strike off a company if it does not commence operations within a year of incorporation.

Risk factors around SPACs

- The boom in investor firms going for SPACs and then looking for target companies have tilted the scales in favour of investee firms. This has the potential, theoretically, to limit returns for retail investors post-merger.
- Also, even as the SPACs are mandated to return money to their investors in the event no merger is made within two years, the fineprint of several SPAC prospectuses shows that certain clauses could potentially prevent investors from getting their monies back. Historically, though, this has not happened yet.
- The US SEC noted that celebrities “like anyone else, can be lured into participating in a risky investment or may be better able to sustain the risk of loss”.
- “However, celebrity involvement in a SPAC does not mean that the investment in a particular SPAC or SPACs generally is appropriate for all investors...It is never a good idea to invest in a SPAC just because someone famous sponsors or invests in it or says it is a good investment.”

NCX India

(Source: [PIB](#))

Context: *National Security Advisor inaugurated the National Cyber Security Incident Response Exercise. National Cyber Security Incident Response Exercise (NCX India)*

Details:

- The program is being conducted by the National Security Council Secretariat (NSCS), Govt. of India in association with the Data Security Council of India (DSCI) and supported by the Defense Research and Development Organization (DRDO).
- National Cyber Exercise (NCX) India aims to train senior management and technical personnel of Government/Critical Sector organizations and agencies on contemporary cyber threats and handling cyber incidents and response.
- Benefits:
 - NCX India will help strategic leaders to better understand cyber threats, assess readiness, and develop skills for cyber crisis management and cooperation.
 - This will also help develop and test cybersecurity skills, teamwork, planning, communication, critical thinking, and decision-making.

Green Hydrogen Plant

(Source: [PIB](#))

Context: *India's first pure hydrogen plant has been commissioned in Jorhat, Assam.*

Details:

- In a significant step towards Green Hydrogen Economy, Oil India Limited has commissioned India's first 99.999% pure green hydrogen pilot plant at the Jorhat Pump Station in Assam.
- This plant is provided with an installation capacity of 10 kg per day.
- The plant has the capacity to produce green hydrogen from the electricity generated by the existing 500 kW solar plant using a 100 kW Anion Exchanger Membrane Electrolyser array.
- This is for the first time in India that Anion Exchanger Membrane technology is used.
- This plant is expected to increase the production of green hydrogen from 10kg per day to 30 kg per day in future.
- This is a major step towards India's firm commitment to energy transition to clean and green energy.

Adivasis, Dalits, Muslims have lower life expectancy than higher-caste Hindus, study reveals

(Source: [Down to Earth](#))

Context: *Adivasis, Dalits and Muslims are three of India's most disadvantaged groups and they have a lower life expectancy than "higher-caste" Hindus, a new study showed. The report highlighted the impact of discrimination and social exclusion on health disparities. Adivasis have a life-expectancy over four years lower, Dalits more than three years lower and Muslims almost a year lower than that of upper-caste Hindus, according to the study.*

Details:

- The study published in the Proceedings of the National Academy of Sciences of the United States of America (PNAS), a peer-reviewed journal, in March 2022, is authored by experts affiliated with the Research Institute for Compassionate Economics, a non-profit organisation focused on health and well-being in India.
- The relatively smaller gap between life expectancy of Muslims and higher-caste Hindus is largely due to lower exposure to open defecation among Muslim children, lower rates of cervical cancers among Muslim women, lower consumption of alcohol and fewer suicide, the report said.
- The difference in life expectancy of Dalits and Adivasis in comparison to higher-caste Hindus is “comparable to the Black-White gap in the US in absolute magnitude,” the authors wrote.
- The study assessed data from India’s Annual Health Survey, 2010-2011, focussing on nine states — Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and Uttarakhand — representing 48.5 per cent of India’s population.
- Economic status explains less than half of these gaps. These large disparities underscore parallels between diverse systems of discrimination akin to racism. They highlight the global significance of addressing social inequality in India.
- The impact of social exclusion as a result of one’s religion, caste or indigenous group on health and access to healthcare is an underexplored topic in low- and middle-income countries (LMIC).
- “Patterns of disparities may be distinct in LMICs because population health is poorer, social safety nets are less robust, health care is less accessible and mortality risk-factors differ,” said the report. Thus, bridging the gap is essential, it added.
- Life expectancy of upper-caste Hindus in the nine states was higher than the all-India life expectancy in 2010. Moreover, the same indicator for Adivasis and Dalits “are lower than those observed for all of India in 1996-2000, more than ten years before the survey.”
- The study also found a marginal difference in life expectancy based on sex. Life expectancy of Adivasi men was five years lower and of Adivasi women four years lower than higher-caste Hindus, the data showed. There was no difference in life expectancy between Dalit women and men.
- Among the nine states, Assam recorded the highest life expectancy for the Adivasi population, while Madhya Pradesh recorded the lowest, said the report. “The Dalit population recorded the highest life expectancy in Jharkhand and the lowest in Uttar Pradesh. For the Muslim population, life expectancy was the highest in Rajasthan and lowest in Uttar Pradesh.
- “From a policy perspective, these findings suggest that population health interventions that explicitly challenge social disadvantages are essential because addressing economic inequality may not be sufficient,” the study noted in conclusion.

GO 111

(Source: [Indian Express](#))

Context: *Environmentalists and activists are criticising the Telangana government for withdrawing an over 25-year-old government order protecting the historic Osman Sagar and Himayat Sagar reservoirs in Hyderabad, which they say will destroy the fragile surrounding ecosystem.*

What was the government order that protected the two lakes?



- On March 8, 1996, the government of erstwhile (undivided) Andhra Pradesh had issued 'Government Order (GO) 111' prohibiting development or construction works in the catchment area of the Osman Sagar and Himayat Sagar lakes up to a radius of 10 km.
- The GO prohibited the setting up of industries, residential colonies, hotels, etc. which cause pollution. The total catchment area covers around 1.30 lakh acres, spread over 84 villages. The aim of the restrictions was to protect the catchment area, and to keep the reservoirs pollution-free.
- The lakes had been supplying water to Hyderabad for nearly 70 years, and were the main source of drinking water for the city at the time.

When and why were these reservoirs constructed?

- The reservoirs were created by building dams on the Musi (also known as Moosa or Muchkunda) river, a major tributary of the Krishna, to protect Hyderabad from floods.
- The proposal to build the dams came after a major flood during the reign of the sixth nizam Mahbub Ali Khan (1869-1911) in 1908, in which more than 15,000 people were killed.
- The lakes came into being during the reign of the last nizam Osman Ali Khan (1911-48). Osman Sagar was completed in 1921, and Himayat Sagar in 1927. The nizam's guesthouse at Osman Sagar is now a heritage building.

And why has the government withdrawn protection to the catchment area of the lakes?

- Chief Minister K Chandrashekar Rao said in the Assembly that the city no longer depends on these two reservoirs for water supply, and there was no need to continue with the restrictions on development in the catchment radius.
- Hyderabad's drinking water requirement has increased to more than 600 million gallons per day (MGD), which is being drawn from other sources including the Krishna river; water from the two reservoirs amounts to just about 1 per cent of the daily requirement.
- However, officials said the government would continue to take measures to ensure that the water flowing into the reservoirs is not polluted, and would not allow unauthorised development or construction.

INTERNATIONAL

Mysterious liver disease in US and Europe

(Source: [Indian Express](#))

Context: Health officials in countries, including the US and the United Kingdom, are investigating cases of a mysterious liver disease detected in children. We take a look at what the disease is all about and the possible causes of it.

What could be a possible cause of the mystery illness?

- Among these cases, the usual viruses that cause infectious hepatitis (hepatitis A and E) were not detected.
- The UKHSA also said at the time that one of a number of potential causes of the mysterious disease could be a group of viruses called adenoviruses, which cause common respiratory illnesses such as the common cold.
- Most people infected with an adenovirus recover from the illness without any major complications. However, rarely, hepatitis can be a rare complication resulting from the virus.
- Human to human transmission of adenoviruses is possible by touching contaminated surfaces and through the respiratory route.
- Hepatitis, which affects the liver, can occur because of a number of reasons and can be life threatening if not treated. Its symptoms include dark urine, pale and grey-coloured stool, itchy skin, yellowing of the eyes and skin, high temperature, muscle and joint pain and loss of appetite among others.
- Alabama's health department said in a statement that the children presented themselves with symptoms of gastrointestinal illness and varying degrees of liver injury including liver failure. As per their analyses, there could be a possible association of the hepatitis with Adenovirus 41.
- Science magazine endorsed the theory that the hepatitis is being caused by an adenovirus, since upto half of the children infected in the UK have tested positive for it.

