



Key Highlights

- Snow Leopards in India
- Electoral Bonds Unconstitutional
- **Hindu Kush Himalayas**
- Sustainable Development Goals
- UNESCO Heritage List
- Indian Stamp Bill, 2023
- Uniform Civil Code
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- MSP, Farmers & Swaminathan
- High-Altitude PseudoSatellite Vehicle
- Residential Rooftop Solar

Facts For Prelims

- **BAPS Temple**
- Dusted Apollo Butterfly
- Subika Painting
- Grammy Award
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Prelims Special Economy

**Hindu Kush Himalaya:
'Biosphere on Brink'**

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Message



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Current Affairs has an important role in the examinations conducted by Union Public Service Commission and State Public Service Commissions. It is necessary for the candidate to have knowledge of relevant information on issues of national and international importance. Perfect 7 Magazine is being presented fortnightly to the students to fulfill this requirement. Preparation of civil services exam is only completed when candidates have holistic knowledge and analysis of the dynamic nature of the current affairs. 'Perfect7' keeps this vision and approach and understands the multidimensional need of students at the content level, so this magazine has presented the current affairs with relevant issues of general studies. Keeping in mind the needs of mains exam, current articles on 7 burning issues, Ethics Case Studies, Biographies of important personalities, coverage of most useful topics of various sections of General Studies and the most important current affairs issues are being covered for Preliminary Examination in which emphasis is being given on national, international, environment, ecology, art and culture, science and technology, economic issues.

Brain boosters with 7 themes based graphics are being presented in a concise form to enhance the conceptual understanding of the students. Apart from this, updated information on Global Initiatives, Global Institutions, Structure of Organizations, Functioning, Important Reports, and Indices will be included in this magazine, which is asked prominently in the Civil Services Examination. To give emphasis on facts and analysis, keeping in view the trends of new nature of questions in Preliminary and Main Examination of Civil Services, an inclusive magazine is being provided to the students so that they can give the right direction to their preparation by understanding the new requirements of Civil Services Examination. Columns have been included in the format of the magazine keeping in mind the factual needs of the candidates, mental development, developing writing technique etc. Along with this, we have been introducing new segments according to the changing needs of the candidates and these initiatives will continue in future also. Hope this issue will prove useful for all of you. Your suggestions are always welcome.

Best wishes.



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Security of the North-East India: Necessity to end Free Movement Regime with Myanmar

Robert Frost rightly said, *Good fences make good neighbours. This is absolutely true regarding the India-Myanmar border and keeping this in mind, the Central Government has recently decided to end the free movement regime between India and Myanmar. In fact, such a decision was being thought of for the last few years but the Central Government did not want to take any hasty step which would have any negative impact on the already sensitive India-Myanmar relations. But when the Central Government came to know by all means that the refugees and illegal immigrants coming to North-East India illegally from Myanmar are becoming a threat to the peace and security of the North-East, then the government has taken this tough decision.*

- Most of the 1643 km long international border with India and Myanmar is not fenced and Manipur, which shares about 390 km long border with Myanmar, has fencing only on its 10 km border. Due to this, smuggling of illegal drugs from Myanmar, which has now become the world's largest opium producing country, leaving behind Afghanistan, into India has become a big problem.
- At the same time, ethnic communities like Rohingya, Kuki, Chin are entering the North East illegally, which has increased the possibility of change in the demography of North East India. Therefore, it was necessary that the free movement regime, which was arranged between India and Myanmar does not fulfil its purpose and poses a challenge to India's internal security, then it should be abolished.
- The Government of India had made arrangements for free movement of common local tribes of both the countries, to increase people-to-people contacts, strengthen cultural exchange and increase mutual trust between the two countries. These efforts were not intended to encourage anarchist elements of Myanmar in North-East India to conspire for a separatist movement, instigate the people of North East to do rebellious activities against the Indian government, and provide arms and drugs to the North East, and start understanding it as a means of illegal smuggling of things like

gold etc. The Government of India has done humanitarian work to protect the livelihood of the local people by opening border markets on the international border. Overall, in the era of globalization, a liberal country like India does not think of imposing unnecessary restrictions on free movement, but for its national internal security, it has to take many tough decisions.

Challenges for India at the Myanmar border:

- According to the US Drug Enforcement Administration, Myanmar produces 80 percent of Southeast Asia's heroin and is responsible for 60 percent of the global supply. It is also responsible for cocaine smuggling. Drug lords of China and Myanmar have been getting mutual support from time to time, but the most worrying is that many heroin labs are active on the India-Myanmar border. Smuggling and illegal purchasing of amphetamines, yaba tablets, crazy drugs, party drugs through Myanmar in Mizoram has also increased significantly which is harming the young human resources of North Eastern India.

About Free Movement Regime:

- The Free Movement Regime between India and Myanmar was introduced in 2018. FMR has been in place along the 1,643 km long India-Myanmar border passing through Mizoram, Manipur, Nagaland and Arunachal Pradesh. It was implemented in 2018 as part of India's Act East Policy to ensure local border trade and improve access to education and healthcare for border residents. The Government of India also thought it had strengthened the diplomatic and strategic relations between the two countries.
- Notably, the Free Movement Regime is an agreement between the two countries which allows the tribes living on both sides of the border to travel up to 16 km inside the other country without any visa. It allows communities from both sides to stay for up to 72 hours, with a valid permit, on showing a border pass (one year validity) issued by the competent authorities. Ever since ethnic terrorists and many criminals started misusing this free movement regime, the Indian government was forced to take some concrete decisions regarding it. Assam Rifles has already provided evidence of misuse of

the free movement regime by Myanmar in the form of smuggling of arms, narcotics, smuggled goods and fake Indian rupee notes. Since the government crackdown on the Kuki-Chin community in Myanmar, the free movement regime is being used for illegal migration.

Issue of illegal refugees:

- It is noteworthy that since the military coup in Myanmar in February 2021, it is estimated that more than 40,000 refugees have taken shelter in Mizoram, and about 4,000 refugees in Manipur. A panel constituted by the Manipur government to identify such migrants has estimated their number at 2,187. In 2023, the Manipur government alleged that village heads were illegally settling migrants from Myanmar in new villages in the hills, leading to deforestation. On this basis the Manipur government had appealed to the Central Government to review the free movement regime.



- More than 74 Myanmar soldiers had come to North-East India after Myanmar rebels continuously attacked the police positions of the military junta on the India-Myanmar border. Earlier, 29 soldiers of Myanmar had entered Mizoram on November 16 last year and then these soldiers were airlifted to Moreh in Manipur by the Indian defense authorities. Keeping all these in mind, it became necessary to regulate free movement.
- Although the Indian government is moving

forward on connectivity projects with Nepal, Bangladesh, Bhutan and Myanmar in the context of North East and efforts are being made for inclusive development of the North-East by increasing connectivity through rail, road, waterways and airways, the commitment has been shown not to compromise on the security system by paying attention to things like integrated check posts, border outposts, border fencing.

India's stance on Rohingya issue:

- According to the data by the Ministry of Home Affairs, about 40 thousand Rohingya refugees live in India. The unofficial figure is even higher. They have reached India via land route from Bangladesh. India considers all Rohingya refugees as illegal migrants and is seeking an effective repatriation agreement to send them back to their countries of origin. Several entities are surprised at this decision of India as to how can India, which talks about human rights and self-determination rights, ask all the Rohingya people to leave the country as soon as possible. India needs to maintain strong relations with all South Asian countries according to its Neighbourhood First Policy and Gujral Doctrine however today the refugee crisis has increased in South Asia. If India supports Rohingya, then in some way or the other it will be pressured to provide security to Tamils, Madhes, Chakmas as well. In such a situation, India's national interests will be affected. Even in South Asia, there is no regional legislation to deal with the refugee crisis.

Keeping these contexts in mind, India has not signed the United Nations Refugee Convention, 1951, nor has it ratified the United Nations Anti-Torture Convention, 1987. India is conscious of its internal security. It has faced a lot of Chamka refugees from Bangladesh coming to Assam in large numbers and the challenges arising from them. The security relationship has a different serious dimension in the context of Rohingya. The interests of three nations are affected in this crisis and to avoid tension in bilateral relations, it is necessary that India takes concrete action on the repatriation of Rohingya.

Sustainable Development Goals: A Global Movement

The World Sustainable Development Summit, 2024, was recently organized by The Energy and Resources Institute (TERI) in New Delhi from February 7 to 9. The meeting focused on the repercussions of global warming and climate change on the Sustainable Development Goals. During the summit, Vice President of India Jagdeep Dhankhar emphasized that climate justice should be regarded as the North Star in the battle against climate change. The meeting highlighted the interconnected challenges faced by the entire world, underscoring the critical need for collective action to swiftly attain the Sustainable Development Goals.

- Regarding sustainable development goals, Guyana's Prime Minister Mark Phillips, attending the World Sustainable Development Summit, stressed the imperative of bridging the gap between words and actions to address serious global issues. The summit underscored the necessity for a balanced approach to natural resource utilization to prevent further deterioration of the Earth's carrying capacity. Addressing global warming and climate change requires improvements in consumption standards.
- Another important point made during World Sustainable Development Summit, 2024 was financial or fiscal strength should not be the determinant of use and exploitation of resources like water, petroleum, electricity. Here the relevance of Mahatma Gandhi's timeless statement is highlighted, as referenced by the Vice President of India at the summit, emphasizing, "This earth can satisfy the needs of people, but not their greed."

Necessity of Sustainable Development Goals:

- The Sustainable Development Goals (SDGs) framework, also known as Agenda 2030, endorsed by 193 United Nations countries on September 25, 2015, marked its eighth anniversary last year. With almost a decade elapsed, it's natural for national governments worldwide to question their progress in adhering to the principles of sustainable development. This concern was a prominent topic at the United Nations General Assembly conference held in September last year. The discussions delved into the impact of the COVID-19 pandemic on SDG efforts, exploring the obstacles it created and how they can be solved.

Lingering Impact of COVID-19:

- Any predictions that Goal 1 would be achieved by 2030 have been upended. When the pandemic struck, there had been steady progress on reducing global poverty even though the no poverty target was not on track to be achieved. The combined crises have pushed an additional 75–95 million into extreme poverty. Roughly 575 million people will still be in extreme poverty in 2030,68 with poverty particularly entrenched in sub-Saharan Africa.
- The COVID-19 pandemic is still having a profound impact on progress toward the Goals. Beyond costing more than 15 million lives globally, it has slowed, disrupted or temporarily reversed progress across the Goals. The pandemic resulted in losses of jobs, livelihoods, incomes and remittances. In 2022, the total hours worked globally remained 2 per cent below the pre-pandemic level.

Impact of Conflicts:

- Compounding the effects of the pandemic is the highest level of State-based armed conflict since 1945. By the end of 2020, around two billion people were living in conflict-affected countries. In 2021, the number of refugees and internally displaced persons was the highest on record at 89 million, and, for the first time, global military expenditure exceeded \$2 trillion. The war in Ukraine is causing immense suffering and loss of life and triggering large movements of people – while wreaking havoc in many parts of the global economy and driving up inflation, with huge spikes in the price of food and energy. Besides the large number of military casualties, as of January 2023 approximately 7,000 civilians have been killed and more than 11,000 injured. There are more than 8.1 million refugees, most of them women and children as well as 5.3 million people internally displaced in Ukraine. Conflict and unrest are barriers to progress towards the Sustainable Development Goals in many countries beyond the war in Ukraine, including in Afghanistan, Ethiopia, Venezuela and the Sahel region of Africa among others. Between March and May 2022, approximately 26.5 million people in the Sahel region faced a food and nutrition crisis.

Women Empowerment and SDGs:

- Gender equality and clean water and sanitation are the 5th and 6th Sustainable Development Goals to be achieved by 193 countries of the

world. Although the goal of empowerment of women and adolescent girls has been raised vigorously in recent years by global forums, women working in the unorganized sector and migrant labor women are still facing the brunt of economic discrimination despite claims of getting equal pay to men. In many Islamic countries, efforts are still made to reinforce fundamentalist traditionalist patriarchal values to create barriers for women's education. Nigeria's Boko Haram organization, including the Afghan Taliban, is active in this regard. Women refugees still face greater challenges during civil wars, ethnic conflicts, natural disasters. Along with sexual exploitation, refugee and migrant women have had to suffer the painful consequences of sexual slavery. Even in the participatory campaigns that have been run for women's empowerment in global organizations, the goal of sustainable development will not be achieved merely by providing a better place to the upper and elite class women. National governments have more work to do than ensure women's participation in top positions in the G20 or BRICS or any other organization. Similarly, regarding the education system, nations will have to think seriously about how to make it employable, how to break the digital divide and other class divisions in the field of education.

Actions Necessary to Overcome Energy Crisis:

- Affordable and clean energy, decent work and economic growth are also set as sustainable development goals. Countries around the world today need to be proactive in becoming low carbon economies, eliminating fossil fuels and thermal power plants like European countries, and making positive alliances to make renewable energy an established global practice. In this direction, the India-led International Solar Alliance and the Hydrogen Council formed at the global level a few years ago can play an important role. Countries will have to take measures to increase research work in this area.
- All the countries of the world have a desire to become the fastest growing economy, India also has the same desire. Union Government has expressed its intention to make the country a 5 trillion dollar economy. It needs to be noted here that it is difficult to ensure sustainability of economic growth without providing proper working conditions, wages, social security, insurance to workers and without laying emphasis on balanced development of all sectors of the economy including primary. There remains a constant need for radical reforms to strengthen the sectors which are considered the backbone of the Indian economy
- Industry innovation and infrastructure need to be channeled globally and regionally in a way that benefits future generations. This sustainable development goal will be achieved when developed and developing countries abandon protectionist tendencies in economic and other activities, give proper protection to intellectual property rights, and form partnerships for global research and development. Along with this, it also becomes necessary to eliminate inequality and discrimination, whether it is the issue of Black Lives Matter or regional disparities.
- The speed at which urbanization has increased in the world today makes it clear that in the coming time, most of the world's population will be in cities. The burden on resources is also increasing in these cities, which are considered as big centres of facilities. It has become necessary for all the countries of the world to pay attention to the sustainability of cities to save urban floods, eroding wetlands, extinction of animals and plants. Similarly, to achieve the sustainable development goal, a strong strategy to deal with the impact of climate change is necessary. With climate change and degradation of biodiversity, all sectors including agriculture, industry, health are being negatively impacted. In such a situation, the conflict between environment and development will have to be resolved.
- In this direction, it is necessary to resolve ocean disputes, build consensus for the development of blue economy, protect the oceans from illegal fishing, piracy, marine garbage and plastic pollution, and the impact of global warming on the oceans. Nations need to come together unconditionally to tackle endangered marine biodiversity. It is necessary to do this from the United Nations platform. All national laws should also contain a provision for commitment to ocean protection.
- The way multilateralism is eroding from the world today, there is a need to strengthen faith and trust in global organizations, but at the same time, global organizations will also have to try to make their role fair, transparent and accountable so that There should be a sense of credibility for him in the minds of the nations. The availability of global peace and justice depends on the efficiency of these institutions and for this, global partnerships among nations are necessary. Global healthcare infrastructure, renewable energy, global disaster management, global peacekeeping alliances are many other areas where partnerships are necessary for global inclusive growth.



Interim Budget 2024-25: Balancing Social Justice & Development

The budget serves as a tangible expression of the public's aspirations in a welfare-oriented country. Annually, as the budget is presented, the nation eagerly anticipates the integration of developmental objectives with a commitment to social justice and economic vision. Eyes are fixed on the sources of financial resources that will fuel the country's economy, and the envisioned economic environment aimed at establishing development standards across all sectors.

In this series, Finance and Corporate Affairs Minister Smt. Nirmala Sitharaman presented the Interim Budget 2024-25 in the Parliament on 1 February with the mantra of 'Sabka Saath, Sabka Vikas and Sabka Vishwas' and the whole nation's vision of 'Sabka Prayas'. Several aspects were discussed in this budget. The budget underscores the importance of social justice, a principle ingrained in the country's Constitution, where governments are entrusted with ensuring social, economic, and political justice. The Central Government has advocated for the 'Welfare of the poor, Welfare of the country,' concentrating on uplifting four segments: the poor, women, youth, and Annadata (farmers). Over the past decade, the government's initiatives have successfully lifted 25 crore people out of multidimensional poverty. Notably, Rs 34 lakh crore has been directly transferred into bank accounts through PM-Jan Dhan accounts, resulting in substantial savings of Rs 2.7 lakh crore. The PM-Swanidhi program has provided loan assistance to 78 lakh street vendors, with 2.3 lakh vendors benefiting from loans for the third time. A dedicated focus on the development of Vulnerable Tribal Groups is evident through the PM-Janman Yojana. PM-Vishwakarma scheme promises end-to-end support for artisans and craftsmen. Despite these targeted initiatives, common taxpayers find no relief in this interim budget, as there are no changes in the tax slab. The corporate tax has been reduced to 22%.

Special focus on farmer welfare:

➤ In this budget, special focus has been given on the welfare of Annadata. Under PM-Kisan Samman Yojana, financial assistance has been provided to 11.8 crore farmers, while under PM-Fasal Bima Yojana, crop insurance has been provided to four crore farmers. 1,361 mandis have been integrated under the Electronic National Agriculture Market (e-NAM). This has provided services to 1.8 crore farmers with procurement worth Rs 3 lakh crore. Ashok Dalwai Committee has also been constituted by

the Indian government to give recommendations on this issue.

➤ This interim budget will make the country self-reliant in oilseed production and provide incentives for the use of Nano-DAP and dairy development. The government is providing financial support to 11.8 crore farmers and crop insurance protection to 4 crore farmers. Important decisions to strengthen the storage and supply chain have been made. After nano Urea, nano DAP will be used on various crops in all agro-climatic zones. India is the world's largest milk producer but the milk productivity of dairy animals is low. This budget has focused on preparing programs to help dairy farmers. Initiatives are being taken to control foot and mouth disease.

Focus on strengthening Women Power:

➤ Emphasis on women power was evident in the interim budget presented on 1st February. Finance Minister said that 30 crore Mudra Yojana loans have been given to women entrepreneurs, which has led to their economic empowerment. Enrolment of women in higher education has increased by 28 percent. The government is committed to establishing gender justice and equality in higher education and other levels of education. 43 percent enrolment of female students and women in STEM courses is the highest in the world. The concept of 'STEM' (Science, Technology, Engineering and Mathematics) was introduced by the 'US National Science Foundation' (NSF) in the year 2001. The organization first used 'STEM' to refer to careers in curriculum that integrate knowledge and skills. It is noteworthy that India is one of the countries with the largest number of scientists and engineers. The growth of 'STEM' has accelerated significantly in the last few years. The budget states that to combat cervical cancer, emphasis will be laid on vaccination of girls aged 9 to 14 years.

Focus on housing facilities:

➤ As per the interim budget 70% houses have been given to rural women under the PM-Awas Yojana. Despite Covid related challenges, the target of three crore houses under PM-Awas Yojana (Rural) will be achieved soon. A target of 2 crore additional houses will be taken in the next five years. The current deadline of PM Awas Yojana is till December 2024. Due to falling short of its target, the government extended

this scheme for five years. The budget for PM Awas Yojana was increased by 66% in the last budget. The expansion of the PM Awas Yojana was announced in the interim budget. PM Awas Yojana was launched in June 2015 with the objective of 'Housing for All'.

Emphasis on solar energy:

- In the interim budget 2024-25, the intention has been expressed to bring activism in the field of renewable energy by promoting solar energy along with installation of solar system on the roof (rooftop solarization) and free electricity. By installing rooftop solar system, 1 crore families will be able to get up to 300 units of free electricity every month. Due to this, each family is expected to save Rs 15,000 to 18,000 annually. Finance Minister emphasized the implementation of the PM Suryodaya Yojana, as announced by PM Narendra Modi on January 22, 2024. Under this initiative, one crore houses are slated to receive 300 units of free electricity every month. The scheme specifically targets poor and middle-class individuals, aiming to alleviate the burden of hefty electricity bills by installing solar panels on their rooftops. A key feature of the scheme is its potential to enable households to not only benefit from the free electricity but also to sell any surplus electricity generated. The overarching goal is to generate 40 thousand MW of electricity by the year 2026.

Expansion of Ayushman Bharat Scheme:

- In the interim budget 2024-25, the central government introduced a significant expansion of health care coverage under the Ayushman Bharat scheme. Notably, the Ayushman Bharat scheme, also recognized as Pradhan Mantri Jan Arogya Yojana, now includes all Asha workers, Anganwadi workers, and assistants. These vital healthcare contributors will receive the benefits of the scheme, which offers free treatment up to Rs 5 lakh annually for eligible families.
- The Ayushman Bharat scheme encompasses both government and private hospitals across the country, emphasizing inclusivity. It covers not only the treatment period but also extends support by providing expenses for tests a week before admission and up to 10 days after discharge.

Focus on agriculture and food processing sector:

- The interim budget states that 38 lakh farmers have benefited from the Pradhan Mantri Kisan Sampada Yojana and 10 lakh employment opportunities have been created. Ministry of Food Processing Industries (MoFPI) is implementing a comprehensive scheme – Pradhan Mantri Kisan Sampada Yojana (PMKSY) since 2017-18 across the country. PMKSY components are a

comprehensive package of schemes, aimed at creating modern infrastructure with efficient supply chain management from farms to retail outlets. It promotes the growth of food processing sector in the country, helps in providing better prices to farmers, creates employment opportunities especially in rural areas, reduces wastage of agricultural produce, increases processing levels, and improves the export of processed foods. A fund of Rs 1 lakh crore will be set up with 50-year interest free loan. This fund will provide long-term financing or refinancing at low or zero interest rates. A new scheme will be launched to strengthen deep-tech technology for defense purposes and accelerate self-reliance.

Focus on infrastructure and railway structure:

- In this interim budget, the outlay for capital expenditure for infrastructure development and employment generation has been increased by 11.1 percent to Rs 11,11,111 crore. This will be 3.4 percent of the gross domestic product (GDP). To improve logistics efficiency and reduce costs, three major Economic Rail Corridor programs have been identified under PM Gati Shakti. Energy, Mineral and Cement Corridor Port Connectivity Corridor

Focus on green energy:

- The interim budget shows commitment to the development of green energy. Coal gasification and liquefaction capacity of 100 MT will be set up by the year 2030. Phased mandatory blending of Compressed Biogas (CBG) with Compressed Natural Gas (CNG) for transportation and Piped Natural Gas (PNG) for domestic purposes will be mandated.

Achievements of Civil Aviation Sector:

- This interim budget states that the number of airports in the country has doubled to 149 in the last 10 years. More cities have been connected by air routes under the UDAN scheme and 570 new air routes are taking 1.3 crore passengers to their destinations.

Focus on Tax scheme:

- Under the new tax scheme, there is now no tax liability for taxpayers with income up to Rs 7 lakh. The preemptive taxation limit for retail business has been increased from Rs 2 crore to Rs 3 crore. Similarly, for businessmen eligible for preemptive taxation, this limit was increased from Rs 50 lakh to Rs 75 lakh. The corporate tax rate has been reduced from 30 percent to 22 percent for existing indigenous companies and for some new manufacturing companies this rate has been reduced to 15%. In the year 2024-25, the total expenditure is estimated to be Rs 30.80 lakh crore and the total expenditure is Rs 47.66 lakh crore.



India's Focuses on Strong Relations with Latin American Countries

India's Foreign Minister Dr. S. Jaishankar emphasizes the need for India and Latin America to set a goal of achieving an annual bilateral trade of \$100 billion by 2027. Currently, the trade between these regions stands at \$50 billion for the year 2022-2023. Notably, India's exports to Brazil alone amount to \$10 billion, which is twice the value of what is exported to Japan. To achieve this ambitious target, India must diversify its trade, seeking markets in new areas. The key lies in formulating policies that align with the demand of these markets, ensuring a strategic approach to boosting trade in the coming years under its foreign trade policy.

➤ In recent times Latin American countries have shown interest in taking Vande Bharat trains from India. This includes countries like Chile, Argentina, Brazil. The central government has also been seen setting targets accordingly. Indian Railways is also working towards becoming a major exporter of Vande Bharat trains to Europe and South American countries by 2025-26. India is also engaged in agreements for lithium supply with Latin American and South American countries (Argentina and Chile). These two Latin American countries are responsible for about 30 to 35 percent of the global supply of lithium. Chile has 11 percent of global lithium reserves. Keeping this in context, the Indian government is strengthening relations with Latin American countries to get access to Lithium, also known as White Gold.

Historical Background of India-Latin American Countries Relations:

➤ Since the 1960s, India had initiated contacts with Latin American countries. Cold War politics was the reason for India's late involvement with many regions of the world, however since the 1950s, India, as a responsible nation, has been supporting the rights and self-determination of the countries of Asia, Africa and Latin America. Indian Prime Minister Jawaharlal Nehru visited Mexico in 1961. Mexico was the first Latin American country to recognize India after its independence and established diplomatic relations in 1950. Mexico's wheat variety Sonora played an important role in India's Green Revolution.

➤ Indira Gandhi's long visit to eight Latin

American countries in 1968, primarily Brazil, Chile, Uruguay, Argentina, Colombia and Venezuela, is a high point of Indian diplomacy with the region. In October 1968, Indian Prime Minister Indira Gandhi visited Venezuela. Both the countries decided to strengthen mutual relations. The few subsequent Prime Minister-level visits to the region have been primarily for multilateral programmes. There have been a few visits by Indian Presidents and Vice Presidents to Latin America in recent decades. The three Foreign Ministers of Chile, Venezuela and Cuba, representing the Community of Latin American and Caribbean States (SALEC), met the External Affairs Minister of India in August 2012. The joint declaration marked a new beginning in India's relations with the pan-regional organization that brings together all thirty-three countries under one umbrella. In this sequence, India also got the status of observer member of the Dynamic Pacific Alliance, which includes Mexico, Colombia, Peru and Chile.