The U.K.-Rwanda asylum plan

Source: [The Hindu](#))

Context: Since 2018, there has been a marked rise in the number of refugees and asylum seekers that undertake dangerous crossings between Calais in France and Dover in England. The number of such persons rose from 297 in 2018, to 28,431 in 2021. Most such migrants and asylum seekers hail from war-torn countries like Sudan, Afghanistan, and Yemen, or developing countries like Iran and Iraq. For the Conservative Party government in Britain that has adopted a hardline stance on illegal immigration, these crossings constitute an immigration crisis. The Nationality and Borders Bill, 2021, which is still under consideration in the U.K., allows the British government to strip anyone's citizenship without notice under "exceptional circumstances". The Rwanda deal is the operationalisation of one objective in the Bill which is to "deter illegal entry into the United Kingdom, thereby breaking the business model of people smuggling networks and protecting the lives of those they endanger."

What is the Rwanda Deal?

- The U.K. and Rwanda Migration and Economic Development Partnership or the Rwanda Deal is a Memorandum of Understanding (MoU) signed between the governments of the U.K. and Rwanda in

April 2022. Under this deal, Rwanda will commit to taking in asylum seekers who arrive in the U.K. on or after January 1, 2022, using “illegally facilitated and unlawful cross border migration.”

- Rwanda will function as the holding centre where asylum applicants will wait while the Rwandan government makes decisions about their asylum and resettlement petitions in Rwanda.
- The rationale for the deal, according to the U.K. government, is to combat “people smugglers”, who often charge exorbitant prices from vulnerable migrants to put them on unseaworthy boats from France to England that often lead to mass drownings.
- The U.K. contends that this solution to the migrant issue is humane and meant to target the gangs that run these illegal crossings. Rwanda will, on its part, accommodate anyone who is not a minor and does not have a criminal record.
- A migrant in the U.K. will be given five days’ notice to pursue an appeals process, failing which they will be given a one-way ticket to Rwanda and will become the responsibility of the Rwandan government.
- The deal is “uncapped”, i.e., there is no upper limit to how many migrants will be sent to Rwanda for the five years that the deal will remain in place.
- The MoU also does not have any specific language that outlines the economic right to work, access to healthcare or any financial support provided by the Rwandan government to relocated persons.

Will the Rwanda Deal solve the problem of illegal immigration?

- This deal will be implemented in a matter of weeks unless it is challenged and stayed by British courts. While Boris Johnson’s government is undoubtedly bracing for such legal challenges, it remains unclear if the Rwanda Deal will solve the problem of unlawful crossings.
- Evidence from similar experiences indicates that such policies do not fully combat “people smuggling”. Instead, they create a parallel problem.
- Australia had inked a similar off-shore processing deal with Papua New Guinea that was challenged through a class-action lawsuit.
- In 2017, the Papua New Guinea Supreme Court ruled that the processing centre on Manus Island was “illegal and unconstitutional” and ordered that Australia pay 70 million Australian dollars as compensation to the 2,000 people detained at this centre. Australia has a similar deal with Nauru, which today remains its only processing station.
- However, the Nauru Regional Processing Centre witnessed a riot in 2013, where allegations of sexual abuse against women and children and self-harm was reported amongst the inmates.
- In short, people who were already vulnerable when they attempted dangerous sea-crossings, became more exposed and vulnerable under detention.
- Rwanda also has a less than remarkable human rights record. Government critics have been silenced or sentenced to prison. Further, Rwanda’s offshoring deal with Israel was scrapped in 2019.
- Israel deported a reported 4,000 people from Eritrea and Sudan who arrived in Rwanda and left the country shortly after, sometimes being encouraged to do so.
- Many attempted to make dangerous crossings back into Europe. Those who stayed behind had difficulty finding employment. The Rwanda Deal is an instrument that will certainly generate revenue for the Rwandan government.
- However, it also unloads a British issue onto a less developed nation in an attempt to pander to the anti-immigrant sentiments in the U.K..

East Timor

(Source: [Indian Express](#))

Context: *East Timor, also known as Timor Leste, holds the second and final round of its presidential election on Tuesday, with frontrunner and Nobel laureate Jose Ramos-Horta running against incumbent leader Francisco “Lu Olo” Guterres.*

History

- The territory was colonised by Portugal in the 18th century and remained under its control until 1975.
- When the Portuguese withdrew, troops from Indonesia invaded and annexed East Timor as its 27th province.
- A long and bloody struggle for independence ensued, during which at least 100,000 people died, according to a 2005 report by an independent truth commission that also blamed the Indonesian military for systematic human rights violations.
- The East Timorese voted for independence in a 1999 UN-supervised referendum, but that unleashed even more violence until peace-keeping forces were allowed to enter. The country was officially recognised by the United Nations in 2002.
- East Timor has applied to be a member of the Association of Southeast Asian Nations (ASEAN). It currently holds observer status.

Politics and economy

- In nearly 20 years since independence, East Timor’s presidential and parliamentary elections have been dominated by many of the same faces.
- Resistance heroes like Ramos-Horta, Guterres, and Xanana Gusmao have run for and held various positions of power and continue to feature prominently in the running of the country.
- In East Timor’s political system, the president also shares some executive powers and appoints a government and has the power to veto ministers or dissolve parliament.
- East Timor depends on revenues from its offshore oil and gas reserves which account for 90% of its gross domestic product.
- It has an agreement with Australia to split revenue from the Greater Sunrise gas field, which is worth an estimated \$65 billion. Its main revenue stream, the Bayu Undan gas field, is set to dry up by 2023 and the country is now planning to collaborate with companies like Australia’s Santos to turn it into carbon capture facilities.
- But the government has been criticised for failing to capitalise on its natural resources to fund development and diversify its economy in a country where about 40% of the population languishes below the poverty line.

Geography

- East Timor comprises the eastern half of Timor island, the western half of which is part of Indonesia.
- It spans a 15,000 square km (5,792 square mile) land area – slightly smaller than Israel – and its 1.3 million people are predominantly Roman Catholic.

The constitutional amendment proposed by Sri Lanka PM Rajapaksa

(Source: [Indian Express](#))

Context: Prime Minister Mahinda Rajapaksa has proposed a constitutional amendment – repealing the 20th Amendment to the Constitution, and bringing back clauses of the 19th Amendment as the 21st Amendment to the Constitution.

What was the 19th Amendment?

- The enactment of the historic 19th Amendment in April 2015 was rushed by the then Prime Minister Ranil Wickremesinghe. It had removed the powers of the President to sack the Prime Minister at his discretion.
- By amending the Articles 46 (2) and 48 of the Sri Lankan constitution, the cabinet ministers could have been dismissed only if the Prime Minister ceased to hold office by death, resignation or otherwise, or only if the Parliament reject a statement of government policy or the budget or if the parliament passes a vote of no confidence against the Government.
- The amendment also restricted the President's powers to dismiss Cabinet ministers as he was required to act on the advice of the Prime Minister.
- A major criticism against the amendment, however, was that it was rushed by the then PM Wickremesinghe for his selfish needs, and without following the due process.
- Usually, when a Bill is tabled in parliament, it is considered the 1st reading, and the 2nd reading is the stage to discuss the amendments in detail, while 3rd reading is the comprehensive debate on the amended bill including proposals moved in.
- But Wickremesinghe kept pushing amendments during the 3rd reading also, many in English, forcing several people including Tamils to demand translations.
- President Maithripala Sirisena was promised certain executive powers in the first term and the second term, which was expectedly a ceremonial position at the Presidency, like in India.

What was the 20th Amendment?

- The 20th Amendment to the Constitution passed in October 2020 was also controversial. The 20th amendment (20A), which replaced the 19th Amendment (19A), had again enhanced the executive powers of the President in an unprecedented way besides abolishing the independent constitutional council for a Parliamentary Council.
- It had passed a controversial clause that gave electoral rights to dual citizens.
- Passed with a two-thirds majority, the criticisms on 20A were more severe as it was observed as one that could derail the balance between the legislature, executive and judiciary by centralising maximum powers into the hands of one individual.
- Many conservative and radical Buddhist groups representing the majority Sinhala Buddhists also had reasons to oppose 20A on various grounds, including the clause allowing dual citizens to become members of parliament.
- Among the many criticisms, the Colombo-based Centre for Policy Alternatives (CPA) said the 20th amendment had removed the checks and balances on the executive presidency.

21st Amendment to douse the fire

- The proposed amendment to douse the fire may be one to remove several key powers of the President, essentially reducing the Presidency to a ceremonial position, like in India.
- It is expected that the amendment might be retaining the powers of the President on all three armed forces while handing over almost all other key powers including governance, and cabinet ministers to the Prime Minister

- At a time when Galle Face in Colombo is witnessing a huge gathering of protestors seeking the President's resignation, the Rajapaksa regime hopes to manage the situation with the proposed amendment that reduces the executive powers of the President.
- However, the political stand was taken by the opposition leader Sajith Premadasa also helps the ruling regime as his position, so far, has been ambiguous; while promising a no-confidence motion against the government, he has taken a stand that his group will not be part of the interim government even as he continues to demand the resignation of the President and the Prime Minister.

Russia's new nuclear missile Sarmat

(Source: [Indian Express](#))

Context: *Amidst stiff resistance from Ukraine in the ongoing war and harsh sanctions imposed by the West, Russia went ahead and tested its new Inter Continental Ballistic Missile (ICBM) Sarmat on Wednesday. The Russian President said the test would make Russia's enemies "think twice".*

Is this the first test of the new ICBM?

- This was the first test launch of the ICMB Sarmat after having been delayed earlier in 2021. For reasons not known to the public, the test was pushed to December 2021 and then to April 2022.
- It was launched from Plesetsk in North West Russia with the intended target in the Kamchatka peninsula almost 6,000 km away.
- As per Russian news reports, the missile will have at least five more launches in 2022 before being inducted into the Russian military.
- Prior to the actual launch, a dummy missile test also took place. Computer simulated missile launches were also done multiple times and some of them were also shared publicly.

Was Russia known to be developing this missile?

- It was widely known that Russia was developing a new ICBM to replace its older ones and an announcement in this regard had been made by President Vladimir Putin in 2018 while making his State of the Nation address to the Federal Assembly.
- He had stated at the time that the first Regiment fully armed with Sarmat ICBM will be operational by the end of 2022. Even before Putin's announcement, there had been reports that Moscow was developing a new ICBM and photos of the possible design came into the fore in 2016.
- The actual development schedule is believed to have been further back in 2009 to 2011. The deteriorating relations between Russia and the Western Powers is said to have given an impetus to its development.

How is it more advanced than the other Russian ICBMs?

- The RS-28 Sarmat (NATO name Satan-II) is reported to be able to carry ten or more warheads and decoys and has the capability of firing over either of the earth's poles with a range of 11,000 to 18,000 km.
- It is expected to pose a significant challenge to the ground-and-satellite-based radar tracking systems of the western powers, particularly the USA.
- The ten warheads are Multiple Independently-Targetable Re-entry Vehicles and each has a blast yield of .75 MT. The Sarmat will also be the first Russian missile which can carry smaller hypersonic boost-glide vehicles. These are manoeuvrable and hard to intercept.



- The upgraded electronic counter measures, guidance systems and alternative warhead carrying capacity makes the RS-28 Sarmat ICBM more lethal than the R-36M Voyevoda ICBMs (NATO name Satan) currently in service in Russia.
- Some reports say that while the height and weight of Sarmat ICBM is the same as in the older one, it has more speed and high throw weight.
- However, the Sarmat is a liquid fuelled missile as compared to US ICBMs which have moved on to solid fuel systems. Regardless of the different propulsion system, the Sarmat is supposed to pose a significant threat to the US Missile Defence Systems.

Jupiter's moon Europa

(Source: [Indian Express](#))

Context: *In their new research, a team of researchers from Stanford University have said that on one of Jupiter's moons **Europa**, a prime candidate for life in the solar system, there might be an abundance of water pockets beneath formations called double ridges. It is already known that Europa, whose surface is mostly solid water ice, contains water beneath it. The researchers are now saying that the double ridges – the formations which are most common on Europa's surface and are similar to those seen on Earth's Greenland ice sheet – are formed over shallow pockets of water.*

About Europa

- Europa is slightly smaller than Earth's moon and its diameter is about one-quarter that of the Earth.
- Even though Europa has a very thin oxygen atmosphere, it is considered one of the most promising places in the solar system to find present-day environments that are suitable for life beyond the Earth.
- It is also believed that underneath Europa's icy surface the amount of water is twice that on Earth. NASA notes that scientists believe Europa's ice shell is 15-25 km thick and is floating on an ocean, which is estimated to be between 60-150 km deep. Interestingly, while its diameter is less than the Earth's, Europa probably contains twice the amount of the water in all of the Earth's oceans.
- NASA is expected to launch its Europa Clipper in 2024. The module will orbit Jupiter and conduct multiple close flybys to Europa to gather data on the moon's atmosphere, surface and its interior.

What are the implications of the recent findings?

- The central implication is that the shallow water pockets beneath the double ridge, like surfaces seen on the Greenland ice sheet on Earth and those seen on Europa's ice shell, increase the potential habitability of the moon.
- The ice shell, which is potentially miles thick, has been a difficult prospect for scientists to sample. But according to the new evidence gathered by the Stanford team, the ice shell is believed to be less of a barrier and more of a dynamic system.
- This means that the ice shell does not behave like an inert block of ice, but rather undergoes a variety of geological and hydrological processes.

The double-ridge feature

- The study co-authors noticed the double-ridge formations during a lab group presentation about Europa. They observed that the formations looked extremely similar to a minor feature on the surface of the Greenland ice sheet.

- We were working on something totally different related to climate change and its impact on the surface of Greenland when we saw these tiny double ridges – and we were able to see the ridges go from ‘not formed’ to ‘formed’.
- When they examined this further, they found that the “M” shaped crest in Greenland that is known as the double-ridge could be a miniature version of the most prominent feature found on the ice sheets of Europa.

Earth Day 2022

(Source: [Indian Express](#))

Context: Prime Minister Narendra Modi posted on Twitter: “#EarthDay is about expressing gratitude to Mother Earth for her kindness and reiterating our commitment to care for our planet.” Earth Day, which is celebrated annually on April 22, is a reminder to protect the environment, restore damaged ecosystems, and to live a more sustainable life.

What is Earth Day?

- **SINCE 1970:**
 - Earth Day has been celebrated since 1970. It was first observed in the United States, when people took to the streets to protest against the 1969 Santa Barbara oil spill, which killed thousands of sea birds, dolphins, seals, and sea lions.
 - Earth Day celebrations have played an important role in raising awareness around environmental issues ever since.
 - According to earthday.org, the world’s largest recruiter to the environmental movement, the Earth Day mission is to “diversify, educate and activate the environmental movement worldwide”. The landmark Paris Agreement was signed on Earth Day in 2016.
- **THE UNITED NATIONS** designated April 22 as International Mother Earth Day in 2009.
- It is intended to be a reminder that “the healthier our ecosystems are, the healthier the planet – and its people”.
- The UN links the designation of April 22 with a series of previous global climate actions that started with the UN Conference on the Human Environment 1972 in Stockholm and the establishment that year of World Environment Day on June 5.
- In 1992, Agenda 21, the Rio Declaration on Environment and Development was adopted at the Rio de Janeiro Earth Summit.
- The UN celebrates International Mother Earth Day through the Harmony with Nature initiative, a platform for global sustainable development that celebrates annually an interactive dialogue on topics such as promoting a holistic approach to harmony with nature, and an exchange of national experiences regarding criteria and indicators to measure sustainable development in harmony with nature.
- **THIS YEAR**, earthday.org selected the theme, ‘Invest In Our Planet’.