Importance of Latin American region:

➤ The collective GDP of the Latin America region is \$4.9 trillion and 600 million of the world's population lives in this region. According to the report of the United Nations Economic Commission for Latin America and the Caribbean, in the year 2022, Latin America had attracted foreign direct investment of \$ 224.57 billion, which was the highest in any region of the world. An increase of 55.2 percent was recorded in FDI to Latin America in 2022. Brazil, Mexico and Chile played a major role in this. Brazil alone attracted 41 percent FDI while Mexico and Chile attracted 17 percent and 9 percent respectively. Latin America is an economically dynamic region. The region is economically profitable due to its political stability, prevalence of democratic structures, active entrepreneurial class, and youth population. More than half of South America's population is under the age of 30, which shows the status of the working population.

➤ Many countries in the Latin America and Caribbean countries (LAC) region are major centers of agricultural production and have surplus agricultural products available for export. This is the reason why this region is called the Global Bread Basket. Indian companies

can set up joint ventures with countries in the LAC region for the cultivation of pulses and food grains. Indian companies can also invest in storage areas here to prevent wastage of agricultural products. Indian companies can also share best practices and do research work together in the field of dairy farming, seeds and pulses cultivation.



Bilateral trade between Latin America and India:

- The LAC (Latin America and Caribbean countries) region consists of 43 countries. These include Brazil, Argentina, Peru, Chile, Colombia, Ecuador, Guatemala, Venezuela, Panama and Cuba and these countries are important economic and trade partners of India. Total trade between India and LAC countries during 2014-15 was Rs 38.48 billion.
- Bilateral trade in 2015-16 was \$25.22 billion and \$24.52 billion in 2016-17 and increased to \$29.33 billion in 2017-18. This trade was affected due to large fluctuations in crude oil prices.
- Trade between the two regions was worth \$50 billion in 2022-2023 and India's exports to Brazil were worth \$10 billion. India has been exploring the possibility of a preferential trade agreement as well as a free trade agreement with Mercosur, an organization of South American countries, for some time. It is noteworthy that

India has a preferential trade agreement with the Latin American country Chile, which needs to be strengthened.

- India is determined to strengthen relations with Latin America and sees Guatemala as a gateway to Central America with the largest population and largest economy. India has invited Guatemala to join the International Solar Alliance. Guatemala has supported India's membership of the United Nations Security Council for the year 2021-22 and India will cooperate with Guatemala for its membership for the year 2031-32. The visit by the Indian Vice President to Guatemala, Panama and Peru in 2018 was seen as a link to building stronger ties with Latin America. The visit was described by the Government of India as an effort to address the 'high level of lack of engagement' with this important region.
- Brazil is one of India's most important trading partners in the region (Latin America and the Caribbean), with bilateral trade between the two countries expected to grow to \$15.2 billion in 2022. Chile is India's fifth largest trading partner in the Latin American region. Copper accounts for more than 85 percent of imports from Chile. India should diversify its business to make it stronger. To further strengthen bilateral relations, Chile has already announced that it will allow visa-free entry to Indian citizens holding a valid US visa. Due to India's capability and strength in the field of information technology, Indian IT companies are also setting up joint ventures in Latin America and the Caribbean region.

More Focus for the Pharma Sector:

- Since India has lead in the pharma sector & medicines are a major constituent of the exports from India to Latin America and Caribbean countries. The share of medicines exported from India for the imports of these countries is more than three percent. Some Indian pharma companies have also established their production units in Latin America and Caribbean countries. Apart from supplying medicines to the local areas, these companies also export medicines outside the region to the US and other countries. This is encouraging low-cost health services in LAC countries. Export of generic medicines from these regions to other countries is increasing.



Rationale for Regulating Live-in Relationships

Live-in relationships pose a significant challenge in India's social system, influencing crucial institutions such as family, marriage, and kinship. In the context of a democratic country like India, this issue becomes a complex interplay between the principles of consent and established social moral norms. Although necessary laws have been enacted and upheld to safeguard the rights of every citizen, there is a pressing need to strike a balance between individual rights and maintaining social order. On this basis, the merits and demerits of the Uniform Civil Code and live-in relationships were identified in different states of India. By assessing the legal framework and social implications, the aim is to navigate a path that respects individual freedoms while also preserving the fabric of societal norms.

- Living together in a house for a long time without getting married is called live-in relationship. There is no separate legal definition of live-in relationship written anywhere. No law related to this has been passed even in the Parliament of India. In simple language, it can be called living together under one roof without marriage of two adults of their own free will. Many couples stay in live-in relationships so that they can decide whether both are compatible enough to get married or not. Some stay because they are not interested in traditional marriage arrangements.

Highlights of Uttarakhand's new law on live-in relationship:

A report has been presented by the UCC Committee before the state government of Uttarakhand has recommended adopting a balanced approach on live-in relationships. The main recommendations of this committee on live-in are part of the Uniform Civil Code Bill are as follows:

- This committee has clearly said that a live-in relationship can be approved but for this the girl's age should be 18 years or more and she will have to get a registration done for the live in relationship. This will not be a requirement for those above 21 years of age.
- Uttarakhand's UCC Bill says that anyone living in a live-in relationship will have to go to the district registrar and get registered. Boys and girls below 21 years of age living in such relationships will have to take parental consent

for registration. If a couple is living in a live-in relationship for more than a month without informing, they can be sentenced to three months in jail or a fine of Rs 10,000.

- The information given for registration will be sent to the in-charge of the concerned police station. The station in-charge will check whether the information is correct or not. If wrong information is given during registration, then if found guilty, the punishment can be up to three months in jail or a fine of Rs 25,000 or both.
- According to the bill, such a live-in relationship will not be registered or considered valid if there is a family relationship or blood relationship between the two. Apart from these, if either of them is a minor then it will also not be considered valid. If one of the two is already married and is living with someone in a live-in relationship, then that will also be considered illegal. A live-in relationship will be considered valid only when both partners agree to it. If someone is kept together by deception, force or intimidation, then that will also be considered illegal.
- When the case of live-in relationship went to the Supreme Court, the Supreme Court spoke in favor of child rights and the legitimate rights of children. It is not the fault of a child born from a live-in relationship that his parents did not marry as per religious customs and legally. Such children should be considered legitimate and should not be viewed in a negative light in society. In keeping with this decision of the Supreme Court, the UCC Bill of Uttarakhand states that if a child is born during a live-in relationship, it will also be considered legitimate. Besides this, if the relationship breaks, the woman can go to court and demand maintenance. According to the bill, if both the partners or one of them wants to end the live-in relationship, then they will have to give a declaration.
- The government of Uttarakhand has thoughtfully made this provision. In fact regarding the issue of live-in relationships, there are several things that must be kept in mind for instance the possibility of adultery. Further, it is also important to handle the question of the legitimacy of children born from live-in

relationships while simultaneously including questions related to payment of maintenance. A major concern, which cannot be ignored in the aspect of live-in relationships is the possibility of love jihad due to inter-religious contacts. When couples from different religions live together without thinking, they have to face many challenges like differences in religion, thoughts, beliefs, worship methods, and food-related matters. In such a situation, the feeling of adjustment and accommodation gets broken in a short time. The possibility of many negative tendencies like blackmailing after a live-in break-up cannot be ruled out.

- Although Article 19 of the Constitution gives the right to live and settle anywhere under right to freedom. The practice of a live-in relationship cannot be given the right to jeopardize well-established marital traditions. Therefore, the Uttarakhand government has made registration mandatory in cases of live-in relationships so that such couples do not face any legal hurdles in taking a house on rent to live somewhere. Besides, this will also help in identifying those who take live-in relationships seriously through registration.

Legal basis of live-in relationship in India:

- In 1978, in the *Badri Prasad vs. Director of Consolidation* case, the Supreme Court had observed live-in relationships as legal for the first time. Any adult couple is free to live together or get married. After this decision, live-in-relationship got legal recognition in India. Live-in relationship has its legal roots in Article 21 of the Constitution. Marrying one's own free will or living in a live-in relationship with someone cannot be considered separate from Article 21. Along with this, such a relationship will not be considered live-in, in which the couple sometimes stays together and sometimes separate or gets separated after living together for a few days.

Rights of couples living in live-in relationship:

The Parliament of the country has not made any law on live-in relationships. The Supreme Court, through its decisions, has given legal status to live-in relationships.

- **Right to protection of a child born:** A child born from a live-in relationship has the right to protection from the Indian judiciary.
- **Right to maintenance for female partner:** Under Section 125 of CrPC, married women have the right to maintenance. Under this section, live-in women also have the right to maintenance.

- **Rights in ancestral property to the child born:** In the *Balasubramaniam Vs Surattayan* case, the child born from a live-in relationship got legitimacy for the first time. During the case, the Supreme Court observed that if a man or a woman lives together for many years, then it will be considered marriage under Section 114 of the Evidence Act. Therefore, a child born in a live-in will also get legitimacy and will also get rights in ancestral property.

Comparison between UCC of Uttarakhand and Goa:

- The Uniform Civil Code Bill of Uttarakhand has been considered better than the law made 157 years ago in Goa. Under UCC in Goa, where each husband and wife have been given equal rights on the land owned or acquired. In Uttarakhand, women have been given equal rights to property like men.
- It has been claimed that there are different rules for Catholic Christians and other communities in Goa. On the contrary, equal rights for all have been proposed in the UCC of Uttarakhand. For other communities in Goa, only civil registration of marriage will be accepted as certificate. Whereas in Uttarakhand, marriage registration has been made mandatory for everyone and declaration of live-in relationship is necessary.
- Catholics married in the UCC Church of Goa are excluded from UCC divorce. Whereas in Uttarakhand, the UCC bill clearly states that second marriage is not possible while the husband and wife are alive. Whereas the law of Goa says that Hindu men can marry for the second time if the first wife does not produce a child.
- Goa law also says that Muslim men whose marriages are registered cannot practice polygamy, there is no provision for verbal divorce.
- Thus, in keeping with the reasoned decisions of the Supreme Court, the Uttarakhand government has not shown any harshness in rejecting live-in relationships outright but has made provisions to prevent it from becoming an unfair practice. The government of Uttarakhand has considered it necessary to ensure transparency and accountability of couples in matters of live-in relationship.



Supreme Court Declared Electoral Bonds Unconstitutional: Significance & Impact

The transparency of donations received by political parties has become a significant topic in India's electoral system. Ever since, the electoral bonds have been introduced for making donations to the political parties, there has been ongoing discussions emphasizing the need for disclosure of the donor's name and the donated amount. Critics argue that failure to reveal this information could potentially violate the right to information of individuals and voters.

Keeping these things in mind, Justice Sanjeev Khanna, Justice BR Gavai, Justice JB Pardiwala and Justice Manoj Mishra in the bench led by Chief Justice DY Chandrachud have declared the Electoral Bonds Scheme unconstitutional. The Supreme Court bench has said that people have the right to know where the money of political parties comes from and where it goes. The Supreme Court has struck down the Electoral Bond Scheme and said that the Right to Information should not be encroached upon in matters of political donations to deal with black money.

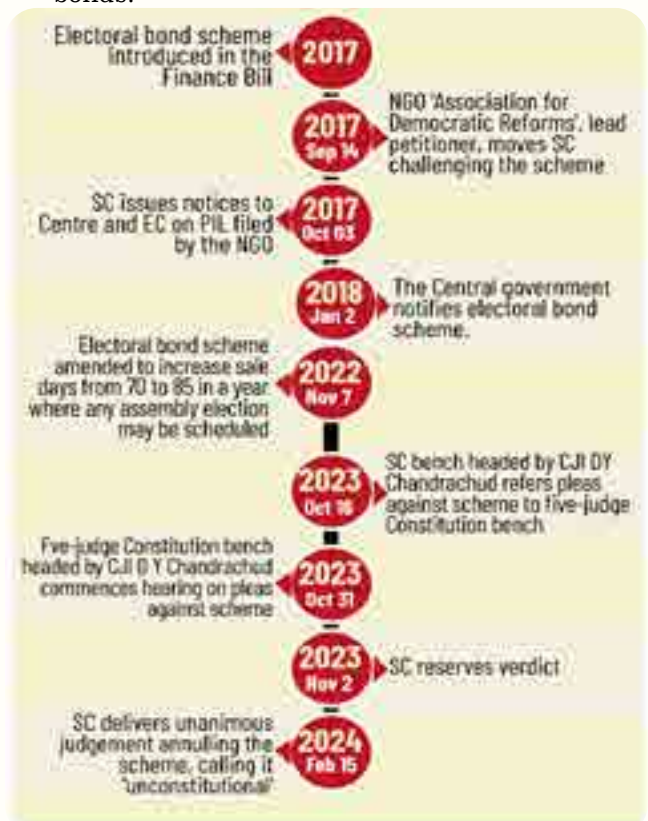
Instructions for sharing data on electoral bonds:

- The Supreme Court has ordered to immediately stop the electoral bonds, saying, "State Bank of India should give all the details of the contributions made so far through electoral bonds to the Election Commission by March 31." The court also directed the Election Commission to share the information on its website by April 13. Through this, transparency will be ensured in matters of political donations.
- The Supreme Court, while hearing the petitions challenging the validity of the Electoral Bond Scheme, has clearly said, "Violation of the Right to Information for the purpose of curbing black money is not justified. Electoral Bond Scheme is a violation of the Right to Information as well as freedom of expression of political parties. Not disclosing information about funding by political parties is contrary to the purpose." The Supreme Court has held that the Electoral Bond Scheme is a violation of Article 19(1)(A) of the Constitution and on this basis has declared it unconstitutional.

Electoral Bonds Scheme:

- The Government of India notified the Electoral Bond Scheme, 2018 vide Gazette Notification No. 20 dated January 2, 2018. As per the

provisions of the Scheme, Electoral Bonds can be purchased by any person who is a citizen of India or incorporated or established in India. A person can purchase electoral bonds either singly or jointly with other persons. Political parties registered under section 29(a) of the Representation of the People Act, 1951 (43 of 1951), which have secured at least one percent of the votes polled in the last general election to the House of the People or election to the State Assembly were made eligible to receive electoral bonds.



- The Central Government through a provision made the period of electoral bonds for only 15 days during which it can be used only for donations to political parties registered under the Representation of the People Act. Under the scheme, electoral bonds of any denomination of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh and Rs 1 crore can be purchased from specified branches of State Bank of India.

Effect of declaring electoral bonds unconstitutional:

- The lack of transparency in the electoral bond scheme has obscured information about the purchasers and recipients of bonds, leaving the amounts in question unknown. The recent Supreme Court decision is anticipated to bolster the right to information, potentially curbing the unchecked flow of undisclosed corporate funding through electoral bonds.
- The petitions filed against electoral bonds said that it was a violation of the Right to Information and corporate funding is against free and fair elections. In *Kihoto Holohan vs. Jachilhu* case, democracy, rule of law and free and fair elections were considered as the basic structure of the Constitution. The decision of the Supreme Court is considered important to protect all these.
- According to the report of Association for Democratic Reforms (ADR), an organization that monitors election expenses and transparency, BJP received 90% of corporate donations in 2022-23. In 2022-23, national parties had announced to receive Rs 850.438 crore in donations. In this, BJP got Rs 719.85 crore and Congress got Rs 79.92 crore. The justification for the Supreme Court's decision is believed to be that no single party should benefit from political donations. Since India has a multi-party system, it is important that all parties have equal opportunities.

Concerns related to electoral bonds:

- Electoral bond schemes have been introduced by different people with different pros and cons. The first concern identified was that there was no public record of who purchased each bond and to whom it was donated. ADR says this makes electoral bonds 'unconstitutional and illegal' as the country's taxpayers are not aware of the source of donations.
- There is also a rule under this scheme that whatever money is going to political parties and whatever person or organization is sending that amount, only SBI will have information about it. Apart from this, no person or party is aware of it.
- Further, there was a system as per which if a person wanted to donate money to any political party, then first they must go to a selected and only branch of the State Bank of India. There they will give money to the bank and give information about the party to whom the money has to be paid. After this, SBI will take the money and issue them a bond of the same amount.
- Then they will go to that party with that bond and deposit that bond. After this, that party will encash that amount within 15 days. If this time limit is exceeded then that money will not go to

the party's account but the entire amount goes to the account of the Prime Minister's Relief Fund.

- Critics say that electoral bonds are also not completely anonymous as public sector banks have complete records of who purchased the bonds and donated them to which party. In such a situation, the ruling party can easily collect this information and then 'use' it to influence the donors. ADR believes that 'Electoral bonds like this give an unfair advantage to the ruling party.
- Questions were raised over the transparency of the bonds, following which Congress, Communist Party of India (Marxist-CPIM) and Association for Democratic Reforms (ADR) challenged the scheme in the Supreme Court, arguing that it would allow political parties to earn untold amounts of money. Besides, this scheme also violates the Right to Information, a fundamental right by the Indian Constitution.
- On the Supreme Court's decision on petitions challenging the validity of the electoral bond scheme, petitioner Jaya Thakur said, "The court said that how much money and who gives money to political parties should be disclosed. In 2018, when this electoral bond scheme was proposed, it was said that you can buy bonds from the bank and give the money to the party you want to give but your name will not be revealed, which is against the Right to Information. Disclosure should be made.
- The petitioner also argued that this scheme involved shell companies. The central government defended the scheme, saying the money was being used for political financing through proper banking channels. The government further argued that the identity of donors would remain confidential. It is necessary to keep it so that they do not have to face any retaliation from political parties. The central government said that electoral bonds would ensure more transparency because whatever money political parties receive would come through bank accounts and black money would be reduced.

Conclusion:

This decision of the Honourable Supreme Court is a welcome step as it will give an opportunity to all political parties to compete equally. From Dinesh Goswami Committee to the reports of RBI and Law Commission, there have been recommendations regarding political donations and reforms in electoral system. In a diverse country like India, multi-party system is the soul of democracy which needs to be maintained for equality and liberty of all political parties.



Hindu Kush Himalayas: Significance and Threats

Experts from The International Centre for Integrated Mountain Development (ICIMOD) called for 'bold action' and 'urgent finance' to prevent the collapse of nature in High Mountain Asia. The organisation in a statement regarded Hindu Kush Himalaya (HKH), one of the most biodiverse regions on Earth, as a 'biosphere on the brink', as 130 global experts arrived in Nepal for the Third Lead Authors meeting of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) nexus assessment.

The researchers described the speed and scale of losses in nature and habitat in the HKH region as 'catastrophic'. "It is almost too late", one of the statement said. HKH is estimated to be warming at nearly two times the average rate of warming in the Northern Hemisphere.

Significance of Hindu Kush Himalayas:

- The Hindu Kush Himalaya, a reservoir of life, culture, and biodiversity, is a microcosm of the world around us and serves as the cradle of clean drinking water for nearly two billion people. It is a geographic juncture where, quite literally, the earth comes together encompassing regions, countries, landscapes, and languages. Spanning across eight countries, four of the world's 36 global biodiversity hotspots are in this region apart from twelve of the global 200 ecoregions, 575 protected areas, 335 important bird areas.
- HKH, which stretches 3,500 kilometres and spans eight countries, is home to most of the snow and ice on Earth outside the poles. At least 12 rivers fan out in every direction across the Asian continent from it.
- **Water Tower of Asia:** HKH region provides essential ecosystem services such as clean water for a third of the world's population. The mountainous and inaccessible environment has earned the region the nickname of "Earth's third pole." The region is also known as the "water tower" of Asia because of the vast amount of water stored as ice and snow, providing the region its source to 10 of its largest rivers
- **Carbon Storage:** Mountain soils are important reservoirs for water, carbon and nutrients that enhance soil fertility. Together with highland wetlands, mountain forests play a significant role in biosphere carbon storage. The HKH region has vast forests, range and shrub lands and therefore plays a major role in carbon storage.

- **Biological Diversity:** The HKH mountains are a treasure trove of biological and agricultural diversity including food, fibre and medicinal plants. The region is rich in medicinal and aromatic plants, different types of mushrooms, fibres such as cashmere, and mountain crops such as amaranths, buckwheat and different types of millet that are in demand in downstream and in global markets. The mountains are also sources of timber, firewood fruits, vegetables, forage plants, and non-timber forest products that support downstream economies. The vast and diverse gene pool, especially wild relatives of important crops found in the HKH region, is vital for science and humanity.



- **Cultural services:** Mountain areas support a large number of cultures. Many of these cultures have rich traditional agricultural knowledge that promotes sustainable production systems. However, these lifestyles are severely threatened by climate and other changes that are taking place. For many of these cultures, mountains play an important spiritual role: they are living forces, sources of power and symbols of the sacred. Additionally, the mountains and mountain cultures attract tourists, who in turn can contribute towards improving local livelihoods. Every year hundreds of thousands of tourists visit the unique HKH landscapes for rest, recreation, and relief from summer heat and urban pollution.

Challenges and threats:

- Positioned at the world's apex, the climate change impacts in the Hindu Kush Region resonate globally, emphasizing the urgent need

to safeguard this vital ecosystem. Climate change and globalization threaten its delicate balance, erasing resources, communities, and centuries-old cultures.

- Around 241 million people live in the Hindu Kush Himalaya region, of whom 31 per cent are food insecure. Several communities in the region faces severe neglect and poverty.
- The region is experiencing rapid biodiversity loss and habitat degradation. Mega-investments, such as the Belt and Road Initiative hydropower development, and regional waterways for economic development and food security present new challenges to efforts aimed at conserving the region's biodiversity resources.
- The IPBES highlights that while protected area coverage in the Asia Pacific region has increased substantially, most protected areas do not effectively accommodate important biodiversity hotspots affected by economic development.
- Despite the efforts of the local as well as many in the international community, the Hindu Kush Himalayas is heading towards accelerating crisis. Seventy per cent of the original biodiversity has been lost over the last century. The declines in nature across this region are so advanced and accelerating so fast, they now pose a threat to the lives of not just animal and plant life, but also human societies.

Steps by the Indian Government:

- Protected Area management in the HKH has been reported to have contributed to conservation over the last few decades. The regional member countries, including India, which are parties to the CBD, have recently doubled their efforts to increase the number and coverage of PA however, a regional assessment of PAs is lacking.
- As per the numbers, the mean retreat rate of Hindu Kush Himalayan glaciers is 14.9 ± 15.1 meter/annum (m/a); which varies from 12.7 ± 13.2 m/a in Indus, 15.5 ± 14.4 m/a in Ganga and 20.2 ± 19.7 m/a in Brahmaputra River basins.
- Various Indian institutes, organizations and universities are monitoring the Himalayan glaciers using both field and remotely sensed data to comprehensively understand the nature of their response.
- The Ministry of Earth Sciences (MoES) through its autonomous institute, the National Centre for Polar and Ocean Research (NCPOR) has been monitoring six glaciers in the Chandra basin (2437 km² area) in western Himalaya since 2013.
- A state-of-the-art field research station 'Himansh' established in Chandra basin and operational since 2016 for conducting field experiment and

expeditions to glaciers. The glacier inventory prepared by NCPOR for the Chandra basin shows that it has lost about 6% of its glacial area during last 20 years and 2.4 meter water equivalent (m w.e.) to 9 m w.e. ice mass during 2013-2021. The glaciers in Bhaga basin lost huge ice mass in the range 6 m w.e. to 9 m.w.e. during 2008-2021. Annual rate of retreat of Chandra basin glaciers vary from 13 to 33 meter/year during last decade.

- The DST's Wadia Institute of Himalayan Geology (WIHG) has been pursuing cryospheric research on different aspects that include glacier dynamics, hydrology and hazards using both satellite data and ground-based observations.
- The National Institute of Hydrology (NIH) has been monitoring the hydrological and hydro – meteorological data at Bhojwasa downstream of Gaumukh since 2000. The volume of flow recorded during these years does not show much variation. NIH is also monitoring two glaciers namely Phuche and Khadung in Ladakh Himalayas since 2010.

Way Forward:

- Setting and preparing National Biodiversity Strategy and Action Plan (NBSAP) of the regional member countries of the HKH. This would consequently contribute to the conservation of mountain ecosystems and sustainable development goals.
- **Transboundary cooperation built on consultative dialogues:** Where sovereign nations have a mutual understanding of the landscape approach has the potential to overcome cultural and historical barriers, tackle common challenges over natural resources, and promote long-term biodiversity conservation and management.
- **Triggering collaboration with a nonpolitical entry point:** This refers to technical collaborations and research on themes of global concern, such as climate change, biodiversity conservation, wildlife management, ecosystem services and valuation.
- Creating a local-national-global cross-border interface for learning and policy influencing. Biodiversity and environmental governance need to bring positive local outcomes and must be supported through subnational and national policy mechanisms.
- **Communicating risk and scientific evidence:** Achievements, lessons, and risks have to be regularly monitored and evaluated, and proactive communication and institutional pathways are required for the uptake of scientific findings for policies.

National Issue

1 Centre Plans to Replace the Indian Stamp Act, 1899

Why in News:

The Indian Stamp Act, 1899 is slated for repeal by the Centre, with plans to introduce a new law governing the stamp duty regime in the country. The Ministry of Finance has proposed the repeal of the Indian Stamp Act, 1899. The new legislation, 'Indian Stamp Bill, 2023,' aims to modernize stamp duty regulations.

What is Stamp Duty?