Mains

GS II

A better millet for potential iron deficiency

(Source: [The Hindu](#))

Context: *Improving natural iron absorption from iron-rich grains is a better strategy than chemical iron fortification of cereals.*

Context:

- Is iron deficiency universal and profound in India? Is it due to dietary iron deficiency? With the Indian vegetarian diet, containing 8.5 mg iron/1,000 Kcal-energy, women who eat adequately (enough energy for a sedentary lifestyle), should have an iron intake of about 15 mg/day, matching their daily iron requirement (15 mg/day).
- Adult men with their lower iron requirement (11 mg/day), and those eating for an active lifestyle with higher energy intake, are even better off.
- Therefore, dietary iron deficiency is not the major problem. Nor is iron deficiency the common cause for deficiency anemia in India; it is only one cause.
- Other nutrients like vitamin B12, folate and protein are also important. Indeed, anemia itself may be over-diagnosed, since surveys using capillary blood will overestimate the prevalence of anemia, and there is some doubt that the hemoglobin cutoff to diagnose anemia is incorrectly high, overestimating its prevalence.
- Therefore, when body iron deficiency occurs, it is less likely to be due to an iron-deficient diet, and more likely due to poor absorption of dietary iron.
- With poor, cereal-based diets, iron is not well-absorbed, because of a substance called phytate that is present in cereal grains, which binds tightly to dietary iron and impedes its absorption.
- Similarly, drinking tea or taking paan after meals also blocks iron absorption because of other inhibitory substances called polyphenols, which also bind iron tightly. Chronic body inflammation also blocks iron absorption from the intestine.
- This iron absorption blockade can be overcome by eating fruits (vitamin C) with meals, or simply changing behavior, like avoiding tea with meals.
- Alternatively, dietary iron intake could be increased in a natural manner, by eating iron-rich grains like millets, which will increase iron intake naturally, and not excessively.
- It is laudable that there is interest in promoting millet consumption in India for adults and children: these ancient grains are good for us in many ways, and not just for their rich iron content.
- They are also high in calcium, zinc, magnesium, potassium, dietary fibre, and important vitamins such as thiamine, riboflavin, folic acid, and niacin.
- Millets are therefore a great solution for increasing dietary iron density, offering much more than a single nutrient to the diet.
- Replacing just 100 gm of the daily cereal (rice) intake with finger millet (ragi) will increase the daily iron intake by 50%, and calcium by 350%.



- These are spectacular benefits, but they can be offset due to the high intrinsic phytate content of the ragi grain, which could reduce iron absorption. Even so, this ancient yet local grain, offering more than a single nutrient, should be a dietary staple, with strategies devised to enhance absorption of its iron.
- One such agricultural research strategy is to find a natural finger millet variety with the same rich iron content, but with a lower phytate content, to offer better iron absorption. A recently published collaborative study published in the journal *Frontiers in Nutrition* does just that.
- Teams at the University of Agricultural Sciences, Bengaluru (UASB) led by Prof M.S. Sheshashayee and our team at St. John's Medical College, Bengaluru screened hundreds of Indian finger millet accessions to identify a grain variety with low grain phytate content, but the usual high iron content.
- This specific accession was grown repeatedly over three years, to ensure that the low phytate content was consistent across seasons, without any yield penalty. Whole genome sequencing showed a variation in the phytate transporter gene responsible for storage of phytate in grains.
- In this unique collaboration between agricultural and health sciences, iron absorption from this low-phytate millet grain was then measured in adult women in comparison with a market variety using a very accurate dual iron-stable-isotope erythrocyte incorporation method. Iron absorption was almost three-fold higher from the low phytate grain compared to the high-phytate market variety.
- This is a promising and sustainable strategy. Yet, in India, the contrary path of iron fortification of staple foods is followed. This is a single nutrient approach that simply increases the chemical iron content of the diet, supplying about 10 mg/day per fortified food.
- It is counter-productive when iron deficiency is not universal, and absorption is the problem. Then, the fortified intake can be excessive when no iron deficiency exists, and excess iron is harmful: it is pro-oxidant, with many side effects, increasing the risk of diabetes, and unabsorbed iron can turn colonic bacteria towards an unhealthy typology.
- Addressing the supply side of iron through natural means, like improving natural iron absorption from iron-rich grains, is a much better and holistic strategy than single nutrient efforts like chemical iron fortification of cereals, which has its own logistic problems, costs and health risks.
- As natural and ancient grains that provide a diversity of nutrients, millets, with their high natural iron content, low water requirement and low environmental footprint, would be an excellent and sustainable strategy to mitigate any existing iron deficiency in India, while promoting general health of populations, including risk-reduction for chronic diseases.

Revisiting India's federalist ethos

(Source: [The Hindu](#))

Context: *The recent speech by Tamil Nadu Chief Minister M.K. Stalin at the 23rd party congress of the Communist Party of India (Marxist) in Kannur, Kerala will go down in political history for at least two reasons. First, Mr. Stalin, in both this speech and in prior statements and actions, has put forth a profound challenge to the model of 'federalism' that has become the foundational basis of public policy under Prime Minister Narendra Modi's Bharatiya Janata Party (BJP)-led government at the Centre. Second, his speech could be considered an early signal of potential convergence — at least in an ideological, if not tactical, sense — of two radical-revolutionary political paradigms, Dravidianism and communism. This development might fuel momentum for a coalition of dissenting voices at the State level against a ham-handed Central government that appears to be penalising non-BJP-led State governments by weaponising certain aspects of public policy. Both dimensions of Mr. Stalin's challenge are worth considering in closer detail.*



Threats to State autonomy

- First, as he elucidated at the CPI(M) congress in Kannur on April 9 — to thunderous applause for his allusion to the historical cultural connections between Tamil Nadu and Kerala — Mr. Stalin's challenge to the model of federalism in vogue today is to question whether, in its current form, it is a cause and consequence of excessive concentration of power in the Central government.
- The 'so what' of his argument is that this comes at the cost of denying States their rightful place in the scheme of things as envisioned in the Constitution of India. This change is located in the context of implementations of the Goods and Services Tax (GST) and the National Eligibility-cum-Entrance Test (NEET), dissolution of the Planning Commission and the status of the National Development Council.
- Among the greatest concerns voiced by Mr. Stalin and Kerala Chief Minister Pinarayi Vijayan at the CPI(M) congress was that the conduct of revenue sharing between the Centre and certain States has been less than satisfactory, out of line with Finance Commission recommendations, and that it has effectively cut off funding for policy implementation, which is the life blood of State administration.
- It is not only Mr. Stalin's speech. His recent visit to the nation's capital was aimed precisely at attempted redress for the Tamil Nadu public exchequer suffering shortfalls owing to this situation: although the 14th Finance Commission had recommended ₹2,524.20 crore in performance grant to Tamil Nadu during the period from 2016-17 to 2019-20, the Union government released ₹494.99 crore for 2016-17.
- According to the memorandum Mr. Stalin handed over in person to Union Finance Minister Nirmala Sitharaman, "Despite compliance with the conditions and furnishing of utilisation certificates, the grant for 2017-18 has not been released. Subsequently, the grants for 2018-19 and 2019-20 have also not been released."

On Governors

- In recent times Mr. Stalin has also flagged — as indeed have Mr. Vijayan and other non-BJP Chief Ministers — an alarming tendency for Governors of their respective States to break with hallowed constitutional tradition.
- This is taking the form of Governors getting involved in the minutiae of administration — normally considered the sole domain of the State executive — or holding up specific processes involving their office in a manner that tips political circumstances against the State government in question.
- For example, in his Republic Day address this year, Tamil Nadu Governor R.N. Ravi set off a political firestorm when he called for States to adopt a three-language formula. This was a move that the Dravida Munnetra Kazhagam (DMK) leadership clearly considered an affront to the State's cherished Tamil linguistic identity and cultural ethos.
- The apparent gubernatorial overreach stung even more in the context of the 2019 protests in Tamil Nadu, which led to the dropping of a clause in the draft National Education Policy requiring mandatory Hindi lessons in schools.
- Another instance of the Governor stepping beyond the routine constitutional duties and engaging in what some have described as pressing a thumb on the scales of State politics in favour of the Union government policy position is the inordinate delay by Raj Bhavan in Chennai in sending the Tamil Nadu NEET Bill for presidential assent.
- In these two cases, the rightful indignation of Mr. Stalin and his colleagues stems from the fact that education, after all, has been on the Concurrent List since 1976.

Unity among dissenters

- Tussles between the Centre and States are hardly new. State autonomy, as supported by the Sarkaria Commission, has been fiercely fought for across many decades and by Chief Ministers of every political hue — including vociferously on Twitter and beyond by the erstwhile Chief Minister of Gujarat, Narendra Modi, prior to 2014.

- Yet for Mr. Stalin and the DMK, the drive for self-determination of a people has a deeper meaning than mere squabbles over policy.
- **The resistance of both the DMK and the All India Anna Dravida Munnetra Kazhagam (AIADMK) to the very notion of Hindi imposition stems from decades of experience negotiating with an elitist, upper caste-dominated government entity in faraway Delhi — and pushing back against the latter's repeated attempts to make inroads into the politics of a State that has largely been impermeable to its machinations.**
- **Indeed, the essence of the impulse that animated the Dravidian movement and in 1967 enabled the remarkable mobilisation of a smorgasbord of middle and lower castes against Brahmin dominance of the organs of the state came from the very same rejection of 'Delhi politics' that we are seeing the DMK battle today.**
- Regardless of whether it was the DMK or the AIADMK at the helm of affairs in Tamil Nadu, since the late 1960s, the 'social contract' of Dravidian party leaders with their constituents has revolved around mass welfare policies as a key vector of resource allocation, specifically redistribution towards poorer and marginalised sections of society.
- This historical trend has resulted in Tamil Nadu consistently performing well in terms of human development indicators — provisioning of public goods such as health and education has always been consistent with this form of 'paternalist populism'.
- It leaves a few unanswered questions in terms of financing for these worthy policies. To what extent can revenue from an over-regulated liquor sector offset the considerable dent in public finances that these policies entail?
- To what extent do these policies cripple the working population from looking beyond 'freebies' towards productive employment and income-generating activities? These are tough questions that the Dravidian movement is yet to provide satisfactory answers for.

Pro-poor impulse

- But it explains why the question of public finance support from the Central government matters greatly in Tamil Nadu at the present juncture — as it does in Kerala, where there is a class element undergirding public policy based on the pro-poor redistributive intent of the CPI(M).
- It drives leaders like Mr. Stalin and Mr. Vijayan to take on the Central government for under-delivering on their revenue-sharing promises, especially at a time when State taxes are at a low ebb owing to the moribund state of economic activity in a post-COVID economy.
- In batting on the front foot for clearly defined values of this unique social movement, Mr. Stalin has made a strong claim as a deserving legatee of the mantle of his late father, former Chief Minister and Dravidian movement stalwart M. Karunanidhi.
- While there were genuine questions in May 2021 about his capability to govern an entire State when he took up the Chief Ministerial berth, Mr. Stalin proved that his days as Mayor of Chennai and Deputy Chief Minister under the tutelage of his father only honed his political instinct.
- Along the way he appears to have genuinely imbibed something of the spirit of Dravidian politics. If this spirit finds resonance in States such as Kerala and West Bengal, perhaps even Andhra Pradesh and Telangana, there is a possibility that an alternative governance ethos to saffron politics may be around the corner.

The UGC regulations for collaboration between Indian and foreign universities

(Source: [The Hindu](#))

Context: *The University Grants Commission (UGC) has simplified the procedure for enabling academic collaborations between Indian and foreign higher educational institutions to offer joint degrees, dual degrees and twinning programmes.*

What has the UGC proposed?

- The apex regulatory body for higher education in India has decided to allow certain Indian higher education institutions to enter into a Memorandum of Understanding (MoU) with foreign institutions to offer dual degree, joint degree or twinning programmes.
- To qualify for such academic collaboration, the Indian college, institute or university must figure among the top global 1,000 QS World University or Times Higher Education rankings or have emerged as one of the top 100 universities under the National Institutional Ranking Framework (NIRF).
- The college or university must have secured a minimum grading of 3.01 on a 4-point scale from the National Assessment and Accreditation Council (NAAC). Likewise, the foreign collaborator institution must also have figured among the 1,000 global top QS or Times Higher Education Rankings.
- The collaborations would be facilitated and governed under the proposed University Grants Commission (Academic Collaboration between Indian and Foreign Higher Education Institutions to offer Joint Degree, Dual Degree and Twinning Programmes) Regulations 2022.
- The draft of these regulations was placed in the public domain last year to invite suggestions from stakeholders.
- It had recommended [among other criteria] that to qualify for international academic collaboration under the “automatic mode”, the collaborating institutions must have figured among the “top 500” of Times Higher Education or QS World University ranking at the time of application.
- However, the final policy, about which UGC Chairman M. Jagadesh Kumar had briefed the media, has broadened the scope for collaborations by mandating that the institutions must have figured among the “top 1,000” of QS World University or Times Higher Education rankings.
- The draft had also proposed an “approval mode” — as opposed to the “automatic mode”— collaboration under which specialised institutions, if not accredited, may be considered [and approved by the UGC] for foreign tie-ups “if they have sufficient demonstrable accomplishments”.
- There is no clarity yet if the final policy provides for such “approval mode” collaborations. Once notified, the new regulation would supersede the University Grants Commission (Promotion & Maintenance of Standards of Academic Collaboration between Indian and Foreign Educational Institutions) Regulations, 2016.

How do the new regulations differ from that of 2016?

- The earlier regulations did not provide for “automatic mode” of foreign collaboration for academic courses offered in India.
- While a threshold for accreditation rating was mandated, there was no requirement for the university or college to figure among the top ranked institutions globally.
- The qualifying institution was required to apply to the UGC for approval and a sub-committee was vested with the powers to make a recommendation on the basis of which the regulatory body would take a final decision “after considering various factors including quality of education, overall merit of the proposal, fees to be charged, credibility of the Foreign Educational Institution as well as Indian Educational Institution.”

- Besides, the approval granted was valid only for two cycles of the minimum duration of the degree programmes covered under the collaboration or as specified otherwise.
- The Indian educational institution was required to apply for renewal of approval before six months of its expiration. Under the soon-to-be-notified regulations, the qualifying universities and colleges will not be required to seek permission for academic collaborations abroad.

How will the courses with foreign collaboration be offered?

- The qualifying Indian university or college can offer “dual degree”, “joint degree” or a “twinning programme” in collaboration with foreign institutions.
- The “dual degree” programme is new, while the other two programmes were offered under the 2016 regulations, though only fewer institutions had introduced such programmes due to the bureaucratic approval process.
- The degrees, under the “dual degree programme” shall be conferred by the Indian and foreign institutions “separately and simultaneously” upon completion of degree requirements of both universities. For the twinning degree programme, a student can get up to 30% course credit utilisation of the total course from the collaborating foreign university.
- For the joint and dual degree programmes, the students shall be permitted to get more than 30% of the total course credits from the university or institution abroad. As per the 2021 draft rules, for enrolling in dual degree programmes, prospective students must meet the admission requirements of both the Indian and foreign institutions and shall apply to and be admitted separately to both the institutions.
- Besides, the students must earn at least 50% of total credits from the Indian institution. The dual degree programme to be offered shall also conform to the nomenclature and duration of the degrees as specified under the UGC Act, 1956 and shall also conform to minimum eligibility and other norms and standards to offer such degree programmes.
- The collaborating higher education institutions shall ensure that the credits earned by the students shall not be from overlapping course contents/curriculum.
- Also, the student shall submit to only one examination and evaluation process for each of the courses by the institutions in which he/she has registered.

What happens now?

- While qualifying Indian institutions will now be free to collaborate with foreign universities, for students the cost of education with international exposure would come down.
- Institutions that are committed to academic excellence will provide the students an opportunity for advanced learning with global expertise.
- However, it remains to be seen whether the top global institutions would immediately sign MoUs with Indian institutions.
- Private autonomous colleges and deemed universities are most likely to utilise this opportunity to enter into agreements for twinning or dual / joining degree programmes with foreign institutions, flaunting them in their brochures to attract students. The UGC may have to monitor the quality of academic delivery in such programmes.