- Stamp duty is a government tax levied on the registration of various documents, such as agreements or transaction papers.
- The amount is fixed based on the document's nature or a percentage of the agreement value.
- **Levied on Various Instruments:** Stamp duties can be imposed on bills of exchange, cheques, promissory notes, bills of lading, letters of credit, insurance policies, transfer of shares, debentures, proxies, and receipts.
- **Authority and Collection:** Levied by the Centre but collected by states within their territories under Article 268 of the Constitution.

Reasons for the New Bill:

- Many provisions of the Indian Stamp Act, 1899 are considered redundant or inoperative.
- Lack of provisions for digital e-stamping and absence of uniform legislation for stamp duties across all Indian states.

Provisions of the Draft Bill:

- Introduction of provisions for digital e-stamping.
- Inclusion of digital signatures for instruments.
- Proposed increase in penalties, with the maximum penalty amount raised from Rs 5,000 to Rs 25,000 for contravening any provisions of the law.

Indian Stamp Act, 1899:

- A fiscal statute governing tax levied through stamps on transaction instruments
- Instruments include documents creating, transferring, limiting, extending, extinguishing, or recording rights or liabilities.
- A stamp is defined as any mark, seal, or endorsement authorized by the State Government for the purpose of duty.
- Certain instruments or documents are chargeable with amounts specified in Schedule 1 of the Act.

Way Forward:

Considering the demands of the current situation,

it is a welcome step by the government that has drafted a new bill to replace a law that is more than 100 years old. There is a need to make this law more stringent by using modern scientific technologies.

2 PSC Report on Rural Development & Panchayati Raj

Why in News:

A report from a Parliamentary Standing Committee indicates that only 3% of MNREGA job seekers received unemployment benefits.

Unemployment Benefits under MGNREGA:

- Under the Mahatma Gandhi National Employment Guarantee Act (MGNREGA), labourers are entitled to unemployment benefits if they do not find work within 15 days of seeking employment.
- The benefits include a daily unemployment allowance, which is one-fourth of the wage rate for the first 30 days of the financial year and half of the wage rate thereafter.

Discrepancy in Benefit Distribution:

- Despite 7,124 workers being eligible for unemployment benefits over the last five years, only 258 received them, indicating a mere 3% distribution rate.
- A report by the Parliamentary Standing Committee on Rural Development and Panchayati Raj highlighted this issue.

-: Prelims Insights :-

Committees related to Panchayati Raj system:

- ☑ *Balwant Rai Mehta Committee - 1957*
- ☑ *Santhanam Committee - 1963*
- ☑ *Sadiq Ali Committee - 1964*
- ☑ *Ashok Mehta Committee - 1977*
- ☑ *GVK Rao Committee - 1985*
- ☑ *L.M. Singhvi Committee - 1986*
- ☑ *PK Thugan Committee - 1988*

State-Specific Data:

- Karnataka had the highest number of eligible workers (2,467) for unemployment benefits, but none received them.
- Rajasthan followed with 1,831 eligible workers, of which only nine received benefits.
- Bihar, West Bengal, Jharkhand, and Uttar

Pradesh also showed significant discrepancies between eligible workers and actual benefit recipients.

Responsibilities of State Governments:

- State governments are responsible for providing unemployment allowance based on their economic capacity and must make necessary budgetary provisions for it.
- The committee recommended that the Central Rural Development Department ensure coordination with states and Union Territories to ensure fulfilment of statutory obligations regarding unemployment benefits.

Way Forward:

- The Department of Rural Development (DoRD) pledged to address the issue of non-payment of unemployment allowance and compensation for delayed wages.
- The committee was informed of a significant outstanding amount of compensation for late payments, indicating the need for further action and clarification on responsibility for payment.

3

LABHA Scheme

Why in News:

The Odisha government on January 29 announced the launch of LABHA ('Laghu Bana Jatya Drabya Kraya') Yojana. This is a 100% State-funded Minimum Support Price (MSP) scheme for Minor Forest Produce (MFP).

About LABHA:

- Under LABHA scheme, a primary collector (a tribal person) will be able to sell the MFP, collected at the procurement centres by the Tribal Development Cooperative Corporation Limited of Odisha (TDCCOL), at the MSP.
- The State government hopes to bring 30,000 tribal beneficiaries under the scheme.
- The Scheme will eliminate the possibility of distress sale of produce to middlemen and will integrate the efforts with Mission Shakti's Women SHGs (self help groups). These procurement centres will be managed by SHGs and any other notified agencies assisted by TDCCOL.
- The procurement automation system will capture the total collection of MFPs, the details of the primary collectors, and the procurement point.
- TDCCOL will also take up e-tendering to further sales, and explore value addition and processing units.

- The state government has further set up a tamarind processing plant in Rayagada at an estimated investment of Rs. 25 crore. The plant will use tamarind procured through the LABHA Yojana for value-addition

Need for such scheme in Odisha:

- Odisha is home to 62 distinct tribes, including 13 Particularly Vulnerable Tribal Groups (PVTG), showcasing one of the most diverse tribal landscapes in the country. It ranks as the third largest concentration of a tribal population, trailing behind Madhya Pradesh and Maharashtra.
- The Scheduled Tribes in Scheduled Areas constitute approximately 68.09% of the total tribal population in the State.
- Notably, 121 out of the 314 blocks in Odisha have been designated as Scheduled Areas and about 44.70% of the State's geographical expanse falls under the Scheduled Areas classification.

Conclusion:

Tribal Cooperative Marketing Federation of India fixes the MSP for MFP, the benefits had not been reaching the beneficiaries in Odisha for several years. This has impacted the State's large tribal population, which is about 23% of Odisha's total population. The new scheme may help make further inroads into tribal pockets and forest fringe areas.

4

Uniform Civil Code

Why in News:

Uttarakhand has become the first state in independent India to pass a common law on marriage, divorce, inheritance and even live-in relationships between two consenting adults.

About the Bill:

Tribal Population:

- The provisions of the Bill applies to all residents of Uttarakhand except the tribal community which constitutes 2.9% of the State's population.
- Section 2 stipulates that nothing contained in this code shall apply to the members of any Scheduled Tribes within the meaning of clause (25) of Article 366 read with Article 142 of the Constitution of India and the persons and group of persons whose customary rights are protected under Part XXI of the Constitution of India.

Live-In Relationships:

- The Bill imposes an obligation on all heterosexual couples (irrespective of whether

they are residents of Uttarakhand or not) to register their live-in relationships by submitting a “statement” to the concerned Registrar.

- Even if such a relationship is terminated, the Registrar has to be kept informed. In case either of the partners is less than 21 years old, the declaration will also be sent to their parents or guardians.
- Further, a woman is eligible to claim maintenance in case she is “deserted” by her live-in partner.

Marriage:

- Section 4 of the Act states that a valid marriage is that where neither party have “a spouse living at the time of the marriage” thus prohibiting practices such as bigamy or polygamy. The minimum age of marriage will remain the same.
- Marriages that occur after the enactment of the law have to be compulsorily registered within 60 days. This applies to marriages solemnised within the State or outside its territory, provided that at least one party to the marriage is a resident of Uttarakhand.

Divorce:

- No marriage can be dissolved without a court order or else it can attract imprisonment up to 3 years. Grounds for divorce also include religious conversion but not “irretrievable breakdown of marriage”.
- Section 28 prohibits the initiation of divorce proceedings unless one year has elapsed since the date of marriage.
- Claims over Ancestral Property: The Bill abolishes the coparcenary system governing ancestral property under the Hindu Succession Act, 1956. Thus, the same scheme of succession will now apply to both ancestral and self-acquired property for Hindus.
- In the event of intestate succession, the Bill guarantees equal property rights for the spouse, children and parents which is a departure from existing personal laws that limit such rights.

Conclusion:

Any law should be implemented taking into consideration all the stakeholders and should not be merely imposed upon the people. Article 44 of the Constitution (Directive Principles of State Policy) which although not enforceable, obligates the State to strive to implement such a uniform law. The *Minerva Mills v. Union of India* (1980) also emphasises that striking a balance between fundamental rights and Directive Principles of State Policy was part of the basic structure of the Constitution.

5

Corruption Perceptions Index 2023

Why in News:

According to the Transparency International Report, India ranked 93 out of 180 countries on the corruption perceptions index for 2023. Its overall score however, remained largely unchanged.

About Corruption Perceptions Index:

- The Corruption Perceptions Index (CPI) is an index which ranks countries “by their perceived levels of public sector corruption, as determined by expert assessments and opinion surveys.”
- The CPI generally defines corruption as an “abuse of entrusted power for private gain”.
- The index is published annually by the non-government organisation, Transparency International since 1995.

Major findings:

- The index ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and business people. It uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.
- Countries with high scores, such as New Zealand (3) and Singapore (5), maintain their positions at the top of the index globally, followed closely by Australia (14), Hong Kong (14), Japan (16), Bhutan (26), Taiwan (28) and South Korea (32).
- The bottom of the index includes fragile states with authoritarian regimes, including North Korea (172) and Myanmar (162). Afghanistan (162) continues to face one of the worst humanitarian crises in history.

South Asia and India:

- India ranked 93 out of 180 countries on the corruption perceptions index for 2023 as its overall score (39) remained largely unchanged.
- The report notes ahead of the general elections in 2024, India may witness narrowing of civic space, including through the passage of a (telecommunication) bill that could be a ‘grave threat’ to fundamental rights.
- In South Asia, both Pakistan (133) and Sri Lanka (115) grapple with their respective debt burdens and ensuing political instability.
- Bangladesh (149) has emerged from the least developed country (LDC) status, with economic growth supporting a continued reduction in poverty and improving living conditions.
- However the flow of information on the public sector is hindered amidst an ongoing crackdown against the Press.



- Concerning China (76), the country has made headlines with its aggressive anti-corruption crackdown by punishing more than 3.7 million public officials for corruption over the last decade. The report said a closer study of the cases with guilty verdicts found that public officials often use corruption as a way to drive up their income.
- However, the country’s heavy reliance on punishment rather than institutional checks on power raises doubts over the long-term effectiveness of such anti-corruption measures.

Conclusion:

The Asia Pacific region faces a significant 2024 election year, encompassing countries such as Bangladesh, India, Indonesia, Pakistan, Solomon Islands, South Korea, and Taiwan. The 2023 Corruption Perceptions Index (CPI) reveals that despite the anticipation of people actively participating in the democratic process this year

may be marked by minimal progress in addressing and curbing corruption.

6 Controversy over New State Anthem of Meghalaya

Why in News:

Meghalaya government released its national anthem, on the occasion of its 52nd statehood Day on January 21st.

More about the news:

- The two-minute-long anthem features segments in three languages – Khasi, Garo and English. Soon after it was launched, the rumblings of discontent began over the Jaintia or Pnar language not being represented in it.
- On the inclusion of English, the Jaintia Students’ Union accused the state government

of “promoting a foreign language”, and said it should instead “include dialects of all three tribes – Khasi, Jaintia and Garo.”

Societal Structure of Meghalaya:

- Meghalaya is understood to have three major matrilineal communities – Khasis, Garos and Jaintias. But the Jaintias are clubbed along with the Khasis in the state’s Scheduled Tribes (ST) list, along with tribes such as War, Bhoi and Lyngngam
- Together, they make up 14.1 lakh of the state’s population (based on 2011 Census data). The Garos are numbered around 8.21 lakh, with the state’s total population being 29.7 lakh.

Reasons for the controversy:

- Jaintia pressure groups have emphasised their community’s unique history and identity to demand the inclusion of Pnar in the anthem. They emphasise a culture, history and language that is distinct from that of the Khasis.
- **Myth of Ki Hynniew Trep:** It is common origin myth of groups such as the Khyntiam, Jaintia, War, Bhoi and Lyngngam as a unifying factor. It says that seven families lived in heaven and would come down to Earth to cultivate their crops. One day, they found themselves unable to return because the great tree which connected their homes to Earth was cut off. They set up homes on Earth in seven different huts, and these were the ancestors of the different groups.
- In an apparent identification with their local environment the Khasi are internally differentiated into five distinct groups namely Khyntiam, Pnar/Jaintia, Bhoi, War and Lyngngam. However, in recognition of their common ancestry and oneness as a people, they collectively define themselves as the children of U Hynniew Trep.

Conclusion:

The anthem’s languages were selected based on the Meghalaya State Language Act, 2005. The act designates English as the state’s official language and also designated Khasi as the ‘Associate Official Language’ for all purposes in the District, Sub-Divisions and Block level offices. Garo language was given the same status. Any changes to rules for the community might encourage other communities to put forth their uniqueness. A balance must be maintained so that the uniqueness of each community is recognised while maintaining the state stability.

7 Anti-Cheating Act, 2024

Why in News:

President Droupadi Murmu has given assent to the Public Examinations (Prevention of Unfair Means) Bill 2024 on February 13, 2024. The Act aims to check cheating in government recruitment exams.

Objective:

- This Anti-Cheating Measure i.e. the Public Examinations (Prevention of Unfair Means) Act 2024, seeks to prevent use of “unfair means” in public examinations for monetary gains and bring greater transparency, fairness and credibility.

Ambit of Act:

- The public service recruitment examinations conducted by authorities notified by the central government which include,
 - » Union Public Service Commission (UPSC)
 - » Staff Selection Commission (SSC)
 - » Railway Recruitment Board (RRB)
 - » National Testing Agency (NTA)
 - » Institute of Banking Personnel Selection (IBPS)
 - » Departments of the Central government and their attached offices of recruitment.

Significance of Act:

- The act has provisions of punishment for several cheating methods adopted in public examinations either by individual, group of individuals or any institution. It has been provided that, if it is established that offences involving service providers were committed with the consent or connivance of any director, senior management, persons- in- charge of service providers, such person will be held responsible.
- The guilty party will be punished under specific provisions.
- This act also specifies a higher punishment for organized crimes and the attachment (forfeit) of the property of guilty institute involved in organized cheating crime.
- It has also provided for investigation authority. He should not be below the Deputy Superintendent or Assistant Commissioner of Police rank.

Way Forward:

The move came against the backdrop of the cancellation of a series of competitive tests and to reassure the youth that their sincere efforts will not go in vain and their future is safe. This act will act as deterrence for all those anti-legal agents indulged in unfair means and adversely impacting the public examinations.



International Issue



1 Philippines, Vietnam Sign Agreement on Disputed South China Sea

Why in News:

- Recently, Vietnam and the Philippines agreed to cooperate on maritime security in the South China Sea, which is claimed by Beijing claims in its entirety.

Major Agreements:

- Agreements between the two nations encompass various aspects, fostering a comprehensive relationship.
- Both countries aim to establish a comprehensive partnership between coast guards on capacity building, training and exchange of personnel and ships to enhance the agreement on maritime cooperation.
- To expand, facilitate and strengthen trade and investment relations between the countries under the Agreement.
- The two countries also signed a deal on rice sale. Under this Vietnam will supply Philippines 1.5 million to 2 million metric tons (1.6 to 2.2 million U.S. tons) of rice each year at affordable prices.



South China Sea dispute:

- Many countries claim different parts of the sea, and these claims often overlap.
- In particular, China's extensive claims include the Spratly Islands, Paracel Islands, Pratas, Natuna Islands and Scarborough Shoal, major

islands and reef formations in the South China Sea. This has angered competing claimants like Vietnam, Philippines, Taiwan, Malaysia and Brunei.

- China claims by far the largest portion of the territory delimited by its so-called "nine-dash line".

India's Approach Towards South China Sea:

- India's engagement in the South China Sea has been increasing under the current approach. This includes defense cooperation with claimant states, participation in naval exercises, and even arms sales to countries like the Philippines and Vietnam.
- Strategically, India views the South China Sea as critical for ensuring freedom of navigation, given that a significant portion of its trade passes through the Malacca Strait.
- Additionally, India perceives the region as a counterbalance to China's presence in the Indian Ocean and as a platform to advance its "Act East Policy".

Way Forward:

India should work towards developing an overall strategy to interact and engage more as part of its Act East policy with other QUAD members that have equal influence in the region and ultimately, a more meaningful Indo-Pacific strategy should be prepared.

2 India - UAE Bilateral Investment Treaty

Why in News:

Recently, the Bilateral Investment Treaty has been signed and ratified between the Government of India and the Government of UAE.

Highlights of Bilateral Investment Treaty:

- India, in its latest decision, signed and ratified the Bilateral Investment Treaty between India and the United Arab Emirates.
- The approval of the treaty is expected to increase investor confidence, which will increase the inflow of foreign investment.
- This move is expected to have a positive impact on employment generation and encourage increased investment between the two countries.
- This bilateral investment agreement will contribute to realizing the Atmanirbhar Bharat initiative. Its objective is to encourage domestic manufacturing, reduce dependence on imports and promote exports.

- The MoU on Cooperation in the Field of Electricity Interconnection and Trade opens up new areas of cooperation in the field of energy including energy security and energy trade.
- To create a framework for comprehensive cooperation, including investment cooperation in the digital infrastructure sector. It will also facilitate sharing of technical knowledge, skills and expertise.



- Cooperation Protocol between the National Library and Archives of the UAE and the National Archives of India. This protocol will shape extensive bilateral cooperation in this field including restoration and preservation of archival material.
- MoU on Development of National Maritime Heritage Complex (NMHC) which will promote engagement between the two countries, aimed at supporting the Maritime Heritage Complex at Lothal, Gujarat.
- The agreement on interlinking of UPI (India) and ANI (UAE) will facilitate seamless cross-border transactions between the countries.
- Domestic Debit/Credit Card Agreement to integrate RuPay (India) with Jaywan (UAE). An important step in building cooperation in the financial sector, this will increase the universal acceptance of RuPay across the UAE.
- In addition to the UAE being among the largest sources of crude and LPG, India is now entering into long term contracts for LNG.

Way Forward:

In the current global scenario, Bilateral Investment Treaties require careful negotiation and implementation while balancing the interests of both

investing and host countries. As India navigates the complex landscape of Bilateral Investment Treaties. It must strike a delicate balance to harness their benefits while minimizing potential risks.

3 WTO's Protest Against Agricultural Subsidies

Why in News:

Recently, India faced WTO pressure on farm subsidies amid protests for minimum support price.

WTO's Agreement on Agriculture (AoA):

- It was designed to remove trade barriers and to encourage transparent market access and integration of global markets.

AoA stands on 3 pillars:

- **Domestic Support:** Subsidies such as guaranteed minimum price or input subsidies which are direct and specific to a product.
 - This can be divided into 3 groups:
 - » **Green Box:** Subsidies which are not or least market distorting. It includes measures such as income-support payments, safety-net programs, payments under environmental programs and agricultural research and development subsidies.
 - » **Blue Box:** These production-limiting subsidies cover payments based on acreage, yield or number of livestock in a base year. Any support that would normally be in the amber box is placed in the blue box if the support also requires farmers to limit production.
 - » **Amber Box:** Almost all domestic support measures that distort production and trade (with a few exceptions) fall into the amber box.
- These supports are subject to limits- "De minimis". This threshold is generally 5% of the value of agricultural production for developed countries, 10% for most developing countries.
- **Market Access:** Market Access requires that tariffs, which have been fixed by individual countries, should be cut progressively to facilitate free trade.
- It also encompasses removal of non-tariff barriers (e.g. quotas on import).
- **Export Subsidies:** Export subsidies are limited to four situations:
 - » Product-specific reduction commitments within the limits.
 - » Any excess of budgetary outlays for export subsidies.

- » Export subsidies consistent with the special and differential treatment provision.
- » Export subsidies other than those subject to reduction commitments provided that they are in conformity with the anti-circumvention disciplines of Article 10 of the Agreement on Agriculture.
- **Special Safeguard Mechanism:** A SSM was designed as a safety valve, allowing developing countries to impose additional (temporary) safeguard duties in the event of an abnormal surge in imports or the entry of unusually cheap imports.

Conclusion:

To attain greater flexibility to offer farm support, India is in the process of pushing for a permanent solution at the upcoming inter-ministerial summit at Abu Dhabi from February 26 to 29. India is not only pushing for measures to amend the formula to calculate the food subsidy cap but also to include programmes implemented after 2013 under the ambit of 'Peace Clause'.

4 Expansion of BRICS

Why in News:

Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates have confirmed they are joining the BRICS bloc.

About BRICS:

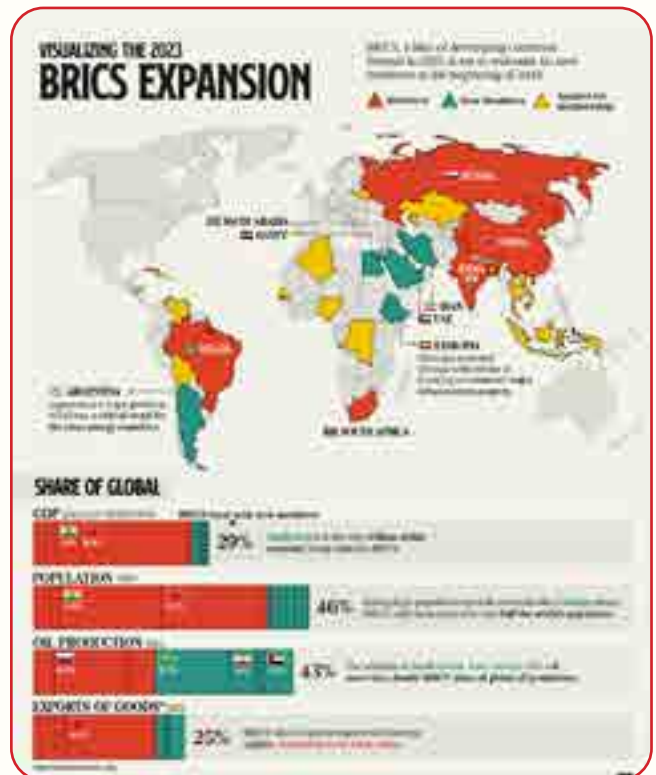
- In 2006, Brazil, Russia, India and China created the "BRIC" group. South Africa joined in 2010, making it "BRICS".
- The group was designed to bring together the world's most important developing countries, to challenge the political and economic power of the wealthier nations of North America and Western Europe.
- The name for the expanded group has not yet been announced, but may be "BRICS +".

Why does BRICS matter?

- BRICS countries include major world powers, such as China and Russia, and countries which are influential on their continent, such as South Africa and Brazil.
- The expanded group has a combined population of about 3.5 billion, or 45% of the world's inhabitants.
- Combined, members' economies are worth more than \$28.5tn - about 28% of the global economy.
- With Iran, Saudi Arabia and UAE as members, BRICS countries produce about 44% of the

world's crude oil.

- It wants to see a "greater voice and representation" for emerging economies.
- In 2014, the BRICS nations set up the New Development Bank to lend money to boost infrastructure.
- By the end of 2022, it had provided nearly \$32bn to emerging nations for new roads, bridges, railways and water supply projects.



Will a BRICS currency replace the dollar?

- Nations often use the US dollar to trade between themselves.
- Leading politicians in Brazil and Russia have suggested creating a BRICS currency, to reduce the dollar's dominance. However, this was not discussed at the group's 2023 summit.

Is BRICS a rival to the G20?

- The G20 group was set up in 1999 for developed and developing nations to discuss global issues.
- However, the BRICS group also contains many of the countries which are in the G20. In future, they may work in tandem.

Conclusion:

Although, expansion of BRICS is good move towards diversification of block, but here the group should not divert from its objective and become rival of any group or blocks or countries.

5 India-US Nuclear Cooperation

Why in News:

The US Assistant Secretary of State for Energy Resources expressed that the India-U.S. Nuclear cooperation is “a significant part of the unfinished business” as envisioned under the nuclear deal two decades ago.

About US-India civil nuclear agreement

- The US-India civil nuclear agreement, also known as the 123 Agreement, is a landmark agreement signed in 2005 that marked a significant shift in nuclear relations between the two countries.

Major provisions:

- **Separation of programmes:** India agreed to separate its civil and military nuclear facilities, placing civilian facilities under International Atomic Energy Agency (IAEA) safeguards.
- **Nuclear Trade:** The agreement allowed the US to supply nuclear fuel and technology to India for its civil nuclear programme.
- **Non-proliferation Commitments:** India reaffirmed its commitment to nonproliferation and agreed to additional safeguards against the transfer of sensitive nuclear technology or materials.

Expected Benefits for India:

- **Energy security:** Decreased dependence on fossil fuels for power generation, which is important for a growing economy. Clean energy source with low greenhouse gas emissions.
- **Economic development:** Potential to create jobs, attract investments and transfer of technology in the nuclear energy sector.
- **Strategic Partnership:** Strong ties with the US, with impact on regional security and global nonproliferation efforts.
- **Access to advanced technology:** Acquisition of modern nuclear reactors and fuel, promoting technological progress and improved safety standards.
- **Environmental protection:** Decreased dependence on coal-fired power plants, thereby reducing air pollution and greenhouse gas emissions.
- **Regional stability:** Cooperation on nuclear energy can promote trust and cooperation between India and neighboring countries.
- **Global leadership:** Demonstrating responsible nuclear cooperation can set a positive example for other countries.

Present situation:

- Eight years after the nuclear deal was

announced in 2015, there has still been no techno-commercial offer.

- **Domestic challenges in India:** Complex regulatory processes, limited infrastructure and liability concerns.
- **Geopolitical considerations:** The evolving global nuclear landscape and concerns about technology transfer.

Solution/Suggestion:

- India and the United States need to make renewed efforts for practical cooperation in the civil nuclear energy sector.
- Also, India needs to amend laws to enable private companies to participate in the civil nuclear sector.
- There is a “common interest” in moving forward on both large conventional reactors and small & modular reactor (SMR) technology proposed as part of the nuclear deal.