GS III

Sri Lankan lessons for India

(Source: [The Hindu](#))

Context: *Since the end of colonial rule, Sri Lanka's political arrangements have been an amalgam of nationalism in politics and welfarism in economics. Ethno-nationalism was stoked to forge a nation state in terms of a Sinhala identity, the beginnings of which had emerged in the fifties. It is recognisable in the official "Sinhala Only" language policy introduced at the time. Though this may have been diluted subsequently, it empowered ethnic chauvinism and left the sizeable Tamil-speaking population insecure.*

Linguistic disenfranchisement

- The origins of the linguistic disenfranchisement of the Tamils owed partly to the appeasement of the Buddhist clergy, which is almost exclusively Sinhala.
- It not only caused the alienation of the Tamil-speaking population but led to the formation of the Tamil Tigers, a terrorist organisation, and a civil war.
- The Tamil Tigers were finally vanquished, but it took over two-and-a-half decades for the Sri Lankan state to achieve this. In the meanwhile, there was an exodus of Tamils, the better-off leaving for the West and, those who could escape, heading for Tamil Nadu.
- With the Tamils having had a significant presence in the professions, the country experienced a loss of expertise in almost all spheres. The impact of a loss of technical expertise for an economy is slow and often indiscernible but sure to affect it adversely, which we see happening in India. The civil war is also likely to have held back investment.
- While all uncertainty stalls investment, private investors would be particularly reluctant to commit their money in a time of near anarchy. A state pursuing a civil war can hardly make up for this through public investment, as it is bound to be severely fund-constrained due to its military operations.
- Nor would it have had much time to address stress points that arise from time to time in any market economy, let alone plan for economic development. In diverse ways, then, social strife can hamper the development of the productive forces of a country and its economic growth gets affected.
- So here we have the first cautionary tale from Sri Lanka for India. Sri Lanka's woes are economic on the surface but stem from social strife that have been exacerbated by majoritarian identity politics fanned by the State. Identity politics between social groups is a recipe for economic disaster.
- It would not be off the mark to suggest that the Modi government's inability to even restore, let alone raise, the investment rate in India is partly related to the socio-political tension that has come in its wake. The strife between the Centre and the States and antagonism between religious communities are sure ways to deter investment even if there is some improvement in the ease of doing business.
- The exit of some high-net-worth Indians from the country and the outflow of foreign direct investment are examples of this. Inflow of foreign direct investment to India has been high since 2014 but has been unable to make up for the depressed domestic private investment.

Political, economic lessons

- If the first lesson from Lanka is about how politics can affect the economy, the second is about how flawed economic policy can affect an economy's prospects.



- The country first came into the world's reckoning in the 1950s when its economic policy was lauded for welfare programmes that included subsidised rice.
- But not everyone was impressed at the time. In his autobiography *Home and the World*, Amartya Sen narrates how the Cambridge economist Joan Robinson had described this as a case of “wanting to taste the fruit before growing it”.
- Mr. Sen implies that he was not convinced by this view but his supervisor appears to have been endowed with some remarkable foresight.
- Now, the grande dame of economics in her time, could hardly have been against the idea of welfare per se living as she was in the U.K., the world's pre-eminent welfare state.
- She was very likely decrying welfarism, which make the distribution of consumer goods the centrepiece of economic policy. In any case, she has been proved right.
- In Sri Lanka, distributism seems to have run ahead of what could be guaranteed from domestic sources. This newspaper has previously reported on the slogan “Produce or perish” from the country's past political hustings. It would serve as smart advice not only for the three Sri Lankan economists now tasked to take their country out of the crisis but also to the political class of India.
- As India's economy has grown, many of the States have stepped up their welfare spending. Some have distributed bicycles for girls and others television sets to families. While no form of welfare need be precluded in principle, the public finances are subject to an accounting constraint.
- When revenues are limited, free bicycles and televisions sets crowd out spending on measures that increase an economy's productive capacity, which includes its endowment of schools, hospitals and the infrastructure needed for production. There is also an ethical issue to be faced. When welfarism is financed by borrowing rather than taxes, future generations pay for our consumption.
- A third lesson from Sri Lanka is to not treat openness to the world economy as a panacea. In the 1970s, in a switch from avowedly socialist economic policies, Sri Lanka liberalised trade and capital flows. It is a moot question how this policy reorientation may have worked had a civil war lasting decades not intervened but the reliance on world markets that it led to has not helped the country.
- A celebrated theorem in economics, the theory of comparative advantage, encourages a country to specialise in its production and to rely on foreign trade for goods that it does not produce. This assumes that there will be a continuing demand for the country's product. Sri Lanka's case shows us why it can be damaging for a country to rely on trade for its essential consumption goods.
- By comparison, the States of India that face deficit of food are saved by being part of the Indian Union. Unlike Sri Lanka, they need not earn foreign exchange to receive food from the national granary, Kerala being the prime example of this arrangement.
- Sri Lanka's first task would be to urgently revive its food producing sector. As for India it must learn from its neighbour's misfortunes and step up domestic production across sectors, from oilseeds to renewable energy and defence equipment.

Why is India looking to boost wheat exports?

(Source: [The Hindu](#))

Context: *Russia's invasion of Ukraine and the subsequent western sanctions on Russia have affected wheat exports from the Black Sea region and impacted food security in several countries, especially in Africa and West Asia. The disruption to global wheat supplies in turn has thrown open opportunities that India's grain*

exporters are eyeing, especially given the domestic surplus availability of the cereal. Union Minister for Commerce and Industry Piyush Goyal said on Friday that Egypt, one of the largest importers of wheat, had agreed to source the cereal from India.

What is the status of India's wheat exports?

- Globally, Russia is the market leader for wheat exports (almost 15% share) and Ukraine is also a major producer. Exports from these two countries have been hit by the war and sanctions. India expects to produce 112 million tonnes of wheat in the current crop year.
- The government requires 24-26 million tonnes a year for its food security programmes. With surplus wheat production, opportunities have opened up for exports.
- Wheat exports in the 2021-2022 financial year were estimated at 7.85 million tonnes, a quadrupling from 2.1 million tonnes in the previous year.
- More countries are turning to India because of the competitive price, acceptable quality, availability of surplus wheat and geopolitical reasons. While the existing importers are buying more, new markets have emerged for Indian wheat. Exports this fiscal are expected to be almost 10 million tonnes worth \$3 billion.

Which new markets are expected to buy from India?

- The different grades of wheat produced in India are of the milling quality. So, apart from Egypt and Jordan, countries in East Africa are also likely to source the foodgrain from India.
- India has sent out dossiers to over 20 countries and talks are on at different levels with all these countries. The aim is to reach early resolution on the Pest Risk Analysis by each of these countries so that exports can take off.
- The Agricultural and Processed Food Products Export Development Authority (APEDA) and Ministry of Agriculture are also sending delegations to several countries to resolve market issues, if any.

What is being done to facilitate the exports?

- The Commerce Ministry has put in place an internal mechanism to facilitate wheat exports and get the paperwork ready for the related sanitary and phytosanitary applications to help facilitate shipments.
- Wheat is going in full vessel loads and needs to be transported to the ports from the growing areas. The railways is providing rakes on priority to move the wheat.
- Tarun Bajaj, director at APEDA, says the railways, ports, and testing laboratories are all geared up to meet the requirements.

What norms are buyer countries using to approve Indian wheat?

- Countries that have not previously imported wheat from India insist on the completion of the Pest Risk Analysis to provide market access.
- There are also other different standards that the buyers share with their sellers here.
- While, at present, Indian suppliers are able to meet these criteria, Indian authorities are working closely to step in and negotiate resolution if any "unreasonable" standards are stipulated.

What is the future outlook?

- The government is optimistic about the long-term export opportunities not only for wheat, but for all cereals including millets and super foods.
- Trade sources say if Indian wheat prices remain competitive and geopolitical and weather conditions stay favourable, the scope is good for wheat exports. India has won the confidence of markets such as Sri Lanka and Bangladesh.