Way Forward:

Despite the challenges, both countries remain committed to the agreement and continue to work towards enhancing cooperation. The success of the agreement will depend on building mutual trust to address outstanding challenges and unleash its full potential.

6 India-Colombia Relations

Why in News:

India and Colombia have signed a Memorandum of Understanding for cooperation in the field of Sharing Successful Digital Solutions Implemented at Population Scale for Digital Transformation. The agreement was signed between the Ministry of Electronics and Information Technology (MeitY) and the Information Technologies and Communications of Colombia.

About the MoU:

- The MoU intends to promote digital transformation (viz INDIA STACK) through capacity-building programs, the exchange of best practices, the exchange of public officials and experts, the development of pilot or demo solutions and the facilitation of private sector contacts to mutually benefit the digital ecosystems of both countries.
- These infrastructures constitute a set of shared digital systems that are secure and interoperable. They can be built on open standards to deliver and provide equitable access to public and private services. India Stack Solutions are

DPIs developed and implemented by India at population scale to provide access and delivery of public services.

- India is keen on partnering with Colombia by building upon development partnership on digital transformation leading to a smooth adoption of Digital Public Infrastructure in Colombia.

India's progress regarding public goods infrastructure:

- India has developed some of the finest digital public goods infrastructure, which could change lives the world over. India has taken the path of building public digital infrastructure for serving citizens. UPI, JanDhan, Aadhar, CoWin and ONDC are some of the examples.

About India and Colombia relationship

- India and Colombia enjoy friendly and cordial bilateral relations. Over the years, the relationship between the two countries have strengthened and diversified in all areas of mutual interest encompassing political, commercial and cultural fields. Foreign Office Consultations mechanism was established in 1995.
- Colombia is currently the commercial entry-point into Latin America for Indian companies.
- The exports of India to Colombia have increased at an annualized rate of 15.3%, from \$31.8M in 1995 to \$1.29B in 2021. In 2021, Colombia exported \$2.27B to India. The main products exported from Colombia to India were Crude Petroleum (\$1.95B), Gold (\$139M), and Coke (\$84.4M).

Conclusion:

The expansion of digital public infrastructure abroad shows India's progress in digital public infrastructure. It will also expand India's economic growth and establish deeper ties with other countries.

7

Qatar Releases 8 Former Indian Navy Personnel

Why in News:

Qatar has released the 8 Indian Navy officers who were awarded death sentence on espionage charges. These 8 former officers of the Indian Navy have safely returned home. The release of the Indian Navy officers and their acquittal from espionage charges, marked a significant diplomatic success for India.

Key points related to the case:

- All these officers were working for 'Dahra Global

Technologies and Consultancy Services', a defence service provider organization which is owned by a retired member of the Royal Air Force of Oman. The owner of the firm was also arrested along with these officials but was released in November last year.

- India's Foreign Ministry worked hard for the release of the 8 Ex. Indian navy personnel.

Tracking the legal battle in Qatar



India-Qatar Relations:

- Qatar, which is a key member of the Gulf Cooperation Council, Arab League and Organization of Islamic Cooperation, established diplomatic relations with India in 1973. This year, India and Qatar are celebrating 50 years of their relations. Since then, high-level visits have been taking place continuously from both countries.
- In economic relations, India imports LNG, LPG, chemicals and petrochemicals, plastics and aluminium articles from Qatar, while exporting food items, copper items, iron and steel items, vegetables, plastic products, construction materials, textiles and apparel to Qatar. India imports about 70% of its natural gas needs from Qatar.
- There has been a bilateral trade between the two countries about \$15 billion in the financial year of 2021-22. Qatar has the largest expatriate Indian community in the Middle East which is contributing in different fields.

Way Forward:

In view of the changed situation, the pardoning of Indian officials by the Government of Qatar is a welcome step; such positive sentiments will help in deepening the relations between the two countries.

Environmental Issue

1 Status Report of Snow Leopards in India

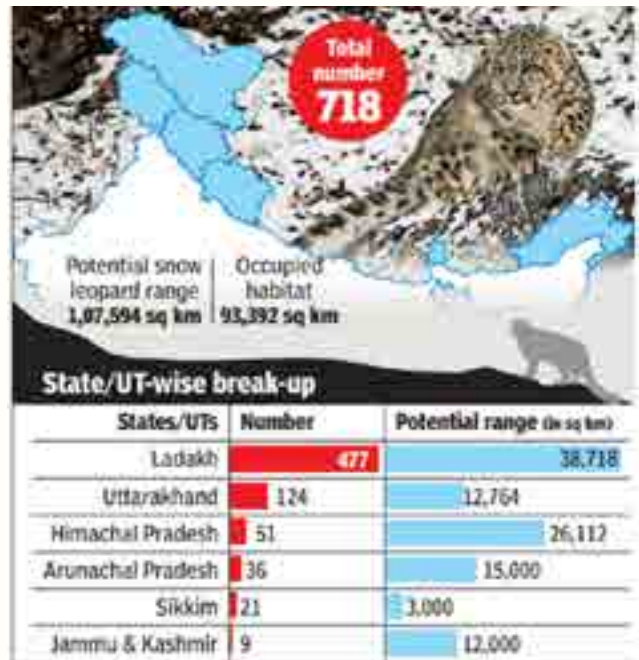
Why in News:

Shri Bhupender Yadav, the Union Minister of Environment, Forest, and Climate Change, unveiled the Status of Snow Leopards in India report at the National Board for Wildlife meeting in New Delhi.

Highlights of the Report:

- **Scientific Milestone:** The Snow Leopard Population Assessment in India (SPAII) Program is the first-ever scientific exercise that reports Snow leopard population of 718 individuals in India.
- **National Coordinator and Collaborators:** The Wildlife Institute of India (WII) led the SPAII program, with collaboration from snow leopard range states and conservation partners, including the Nature Conservation Foundation and WWF-India.
- **Geographical Coverage:** SPAII systematically covered over 70% of the potential snow leopard range in India, involving forest and wildlife staff, researchers, volunteers, and contributions from knowledge partners.
- **Spatial Distribution Assessment:** Utilizing a meticulous two-step framework, SPAII evaluated snow leopard spatial distribution by incorporating habitat covariates, aligning with guidelines set by the Ministry of Environment, Forest and Climate Change (MoEFCC) in 2019.
- **Abundance Estimation:** The second step involved estimating snow leopard abundance using camera traps in identified stratified regions, covering approximately 120,000 km² of crucial snow leopard habitat across the trans-Himalayan region.
- **Survey Efforts:** During SPAII, efforts included surveying 13,450 km of trails for recording snow leopard signs and deploying camera traps at 1,971 locations for 180,000 trap nights.
- **Population Estimates by State:** Based on data analysis, the estimated snow leopard population in different states are as follows: Ladakh (477), Uttarakhand (124), Himachal Pradesh (51), Arunachal Pradesh (36), Sikkim (21), and Jammu and Kashmir (9).
- **Improved Understanding of Snow Leopard Range:** Recent status surveys have significantly increased understanding, providing preliminary information for 80% of the range (about 79,745 km²), compared to 56% in 2016.

- **Recommendations for Conservation:** The report emphasized the need for establishing a dedicated Snow Leopard Cell at WII under the MoEFCC, focusing on long term population monitoring, supported by well-structured study designs and consistent field surveys.
- **Consistent Monitoring for Long-Term Survival:** States and Union Territories are encouraged to adopt a periodic population estimation approach (every 4th year) in the snow leopard range to ensure consistent monitoring and formulate effective conservation strategies.



Snow Leopard:

- **Name:** Snow Leopard
- **Scientific Name:** Panthera uncia
- **Population in India:** 718

Conservation Status:

- Vulnerable (IUCN)
- Schedule I (Wildlife Act, 1972 - India)
- **Habitat in India:** Western & Eastern Himalayas.
- **Habitat Preferences:** Steep, rugged terrains, 3,000- 5,000m+.
- **Global Status:** CITES Appendix I.

2 New GRI Biodiversity Standard

Why in News:

The newly introduced GRI Biodiversity Standard

requires the disclosure of factors contributing to biodiversity decline and its effects on Indigenous Peoples. The Global Reporting Initiative (GRI) has introduced the GRI Biodiversity Standard, serving as an updated transparency standard to address the global response to biodiversity loss.

Development and Oversight:

- This standard was developed by GRI, a recognized international standards organization.
- The crafting of this standard involved the collaboration of the Global Sustainability Standards Board (GSSB), which includes consultants from various representative organizations.

Objective and Scope:

- It serves as a global benchmark for accountability, aiming to inform organizations about their biodiversity impacts.
- The standard is designed to address the mounting pressures on nature, as numerous plant and animal species face the threat of extinction.

Implementation Timeline:

- The document, titled GRI 101: Biodiversity 2024, is slated for formal implementation in reporting from January 1, 2026.
- Prior to the official implementation, a two-year pilot phase involving early adopters is planned.

Alignment with Global Initiatives:

- The standard reflects and incorporates crucial global developments in biodiversity, including the UN Kunming-Montreal Global Biodiversity Framework, Science-Based Target Network, and Taskforce on Nature-Related Financial Disclosures.

Transparency Emphasis:

- Emphasizing transparency throughout the supply chain, the standard covers location-specific impacts, direct drivers of biodiversity loss, and impacts on communities, including Indigenous Peoples.

Significance and Impact:

- The standard is anticipated to significantly elevate transparency concerning biodiversity impacts.
- It enables organizations to identify and manage their most significant impacts, recognizing the far-reaching consequences of biodiversity loss beyond the natural environment.

Way Forward:

The standard aligns with the UN-mandated Sustainable Development Goals, emphasizing the interconnectedness of biodiversity loss and the climate crisis.

3 2024 Climate and Catastrophe Insight

Why in News:

A report reveals that weather-related disasters accounted for 95% of natural calamities in 2023, resulting in damages exceeding \$1 billion.

Global Natural Disaster Trends in 2023:

- In 2023, there were 398 natural disasters worldwide, resulting in \$380 billion in damages.
- This represents an increase from the estimated \$355 billion in economic losses recorded in 2022.
- The year saw 66 billion-dollar economic loss events and 37 billion-dollar insured loss events.
- Weather-related factors accounted for 95% of the natural disasters causing damages of at least \$1 billion.



Climate and Catastrophe Insight Report:

- The 2024 Climate and Catastrophe Insight report by Aon PLC highlights a 22% increase in damages compared to the 21st-century average.
- Earthquakes and severe convective storms (SCS) in Europe and the United States were significant drivers of this increase.
- Insurance coverage only paid out \$118 billion, indicating a 69% protection gap, higher than the 58% in 2022.

Global Protection Gap:

- Despite increasing natural disasters, the insurance coverage gap grew in 2023.
- The widest protection gap existed in the Asia and Pacific region (91%), followed by the Americas (non-US) (87%) and Europe, Middle East, and Africa (83%).

Impact on Different Regions:

- Floods caused over 64% of all losses in the Asia-

Pacific region, where insurance penetration remains low.

- In India, seasonal floods resulted in economic losses of approximately \$300 million and claimed over 2,600 lives in 2023.
- In the US, insurance covered nearly \$80 billion of the economic damage, but significant losses (30%) remained uninsured.

Implications for Insurers:

- European countries like New Zealand, Italy, Greece, Slovenia, and Croatia faced their costliest weather-related insurance events on record.

4 Atlantic Meridional Overturning Circulation

Why in News:

A significant ocean current system crucial for regulating global climate and weather patterns may cease functioning this century, potentially earlier than previously anticipated.

Background:

- A major ocean current system, the Atlantic Meridional Overturning Circulation (AMOC), plays a crucial role in regulating global climate and weather patterns.
- Studies suggest that AMOC may collapse sooner than previously thought due to increased anthropogenic emissions and environmental changes.

AMOC Collapse Predictions:

- Scientists from the University of Copenhagen project that AMOC could collapse between 2025 and 2095, with a high likelihood of occurrence by the 2050s.
- This collapse could have significant implications for climate systems worldwide and may be the first of 16 climate tipping elements to be breached.

Factors Leading to AMOC Collapse:

- Increased precipitation and rapid melting of the Greenland ice sheet are contributing to the disruption of AMOC by adding more fresh cold water to the North Atlantic Ocean.
- This influx of fresh water is reducing the salinity and density of the ocean, slowing down the AMOC's heat conveyor belt mechanism.

Historical Context and Current Trends:

- Historical data suggests that AMOC has already slowed by about 15% over the past few decades and is at its slowest pace in 1,600 years.
- While some studies project AMOC's collapse

within this century, others, such as the UN Intergovernmental Panel on Climate Change (IPCC), suggest it is unlikely to occur.

- The collapse of AMOC could lead to widespread cooling across the northern hemisphere, impacting precipitation patterns and potentially disrupting ecosystems and food production.

Way Forward:

Additionally, the collapse of AMOC may have cascading effects on other climate systems and tipping elements, such as the Amazon rainforest, West Antarctic ice sheet, and monsoon patterns. However, the exact nature and extent of these impacts remain uncertain.

5 IVF Pregnancy in White Rhinoceros

Why in News:

Scientists in Berlin announced the first successful embryo transfer in a white rhinoceros using a method that offers hope for saving the critically endangered northern white rhino subspecies from extinction.

About In vitro Fertilisation:

- A form of Assisted Reproductive Technology, In vitro fertilisation or IVF is one of the medical procedures aimed at addressing infertility.
- In vitro, derived from the Latin 'in glass,' involves conducting studies in a test tube rather than in a human or animal. Its counterpart, 'In vivo,' originating from the Latin 'within the living,' refers to experimentation conducted within a living organism.
- In vitro signifies activities outside the body, where fertilization occurs when the sperm attaches to and enters the egg. The IVF procedure employs medications and surgical techniques to facilitate sperm fertilizing an egg and aid the implantation of the fertilized egg in the uterus.

Significance of IVF in Animal Conservation:

- The white rhinoceros includes two distinct subspecies, northern and southern. The last male northern white rhino died in 2018, with only two female members remaining. Neither was able to carry a calf to term. Southern white rhinos are more abundant.
- The scientists turned to in-vitro fertilisation, harvesting the eggs of female northern white rhinos and using sperm from dead male rhinos of the subspecies to produce embryos that eventually will be transferred to southern white rhino surrogate mothers.

- The procedure had produced a successful pregnancy of 70 days, with a well-developed 6.4 cm (2.5 inch)-long male embryo.

About White Rhino:

- The White Rhino holds a Near Threatened status on the IUCN Red List. The status of its subspecies is as follows:
 - » **Northern White Rhino:** Critically Endangered.
 - » **Southern White Rhino:** Near Threatened.
- The decline of the Northern White Rhino population is attributed to poaching, habitat loss, civil war, and disease. The last male, in Sudan, passed away in 2018, leaving two females, Najin and Fatu, residing in a Kenyan conservancy.
- Southern white rhinos, comprising 98.8% of the population, are mainly found in South Africa, Namibia, Zimbabwe, and Kenya. With around 18,000 individuals, they inhabit protected areas and private game reserves.

Conclusion:

Northern white rhinos, which despite their name are actually grey, used to roam freely in several countries in east and central Africa, but their numbers fell sharply due to widespread poaching for their horns. The recent success will aid in increasing the northern white rhino numbers and may increase the possibility of conserving the species that are at verge of extinction.

6 The Water (Prevention and Control of Pollution) Amendment Bill, 2024

Why in News:

The Water (Prevention and Control of Pollution) Amendment Bill, 2024 has been passed by the parliament. Initially, it would be applicable to Himachal Pradesh and Rajasthan, and any other state that passes a resolution under the Water (Prevention and Control of Pollution) Act, 1974.

Key provisions of the bill:

- **Chairman of State Board:** Under the water Act, chairman of an SPCB is nominated by the state government. The Bill adds that the central government will prescribe the manner of nomination and the terms and conditions of service of the chairman.
- **Consent exemptions for establishing industries:** As per the Act, prior consent of the SPCB is required for establishing any industry or treatment plant, which is likely to discharge sewage into a water body, sewer, or land. The Bill specifies that the central government, in consultation with

the CPCB, may exempt certain categories of industrial plants from obtaining such consent.

- The Bill also adds that the central government may issue guidelines for the grant, refusal, or cancellation of consent granted by the SPCB.
- It also penalises tampering with monitoring devices used in determining whether any industry or treatment plant can be set up. The penalty will be between Rs 10,000 and Rs 15 lakh.
- **Punishment for unauthorised units:** Under the Act, establishing and operating an industry without obtaining such consent from the SPCB is punishable with imprisonment up to 6 years and fine.
- **Discharge of polluting matter:** Under the Act, the SPCB may issue directions to immediately restrain any activity which is leading to discharge of noxious or polluting matter in water bodies. The Act also prohibits violation of standards (laid down by SPCB) regarding polluting matter in water bodies or on land, barring some exemptions. Violation of these provisions is punishable with an imprisonment term between 1.5 years to 6 years, and a fine. The Bill removes the punishment and instead, imposes a penalty between Rs 10,000 and Rs 15 lakh.
- **Penalty for other offences:** Under the Act, an offence for which punishment is not explicitly specified is punishable with an imprisonment term of up to 3 months or a fine of up to Rs 10,000, or both. The Bill removes imprisonment as a punishment, and prescribes a penalty between Rs 10,000 and Rs 15 lakh. Failure to pay penalty for violation of any provision under the Act will attract an imprisonment term of up to 3 years, or a fine up to twice the amount of penalty imposed.
- **Adjudicating officer to determine penalties:** The Bill allows the central government to appoint adjudication officers to determine penalties under the Act.
- **Offences by government departments:** The Bill specifies that the head of a department will be required to pay penalty equal to one month of their basic salary if the department violates any provision of the Act.

Conclusion:

The bill decriminalises several violations, causing harassment to businesses and citizens, and instead imposes penalties. The amendments have weakened the Water (Prevention and Control of Pollution) Act, 1974, which was effective in deterring industrial units from non-complying with strict regulations.

The bill's amendments aim to improve the ease of living and ease of doing business.

7 Melanistic Tiger Safari

Why in News:

Odisha government has announced plans to start a melanistic tiger safari near Similipal Tiger Reserve (STR). The safari will be the first of its kind anywhere in the world, and it will give a chance to the tourists to see the rare and majestic melanistic tiger species found only in Odisha.

About Melanistic Tigers:

- Melanism is a genetic condition in which an increased production of melanin, a substance in the skin that produces hair, eye and skin pigmentation, results in black (or nearly black) skin, feathers or hair in an animal.
- Many royal Bengal tigers of Similipal belong to a unique lineage with higher-than-normal levels of melanin, which gives them black and yellow interspersed stripes on their coats.
- These tigers are not entirely black, and are therefore more accurately described as being pseudo-melanistic.

- As per the All-India Tiger Estimation, 2022, 16 individuals were recorded at STR, out of which 10 were melanistic.

About Similipal Tiger Reserve:

- Similipal is a tiger reserve in the Mayurbhanj district (adjoining Jharkhand and West Bengal) in the Indian state of Odisha covering 2,750 km² (1,060 sq mi).
- It is part of the Mayurbhanj Elephant Reserve, which includes three protected areas - Similipal Tiger Reserve, Hadagarh Wildlife Sanctuary and Kuldiha Wildlife Sanctuary.
- Similipal Tiger Reserve was part of Project Tiger since 1973, and declared a biosphere reserve in 1994.
- The park is home to Royal Bengal tiger, Asian elephant, gaur and chausingha. This protected area is part of the UNESCO World Network of Biosphere Reserves since 2009.

Conclusion:

The safari will allow wildlife conservationists, researchers, and enthusiasts to see the rare big cats from up close and to create awareness about the need for their conservation. This pioneering attraction will highlight the State's commitment to preservation and showcasing its unique biodiversity.



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1 First Brain Chip Implanted in a Human

Why in News:

Elon Musk's brain-chip startup, Neuralink, has successfully implanted its innovative brain chip in a human patient. The significant achievement marks a historic moment in the field of neurotechnology, showcasing the potential for revolutionary advancements in understanding and interfacing with the human brain.

Successful Implantation and Recovery:

- Elon Musk made the announcement that the first human patient who received the Neuralink brain chip implant, is recovering well. The successful implantation of the brain chip represents a critical step forward to address paralysis and various neurological conditions by developing advanced brain-computer interface technologies.



Promising Initial Results in Neuron Spike Detection:

- Encouraging results were shared from the initial phase. Under this, the implanted brain chip has shown promising neuron spike detection. Neuron spikes, as described by the National Institute of Health, represent the electrical and chemical signals utilized by brain cells to transmit information within the brain and to the rest of the body.

FDA Clearance and Human Trials:

- Neuralink received clearance from the U.S. Food and Drug Administration last year to conduct its first trial involving human subjects. This regulatory milestone paved the way for the startup to proceed with testing its brain chip implant on individuals. The approval marked a significant achievement for Neuralink,

highlighting the regulatory acknowledgment of the safety and viability of its technology for human use.

Telepathy Project and Wireless Brain-Computer Interface:

- Elon Musk revealed that the first product resulting from Neuralink's advancements would be called "Telepathy." The project aims to create a wireless brain-computer interface, allowing individuals to control external devices such as computers or keyboards using their thoughts alone. The technology utilizes ultra-fine threads implanted in the brain to transmit signals, representing a major leap forward in the development of brain-machine communication.

Scrutiny and Challenges:

- While celebrating the success of the brain chip implant, Neuralink faces scrutiny over safety protocols. The company was fined for violating U.S. Department of Transportation rules related to hazardous materials movement.
- Concerns were raised by lawmakers about potential misleading information on the safety of Neuralink's technology. Musk clarified that the company chose "terminal" monkeys to minimize risks to healthy ones.

Way Forward:

Neuralink's achievement in implanting a brain chip in a human is a pivotal moment in the advancement of neurotechnology. The successful human trial and promising results open new possibilities for the future of brain-computer interfaces and potential applications in addressing neurological conditions.

2 New Alloy Reduces Greenhouse Gas Emissions

Why in News:

Researchers have discovered a novel alloy that holds promise as an alternative magnetic refrigerant, revolutionizing cooling technologies and potentially minimizing greenhouse gas emissions. This discovery addresses the pressing global need for energy-efficient and environmentally friendly cooling solutions to combat the challenges of climate change.

Magnetic Refrigeration Technology and its Significance:

- Magnetic refrigeration, a cutting-edge cooling technology, stands out as an eco-friendly alternative to conventional vapor-cycle refrigeration. Unlike the traditional methods,

magnetic refrigeration utilizes the magnetic cooling effect (MCE), where a magnetic material undergoes reversible temperature changes in response to an external magnetic field. This cycle offers enhanced energy efficiency and aligns with efforts to create sustainable cooling solutions for various applications, spanning households, industries, and technology sectors.

The simultaneous achievement of giant MCE and MR in the Cu-doped Heusler alloy suggests a synergy that could lead to innovative and efficient solid-state technologies. The researchers anticipate a range of applications stemming from this alloy, contributing significantly to the development of next-generation cooling systems with minimal environmental impact.



Material Criteria and Research Focus:

- The research team at the S.N. Bose National Centre for Basic Sciences focused on developing magnetic materials with specific criteria:
 - » Durability over millions of cycles,
 - » High thermal conductivity,
 - » Responsiveness to a moderate external magnetic field of 2 Tesla.
- Existing materials often fell short, necessitating a search for alloys exhibiting giant magneto-caloric effects (GMCE) at lower magnetic fields.

The Heusler Alloy Breakthrough:

- The team's experimentation with all-transition metal-based Heusler alloys, particularly the Ni (Co)-Mn-Ti Heusler system, yielded promising results. Specifically, the Ni₃₅Co₁₅Mn_{34.5}-xCu_xTi_{15.5} alloy demonstrated giant reversible MCE and magneto-resistance (MR) under a 5 T and 7 T magnetic field. The introduction of copper (Cu) into the alloy altered the material's magnetic transition, showcasing a significant shift in both crystal and magnetic structure.

Synthesis and Performance Evaluation:

- The researchers employed the arc melting technique to produce polycrystalline samples of the alloy, ensuring compositional homogenization through multiple re-melting cycles. The resulting alloy, Ni₃₅Co₁₅Mn_{34.5}-xCu_xTi_{15.5}, exhibited the highest reported values of reversible MCE and MR within the all-d-metal Heusler family. This breakthrough combination holds the potential for diverse solid-state technological applications.

Way Forward:

3 DRDO's Green Propulsion System Proves In-Orbit Success

Why in News:

Defence Research Development Organisation (DRDO) has successfully demonstrated the in-orbit functionality of a green propulsion system developed under the Technology Development Fund (TDF) scheme. This achievement holds immense importance as it signifies a major leap in eco-friendly and innovative propulsion technologies for space exploration.

1N Class Green Monopropellant Thruster Project:

- The specific project, titled "1N Class Green Monopropellant thruster for altitude control and orbit keeping of micro satellite," was undertaken by the Bengaluru-based start-up Bellatrix Aerospace Pvt Ltd. This start-up served as the development agency for the green propulsion system, showcasing the prowess of private enterprises in contributing to cutting-edge space technologies.

Successful Demonstration on PSLV C-58 Mission:

- The green propulsion system demonstrated its prowess on a payload launched as part of the PSLV C-58 mission. The telemetry data collected from the PSLV Orbital Experimental Module (POEM) at the ISRO Telemetry, Tracking, and Command Network (ISTRAC) in Bengaluru underwent thorough validation at the ground level. The system not only met but exceeded all performance parameters, marking a significant success for the project.

TDF-Driving Innovation in Defence and Aerospace:

- The project was made possible through the Technology Development Fund (TDF), a flagship program of the Ministry of Defence executed by DRDO. This program operates under the 'Make in India' initiative and is designed to fund innovation in defence and aerospace, particularly supporting start-ups and MSMEs. The successful outcome of the green propulsion system showcases the potential of such initiatives in fostering technological advancements.

Features of the Green Propulsion System:

- The developed green propulsion system offers a non-toxic and environment friendly alternative for low orbit space missions. It comprises indigenously developed components such as propellant, fill and drain valves, latch valve, solenoid valve, catalyst bed and drive electronics. The system is particularly suitable for space missions with high thrust requirements, marking a shift towards sustainable propulsion technologies.

Way Forward:

This achievement not only showcases the successful collaboration between the public and private sectors but also paves the way for more sustainable and advanced propulsion systems in future space missions. The green propulsion system represents a crucial step towards environmentally conscious space exploration, aligning with global efforts for sustainable practices in aerospace technologies.

4 Nano DAP to Revolutionize Indian Agriculture

Why in News:

Finance Minister Nirmala Sitharaman announced a significant expansion in the application of Nano DAP, a revolutionary made-in-India fertilizer. This move aims to enhance agricultural productivity across various crops in all agro-climatic zones, following the successful adoption of Nano Urea.

Nano DAP vs. Conventional DAP:

- Di-ammonium phosphate (DAP) is a widely used fertilizer in India, known for its high phosphorus content crucial for root development in plants. However, Nano DAP, introduced by the Indian Farmers Fertiliser Cooperative (IFFCO), differs from conventional DAP. While DAP typically comes in granular form, Nano DAP is a liquid formulation containing 8% Nitrogen and 16% Phosphorus by volume.

Unique Characteristics:

- Nano DAP stands out due to its particle size, measuring less than 100 Nanometres (nm). This small particle size enhances efficiency, allowing the fertilizer to easily penetrate seeds or plant surfaces through stomata and other openings. This improved assimilation results in higher seed vigour, increased chlorophyll, improved photosynthetic efficiency, better quality, and ultimately higher crop yields.

Benefits of Nano DAP:

- **Cost-Effectiveness:** Nano DAP is more pocket-friendly compared to conventional DAP. Priced at Rs 600 for a 500 ml bottle (equivalent to a 50-kg bag of conventional DAP priced at Rs 1,350),

it offers a more economical option for farmers. Given significant subsidies on DAP, this can alleviate the government's subsidy burden.

- **Convenience for Farmers:** The liquid form of Nano DAP, packaged in 500 ml bottles, proves significantly more convenient for farmers. The ease of transportation, storage, and application make it a practical choice. Farmers can spray the fertilizer on crops, using 250-500 ml of Nano DAP dissolved in water per spray, per acre.
- **Reduced Import Dependency:** India traditionally imports substantial quantities of fertilizer to meet domestic demand. The adoption of domestically-produced Nano DAP, manufactured in Kalol, Gujarat, is poised to reduce this import burden significantly. This move aligns with the government's vision of achieving self-sufficiency in fertilizer production.

Government's Perspective:

- Union Minister of Chemical and Fertilizers, Mansukh Mandaviya has emphasized on its role in achieving self-sufficiency in fertilizers. The move aligns with the government's objective of reducing import dependency and supporting farmers with cost-effective and efficient fertilizers.

Way Forward:

The widespread adoption of Nano DAP heralds a new era in Indian agriculture, promising enhanced productivity, cost-effectiveness, and reduced import reliance. As the government actively promotes the use of this innovative fertilizer, the agricultural landscape is poised for positive transformations, benefiting both farmers and the nation's economy.

5 Karnataka Government's Digital Detox Initiative

Why in News:

The Karnataka state government has taken an important initiative towards fostering a responsible gaming environment. After introducing its comprehensive policy for animation, visual effects, gaming, and extended reality, the government has revealed plans to implement 'digital detox' initiatives.

Addressing Concerns with Collaboration:

- According to IT Minister of Karnataka, the initiative aims to build a digitally empowered Karnataka by promoting the responsible use of technology. The government intends to collaborate with the All India Game Developers' Forum (AIGDF) to execute this vision.

Tackling Excessive Gaming and Social Media

Usage:

- The digital detox program will specifically target the time, individuals spend on gaming and social media platforms. Despite potential concerns within the gaming industry, the government asserts its responsibility to raise awareness about the negative impacts of excessive screen time.

Recognizing the Toll on Mental Health:

- Highlighting the adverse effects of digital dependence, IT Minister of Karnataka, pointed to mental health issues, shrinking attention spans, and strained real-world relationships. He acknowledged that while technology offers convenience and connectivity, it comes at a significant cost, necessitating a balance.

Meaningful Use of Technology:

- The digital detox program is not about rejecting technology but ensuring its meaningful and constructive use. The government aims to minimize the detrimental effects of technology on individuals and society while encouraging a more balanced approach.

Collaborative Efforts for Mindful Technology:

- To effectively implement the initiative, the government will collaborate with AIGDF and the National Institute of Mental Health and Neurosciences (NIMHANS). The focus will be on spreading awareness about mindful technology, fostering a culture that encourages responsible technology use.

Comprehensive Detox Centers:

- As part of the initiative, the government plans to establish both online and offline 'Digital Detox' centers across the state. These centers will provide personalized guidance through trained professionals, offering counseling and support to individuals seeking assistance in managing their relationship with technology.

Conclusion:

The Karnataka government's commitment to promoting responsible gaming and technology usage reflects a forward-thinking approach. By addressing concerns related to excessive gaming and social media, the digital detox initiatives aim to strike a balance, ensuring a digitally empowered yet mindful future for the state's residents.

6

Ultracold Atoms

Why in News:

Indian scientists from the Raman Research Institute (RRI) have developed a novel image-correction

algorithm, which notably improves the examination of ultracold atoms.

About Ultracold Atoms:

- Ultracold atoms are those with temperatures near absolute zero, where their quantum-mechanical properties become significant.
- Achieving such low temperatures typically requires a combination of various techniques.

Experimental Phenomena Studied:

- Experiments with ultracold atoms investigate a range of phenomena, including quantum phase transitions, Bose-Einstein condensation (BEC), superfluidity, quantum magnetism, and more.
- Ultracold atom systems are utilized as quantum simulators to study physics beyond their own realm, such as unitary Fermi gases and Ising and Hubbard models.
- Potential applications include the realization of quantum computers.

Historical Background:

- Ultracold atom samples are prepared through interactions with laser fields, with evidence for radiation pressure dating back to 1901.
- The use of laser light for atom cooling was proposed in 1975, leading to techniques like Doppler cooling and the development of magneto-optical traps (MOTs).
- Evaporative cooling, used to achieve even lower temperatures, led to the discovery of Bose-Einstein condensate (BEC).

Applications of Ultracold Atoms:

- **Quantum Computing and Communication:** Ultracold atoms support quantum information processing tasks like cryptography and networking. They enable quantum logic gates and algorithms due to their coherence and control.
- **Precision Measurements:** Ultracold atoms enhance precision in measuring constants, gravitational forces, and fields. They surpass classical limits in metrology, advancing atomic clocks and sensors.
- **Biological System Simulation:** Ultracold atoms simulate biological processes, aiding in understanding biomolecular interactions and drug design. They offer insights into protein folding and enzymatic reactions.
- **Quantum Sensing and Imaging:** Ultracold atoms enable high-resolution imaging and sensing of magnetic and electric fields. They have applications in medical diagnostics, environmental monitoring, and materials characterization.
- **Cosmological Phenomena Simulation:** Ultracold atoms simulate complex cosmological phenomena like dark matter behaviour. They

aid in understanding galaxy formation and cosmological evolution.

- **Quantum Materials Research:** Ultracold atom systems model quantum materials such as superconductors and topological insulators. They explore novel quantum phases and electron behaviour in condensed matter systems.

Way Forward:

Ultracold atoms provide a controlled setting to study chemical reactions and molecular dynamics. They uncover reaction pathways, identify intermediates, and design efficient catalysts.

7 Execution Through Nitrogen Gas

Why in News:

Kenneth Smith, a convicted murderer, has become the first person in the US to be executed by nitrogen gas.

Reasons for not using the lethal injection:

- Lethal injection, which involves injecting drugs that sedate and kill the inmate, has been the preferred method since Texas first used it in 1982.
- But lethal injection has faced many problems, both practical and ethical. Several executions have been botched, causing pain and suffering to the inmates. Some inmates, like Smith, have had their executions delayed or cancelled because of difficulties in finding suitable veins. And some states have struggled to obtain the drugs needed for lethal injection, as drug manufacturers have refused to sell them or stopped producing them.
- The UK and the EU banned the export of lethal injection drugs in 2011, and Pfizer, the last major supplier of these drugs, stopped selling them for execution purposes in 2016. As a result, some states have resorted to using untested or secret drugs from private sources, such as compounding pharmacies.

Reasons for using the Nitrogen gas:

- Nitrogen gas is another option of execution. Some states have approved the use of nitrogen gas in executions, and have defended it against legal challenges. They argue that nitrogen gas is a humane and painless way to kill, as it induces a state of euphoria and unawareness before death. They cite examples of industrial accidents where workers have died of nitrogen hypoxia without realizing it.

About Nitrogen gas:

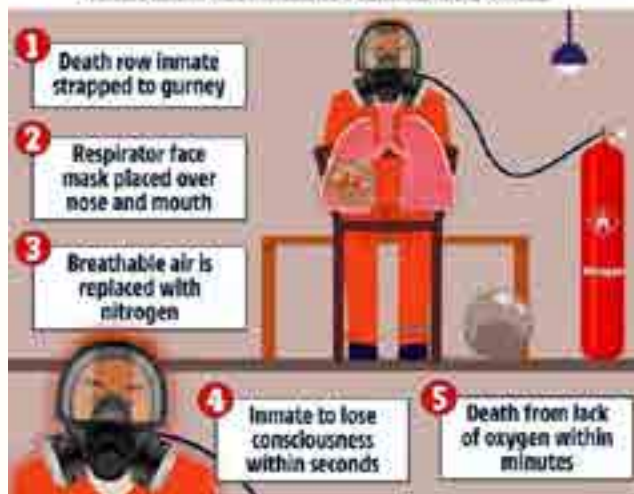
- Nitrogen gas has two molecules of Nitrogen

therefore, the molecular formula of this gas is N_2 . It is a non-metallic element in the 15th Group of the periodic table. Nitrogen gas is colorless, odorless, and tasteless, which was discovered by scientist Daniel Rutherford in 1772.

- Inhaling air containing mostly nitrogen will lead to various signs of physical and mental impairment. Depending on the concentration of nitrogen a person is exposed to, signs and symptoms from sudden unconsciousness to death due to asphyxiation could occur.

AMERICA'S FIRST NITROGEN GAS EXECUTION

Kenneth Eugene Smith to die by nitrogen hypoxia



Use of Nitrogen gas:

- Nitrogen gas is a noble or an inert gas, it can diminish or minimize the oxidation of various materials. Today it is used mostly in the production of ammonia, which is used as a fertilizer, explosive, or various other materials.
- The liquid Nitrogen is an excellent refrigerant that freezes things to relatively low temperatures. It also works as a coolant for large computer systems. It also used disinfectant for household purposes.

Conclusion:

Critics of nitrogen gas argue that it is an experimental and unproven method that could cause harm and suffering to the inmates. Dr Jeff Keller, President of the American College of Correctional Physicians, says, It's an experimental procedure. Many things can go wrong. Thus before using, its pros and cons should be researched well.



Economic Issues



1 Annual Survey of Industries

Why in News:

MoSPI released Annual Survey of Industries (ASI) results for April 2020 to March 2021 (ASI 2020-21) and April 2021 to March 2022 (ASI 2021-22).

Gross Value Added (GVA) Growth:

- The GVA witnessed an 8.8% increase in current prices during 2020-21.
- Subsequently, there was a substantial rise of 26.6% in GVA during 2021-22.

Industrial Output:

- The industrial output marked an impressive growth of over 35% in the financial year 2021-22 compared to the preceding year.

Employment Growth:

- The sector experienced a robust 7.0% growth in total estimated employment in 2021-22.
- Field work for the surveys occurred from April 2022 to November 2022 for ASI 2020-21 and March 2023 to September 2023 for ASI 2021-22.
- The pandemic impacted field work in 2020-21 and 2021-22 due to global lockdowns.

ASI Objective:

- The Annual Survey of Industries aims to provide insights into the dynamics of change in manufacturing industries, covering parameters like output, value added, employment, and capital formation.

Major Drivers of Growth (2021-22):

- Industries such as Basic Metal, Petroleum Products, Pharmaceuticals, Motor Vehicles, Food Products, and Chemicals collectively contributed 56% of the total GVA.
- These industries recorded GVA growth of 34.4% and output growth of 37.5% in comparison to 2020-21.

Employment Trends:

- 2021-22 witnessed a robust 7.0% year-on-year growth in employment.
- Estimated employment in 2021-22 exceeded pre-pandemic levels by over 9.35 lakh.
- Average emoluments increased by 1.7% in 2020-21 and 8.3% in 2021-22 compared to respective previous years.

State-wise Performance:

- Gujarat topped in GVA in 2020-21 and secured the second position in 2021-22.
- Maharashtra ranked first in 2021-22 and second in 2020-21.

- The top five states contributed about 53% of the total manufacturing GVA.

State-wise Employment:

- Tamil Nadu, Gujarat, Maharashtra, Uttar Pradesh, and Haryana led in employment.
- These top five states contributed about 54% of total manufacturing employment.

Way Forward:

Data collection was executed through a dedicated web portal under the Collection of Statistics Act 2008. The performance of the last two financial years has been better but there is a need to continue like this.

2 PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi)

Why in News:

- A study on the PM SVANidhi scheme found that the initial Rs.10,000 loan led to an extra annual income of Rs. 23,460 per beneficiary. The report, commissioned by the Union Ministry of Housing and Urban Affairs, will be used internally for assessment purposes and is not expected to be made public.

Findings of the Report:

- Data from the PM-SVANidhi portal revealed that 60.65 lakh first-term loans, 16.95 lakh second-term loans, and 2.43 lakh third-term loans have been disbursed under the scheme.
- The ISB study surveyed 5,141 vendors across 100 urban local bodies in 22 states.
- 95% of the surveyed beneficiaries considered the PM-SVANidhi loan their first-ever bank loan, while 72% regarded it as their first business loan.
- 94% of those who availed the first loan used it for business investments, while the figure was 98% for the second loan.
- The first loan led to an additional income of Rs.1,955 per month, totalling Rs. 23,460 over its one-year duration.
- 13.9% of all loans disbursed were classified as non-performing assets (NPAs), with NPAs highest during the pandemic but declining over time.
- The debt-to-income (DTI) ratio of beneficiaries (9%) was lower than expected for small businesses, indicating their high creditworthiness.

Way Forward:

Despite the PM SVANidhi scheme, there was no

significant improvement in street vendors accessing formal credit from other sources, with only 9% having loans from other financial institutions.

3 Direct Tax Collection in India

Why in news:

India's net direct tax collections rose 20.25% year-on-year by February 10, up from 19.4% in January, according to the data released by the Ministry of Finance.

Direct Tax Collections:

- Gross Direct Tax collections stand at Rs. 18.38 lakh crore, showing a year-on-year growth of 17.30% as of February 10, 2024.
- Net Direct Tax collection, excluding refunds, amounts to Rs. 15.60 lakh crore, with a year-on-year growth of 20.25%.

Breakdown by Tax Categories:

- Net Corporate Income Tax (CIT) growth is reported at 13.57% year-on-year.
- Net Personal Income Tax (PIT) demonstrates a substantial growth of 26.91% year-on-year.

Growth Trends:

- Corporate Income Tax (CIT) registers a growth rate of 9.16%.
- Personal Income Tax (PIT) records a growth rate of 25.67% (PIT only) before refund adjustments.
- **Ministry's Statement:** The Finance Ministry notes steady growth in provisional direct tax collections, with gross collections at Rs. 18.38 lakh crore, reflecting a 17.30% increase compared to the corresponding period last year.
- **Forward Projections:** The Finance Minister anticipates achieving the revised estimates for the current fiscal year, which stands at Rs. 19.5 lakh crore, despite uncertainties surrounding Advance Tax.

Direct Tax:

- **Definition of Direct Tax:** A direct tax refers to a tax paid directly by an individual or organization to the governing authority that imposed it.
- Examples of direct taxes include income tax, real property tax, personal property tax, and taxes on assets.

Significance of Direct Tax:

- **Equitable Allocation of Tax Burdens:** Direct taxes, such as income tax and wealth tax, are based on the principle of ability to pay, ensuring fairness in the allocation of tax burdens.
- **Progressive Taxation:** Direct taxation is typically progressive, addressing income and wealth inequalities by allowing for fine gradation and

progressiveness in tax design.

- **Revenue Flexibility:** Direct taxes are elastic and productive, with revenues increasing or decreasing in line with changes in national income or wealth.
- **Clarity and Predictability:** Direct taxation embodies the principle of certainty, providing taxpayers with clear knowledge of their tax obligations, leading to accurate revenue estimation by the state.
- **Economic Efficiency:** Direct taxes like income tax are collected annually, minimizing administrative costs compared to taxes collected at shorter intervals.
- Additionally, collecting direct taxes at the source reduces the chances of tax evasion.
- **Promotion of Civic Responsibility:** Direct taxes foster civic responsibility among taxpayers, as the direct burden of taxation raises awareness about government spending and the democratic process.
- **Anti-Inflationary Measure:** Direct taxation can be utilized as an anti-inflationary fiscal policy by absorbing excessive purchasing power during inflation through increased tax rates.

Way Forward:

Despite global uncertainty, the increase in tax revenues in India is a positive sign for which the government needs to continue economic reforms. India's strong infrastructure is likely to yield benefits in the future.

4 RBI Action against PayTM

Why in News:

The Reserve Bank of India (RBI) on January 31 barred Paytm Payments Bank from offering all its core services including accounts and wallets from March, effectively crippling the company's business.

Actions by RBI:

- Paytm Payments Bank has been barred from offering almost all of its key services like accepting deposits or top-ups in any customer account, prepaid instruments, wallets, FASTags, National Common Mobility Card (NCMC), etc., in the wake of "persistent non-compliances and material supervisory concerns.
- As per the RBI, withdrawal or utilisation of balances by customers from their Paytm accounts including savings bank accounts, current accounts, prepaid instruments, FASTags, NCMC, etc. are permitted without any restrictions, up to their available balance.

- The RBI statement, however, does not mention a number of other services like loans, mutual funds, bill payments, digital gold, and credit cards.

Reason behind such action:

- Although, the central bank gave no reasons for its action, the Paytm Payments Bank has been facing scrutiny from RBI since 2018. Sources said the RBI's action could be due to concerns on KYC compliance and IT-related issues.
- The central bank is concerned about allowing any institution or banking entity to expose depositors' money to such risks.

The China Angle:

- Paytm Payments Bank and its parent OCL also came under RBI scrutiny for purported lack of requisite information barriers within the group and data access to China-based entities that were indirect shareholders in the payments bank through their stake in the parent company. The failure to address these concerns at multiple levels over an extended period led to the latest action by the RBI.
- Antfin, an affiliate of the Chinese conglomerate Alibaba, is a shareholder in One97 Communications as of December 31, 2023. Antfin held 9.89% stake in the company.
- Due to the frosty relationship between India and China over the past few years, Chinese investments in Indian companies have attracted intense scrutiny by Indian regulators.

Conclusion:

The action is technically not a cancellation of the licence of Paytm Payments Bank, but it constricts the company's operations to a very large extent. The regulatory crackdown has come as a blow to thousands of small business owners who relied on the app for making quick and easy transactions.

5 Framework for Voluntary Carbon Market

Why in News:

Union Minister of Agriculture & Farmers' Welfare and Tribal Affairs, Shri Arjun Munda had recently launched the Framework for Voluntary Carbon Market in Agriculture Sector and Accreditation Protocol of Agroforestry Nurseries.

Voluntary Carbon Markets:

- Carbon markets are systems designed to place a price on carbon emissions and create economic incentives for emission reduction, also known as 'carbon credits'.

- These credits represent one metric ton of CO₂ or equivalent greenhouse gas emissions that have been avoided, reduced, or removed. The credits originate from various projects focused on emission reduction, such as tree-planting initiatives and investments in renewable energy.
- There are broadly two types of carbon markets:
 - » Compliance
 - » Voluntary

Compliance Markets:

- These are created as a result of any national, regional and/or international policy or regulatory requirement.

Voluntary carbon markets:

- These markets national and international refer to the issuance, buying and selling of carbon credits, on a voluntary basis.
- The Voluntary Carbon Market functions as a trading platform where both individuals and organizations have the option to voluntarily engage in the buying and selling of carbon credits.

Voluntary Carbon Market in Indian Agriculture:

- Around 54.6% of the country's workforce is engaged in agriculture and allied sectors' activities, with the share of the agriculture sector in the gross domestic product being 18.6% . The sown area was 139.3 million hectares, out of the total geographical area of the country
- The current supply of voluntary carbon credits comes mostly from private entities that develop carbon projects, or governments that develop programs certified by carbon standards that generate emission reductions and/or removals.
- Demand comes from private individuals that want to compensate for their carbon footprints, corporations with corporate sustainability targets, and other actors aiming to trade credits at a higher price to make a profit.
- The framework has been prepared with a view to encouraging small and medium farmers to avail benefits of carbon credits
- Introducing farmers to the carbon market will not only benefit them but also accelerate the adoption of environment-friendly agricultural practices

Conclusion:

The Taskforce on Scaling Voluntary Carbon Markets, estimates that the market for carbon credits could be worth upward of \$50 billion as soon as 2030. However, there are also serious concerns including issues related to double-counting of GHG emission reductions, human rights abuses, and greenwashing.

6 Legalisation of MSP

Why in News:

Hundreds of farmers, primarily from Punjab, have again hit the streets to push the Centre to address their long-pending demands of legalisation of MSP's as per the Swaminathan Commission formula.

Why farmer wants legal backing:

- Without legal backing for MSP, farmers in these states fear that they may not receive remunerative prices for their crops, especially when market prices fall below MSP.
- MSP is an administrative mechanism; farmers often receive prices determined by demand and supply conditions.
- From the farmers' perspective, an MSP safety net helps save them from market price fluctuations and uncertainties in agricultural production. It is specially beneficial for small and marginal farmers, who rely on agriculture for their primary livelihood and spend months sowing and harvesting a crop.

HOW ARE MSPs DETERMINED?

The Centre fixes MSPs for every kharif and rabi cropping season based on recommendations of the Commission for Agricultural Costs and Prices (CACP)

• When a farmer grows a crop, he incurs costs, some of it explicit and some implicit or unpaid. The CACP considers the following costs:

1

A2

Covers all cash and in-kind expenses incurred by farmers on seeds, fertilisers, chemicals, hired labour, fuel, irrigation, etc

2

A2+FL

Actual costs plus an imputed value of unpaid family labour



3

C2

Includes 'A2+FL' along with revenues forgone on owned land (rent) and fixed capital assets (interest)

FY20 was pegged at Rs 40 lakh crore, while the market value of crops that are part of MSP regime was estimated at Rs 10 lakh crore.

- Thus, procuring this value of produce from the Centre's total expenditure of Rs 45 lakh crore (for 2023-24) would mean that there would be very little money left to pursue other development and social goals.
- MSP-based procurement can distort market prices and encourage overproduction of certain crops, exacerbating storage and distribution challenges.

About MSP:

- MSP is the minimum price paid by the government when it procures any crop from the farmers to protect them from price fluctuations.
- It is announced by the state-run Commission for Agricultural Costs and Prices (CACP) around 22 commodities on an annual basis, after calculating the cost of cultivation.
- The crops for which Centre announces MSPs for every year, there are seven cereals (paddy, wheat, maize, bajra, jowar, ragi and barley), five pulses (chana, arhar, moong, urad and masoor), seven oilseeds (groundnut, soybean, rapeseed-mustard, sesame, sunflower, niger seed and safflower) and four commercial crops (sugarcane, cotton, copra and jute).

Conclusion:

Instead of legalisation of MSP, Some experts suggest that a direct income support for the farmers would be a better idea than MSP since it won't affect the markets and support all cultivators. There are other alternatives also, such as government paying the price difference between MSP and rate at which the farmers sell.

7 Animal Husbandry Infrastructure Development Fund Scheme

Why in News:

Recently, central government approved the continuation of Animal Husbandry Infrastructure Development Fund (AHIDF) to be implemented under Infrastructure Development Fund (IDF). The scheme will be further implemented for period of three years till 2025-26.

Benefits provided under realigned AHIDF:

- Interest subvention of 3% payable up to 8 years.
- Credit guarantee cover up to 25% of the term loan.
- No ceiling on the loan amount.
- Loan up to 90% of the estimated/actual project

Why government is not favouring it:

- Legalising MSP may not be sustainable due to several hurdles such as limited procurement infrastructure, potential wastage of stock, distorted cropping patterns and lack of effective market access.
- Agricultural produce in the country during

cost.

- Dovetailing with capital subsidy schemes of other ministries or state level schemes.
- Ease of application process through online portal.

About AHIDF:


- On June 24, 2020, the Animal Husbandry Infrastructure Development Fund was launched under Atmanirbhar Bharat Abhiyan Initiative.
- AHIDF facilitated the much-needed incentivisation of investments in the establishment of infrastructure for dairy and meat processing and value addition infrastructure and establishment of animal feed plant in the private sector.
- The eligible beneficiaries under the Scheme are FPOs, MSMEs, Section 8 Companies, Private

Companies and individual entrepreneur with a minimum of 10% margin money contribution by them. The AHIDF incentivize the following activities:


- » Dairy processing and diversified products' infrastructure.
- » Meat and meat product processing infrastructure.
- » Establishment of feed manufacturing unit.