- It needs to establish itself in the new markets too and the government should facilitate it.

What's fuelling inflation in rural India?

(Source: [The Hindu](#))

Context: *The retail inflation rate surged to 6.95% this March — its highest level in nearly one and a half years, capping off six successive months of accelerating prices for consumers. With incremental fuel price hikes only kicking in during the latter half of March, the full impact of higher global oil prices being passed on to consumers will only begin reflecting in April. Economists expect inflation to go past 7% and hover around that level till as far as September. However, across large parts of the country, the experienced price rise has already crossed 7.5% and even 8%. Official data pegs rural inflation in March at 7.66%, with several States reporting even higher inflation, including West Bengal (8.85%), Uttar Pradesh and Assam (8.19%) as well as Madhya Pradesh (7.89%).*

How have urban and rural inflation trends differed over the past year?

- Urban inflation has usually tended to be higher than rural inflation by an average of about 0.8 percentage points through most of 2021 — the only exceptions being August when both stood at 5.3% and May when rural inflation was 6.6% and urban inflation was 5.9%.
- In December 2021, urban inflation was 5.9%, while rural inflation was 5.4%. In contrast, March 2022 marked the third consecutive month that the pace of price rise in the hinterland outstripped urban India, and the gap has been widening rapidly.
- From a minor 0.2 percentage points higher inflation rate over urban India in January, rural inflation hit a nine-month high of 6.38% in February even as urban inflation declined to 5.75%. In March, the gap between the two has surpassed 1.5% with urban inflation at 6.12% and rural areas clocking 7.66%.

What are the key drivers of higher inflation in the hinterland?

- While food inflation was the key driver for the headline inflation rate jump in March, with the overall consumer food price index racing to 7.68% from 5.85% in February, the spike was far more pronounced in rural India where food inflation hit 8.04%.
- Food inflation in urban India was a full percentage point lower. Madan Sabnavis, chief economist at Bank of Baroda, reckoned that the higher inflation in food, which has a higher weight in the Consumer Price Index, along with inflation in fuel and light and clothing, were the key factors driving up rural prices.
- Consider the inflation rates for some items faced by rural consumers vis-à-vis their urban peers — oils and fats (20.75% v. 15.15%), clothing (9.9% v. 7.74%), footwear (12.2% v. 9.9%), fuel and light (8.3% v. 6.3%), personal care and effects (9.3% v. 7.7%) and last but not the least, a persistently higher inflation in education costs of about 1 to 1.5 percentage points.
- The pent-up demand appears to be higher in rural India, so clothing is seeing higher inflation as demand picks up. Moreover, fuel prices are higher in rural areas due to connectivity issues, while prices of traditional fuel like firewood have also risen in tandem.
- Rating agency ICRA's chief economist Aditi Nayar said part of this trend could also be explained by the shift of labour between urban and rural areas in the last two years, which has also injected volatility into India's demand dynamics.

- Interestingly, while vegetable prices declined in the urban areas between February and March 2022, they inched up sharply in rural India month-on-month, even though in absolute terms, their vegetables inflation rate remained lower at 10.57% than urban areas which recorded 13.37% inflation.
- Indeed, the vegetable price trends have been most intriguing — rural inflation was 1.4% in January, 3.7% in February and a whopping 10.6% in March.

Which sections are affected the most, and what next?

- While high inflation affects the poor the most in general, the fact that price rise in food, the largest component of their consumption basket, is driving the current surge is particularly burdensome.
- Using data from official surveys, Mr. Joshi's team has estimated that the bottom 20% of the population in urban as well as rural India is facing the worst effects. The rural bottom 20% faced the highest inflation at 7.7% in March, while the upper 20% of the income segment in the hinterland experienced 7.6% inflation.
- With upward pressure rising, inflation is becoming broad-based. Last year, low food inflation had contained the headline number, while fuel and core inflation (excluding food and energy prices) had risen. Now, food inflation is expected to rise along with both fuel and core inflation.
- While food price risks have risen due to the Russia-Ukraine conflict, higher prices for farm sector inputs could further feed into food inflation.
- The cost of production is likely to increase by around 8-10%... the Minimum Support Price should at least be higher by around 12%-15%.

The status of India's National Cyber Security Strategy

(Source: [The Hindu](#))

Context: *Amid a surge in cyberattacks on India's networks, the Centre is yet to implement the National Cyber Security Strategy which has been in the works since 2020.*

Why does India need a cybersecurity strategy?

- As per American cybersecurity firm Palo Alto Networks' 2021 report, Maharashtra was the most targeted State in India — facing 42% of all ransomware attacks.
- The report stated that India is among the more economically profitable regions for hacker groups and hence these hackers ask Indian firms to pay a ransom, usually using cryptocurrencies, in order to regain access to the data. One in four Indian organisations suffered a ransomware attack in 2021.
- Indian organisations witnessed a 218% increase in ransomware — higher than the global average of 21%.
- Software and services (26%), capital goods (14%) and the public sector (9%) were among the most targeted sectors. Increase in such attacks has brought to light the urgent need for strengthening India's cybersecurity.

What is the National Cyber Security Strategy?

- Conceptualised by the Data Security Council of India (DSCI), the 22-page report focuses on 21 areas to ensure a safe, secure, trusted, resilient, and vibrant cyberspace for India.
- The main sectors of focus of the report are:-

- Large scale digitisation of public services: There needs to be a focus on security in the early stages of design in all digitisation initiatives and for developing institutional capability for assessment, evaluation, certification, and rating of core devices.
- Supply chain security: There should be robust monitoring and mapping of the supply chain of the Integrated circuits (ICT) and electronics products. Product testing and certification needs to be scaled up, and the country's semiconductor design capabilities must be leveraged globally.
- Critical information infrastructure protection: The supervisory control and data acquisition (SCADA) security should be integrated with enterprise security. A repository of vulnerabilities should also be maintained.
- Digital payments: There should be mapping and modelling of devices and platform deployed, transacting entities, payment flows, interfaces and data exchange as well as threat research and sharing of threat intelligence.
- State-level cyber security: State-level cybersecurity policies and guidelines for security architecture, operations, and governance need to be developed.

What steps does the report suggest?

- To implement cybersecurity in the above-listed focus areas, the report lists the following recommendations:
- Budgetary provisions: A minimum allocation of 0.25% of the annual budget, which can be raised up to 1% has been recommended to be set aside for cyber security. In terms of separate ministries and agencies, 15-20% of the IT/technology expenditure should be earmarked for cybersecurity. The report also suggests setting up a Fund of Funds for cybersecurity and to provide Central funding to States to build capabilities in the same field.
- Research, innovation, skill-building and technology development: The report suggests investing in modernisation and digitisation of ICTs, setting up a short and long term agenda for cyber security via outcome-based programs and providing investments in deep-tech cyber security innovation.
- Furthermore, a national framework should be devised in collaboration with institutions like the National Skill Development Corporation (NSDC) and ISEA (Information Security Education and Awareness) to provide global professional certifications in security. The DSCI further recommends creating a 'cyber security services' with cadre chosen from the Indian Engineering Services.
- Crisis management: For adequate preparation to handle crisis, the DSCI recommends holding cybersecurity drills which include real-life scenarios with their ramifications. In critical sectors, simulation exercises for cross-border scenarios must be held on an inter-country basis.
- Cyber insurance: Cyber insurance being a yet to be researched field, must have an actuarial science to address cybersecurity risks in business and technology scenarios as well as calculate threat exposures. The DSCI recommends developing cyber insurance products for critical information infrastructure and to quantify the risks involving them.
- Cyber diplomacy: Cyber diplomacy plays a huge role in shaping India's global relations. To further better diplomacy, the government should promote brand India as a responsible player in cyber security and also create 'cyber envoys' for the key countries/regions.
- Cybercrime investigation: With the increase in cybercrime across the world, the report recommends unburdening the judicial system by creating laws to resolve spamming and fake news. It also suggests charting a five-year roadmap factoring possible technology transformation, setting up exclusive courts to deal with cybercrimes and remove backlog of cybercrimes by increasing centres providing opinion related to digital evidence under section 79A of the IT act.
- Moreover, the DSCI suggests advanced forensic training for agencies to keep up in the age of AI/ML, blockchain, IoT, cloud, automation. Law enforcement and other agencies should partner with their counterparts abroad to seek information of service providers overseas.