Way Forward:

Such investments in processing and value addition infrastructure by eligible beneficiaries would also promote export of these processed and value-added commodities.




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Miscellaneous Issues

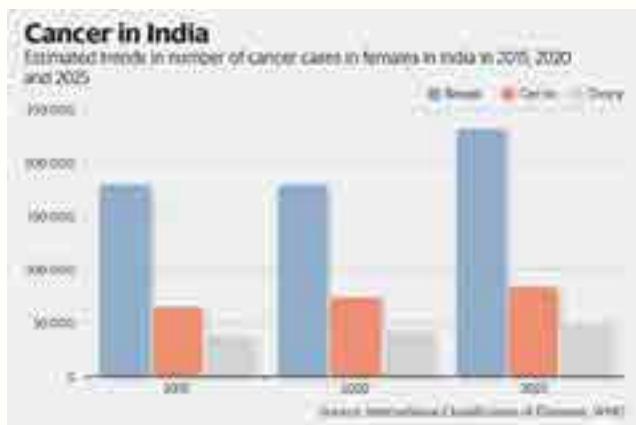
1 Cancer Burden on the World

Why in News:

The latest estimates from the World Health Organization (WHO), released on February 1, 2024, indicate a global increase of 20 million new cancer cases in 2022 compared to previous years.

Cancer Cases in India:

- In India, there were 1,413,316 new cases of cancer reported in 2022, with a notable gender disparity favoring female patients.
- Breast cancer emerged as the most prevalent form of cancer in India, comprising 13.6% of all cases, with over 26% occurring in women.
- Other prevalent cancers in India included lip and oral cavity, cervix and uterine, lung, and esophageal cancers.



Global Cancer Statistics:

- Globally, lung cancer ranked as the most commonly occurring cancer, with 2.5 million new cases reported, followed closely by female breast cancer with 2.3 million cases.
- Colorectal, prostate, and stomach cancers also featured prominently among the top five most common cancers worldwide.

Impact of Socioeconomic Factors:

- Socioeconomic factors such as tobacco usage, alcohol consumption, obesity, and air pollution significantly contribute to the rising cancer burden globally.
- Low and medium Human Development Index (HDI) countries are particularly vulnerable to the adverse effects of these risk factors, facing a higher incidence and mortality rate from cancer.

Policy Measures:

- The interim budget 2024-25 in India underscored

the importance of preventive measures such as vaccination for cervical cancer among young girls aged 9-14 years.

- Addressing risk factors like smokeless tobacco consumption through effective policies and regulations is crucial for reducing the burden of oral cancer, especially in South Asian countries like India.

Future Projections:

- The WHO projects a staggering 77% increase in the global cancer burden by 2050, highlighting the urgent need for comprehensive strategies to combat the disease.

Cervical Cancer:

- Cervical cancer primarily affects the cervix in women and ranks as the 4th most common cancer globally among women.
- In India, it is the 2nd most common cancer among women, highlighting its significant impact on the population.
- India bears a substantial burden of cervical cancer cases, contributing to nearly 25% of global deaths from the disease, according to The Lancet study.
- Effective prevention strategies, including HPV vaccination and screening for precancerous lesions, can greatly reduce the incidence of cervical cancer.
- Early detection and proper management significantly improve the prognosis of cervical cancer, making it one of the most treatable forms of cancer when diagnosed early.
- India records approximately 125,000 cases of cervical cancer and 75,000 deaths from the disease each year, contributing significantly to the global burden.
- Persistent infections with specific high-risk HPV strains, particularly types 16 and 18, account for the majority (about 85%) of cervical cancer cases globally.

Way Forward:

This exponential rise in cancer cases is expected to disproportionately affect countries with limited resources, exacerbating existing healthcare disparities and posing significant public health challenges.

2 New Process for selecting Election Commissioner

Why in News:

For the first time a consultative process to appoint

an Election Commissioner will be used. It was put in place after a Supreme Court verdict and a new law.

Supreme Court Intervention:

- In October 2018, a two-judge bench referred the matter to a Constitution bench to interpret Article 324 of the Constitution.
- A five-judge Constitution bench led by Justice KM Joseph began hearing the petitions in September 2022.
- The petitioners highlighted Article 324(2) and criticized the opaque appointment system, calling for a consultative process.

Appointment Process Before SC Ruling:

- Appointment authority rested with the Executive (Union government).
- A list was created by the Law Ministry from a database of serving and retired officers.
- The Prime Minister made the final appointment, formally ratified by the President.

Centre's Stand in Supreme Court:

- The Centre opposed SC intervention, citing the absence of a parliamentary law.
- It defended the existing process and argued against judicial interference.

Supreme Court Ruling:

- On March 2, 2023, the SC ruled that a consultative process for appointing Election Commissioners was necessary.
- The Court outlined a process involving the Prime Minister, Leader of Opposition (or leader of the largest opposition party), and Chief Justice of India.
- It emphasized that Parliament could enact a law on the appointment process in the future.

Consultative Process Proposals:

- Echoed recommendations from the 1990 committee chaired by Dinesh Goswami and the 2015 Law Commission's report.

Post-SC Judgment:

- The Centre introduced a Bill in Parliament in August.
- Passed in December 2023, the Bill establishes a committee comprising the Prime Minister, Leader of Opposition, and a Cabinet Minister nominated by the PM.

Way Forward:

In a democratic country, transparency, limited government and regular elections are considered to be the basic elements. Therefore, for free and fair elections, it becomes very important to have a constitutional and independent institution like Election Commission.

3 Maternal Mortality Ratio (MMR) of India

Why in News:

A report titled 'Trends in Maternal Mortality 2000 to 2020' published by the United Nations Maternal Mortality Estimation Inter-Agency Group (MMEIG) states that India's MMR has declined from 384 in 2000 to 103 in 2020, while the global MMR has decreased from 339 in the year 2000 to 223 in 2020.

Decline in Maternal Mortality Ratio (MMR):

- India's MMR decreased by 6.36% from 2000 to 2020, a rate three times higher than the global decline.
- The MMR in India dropped from 384 in 2000 to 103 in 2020, whereas the global MMR declined from 339 to 223 during the same period.
- India's average annual rate of reduction (ARR) in MMR was 6.36%, surpassing the global ARR of 2.07% from 2000 to 2020.

Government Initiatives to Tackle Maternal Deaths and Stillbirths:

- Pradhan Mantri Surakshit Matritva Abhiyan: PMSMA aims to provide fixed-day, free, and comprehensive antenatal care to all pregnant women in their 2nd/3rd trimesters every 9th day of the month.
- An extended PMSMA strategy ensures quality antenatal care, especially for high-risk pregnancies, by providing financial incentives and additional visits by Accredited Social Health Activists (ASHAs).
- **Surakshit Matritva Aashwasan (SUMAN):** SUMAN initiative ensures dignified healthcare at no cost and zero tolerance for service denial for women and newborns visiting public health facilities.
- **Janani Shishu Suraksha Karyakaram (JSSK):** JSSK entitles pregnant women to free delivery, including caesarean sections in public health institutions along with free transport, diagnostics, medicines and other essentials.
- **LaQshya program:** This program was launched in 2011 which focuses on improving the quality of care in labour rooms and maternity operation theatres.
- **Monthly Village Health, Sanitation, and Nutrition Day (VHSND):** VHSND provide maternal and child-care services at Anganwadi centers in convergence with the Integrated Child Development Services (ICDS).
- **Outreach camps in rural areas:** It aims to improve healthcare access, especially in tribal and hard-to-reach regions, by increasing awareness and

tracking high-risk pregnancies.

- **Health and Wellness Centers (HWCs):** Health and Wellness Centers organize periodic camps to reach marginalized populations and support treatment compliance and follow-up care for pregnant women and newborns.
- **MCP Card and Safe Motherhood Booklet distribution:** The card and booklet educates pregnant women on diet, rest, pregnancy danger signs, benefit schemes, and institutional deliveries.

Schemes Implemented by the Ministry of Women and Child Development:

- **Pradhan Mantri Matru Vandana Yojana (PMMVY):** It provides support for safe deliveries, wage loss compensation, and immunization for the first living child.
- **Mission Saksham Anganwadi and Poshan 2.0:** These schemes focus on delivering supplementary nutrition to pregnant women and lactating mothers, emphasizing health, wellness, and immunity.

Way Forward:

MMR data from 2014-16 to 2018-20 indicates a consistent decline in India's MMR. Stillbirth rate data from various states shows varying trends over the years, reflecting the regional disparities in stillbirth rates across India.

4

Law Commission's Report on Epidemic Diseases Act, 1897

Why in News:

- The 22nd Law Commission of India has submitted its Report No. 286 titled "A Comprehensive Review of the Epidemic Diseases Act, 1897" to the Government of India.

Epidemic Plan and Standard Operating Procedure:

- The 286th Law Commission Report underscores the necessity of establishing an Epidemic Plan and Standard Operating Procedure (SOP) to effectively address future epidemics.
- It emphasizes the current lack of clear delineation between the powers of the Centre, states, and local authorities during epidemics, resulting in disjointed responses that hamper effective management.
- The Epidemic Plan is envisioned to ensure a coordinated response to public health emergencies by clearly defining the powers and responsibilities of various levels of government and stakeholders.

Limitations of the Epidemic Diseases Act, 1897

(EDA):

- The report critically examines the Epidemic Diseases Act, 1897 (EDA), highlighting its inadequacy in addressing modern challenges posed by infectious diseases.
- It points out that the EDA, being a relic of the colonial era, fails to adequately address contemporary issues related to the spread of infectious diseases, especially in the context of globalization and increased connectivity.
- The report notes the potential for the misuse of the EDA and its lack of comprehensive guidelines on crucial aspects of epidemic management, advocating for substantial amendments or the enactment of new legislation.

Recommendations for Improvement:

- The Law Commission proposes significant amendments to the EDA to ensure that it remains relevant and effective in addressing current and future challenges posed by infectious diseases.
- It suggests incorporating provisions in the EDA to mandate the preparation, enforcement, and periodic revision of the Epidemic Plan, along with clear guidelines on quarantine, isolation, lockdowns, and other measures.
- Additionally, the report recommends provisions for privacy-friendly disease surveillance, regulation of medical supplies, dissemination of public information, and safe disposal of infectious waste, among other essential aspects of epidemic management.

Law Commission:

- The Law Commission of India is an executive body established by the Government of India to work for legal reforms.
- It operates as an advisory body to the Ministry of Law and Justice, comprising primarily legal experts.

Functions of the Law Commission:

- Conducts research and reviews existing laws in India for reforms and new legislation, either on government reference or suo-motu.
- Undertakes studies to improve justice delivery systems, aiming to reduce procedural delays and litigation costs.
- Identifies and recommends the repeal of obsolete laws and examines laws impacting poverty alleviation.
- Proposes new legislation to implement Directive Principles and achieve constitutional objectives.
- Advises on legal and judicial administration matters referred by the government.
- Provides research assistance to foreign countries as requested by the government.

- Reviews laws to promote gender equality and suggests amendments.
- Examines the impact of globalization on food security and unemployment, recommending measures for marginalized communities.

Way Forward:

The report ensures a coherent and integrated response to reduce differences between the states and the central government. It recommends the creation of a standard operating procedure outlining the roles and responsibilities of various stakeholders at each stage of the pandemic.

5 UP Model to Address Malnutrition

Why in News:

To combat malnutrition crisis like wasting and stunting, Uttar Pradesh government is engaging women self-help groups to deliver nutritious take-home rations for beneficiaries in villages and blocks. These community-based microenterprises, produce fortified foods for pregnant/lactating women and children, and distribute it through the Integrated Child Development Services (ICDS) program.

What is the UP model for addressing malnutrition?

- Department of Women and Child Development and Uttar Pradesh State Rural Livelihood Mission have collaborated to set up production of take-home rations by women's enterprises. These rations benefit children under 6 and pregnant/lactating women, providing staple food like rice, pulses, wheat, and oil.
- Women from self-help groups are responsible for preparing specific calorific values ration and supply it to Anganwadi centres. The aim is to generate an additional income of 8,000 per month for each woman.
- UN World Food Programme (WFP) demonstrated the feasibility of this model by using two pilot plants in Unnao and Fatehpur in 2021.
- In several districts like Rampur, Poshan kits were developed under Mission Sanvardhan to ensure doorstep delivery of nutritious food.

How UP model is a game changer?

- **Increased Access to Nutritious Foods:** By producing and distributing fortified take-home rations, the initiative ensures better access to essential nutrients.
- **Improved Food Security:** Local production of take-home rations enhances food security within communities and reduces reliance on centralized system.
- **Community Education and Awareness:** Increased

awareness about the importance of nutrition and healthy eating habits, can lead to behavioural changes that promote better nutrition intake.

- **Vocal for local:** By sourcing ingredients locally, the initiative promotes sustainability ensuring long-term impact and scalability.
- **Economic Empowerment of women:** Involvement of women in production units provides women with valuable skills in food processing and entrepreneurship and improved livelihood opportunities.

Way Forward:

The UP model showcases the significance of fortification of staple food and women's empowerment in improving community nutrition. However, sustained efforts from all stakeholders are essential. Promoting cultivation of diverse crops to enhance dietary diversity, promoting intake of iron and folic acid supplements, deploying mobile health units to remote areas, and conducting periodic surveys to track progress, can go a long way in addressing the issue of malnutrition.

6 Manpower Shortage in CBI

Why in News:

Recently, Department of Personnel and Training (DoPT) in their 2022-23 annual report said that the CBI is facing a shortage of 23% manpower, including in the posts of Special Director, Joint Directors and DIGs.

Reason of manpower shortage:

- Complicated recruitment process of personnel .
- Political interference in recruitment.
- Complicated work culture.

Effect of manpower shortage:

- Hamper quality of investigation.
- Reduce effectiveness and efficiency of the CBI.
- Hamper the trust of the people.

Challenges for CBI:

- The CBI has been termed by the Supreme Court as a "caged parrot that speaks in the voice of its master" due to the excessive political influence in its operations.
- It is often used by governments to hide wrongdoings, keep coalition partners together, and keep political opponents at bay.
- It has been accused of massive delays in concluding investigations, such as the investigation of high-ranking cases.
- **Loss of credibility:** The agency has been punished for mishandling several high-profile

cases, including the Bofors scam, Hawala scam, Bhopal gas tragedy and the 2008 Noida double murder case (Aarushi Talwar).

- **Lack of Accountability:** The CBI is exempted from the Right to Information Act, which means it is not accountable to the public.
- **Limited Authority:** The investigative powers and jurisdiction of the CBI are subjected to the consent of the member state government, which limits the scope of the CBI's investigation.
- **Restricted Access:** Obtaining prior authorization from the Central Government to investigate or initiate investigations into Central Government employees at the level of Joint Secretary and above is a major hurdle in tackling corruption at the highest levels of government.

About CBI:

- In 1963, the Central Bureau of Investigation (CBI) was established by the Government of India with a view to investigate serious crimes related to Defence of India, corruption in high places, serious fraud, cheating and embezzlement and social crime, especially of hoarding, black-marketing and profiteering in essential commodities, having all-India and inter-state ramifications. CBI derives its legal powers to investigate crime from the DSPE Act, 1946.

Conclusion:

For proper functioning of CBI, it is need of the hour that recruitment process should be early finalised and CBI should be out of political interference.

7 New Nominations for UNESCO Heritage List

Why in News:

Union Government has nominated the “Maratha Military Landscapes”, a network of forts that showcase the strategic military power of Maratha Rule, for inclusion in the UNESCO World heritage List for 2024-25.

UNESCO World Heritage List:

- A world Heritage site (WHS) is a place that is listed by United Nations Educational, Scientific and Cultural Organisation (UNESCO) for its special cultural or/and physical significance.
- The list of WHS is maintained by the World Heritage Programme, administered by the UNESCO World heritage Committee.
- Under this Program, heritage sites have been categorised under three categories-
 - » Cultural

- » Natural
- » Mixed

The Maratha's Military Landscapes:

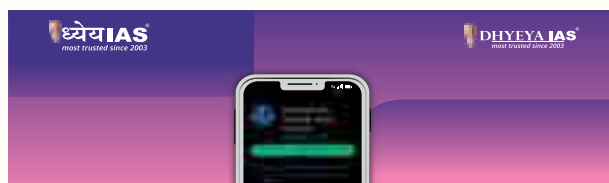
- The 12 Maratha Military forts which are nominated for World Heritage recognition are the forts of Salher, Shivneri, Lohagad, Khanderi, Raigad, Pratapgad, Suvarndurg, Panhala, Vijaydurg and Sindhugarh in Maharashtra and Gingee Fort in Tamil Nadu.
- These structures have been built around 17th to 19th century. They are extraordinary network of forts which showcase the fortification and excellent military system designed by the Maratha Rulers.

Who has nominated them?

- The Union Government of India has made these nominations to UNESCO under the cultural category. At present, India have 42 World heritage sites- among them:
 - » 7 are natural sites
 - » 34 are cultural sites
 - » 1 is a mixed site (Khangchendzonga National Park-Sikkim).
- The Maratha Military Landscapes is the sixth cultural property nominated for inclusion in the World Heritage List and earlier they were included in the Tentative List of World Heritage sites in 2021.

Way Forward:

Heritage is our legacy from the past, what we live with today, and what we pass on to our future generations. The World Heritage Sites are legally protected by an international convention and administered by the UNESCO. These sites also hold a significant weightage in cultural strength of any country and are important centers of Eco-Tourism.



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BRAIN BOOSTERS

MSP, Farmers & Swaminathan

Why in Broadcast

Farmers, primarily from Punjab, have again hit the streets to push the Centre to address their long-pending demands just over two years after they ended their 16-month-long stir in the national capital. In 2021, farmers ended their protests after Centre withdrew the 3 controversial farm laws, which were the main bone of contention.

5. Benefits of MSP

- **Secured Income:** Guarantees minimum prices to farmers for their crops. When there are ups and downs in the market, it ensures stable and predictable income for the farmer.
- **Stable Price:** Market prices are stabilised through MSP. This prevents rapid fluctuations in the market.
- **Boost to Production:** MSP is a kind of guarantee that the government will buy the crop planted by the farmer at a higher price through MSP. When the buyer is certain, the farmer produces in larger quantities.
- **Food Security:** MSP assures farmers to cultivate food crops. When a farmer plants food crops, there is no shortage of food in the country. Due to this the government has to reduce imports and food security is maintained due to the stock.

1. Reasons for Farmer Protest

- Farmers have made the following demands:
- MSP assurance across all crops
 - Implementing Swaminathan Commission recommendations
 - Debt relief
 - Pensions for farmers
 - Withdrawal of cases against past protestors
 - India's exit from WTO and free-trade agreements

2. Minimum Support Price (MSP)

Minimum Support Price (MSP) is the lowest rate at which government procurement agencies buy crops from farmers. It shields farmers from market fluctuations, offering stability and income security.

3. How MSP is Decided?

- MSP is crucial for ensuring fair prices for farmers and is determined by the Commission for Agricultural Costs and Prices (CACP), considering factors like production costs, market trends, and demand-supply dynamics.
- Established in 1965, CACP operates under the Ministry of Agriculture and Farmers Welfare.
- After the CACP submits its recommendations, the Cabinet Committee on Economic Affairs (CCEA), chaired by the Prime Minister of India, makes the final decision on MSP levels.
- For the first time in the country, crops were purchased at MSP rates in 1966-67.

4. Crops Covered under MSP

- Cereals (7) - paddy, wheat, barley, jowar, bajra, maize and ragi
- Pulses (5) - gram, arhar/tur, moong, urad and lentil
- Oilseeds (8) - groundnut, rapeseed/mustard, toria, soyabean, sunflower seed, sesamum, safflower seed and nigerseed
- Raw cotton
- Raw jute
- Copra
- De-husked coconut
- Sugarcane (Fair and remunerative price)
- Virginia flu cured (VFC) tobacco

BRAIN BOOSTERS

6. MSP & Swaminathan

- In 2004, the Manmohan Singh government had created the National Commission on Farmers i.e. Farmers Commission.
- Its president was MS Swaminathan. For this reason it is also called Swaminathan Commission.
- Its objective was to find out the problems of farmers and find their solutions.
- Between December 2004 and October 2006, the Farmers Commission had prepared 5 reports.
- The most important report in this was regarding MSP. The Commission told what the MSP should be.
- On the basis of the report given by the Commission, the government replaced the Farmers Commission with the National Farmers Policy.
- Under this the government promised that it would increase the income of farmers, provide them high quality seeds.
- But the government did not promised anything on the implementation of the recommendations of the S. Swaminathan Commission.
- **Swaminathan Formulae:**
 - » MSP will be 50% of the cost of the crop.
 - » If it takes Rs 1000 for a farmer to grow a crop.
 - » Its 50% i.e. Rs 500 is added to this, the total MSP will be Rs 1500.
 - » This is called C2+50% formula. C2 means cost.

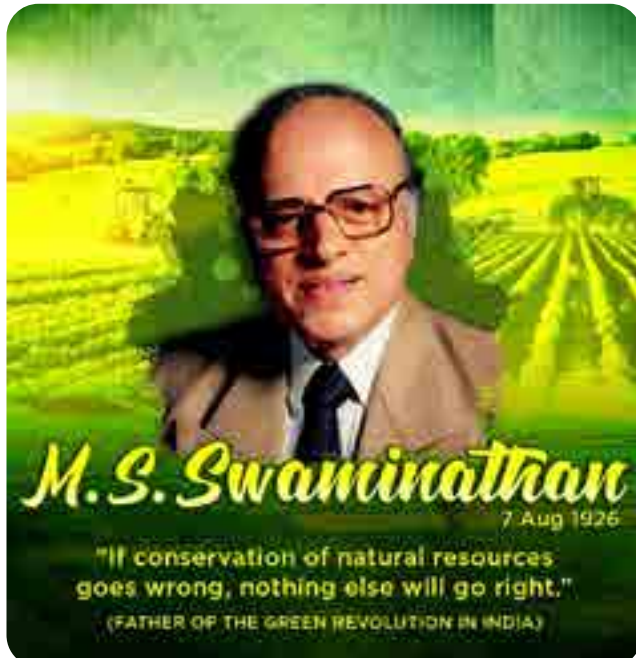
7. How is MSP Calculated?

- The Minimum Support Price (MSP) is calculated by considering both the explicit and implicit costs incurred by farmers.
- **Explicit costs:** It cover expenses like chemicals, fertilisers, seeds, and hired labour.
- **Implicit costs:** It include factors such as family labour and rent.
- These variables are represented by A2, FL, and C2.
- **A2:** It refers to the expenses for inputs like chemicals, fertilisers, seeds, and hired labour for crop growth, production, and maintenance.
- **A2 + FL:** It includes both actual and implicit costs, such as family labour.
- **C2:** It incorporates A2 + FL along with fixed capital assets and rent paid by farmers.
- **Other factors taken into account by CACP:**
 - » Cost of cultivation per hectare and crop costs in different regions.
 - » Cost of production per quintal and regional differences.
 - » Market prices of relevant crops and their fluctuations.
 - » Other production and labour costs, along with associated changes.
 - » Prices of commodities bought or sold by farmers and any fluctuations.
 - » Information on product supply, including area, yield, production, imports, exports, and stocks with public agencies or industries.
 - » Demand information across regions, including total and per capita consumption, processing industry trends, and capacity.

8. About M.S. Swaminathan

- M S Swaminathan, who played an instrumental role in ushering the Green Revolution, has been conferred the highest civilian award, Bharat Ratna posthumously.
- Swaminathan worked to revolutionize agriculture and ensure food security and sustainable resource management.
- He aimed to improve crop yields, promote ecological and economic sustainability, and empower small farmers while integrating cutting-edge technology and promoting gender equality in agriculture.

BRAIN BOOSTERS



9. M.S. Swaminathan's Education

- Born in Kumbakonam, Tamil Nadu, India, on 7 August 1925, Swaminathan received BSc in zoology and agriculture.
- He received a PhD from the School of Agriculture at the University of Cambridge in 1952.

11. Swaminathan: The Leader

- Chaired the UN's Advisory Committee (now Commission) on Science and Technology for Development from 1981 to 1984.
- Served as director of the International Rice Research Institute from 1982 to 1988.
- Presided over the International Union for Conservation of Nature from 1984 to 1990.
- Held advisory roles in the Indian government.
- Led the Indian Council of Agricultural Research from 1972 to 1979.
- Served as the M.P. Rajya Sabha, from 2007 to 2013.

10. Works of M S Swaminathan

- After completing the PhD, he returned to India and joined the indica-japonica rice hybridization program at the Central Rice Research Institute in Cuttack.
- In 1958, Swaminathan offered insights into how to induce mutations in wheat and rice, expediting the development of desired traits.
- In 1963, he initiated a breeding program that incorporated dwarfing genes into wheat, producing shorter, stronger plants that boosted yields.
- A rice breeding initiative followed, in which Swaminathan created basmati strains that stood tall without breaking, even when bearing heavy grains.
- The release of Pusa Basmati 1121, a hybrid variety, ensured high yield and quality in basmati rice production, a revolution for food security and farmers.
- The green revolution in the late 1960s, made possible by Swaminathan's work, transformed agriculture by introducing high-yield crop varieties and modern techniques.

12. Awards for M S Swaminathan

- 85 honorary doctorates.
- The Mendel Memorial Medal in 1965.
- The Ramon Magsaysay Award in 1971.
- Padma Shri in 1967.
- Padma Bhushan in 1972.
- Padma Vibhushan in 1989.
- The Albert Einstein World Award of Science in 1986.
- He was the inaugural laureate of the World Food Prize, 1987, often considered to be an agricultural Nobel Prize.
- Bharat Ratna in 2024.

BRAIN BOOSTERS

High-Altitude Pseudo-Satellite Vehicle

Why in Broadcast

National Aerospace Laboratories (NAL) successfully flew a prototype of a new-generation unmanned aerial vehicle (UAV). This UAV can fly at heights of about 20 km from ground, runs entirely on solar power, and can remain in the air for months on end. Such UAVs belong to a class of flying objects called high-altitude pseudo-satellite (HAPS) vehicles, or high-altitude long-endurance (HALE) vehicles.

HAPS in India

- In the field of HAPS, India is entering the race at a relatively early stage.
- India is promoting research in emerging technologies, so that the country is not dependent on others for critical technologies of the future.
- Joining technology development at an early stage also results in:
 - » Capacity building.
 - » Early adoption of technologies.
 - » Control over patents.
 - » Business opportunities.
 - » Spin-off technologies.

Utility of HAPS

- In the field of surveillance and monitoring
- Disaster management

Status of HAPS Technology Development

- HAPS technology is still under development.
- Several countries, and companies, have developed and flown such vehicles, but none has mastered the technology yet.
- The world record for a vehicle of this class is held by the Airbus-Zephyr, which flew continuously for 64 days.
- The latest prototype tested by NAL flew for 8:30 hours in the air.
- The full-scale machine that NAL is trying to build, by 2027, would be aiming to remain in the air for 90 days at a stretch.

Benefits of HAPS Compared to UAVs & Satellites

- HAPS are designed to loiter over a region.
- By standards of flying objects, and in comparison to UAVs they move really slow.
- With a 5 metre resolution, observation over a 400 sq km area is petty task.

Engineering Challenges of HAPS

- The primary challenge is to generate enough solar power to keep the aircraft flying, the payloads operating and the batteries charging.
- The batteries need to be enough to continue the operations through the night.
- The aircraft needs to be extremely lightweight to minimise the power requirement, but it also has to be stable.
- So the aircraft is meant to fly in the stratosphere (17-23 km above the earth's surface).
- The wind speed is very low and ideal for light-weight aircraft to remain stable.
- Stratosphere is favourable for observation and surveillance activities.
- Temperatures at that height can drop to -50°C or lower.
- Electronics need to be kept warmer, which increases the power requirements.
- Air density is just about 7% compared to sea level.
- This creates acute complications (producing lift and thrust) for the aircraft.
- Due to the limitations of space and weight, solar cells and batteries need to have very high efficiencies.

India's Push for Residential Rooftop Solar Plans

Why in Broadcast

A key reason India fell short of achieving its ambitious plan to install 175 gigawatts (GW) of renewable energy from solar, wind, biomass and hydro resources by the year 2022 was the sluggish pace of its rooftop solar power installation programme, which generated a mere 5.87 GW against a target of 40 GW by the end of the year.

India's Green Ambitions

- As per the latest estimates, India has installed around 2.7 GW capacity in the rooftop residential sector in 6.7 lakh households.
- An assessment by Council on Energy, Environment and Water (CEEW) found that over 25 crore households in the country have the potential to deploy 637 GW of solar energy capacity on rooftops.

The Recommendation

The Parliamentary Standing Committee on Energy has asked the Ministry of New and Renewable Energy (MNRE) to ensure wider adoption of grid-connected rooftop solar photovoltaic projects (RSPV) to achieve the target before the revised deadline of March 2026.

Pradhan Mantri Suryodaya Yojana

- In a renewed push for activity in the segment and improve the share of solar power in the grid, the Centre last month unveiled the Pradhan Mantri Suryodaya Yojana (PMSY) to tap into the vast potential of rooftop projects in residential areas.
- This scheme would help one crore families get up to 300 units of free electricity per month with savings of up to Rs 18,000 annually.

About New Rooftop Policy

As part of the Pradhan Mantri Suryodaya Yojana, the Centre will bear the entire cost of setting up rooftop solar systems for households that consume less than 300 units of electricity per month.

About Rooftop Solar System & Its Working

- Vacant spaces on the ground, and rooftops of houses and commercial and industrial (C&I) buildings receive abundant raw solar energy which can be harnessed to produce solar power.
- When solar photovoltaic panels that convert sunlight into electricity are placed on the top of such buildings, it is known as a rooftop solar system.
- A RSPV system can be either grid-connected or a standalone unit known as an off-grid solar system.
- An off-grid solar system uses storage devices like batteries that are expensive and bulky.
- A grid-connected rooftop solar system, feeds solar energy into the utility grid.
- A bi-directional or net meter installed on the premises of a consumer records the energy flow in both directions and the net energy used is calculated at the end of the billing period.
- A consumer has to pay for the net energy units used, which is the difference between total imported units and exported solar units. This is called net-metering.

BRAIN BOOSTERS

Deep tech

Why in Broadcast

According to a report titled 'The India Deep Science Tech Report' by VC firm Ankur Capital which focuses on deep tech/science investments, the total deep science tech investments have doubled in the last three years. It has crossed \$1 billion in the 2021-2023 period. The report notes that investments have consistently doubled every three years since 2010, with projections to surpass \$10 billion by 2029.

1. About Deep tech

Deep technology, or deep tech, refers to advanced technologies based on some form of substantial scientific or engineering innovation. The innovations are “deep” in that they are sophisticated, very advanced answers to complex challenges or issues. Examples of deep-tech breakthroughs include genomics, robotics, nanotechnology and clean energy initiatives coming from research labs and academia.

2. About the Term

- Deep tech is a decades-old term used, at first, to describe any form of complicated technology in general.
- However, in the last decade, deep tech has gained a more precise and specific meaning.
- Deep tech pushes the boundaries of what is technologically possible, often upsetting the status quo through radical innovations rooted in scientific research and engineering.

3. Types of Deep tech

The most common types of deep tech are the following:

- **Advanced Materials:** Deep tech includes engineering materials at the molecular level to create products with enhanced electrical, thermal, structural, magnetic, mechanical and other properties. Material science applications range from electronics to energy to medicine.
- **AI & ML:** Artificial Intelligence and Machine Learning are increasingly mainstream, but a significant amount of deep-tech innovation is still involved, especially for the development of artificial general intelligence. Advances in AI capabilities continue in areas such as predictive analytics, autonomous vehicles, drug discovery, next-level process automation and process virtualization, next-gen computing, clean technologies etc.
- **Biotechnology:** Deep-tech bio startups advance precision medicine, agriculture and sustainability initiatives by leveraging advanced genetics, genomics and synthetic biology to create breakthrough therapies, materials, fuels and foods.
- **Power production:** Development of advanced forms of power production, including but not limited to nuclear fusion technology, is a deep-tech issue of critical importance for all.
- **Quantum Computing:** Deep - tech companies use quantum computing to develop algorithms, systems and computers to solve complex problems in cryptography, drug research, finance and more.
- **Robotics:** Robotics combines engineering and computer science to build machines that can operate autonomously. Deep-tech robotics innovators develop next-generation industrial robots, humanoid service robots, surgical bots, autonomous drones and other intelligent machines.

BRAIN BOOSTERS

4. Goals of Deep tech

- **Push boundaries:** A key intention of deep tech is to establish new benchmarks and thresholds for cutting-edge and advanced technology.
- **Make scientific breakthroughs:** Many deep-tech startups originate from academic research that guides promising lab discoveries with societal impact to commercial viability.
- **Solve big problems:** Deep tech aims to tackle complex and challenging issues with advanced technologies and breakthrough innovations.
- **Enable change:** Deep tech seeks to develop foundational technologies that drive transformational change across industries, businesses and society as a whole.
- **To create new types of business applications:** By advancing fields such as quantum computing and material sciences, deep tech lays the groundwork for new products, services and revenue opportunities.

5. Challenges for Deep tech

The following are among the obstacles for deep tech:

- **Long R&D cycles:** Deep-tech initiatives can take many years from initial research to commercial viability, requiring funds, patience and long-term vision from founders, staff and investors.
- **Substantial capital requirements:** Major upfront investments are needed for expensive R&D, testing, before deep-tech developers consider the revenue potential that yields a return to investors.
- **Talent acquisition:** The workforce in deep tech requires advanced expertise and skills in complex fields such as quantum computing, robotics, genomics and AI. Competition is intense for this scarce talent.
- **Regulatory landscape:** Highly regulated industries such as aerospace, pharmaceuticals and energy require deep-tech startups to work closely with government bodies in order to navigate complex regulations.
- **Customized production:** Constructing something that has never been built before, often requires creating highly customized production capabilities from scratch.
- **Educating enterprise customers:** Business-to-business deep-tech startups have the added challenge of educating prospective business customers on the value of emerging, unproven technologies.
- **Long adoption cycles:** Even after the product is commercially ready, deep-tech initiatives typically face slow adoption as users acclimate themselves to processes that differ greatly from traditional high-tech advancements.
- **No promise of success:** With deep-tech efforts, there is a nontrivial risk of a potential failure even after years of R&D and investment. Some deep tech does not culminate in a scalable product due to unforeseen scientific constraints or other technical challenges.

6. Future of Deep tech

- Deep tech is all about potential. Scientific breakthroughs that shape the future continue to drive deep tech's growth prospects.
- With the widespread and continuing adoption of generative AI technologies, there is no shortage of entrepreneurs and researchers looking to further capitalize on AI's future. It's a future that points to artificial general intelligence and its advantages over generative AI.
- Quantum computing is also in early development. Vendors and researchers continue to push the boundaries of physics in a bid to create useful and practical systems that can solve real-world problems.
- Equally important, some deep-tech startups focus on developing clean energy systems, carbon sequestration techniques, waste management initiatives and other environmental sustainability technologies to address pressing climate change issues.
- In the area of healthcare, deep-tech innovations in biotech and AI convergence enable more personalized medicine, sophisticated diagnostics and significantly broadened treatment options.

News Of National and International Importance

Bharat 5G Portal

Chairman of the Digital Communications Commission and Secretary of the Department of Telecommunications (DoT) under the Ministry of Communications (MoC), unveiled the “Bharat 5G Portal- an integrated portal” during the Bharat Telecom 2024.

About Bharat 5G Portal:

- The Bharat 5G Portal is a one-stop solution for all 5G and 6G-related initiatives .
- It is a comprehensive platform to serve the interests of startups, industry and academia in the domains of 5G, 6G, IPR, and quantum.
- It features the Future Tech-Experts registration portal in collaboration with PANIIT USA.
- The portal includes academic R&D developments, industry standards, OEMs, startups/MSMEs and subject matter experts.
- The portal aims to boost India’s 5G capabilities, promote innovation and collaboration within the telecom sector and serve as a platform for institutions, students and startups to test and develop 5G technologies.

Dusted Apollo Butterfly

The Dusted Apollo butterfly has been sighted and photographed for the first time in Chamba district of Himachal Pradesh.

About Dusted Apollo:

- The Dusted Apollo (*Parnassius stenosemus*) is a rare butterfly that flies at altitudes between 3,500 and 4,800 meters in the inner Himalayas.
- It was seen during a trek to Manimahesh Lake in Chamba.
- The species was first discovered in 1890 and its distribution range extends from Ladakh to west Nepal.
- It closely resembles Ladakh Banded Apollo (*Parnassius stoliczkanus*) but the discal band on the upper fore wing in dusted apollo is complete and extends from costa to vein one while this discal band is incomplete and extends only up to vein four in Ladakh Banded Apollo.
- The habitat of the Apollo butterfly has been reduced by conifer plantations, agriculture, urbanization and the succession of suitable habitat to scrubland.
- It is a medium-sized butterfly, generally with translucent white, yellow or gray wings with dark markings and usually a red or orange spot on the hindwing.

Subika Painting

Recently, the cultural activists and scholars have raised concerns that the Manipur’s age-old Subika Painting is on the brink of extinction due to neglect.

About Subika Painting:

- Subika painting is an ancient painting style used in Puyas (Manipur manuscripts) and is intricately linked to the cultural history of the Meitei community in Manipur.
- The Subika painting style is represented in six surviving manuscripts including, Subika, Subika Achouba, Subika Laishaba, Subika Choudit, Subika Cheithil and Thengrakhel Subika.
- Subika Laishaba represents a direct continuation of the Meitei cultural tradition through visual images, possibly existing since the introduction of the writing tradition in Manipur.
- Experts estimate the use of Subika paintings since the 18th or 19th century, indicating Manipur’s historical prominence in visual arts alongside other cultural forms like Raas leela and Nat Sangkritan.
- Subika painting depicts various themes related to Meitei culture, traditions, folklore, mythology and historical events, providing insights into the cultural heritage of Manipur.
- Dr. Yumnam Sapha, along with other cultural activists and scholars, is leading efforts to preserve and revive the Subika painting style.

Sadhu Meher

Eminent actor and director Sadhu Meher, who had made a mark in both Hindi and Odia cine industries,

passed away in Mumbai on 2nd February, 2024.

Contribution:

- Meher began his career in 1969 with Hindi film 'Bhuvan Shome', 'Ankur' and 'Mrigaya' before transitioning to Odia cinema.
- His notable works in Odia cinema include 'Bhukha' (1989) and films like 'Abhimaan', 'Aparichita', 'Abhilasha' and 'Gopa Re Badhhuchi Kala Kanhei'.
- He directed the first children's sci-fi (science fiction) Odia movie titled 'Babula' in 1985.
- Honours and Awards:
- Sadhu Mehr became the first from Odisha to win a National award for best actor in 1974 for his role in Shyam Benegal's Hindi film 'Ankur'.
- He was honoured with the Padma Shri in 2017, acknowledging his significant contributions to Indian cinema.
- He received the Jaydev Samman from the Odisha government in 2011 for his lifetime contribution to cinema.

Pterosaur

Scientists from the Natural History Museum, University of Bristol, University of Leicester, and the University of Liverpool have unearthed the fossil of a unique species of flying reptile, known as a pterosaur on a Scottish island.

About Pterosaur:

- The pterosaur lived approximately 168-166 million years ago during the Middle Jurassic period which had a sub-tropical climate with beaches and lagoons, ideal for pterosaurs.
- Its name comes from the Scottish Gaelic word cheò, meaning mist, and is a reference to the Gaelic name of Isle of Syke - Eilean a' Cheò or Isle of Mist.
- Fossil remains include wings, shoulders, legs and backbone, with the skull missing.
- Fossils from the Middle Jurassic era are exceedingly rare, making this discovery significant.
- Fossil remains were found on the Isle of Skye, located off Scotland's west coast.

Grammy Award

PM of India congratulated musicians Ustad Zakir Hussain, Rakesh Chaurasia, Shankar Mahadevan, Selvaganesh V and Ganesh Rajagopalan for winning the Grammy award for the 'Best Global Music'.

About the Grammy Award:

- The Grammy Award, also known as the Grammy, is a series of awards given annually by the National Academy of Recording Arts & Sciences (NARAS) in the United States.
- The Grammy is given to recognize exceptional work in the music industry.
- The recording with the most votes in a category wins, and ties are considered winners.
- All nominees receive a Nominee Medallion and Certificate.
- It is considered by many to be the most prestigious and important awards in the music industry worldwide.
- The 'General Field' refers to four awards that are not restricted by genre including Album of the Year, Record of the Year, Song of the Year and Best New Artist."

MQ-9B Drones

Recently, the US has revealed that the sale of 31 armed drones (MQ-9B) to India at an estimated cost of nearly \$4 billion would provide it with an enhanced maritime security and domain awareness capability and give the country outright ownership of these aircraft.

MQ-9B drones:

- The MQ-9B drone, also known as the Predator drone is an unmanned aerial vehicle (UAV) that has two variants:
 - » SkyGuardian
 - » SeaGuardian.
- It has a payload capacity of 3,850-pound (1,746 kg).

- It has nine hardpoints that can carry sensors, laser-guided bombs and air-to-ground missiles.
- The Indian Navy has been operating the SeaGuardian version of the MQ-9B since 2020.
- The SeaGuardian can operate at over 40,000 feet and can carry up to 5,670 kg with a fuel capacity of 2,721 kg.

Deepastambham

Recently, a 390-year-old Deepastambham (lamp post) has been discovered at Mudimanikyam village in Nalgonda district of Telangana.

About:

- Deepastambham is a pillar of height 20 feet tall with hollows for lamps and has mix of Tamil & Telugu inscription.
- While Dhvajastambham (flag pole) is part of temple architecture, lamp posts are rare in the Deccan while they are common in temples in the west coast, including Goa.
- It is found that the inscription dated to June 1635, written in Telugu mixed with Tamil, dedicated to Kasi Viswanatha. Possibly, it would have served as a lighthouse on the riverine trade route due to its height.
- The inscription was found in an area ruled by the Qutb Shahi rulers, and European travellers like Tavernier, who visited Hyderabad kingdom five times, described land trade routes during the same period.

Aadi Mahotsav

President Smt. Droupadi Murmu inaugurated the Aadi Mahotsav 2024, at Major Dhyan Chand National Stadium in New Delhi on 10th February.

About Aadi Mahotsav:

- The Aadi Mahotsav is an annual National Tribal Festival celebrated since 2017.
- It is a national tribal festival that celebrates the culture, heritage and products of India's tribes.
- It is a joint initiative of the Ministry of Tribal Affairs and the Tribal Cooperative Marketing Development Federation of India (TRIFED).
- Aadi Mahotsav 2024 had been organized from 10th to 18th February, 2024.
- It is not only a platform to exhibit the extraordinary talent and craftsmanship of tribal artisans but also an opportunity to interact, learn and contribute to the empowerment of tribal communities.

Kilkari Programme

Recently, the Union Ministers of State for Health and Family Welfare virtually launched the Kilkari programme for beneficiaries in local content in Gujarat and Maharashtra.

About Kilkari Programme:

- The Kilkari program is a mobile health (m-health) initiative that provides free, weekly audio messages to new and expectant mothers.
- The messages provide information about pregnancy, childbirth and childcare.
- Initially, the program was launched on 15th January, 2016 as a part of Digital India initiative for new and expectant mothers.
- This programme is available in six languages including Hindi, Bhojpuri, Oriya, Assamese, Bengali and Telugu. It is currently operational in 18 states and Union Territories and another 9 states are in the process of joining.
- The program also provides a free audio training course for Accredited Social Health Activists (ASHAs).

SWATI Portal

Recently, a panel representing India's science academies launched SWATI' Portal in New Delhi.

About SWATI Portal:

- The "SWATI" (Science for Women-A Technology & Innovation) is complete interactive database Portal

to represent Indian women and girls in STEMM (Science, Technology, Engineering, Mathematics & Medicine).

- It is developed, hosted and maintained by the National Institute of Plant Genome Research (NIPGR), New Delhi.
- It's the first of its kind in India and aims to address the gender gap in science, technology, engineering, mathematics and medicine.
- Its objective is to encourage and bring together young women scientists, faculty members, researchers and start-ups from India and abroad to pursue the cause of science.

Kyasanur Forest Disease

Recently, Karnataka state health officials reported a surge in the Kyasanur Forest Disease (KFD) outbreak.

About Kyasanur Forest Disease:

- Kyasanur Forest Disease (KFD) is a viral hemorrhagic fever that is endemic to India's southwestern region.
- It is a rare zoonotic disease that causes acute febrile hemorrhagic illness in humans and monkeys.
- It is caused by the bite of infected ticks or when in contact with infected animals.
- The disease causes fever, headache, muscle pain, bleeding problems and neurological complications.
- Some patients experience neurological symptoms in the third week, which include severe headaches and vision problems.
- It was identified in 1957 when it was isolated from a sick monkey from the Kyasanur Forest in Karnataka (formerly Mysore) State, India.
- The virus has spread along the entire stretch of Western Ghats, including Maharashtra, Kerala, Tamil Nadu and Goa.

BAPS Temple

Prime Minister of India inaugurated Abu Dhabi's first Hindu stone temple, emphasizing its significance as a symbol of the shared heritage of humanity.

About the Temple:

- The BAPS temple in Abu Dhabi was built by the Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha (BAPS), a Vaishnav sect of Hinduism.
- The temple is situated on a 27-acre site in Abu Mreikhah, near Al Rahba.
- Deities from diverse regions of India, including Ram, Sita, Shiva, Parvati and others, are depicted within the temple.
- **Features:** Elements from multiple civilizations, including Mayan, Aztec, Egyptian, Arabic, European, Chinese and African cultures, promoting cultural diversity.
- BAPS operates a global network of 1,550 temples and 3,850 centers worldwide, promoting cultural exchange and religious harmony.

Purulia Chhau

Recently, Purulia Chhau dance has performed by Tarapada Rajak and team at a college in Kozhikode, Kerala.

About Purulia Chhau:

- Purulia Chhau is a semi-classical Indian folk dance from the Purulia district of West Bengal.
- It's a UNESCO World Heritage dance that combines martial arts and folk traditions.
- Many scholars believe that the name Chhau comes from "Chhauni", which means "military camp".
- Chhau performances include acrobatics, martial moves and religious dances.
- The dance is a way to tell stories to the audience, so it incorporates elaborate masks and headgear associated with battle and war.
- It has three distinct styles, named after the region where they are performed: Purulia (West Bengal), Seraikella (Jharkhand) and Mayurbhanj (Odisha).

Current Affairs at a Glance

1. Jay Shah has been re-elected as the President of the Asian Cricket Council (ACC) for the third consecutive time.
2. PM Modi laid the foundation stone of NLC India Limited's Talabira Thermal Power Project in Odisha. The Project worth over Rs 27,000 crore will be set up in Sambalpur, Odisha.
3. Assam Tourism Development and Registration Bill 2024 has been approved by Assam Cabinet. This bill has been brought with the aim of regulating the tourism sector.
4. Government of India has appointed Vice Admiral Lochan Singh Pathania as the Chief Hydrographer. He is an expert on international maritime law relating to maritime border delimitation.
5. 'Sadak Suraksha Force' has been constituted by the Punjab Government to reduce road fatalities. The Sadak Suraksha Force will be led by former Indian hockey team captain and AIG Traffic Gaganjit Singh.
6. Sultan Ibrahim Iskandar has been appointed the 17th king of Malaysia. He belongs to Johor, the southern state of Malaysia.
7. INS Sandhayak was commissioned in Visakhapatnam. The main task of the ship will be to conduct full scale hydrographic survey of ports, navigation channels/routes, coastal areas and deep seas.
8. India's largest and first of its kind Bharat Mobility Global Expo 2024 was organized on 2nd February at an event at Bharat Mandapam, New Delhi.
9. Karnataka government to launch 'Digital Detox' initiative with assistance from All India Game Developers Forum (AIGDF). Its aim is to create a responsible gaming environment. Through this initiative, offline and online digital detox centers will be opened across Karnataka.
10. Guidelines have been issued by the University Grants Commission (UGC) to provide level-playing field for Socio-Economically Disadvantaged Groups (SEDGs) in Higher Education Institutions (HEIs). These guidelines are in line with the recommendations of the National Education Policy (NEP) 2020, which focuses on promoting equity and social justice in education.
11. 67-year-old tribal leader Champai Soren took oath as the new Chief Minister of Jharkhand. He is the 12th Chief Minister of the state.
12. Indian Navy has declared 2024 as the 'Year Of Naval Civilians' to improve the administration, efficiency and welfare of Navy civilians in order to address all aspects of civilian human resource management in a time bound manner.
13. India's largest theater festival 'Bharat Rang Mahotsav' concluded in Kutch, Gujarat.
14. Justice Ritu Bahri took oath as the first woman Chief Justice of Uttarakhand High Court.
15. Union Home Ministry has created a new medal by combining four existing medals. The name of this new medal is "Kendriya Grihmantri Dakshata Padak". This medal will be given to the personnels of police forces, security agencies, intelligence and forensic science. This medal will be awarded to those who have done commendable work in counter-terrorism, border security, arms control, counter-leftist extremism, narcotics, smuggling and rescue operations.
16. Abhinav Bindra has been selected as the torch bearer for the 2024 Paris Olympics. The Olympic torch relay will start on 16th April and travel from the Peloponnese to Athens.
17. IIT Kanpur has developed the country's first Hyper Velocity Expansion Tunnel Test Facility and successfully tested it. With this technical facility, hypersonic cruise missiles can be prepared for precise targeting.
18. The Iranian government has announced a visa-free travel policy for Indian citizens. This visa-free policy is for tourism purposes only.
19. Ahmed Awad bin Mubarak was recently appointed as the new Prime Minister by the Presidential Leadership Council of Yemen.
20. Uttarakhand has become the first state to pass the Uniform Civil Code Bill. It will control and regulate the laws relating to marriage and divorce, inheritance, live-in relationships and matters connected therewith.
21. Naveen Tahilyani has been appointed as the CEO and MD of Tata Digital, a subsidiary of Tata Sons.
22. Former Chilean President Sebastian Pinera died in a helicopter crash at the age of 74.

Places in News

Catalonia

The Spanish region of Catalonia has declared a state of emergency as it faces its worst drought on record.

- **Capital:** Barcelona
- **Location:** Catalonia, an autonomous region of Spain is located in north east of Iberian Peninsula.
- **Boundaries:** Catalonia shares its border with Mediterranean Sea (East), France and Andorra (North)

Physical Features:

- The Pyrenees are a mountain range that stretches from the Bay of Biscay to the Mediterranean Sea, forming a natural border between France and Spain.
- The Ebro River is the longest river in Spain the second longest river in the Iberian Peninsula flowing from the Cantabrian Mountains to the Mediterranean Sea.
- Catalonia generally experiences a Mediterranean climate characterized by hot, dry summers and mild, wet winters.