What is the progress in its implementation?

- In the recent Budget session of Parliament, several MPs questioned the Ministry of Electronics & Information Technology (MEiTy) on when the Centre plans to introduce the policy.
- In response, the Centre clarified that it has “formulated a draft National Cyber Security Strategy 2021 which holistically looks at addressing the issues of security of national cyberspace.”
- Without mentioning a deadline for its implementation, the Centre added that it had no plans as of yet “to coordinate with other countries to develop a global legal framework on cyber terrorism.”



Current Affairs Quiz

1) Which of the following statements is/are correct with respect to Oil Bonds?

1. It is a promissory note issued by the government to the oil marketing companies in order to protect the consumers from higher fuel prices.
2. Oil bonds help to lessen the annual fiscal load and they are issued annually.

Codes:

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

Answer : a

By issuing such oil bonds, the government of the day is able to protect/subsidise the consumers without either ruining the profitability of the OMC or running a huge budget deficit itself.

2) Consider the following statements with respect to recently introduced the Online Gaming (Regulation) Bill:

1. The Bill brings under its ambit all forms of online gaming irrespective of whether it is a game of skill or chance.
2. Betting and Gambling are state subjects under the seventh schedule of the Indian Constitution.
3. The Bill seeks to establish a centralised agency by the Central Government which would have powers to regulate online gaming.

Which of the above statements is/are correct?

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

Answer : d

3) Consider the following statements:

1. Gulf of Gabes is located in the Mediterranean Sea, on the east coast of Tunisia.
2. Its coastline is divided between Egypt, Israel, Jordan, and Saudi Arabia.

Which of the above statements is/are correct?

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

Answer : a

4) Consider the following statements:

1. Enforcement Directorate is a statutory body that investigates offenses registered by local police stations when the proceeds of the crime are over 50lakhs.
2. It works under the aegis of the Department of Revenue, Ministry of Finance.

Which of the above statements is/are correct?

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

Answer : b

Whenever any offense is registered by a local police station, which has generated proceeds of crime over and above Rupees 1 crore, the investigating police officer forwards the details to the ED.

5) Consider the following statements:

1. Shrinkflation is the practice of reducing the size of a product while maintaining its sticker price.
2. Shrinkflation is a form of hidden inflation that is applicable to any industry.

Which of the above statements is/are correct?

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

Answer : c

6) Consider the following statements with respect to the Law of diminishing marginal utility:

1. Marginal Utility is the satisfaction that the customer gets from having one more unit of a product or service.
2. According to this law, the utility of products increases as their consumption increases.

Which of the above statements is/are correct?

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

Answer : a

As the utility of a product decreases as its consumption increases.

7) Consider the following statements:

1. APEDA is a statutory body and is responsible only for the export of perishable products such as fruits, vegetables, and meat.
2. APEDA works under the aegis of the Ministry of Agriculture and Farmers welfare and is responsible for the export of farmers' produce.

Which of the above statements is/are incorrect?

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

Answer : c

It is under the Ministry of Commerce and Industry and it provides financial assistance, information, and guidelines for the development of scheduled products. It is responsible for the export of products such as fruits; vegetables; meat; poultry; dairy products; confectionery, biscuits, and bakery products; honey, jaggery, and sugar products; cocoa and chocolates of all kinds; alcoholic and non-alcoholic beverages; cereals; groundnuts, peanuts and walnuts, pickles, papads, and chutneys; guar gum; floriculture and floriculture products; herbal and medicinal plants.

8) Which of the following statements is/are correct regarding the Rwanda Deal?

1. It is the deal between Rwanda and the United Kingdom to facilitate the transfer of illegal migrants to Rwanda.
2. United Kingdom is the first and only country to sign such a deal, to transfer the illegal migrants.
3. The Geneva Convention does not guarantee the refugees the right to be granted refugee status by the host country.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only

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

Answer : c

9) Consider the following statements with respect to the twisted bilayer graphene:

1. It is obtained by stacking one layer of graphene on top of another and rotating the two layers.
2. Graphene is a two-dimensional material comprising a single layer of carbon atoms arranged in a hexagonal lattice.

Which of the above statements is/are correct?

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

Answer : c

10) Consider the following statements:

1. Environment clearance is mandatory for nuclear power projects and river valley projects to get environment clearance every year.
2. A project must begin construction in the period that it has been granted an EC and if unable, a fresh process must begin.

Which of the above statements is/are correct?

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

Answer : b

The EC for river valley projects will now have a 13 year validity, nuclear power projects, or those involving the processing of nuclear fuel 15 years.

11) Which of the following statements is/are correct regarding the Office for the Coordination of Humanitarian Affairs?

1. It is responsible for bringing together humanitarian actors to respond to complex emergencies and natural disasters.
2. It works under the aegis of the International Human Rights Organisation (IHRO).

Codes:

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

Answer : a

OCHA is the part of the United Nations Secretariat responsible for bringing together humanitarian actors to ensure a coherent response to emergencies and natural disasters.

12) Consider the following statements:

1. Double taxation is the principle in which the income tax is paid twice on the same source of income in two different countries.
2. The Central Board of Direct Taxes under the Department of Economic Affairs, is responsible for matters related with double taxation in India.

Which of the above statements is/are correct?

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

d. Neither 1 nor 2

Answer : a

13) Consider the following statements with respect to the Broadcasting Seed technique:

1. In this method pre-germinated seeds are directly sowed into the field.
2. This method requires shorter flooding period and decreased soil disturbance.
3. Farmers have to only level their land and give one pre-sowing irrigation.

Which of the above statements is/are correct?

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

Answer : d

14) Consider the following statements:

1. Stable Coins are class of cryptocurrencies that offer price stability and are backed by a reserve asset.
2. Stable coins are backed by gold, by the RBI and can be purchased only from the State Bank of India.

Which of the above statements is/are correct?

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

Answer : a

The RBI stated that, Allowing stablecoins in India is similar to allowing Indians to use another currency in India and hence it does not back it.

15) Consider the following statements with respect to Battery Swapping:

1. It is a mechanism that involves swapping discharged batteries for charged batteries that provides the flexibility of charging independent of the vehicle.
2. At present battery Swapping is suitable only for two- wheelers and three-wheelers.

Which of the above statements is/are correct?

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

Answer : c

16) Consider the following statements:

1. Marginal Cost of Funds-based Lending Rates (MCLR) is the lowest interest rate that a bank or lender can offer.
2. An increase in MCLR will increase the EMI of existing home, vehicle, and personal loans.

Which of the above statements is/are correct?

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

Answer : c

17) Which of the following statements is/are incorrect with respect to double ridge, sometimes seen in the media?

1. It is an M-shaped crest discovered on ice sheets in Greenland, formed by fracturing of ice around pressurised liquid.



2. This double ridge feature is extremely common on the Galilean moon's surface.

Select the correct answer code:

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

Answer : d

18) Consider the following statements:

- 1. Open General Export Licence can be signed only for defence and agricultural products, between two countries.
- 2. It is mandatory for countries to obtain the permission of WTO in order to provide OGEL.
- 3. A complete aircraft or unmanned aerial vehicles are excluded from OGEL provided by India.

Which of the above statements is/are correct?

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

Answer : c

19) Consider the following statements:

- 1. Kuril Islands is an archipelago that is located between the Tatar Strait and the South China Sea.
- 2. The Treaty of Shimoda, gives control of the southernmost islands to Japan and the remainder of the islands to Russia.

Which of the above statements is/are correct?

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

Answer : b

The archipelago extends from the southern tip of the Kamchatka Peninsula, Russia to the northeastern corner of Hokkaido island, Japan.

20) Consider the following statements with respect to India's edible oil imports:

- 1. India imports half of its requirements of palm oil from Indonesia.
- 2. Soybean oil is the most consumed edible oil, followed by Palm oil in India.

Which of the above statements is/are correct?

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

India's total edible oil consumption: Palm Oil 42%, Soybean Oil 22%, Mustard Oil 12%, Sunflower Oil 12%, Other edible oils 12%.