Estonia

Russia has declared Estonian leader Kaja Kallas and other European officials as “wanted” over their alleged involvement in the destruction of Soviet-era war memorials.

- **Capital of Estonia:** Tallinn
- **Location:** Estonia, officially known as the Republic of Estonia, is a country in the Baltic region of Northern Europe.
- **Boundaries:** Estonia shares its border with Lake Peipus and Russia (East), the Baltic Sea (West), the Gulf of Finland (North) and Latvia (South).

Physical Features:

- Suur Munamagi is the highest point in Estonia.
- The Emajogi, the Parnu and the Poltsamaa are the prominent rivers in the country.
- Estonia is an important producer of shale oil.
- **Membership:** Estonia is a member of various international organizations, including the European Union (EU), NATO (North Atlantic Treaty Organization) and the United Nations (UN).



MCQs Based on Current Affairs

1. Consider the following statements:

1. The Centre has proposed repealing the Indian Stamp Act, 1899 and bringing in a new law for the stamp duty regime in the country.
2. A stamp duty is essentially a government tax, which is levied to register documents, like an agreement or transaction paper between two or more parties, with the registrar.
3. Stamp duties can be levied on bills of exchange, cheques, promissory notes, bills of lading, letters of credit, policies of insurance, transfer of shares, debentures, proxies and receipts.

How many of the above statements are correct?

- A. Only one B. Only two
C. All three D. None

2. Consider the following statements:

1. The Maharashtra government announced the launch of LABHA ('Laghu Bana Jatya Drabya Kraya') Yojana a 100% State-funded minimum support price (MSP) scheme for minor forest produce (MFP).
2. From now on, the MSP of MFP will be determined every year by the State government.
3. Though the Tribal Cooperative Marketing Federation of India fixes the MSP for MFP, the benefits had not been reaching the beneficiaries in Odisha for several years.

How many of the above statements are correct?

- A. Only one B. Only two
C. All three D. None

3. Arrange the following Islands of South China Sea from South to North:

1. Parcels Islands
2. Scarborough Shoal Islands
3. Spratlys Islands

Select the correct answer using the code given below:

- A. 1,2,3 B. 1,3,2
C. 3,1,2 D. 3,2,1

4. Consider the following statements:

1. Recently, India and the United Arab Emirates (UAE) signed eight pacts, including a bilateral investment treaty and a framework deal to foster regional connectivity.
2. India's third-largest foreign investor is the UAE and discussions regarding the investment treaty between the two countries have been ongoing since 2016.
3. Currently, bilateral trade between the two

countries stands at \$85 million.

How many of the above statements are correct?

- A. Only one B. Only two
C. All three D. None

5. Consider the following statements:

1. e-Cigarettes are battery powered devices that work by heating a liquid into an aerosol that the user inhales and exhales.
2. The e-cigarette liquid typically contains nicotine, propylene glycol, glycerin, flavorings, and other chemicals.
3. There are many different types of e-cigarettes in use, also known as electronic nicotine delivery systems (ENDS) and sometimes electronic non-nicotine delivery systems (ENNDS).

How many of the above statements are correct?

- A. Only one B. Only two
C. All three D. None

6. Consider the following statements:

1. Odisha is set to unveil the world's first melanistic tiger safari near the Similipal Tiger Reserve (STR).
2. Melanism is a genetic condition, that results in increased melanin production, leading to black or nearly black skin, feathers, or hair in animals.
3. According to the All India Tiger Estimation, 2022, Similipal Tiger Reserve houses 16 tigers, with 10 of them displaying melanistic traits.

How many of the above statements are correct?

- A. Only one B. Only two
C. All three D. None

7. Consider the following statements about white rhinoceros:

1. Scientists in Berlin announced the first successful embryo transfer in a white rhinoceros using a method that offers hope for saving the critically endangered northern white rhino subspecies from extinction.
2. The white rhinoceros includes two distinct subspecies, northern and southern.

Which of the above statements are correct?

- A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

8. Consider the following statements about Snow Leopard Population Assessment:

1. Recently, a report on the Status of Snow leopards in India was released during the National Board for Wildlife meeting held in New Delhi .
 2. The Snow Leopard Population Assessment in India (SPAII) Program is the first-ever scientific exercise that reports Snow leopard population of 718 individuals in India.
 3. However, only a third of their habitat is under legal protection.
- How many of the above statements are correct?
- A. Only one B. Only two
C. All three D. None
9. **Recently, Dhokra Shilpkala was in news. Which of the following is true?**
- A. Gujarati recipe prepared with gram flour
B. Ancient metal casting tradition
C. Form of martial art associated with the Sikhs of the Punjab
D. Handmade craft made from raw material procured from dead animals
10. **Consider the following statements about Bilateral Investment Treaties (BITs):**
1. A BIT is an agreement between two countries that provides legal protection and guarantees to foreign investors.
 2. Both countries involved in a BIT have equal obligations and benefits regarding investments.
 3. BITs often include provisions for dispute resolution mechanisms between the investor and the host country.
- How many of the statements given above are correct?
- A. Only one B. Only two
C. All three D. None
11. **Consider the following statements. Mark the correct statement:**
- A. Japan also makes territorial claims on the South China Sea.
B. It is connected to the East China Sea by the Taiwan Strait and to the Philippine Sea (both marginal seas of the Pacific Ocean) by the Luzon Strait.
C. China claims 72% of the sea with its “nine-dash line” map and has physically expanded islands and built military installations to establish control.
D. The United Nations Conference on Trade and Development estimates that more than 80% of global trade passed through these waters in 2016.
12. **Consider the following statements. Mark the correct statement:**
- A. UAE is the 11th largest investor in India with cumulative FDI inflow of US\$15,179 million from April 2000 to September 2022.
B. India and United Arab Emirates established diplomatic relations in the year 1980.
C. India and UAE had earlier implemented a free trade agreement in May 2022. Cumulative foreign direct investment (FDI) into India from April 2000 to September 2023 was \$16.7 billion.
D. RuPay card, a key component of India’s Digital Public Infrastructure (DPI), is being accepted in the UAE since 2014.
13. **Consider the following statements:**
1. Recently, the 2024 Climate and Catastrophe Insight report has been published by a risk-mitigation service provider Aon PLC.
 2. The report highlighted that the year 2023 recorded significant damages due to Natural Disasters.
 3. Aon plc is a leading provider of advice and solutions for commercial, reinsurance, retirement, health, and data & analytic services in over 120 countries and sovereignties.
- How many of the above statements are correct?
- A. Only one
B. Only two
C. All three
D. None
14. **Consider the following statements about The Water (Prevention and Control of Pollution) Amendment Bill, 2024:**
1. Recently, The Water (Prevention and Control of Pollution) Amendment Bill, 2024 was introduced in the Rajya Sabha.
 2. Initially, it would be applicable to Himachal Pradesh and Rajasthan, and any other state that passes a resolution under the Water (Prevention and Control of Pollution) Act, 1974.
 3. The Bill adds that the central government will prescribe the manner of nomination and the terms and conditions of service of the chairman.
- How many of the statements given above are correct?
- A. Only one B. Only two
C. All three D. None
15. **Consider the following statements:**

1. Researchers have found a new alloy that can act as an effective magnetic refrigerant that can be an alternative cooling agent for minimizing greenhouse gas emissions and meet the global demand for higher energy efficiency for tackling global warming.

2. Magnetic refrigeration offers an energy-efficient and environment-friendly cooling technology as an alternative to the vapor-cycle refrigeration technology in use today.

Which of the statements given above are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

16. Consider the following statements about Neuralink device:

1. Elon Musk's company Neuralink gets the U.S. Food and Drug Administration's (FDA) approval for study of brain implants in humans.

2. The device connects the brain to an external computer via a Bluetooth signal, enabling continuous communication back and forth.

3. It's implanted within a small disk-shaped cut-out in the skull using a precision surgical robot.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

17. Consider the following statements about Neuralink device:

1. Recently, central government said that it will expand application of nano DAP (di-ammonium phosphate) to all agro-climatic zones.

2. In April 2023, IFFCO launched liquid nano di-ammonia phosphate (DAP), the first in the world.

3. Nano DAP (liquid) has a reduced impact on soil and consumer health. It is a cheaper alternative to regular chemical fertilisers and also incurs lower logistics costs.

How many of the statements given above are correct?

- A. Only one
- B. Only two

C. All three

D. None

18. Consider the following statements:

1. A Green Propulsion System, developed under the Technology Development Fund (TDF) scheme has successfully demonstrated in-orbit functionality on a payload launched by the Polar Satellite Launch Vehicle (PSLV) - C58 Mission.

2. The TDF is a flagship programme of the Ministry of Defence which is being executed by the DRDO under the "Make in India" initiative.

3. The Green Propulsion System was developed by a Bengaluru-based start-up Bellatrix Aerospace Pvt Ltd (Development Agency).

How many of the above statements are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

19. Consider the following statements:

1. Recently, researchers at the Raman Research Institute (RRI) have developed a new image-correction technique to enhance the study of cold atoms, particularly those at absolute zero temperatures.

2. This technique eliminates 50% of unwanted interference fringes in images, crucial for understanding the quantum mechanics properties of cold atoms.

Which of the statements given above are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

20. The Public Examinations (Prevention of Unfair Means) Act 2024 comes under the jurisdiction of Ministry of-

- A. Ministry of Education
- B. Ministry of Law and Justice
- C. Ministry of Home Affairs
- D. Ministry of Personnel Public Grievances and Pensions

Answer

- | | | | | | | |
|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| 1. D | 4. B | 7. C | 10. C | 13. C | 16. C | 19. C |
| 2. B | 5. C | 8. C | 11. B | 14. C | 17. C | 20. D |
| 3. D | 6. C | 9. B | 12. C | 15. C | 18. A | |

Pre Special Economy

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- ✓ QS World University Rankings
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- ✓ First High-Tech Sports Training Centre For Divyangjan
- ✓ Wax Statue of Baba Saheb Ambedkar
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- ✓ National Transit Pass System (NTPS)
- ✓ National Digital Nagrik Forum
- ✓ World Bank Global Economic Prospects Report
- ✓ India's 1st Eco-Friendly Debit Card
- ✓ Navratna Status for RITES & IRCON
- ✓ 13th 'Maharatna' Company
- ✓ Kirit Parikh Panel
- ✓ OPS Vs NPS
- ✓ Social Impact Bond
- ✓ Open Market Operation
- ✓ Bima Sugam Portal
- ✓ Direct Listing of Indian Companies in Foreign Stock Exchanges
- ✓ Female Labour Force Participation Rate

16th Finance Commission of India

Union Cabinet chaired by the Prime Minister, Shri Narendra Modi has approved the Terms of Reference for the Sixteenth Finance Commission. The 16th Finance Commission's recommendations would cover the period of five (5) years commencing April 1, 2026.

- Chairman of 16th FC- Dr. Arvind Panagariya.
- The Finance Commission is constituted by the President under Article 280 of the Constitution.

The Terms of Reference for 16th Finance Commission:

- **Distribution of Net proceeds:** The distribution between the Union and the States of the net proceeds of taxes which are to be, or may be, divided between them under Chapter I, Part XII of the Constitution and the allocation between the States of the respective shares of such proceeds.
- **Grant-in-aids:** The principles which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India and the sums to be paid to the States by way of grants-in-aid of their revenues under article 275 of the Constitution for the purposes other than those specified in the provisos to clause (1) of that article.
- **Consolidated Fund Augmentation:** The measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats and Municipalities in the State on the basis of the recommendations made by the Finance Commission of the State.
- **Disaster Management:** The Commission may review the present arrangements on financing Disaster Management initiatives, with reference to the funds constituted under the Disaster Management Act, 2005 (53 of 2005), and make appropriate recommendations thereon.

Vibrant Gujarat Summit

The 10th edition of the Vibrant Gujarat Global Summit was held in Gandhinagar from January 10 to January 12, 2024.

Significance of the summit:

- The Vibrant Gujarat Summit 2024 was significant for many reasons. There were over 60,000 delegates from 140 countries and 35 partner countries. MOUs for investment to the tune of over Rs 26 lakh crore were signed during the 2024 Summit. One of the significant highlights of the summit was the participation

of UAE President Sheikh Mohamed bin Zayed Al Nahyan as Chief Guest.

Other initiatives during the summit:

- UAE-India Business Summit under the theme "Two Nations, One Vision", was held on the sidelines of the Vibrant Gujarat Summit.
- During the summit, UAE-India Comprehensive Economic Partnership Agreement (CEPA) council was also set up with the objective of strengthening economic ties between the 2 countries.
- Ever since the signing of the CEPA in 2022, bilateral trade between the UAE and India has risen significantly. In 2022-2023, the bilateral trade value was estimated at \$84.9 billion.
- Both countries have set a target of \$100 billion for bilateral trade between them. The UAE's investments in India have increased in recent years and the former is likely to make significant investments in India's infrastructure sector.
- MOUs were signed between both sides in food processing, energy and healthcare. The MOUs in food processing and renewable energy sync in with I2U2 (US, Israel, UAE and India), a US-led initiative also dubbed as Middle Eastern Quad.

India-US Trade Policy Meeting

On January 12, 2024, the 14th Ministerial-level meeting of the Trade Policy Forum (TPF) between India and the United States took place in New Delhi.

Significance of Trade Policy Forum:

- The meeting emphasized the importance of the Trade Policy Forum in strengthening bilateral trade ties and overall economic relationship.
- Further, it acknowledged the continuous growth in India-US bilateral trade, exceeding \$200 billion in 2023 despite global trade challenges and expressed a mutual desire to further enhance engagement for increased and diversified bilateral trade.

Highlights of the meeting:

Areas of Cooperation:

- Both nations agreed to pursue enhanced engagement in critical areas like critical minerals, customs, trade facilitation, supply chains, and high-tech products.
- They committed to develop a forward-looking roadmap for cooperation and establish a foundation for future joint initiatives.

Bilateral Trade Concerns:

- Both countries highlighted progress in TPF Working Groups on various trade issues and established a pathway for mutual recognition of conformity assessment results to reduce

compliance costs.

Agriculture:

- The countries acknowledged pending work for early finalization of market access for certain agricultural products and expressed interest in enhancing dialogue on food and agricultural trade issues in 2024.

Services:

- Both India and US acknowledged constructive engagement of the Services Working Group and discussed digital trade, Social Security totalization agreement, and India's Digital Personal Data Protection Act (DPDPA).

First Advance Estimates of National Income, 2023-24

The National Statistical Office, Ministry of Statistics and Programme Implementation has released the First Advance Estimates (FAE) of National Income for the financial year 2023-24, both at Constant (Base Year: 2011-12) and Current Prices.

Highlights of the report:

- Real GDP or GDP at Constant Prices in the year 2023-24 is estimated to attain a level of Rs.171.79 lakh crore, as against the Provisional Estimate of GDP for the year 2022-23 of Rs.160.06 lakh crore.
- The growth in real GDP during 2023-24 is estimated at 7.3% compared to 7.2% in 2022-23.
- Nominal GDP or GDP at Current Prices in 2023-24 is estimated at Rs. 296.58 lakh crore, as against the Provisional Estimate of GDP for 2022-23 of Rs. 272.41 lakh crore.
- The growth in nominal GDP during 2023-24 is estimated at 8.9% compared to 16.1% in 2022-23.
- The share of private final consumption expenditure in GDP is expected to drop this year to the lowest in at least three years at 56.9% from 58.5% in 2022-23 While the investment rate is likely to pick up to nearly 30% of GDP, driven by government capex and higher consumption growth.
- GVA (Gross Value Added) growth for the farm sector is estimated to more than halve from 4% a year ago to 1.8% this year. Manufacturing GVA growth is estimated to accelerate to 6.5% in 2023-24 from just 1.3% a year earlier, while mining GVA is expected to rise 8.1%, from 4.6% in 2022-23.

Virtual Digital Assets

- As part of compliance action against the offshore entities, the Financial Intelligence Unit India (FIU IND) has issued compliance Show Cause Notices to the following nine offshore Virtual Digital Assets Service Providers (VDA SPs) under Section 13 of the Prevention of Money Laundering Act, 2002.
- Virtual Digital Assets Service Providers were brought into the ambit of Anti Money Laundering/Counter Financing of Terrorism (AML-CFT) framework under the provisions of the Prevention of Money Laundering Act, 2002 in March 2023.

About Virtual Digital Assets:

- Virtual assets have no physical form and are a digital representation of value that can be traded, transferred or used for payment or investment purposes. Examples of virtual assets include crypto assets, decentralized autonomous organisation tokens, non-fungible tokens etc. However, virtual assets do not include digital fiat currencies (e.g. e-currencies issued by central banks).

About regulation of Virtual Digital Assets:

- Virtual Digital Asset Service Providers operating in India (both offshore and onshore) and engaged in activities like exchange between Virtual Digital Assets, transfer of Virtual Digital Assets, safekeeping or administration of Virtual Digital Assets or instruments enabling control over Virtual Digital Assets etc. are required to be registered with FIU IND as Reporting Entity and comply with the set of obligations as mandated under Prevention of Money Laundering Act 2002.

About FIU-IND:

- FIU-IND is the central, national agency responsible for receiving, processing, analysing and disseminating information relating to suspect financial transactions to enforcement agencies and foreign FIUs.

Evergreening of Loans

The apex bank regulatory body i.e. Reserve Bank of India (RBI) has opted for strict norms for all regulated banking and financial entities to prevent the Evergreening of loans which indirectly and adversely affects the interests of investors.

What is Evergreening of Loans:

- This practice involves providing new loans to help a delinquent borrower repay the loans.
- An Evergreening loan is a loan that does not require the payment of the principal amount during the life of the loan and the borrower is

required to make only interest payments. It leaves the borrower with available funds for credit purchases. It is also known as standing or revolving loans.

LEADS 2023 Report

Recently, LEADS [Logistics Ease Across Different States] 2023 report was released by the Union Ministry of Commerce and Industry (MoC&I). The 5th edition of the LEADS annual exercise - LEADS 2023 report, provides insights into improvement of logistics performance at State/UT level.

Performance Highlights from LEADS 2023:

Coastal Group:

- **Achievers:** Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu
- **Fast Movers:** Kerala, Maharashtra
- **Aspirers:** Goa, Odisha, West Bengal

Landlocked Group:

- **Achievers:** Haryana, Punjab, Telangana, Uttar Pradesh
- **Fast Movers:** Madhya Pradesh, Rajasthan, Uttarakhand
- **Aspirers:** Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand

North-East Group:

- **Achievers:** Assam, Sikkim, Tripura
- **Fast Movers:** Arunachal Pradesh, Nagaland
- **Aspirers:** Manipur, Meghalaya, Mizoram

Union Territories:

- **Achievers:** Chandigarh, Delhi
- **Fast Movers:** Andaman & Nicobar, Lakshadweep, Puducherry
- **Aspirers:** Daman & Diu/ Dadra & Nagar Haveli, Jammu & Kashmir, Ladakh

About the LEADS:

- LEADS was conceived on the lines of the Logistics Performance Index of World Bank in 2018 by the Department for Promotion of Industry and Internal Trade (DPIIT), MoC&I.
- While the LPI relies entirely on perception-based surveys, LEADS incorporates both perception as well as objectivity thereby enhancing the robustness and comprehensiveness of this exercise. Its key pillars include:
 - » Logistics Infrastructure,
 - » Logistics Services
 - » Operating and Regulatory Environment

IMF's Concerns Regarding Sustainability of India's Debt

The IMF released the annual Article IV country report for India, detailing its views on various macroeconomic issues and discussions with Indian officials on economic development and policies.

Viewpoints of IMF:

- This year's report highlights two crucial areas that deserve in-depth scrutiny:
 - » India's currency regime
 - » The level of general government debt
- IMF has cautioned that general government debt is likely to exceed 100 percent of India's gross domestic product (GDP) in the near future.
- It reclassified India's exchange rate regime, terming it a "stabilised arrangement" instead of "floating".
- Acknowledging India's inflation control amidst global price hikes, maintaining a positive growth outlook, it revised India's medium-term potential growth rate up to 6.3% from 6%.
- It further emphasised the probability of long-term risks because to achieve India's climate targets, substantial investment is vital.
- This necessitates new concessional financing, amplified private sector engagement, and the implementation of carbon pricing or similar mechanisms to bolster resilience and mitigate climate risks and natural disasters.
- A floating exchange rate is a regime where the currency price of a nation is set by the forex market based on supply and demand relative to other currencies. This is in contrast to a fixed exchange rate, in which the government entirely or predominantly determines the rate.
- They became popular after the failure of the gold standard and the Bretton Woods agreement.
- The IMF classifies an exchange rate regime as a stabilized arrangement when it determines that the exchange rate has not moved beyond a 2% band in 6 months and that this stability has resulted from market interventions rather than market conditions.

Card-on-file Tokenisation

The RBI introduced the facility for creation of card-on-file tokenisation at the issuer bank level to enhance convenience for cardholders in getting tokens created and linking them to their existing accounts with e-commerce applications.

More about the news:

- The central bank had introduced Card-on-File Tokenisation (CoFT) in September 2021 and began implementation from October 1, 2022.
- Currently, Card-on-File (CoF) tokens can only be created through merchant applications or on the

webpage of the e-commerce website.

- Tokenisation has improved the transaction security and approval rate. Over 56 crore tokens have been created, on which transactions valued at over Rs 5 lakh crore have been undertaken.

Card Payment Status in India:

- India has traditionally been a cash-driven economy, the usage of cash for payments is on the decline. Government measures such as reducing merchant discount rates and providing subsidies to merchants for installing point of sale (PoS) terminals are some of the key factors behind card payment market growth in the country.
- **Card-on-File Tokenisation:** Tokenisation is a process where the cardholder's original card number, one which is written on the card and is extensively used for transactions and card identification, is replaced with a surrogate term called 'token.'
- **Merchant Discount Rate:** The merchant discount rate (MDR) is a fee charged to a business by the company that processes its debit and credit card transactions. Before they can accept debit and credit cards, merchants must set up this service and agree to the rate.

Greenwashing

The UK recently banned ads by Air France, Lufthansa, and Etihad for 'greenwashing,' accusing them of misleading customers by exaggerating their environmental efforts.

About Greenwashing:

- Greenwashing is when an organization spends more time and money on marketing itself as environmentally friendly than on actually minimizing its environmental impact.
- It is a deceitful marketing gimmick used by companies to exaggerate their environment friendly actions.
- The term greenwashing was first used in 1986 by Jay Westerveld, who was an American environmentalist and researcher.

Purchasing Managers' Index

- Purchasing Managers' Index (PMI) is an indicator of business activity both in the manufacturing and services sectors.
- Started in 1948 by the US-based Institute of Supply Management, the Purchasing Managers' Index, or PMI, has now become one of the most closely watched indicators of business activity

across the world.

- The PMI awards number from 0 to 100. PMI under 50 represents a contraction while reading at 50 indicates no change.

Basic Animal Husbandry Statistics 2023

The Union Minister for Fisheries recently released the Basic Animal Husbandry Statistics 2023 (milk, egg, meat and wool production 2022-23) based on Animal Integrated Sample Survey (March 2022-February 2023) during the National Milk Day event at Guwahati.

Milk, Egg, Meat and Wool Production 2022-23:

Milk Production:

- The total Milk production in the country, estimated to be around 230.58 million tonnes during 2022-23, registered a growth of 22.81% over the past 5 years which was 187.75 million tonnes in 2018-19.
- The highest milk producing State during 2022-23 was Uttar Pradesh with a share of 15.72 % of total milk production, followed by Rajasthan (14.44 %), Madhya Pradesh (8.73 %), Gujarat (7.49 %), and Andhra Pradesh (6.70 %).

Egg Production:

- The total Egg production in the country was estimated to be at 138.38 billion nos. during 2022-23, registering a growth of 33.31% growth over the past 5 years as compared to the estimates of 103.80 billion numbers during 2018-19.
- The major contribution to the total Egg production comes from Andhra Pradesh with a share of 20.13 % of total Egg production, followed by Tamil Nadu (15.58 %), Telangana (12.77 %), West Bengal (9.94%) and Karnataka (6.51 %).

Meat Production:

- The total meat production in the country is estimated to be 9.77 million tonnes during 2022-23, registering a growth of 20.39 % over the past 5 years as compared to the estimates of 8.11 million tonnes in 2018-19.
- The major contribution to the total meat production comes from Uttar Pradesh with a 12.20 % share, followed by West Bengal (11.93 %), Maharashtra (11.50 %), Andhra Pradesh (11.20 %) and Telangana (11.06 %).

Wool Production:

- The total wool production in the country, estimated as 33.61 million kg during 2022-23, registered a negative growth of 16.84% over the past 5 years as compared to the estimates of 40.42 million kg during 2018-19.

- The major contribution to the total Wool production comes from Rajasthan with a share of 47.98%, followed by Jammu & Kashmir (22.55%), Gujarat (6.01%), Maharashtra (4.73%) and Himachal Pradesh (4.27%).

PLFS Annual Report 2022-2023

It was released by the National Sample Survey Office (NSSO), Ministry of Statistics & Programme Implementation on October 9, 2023.

- It aims to estimate the key employment and unemployment indicators (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the 'Current Weekly Status' (CWS).
- In rural areas, LFPR increased from 50.7% in 2017-18 to 60.8% in 2022-23 while for urban areas it increased from 47.6% to 50.4%.
- LFPR for male in India increased from 75.8% in 2017-18 to 78.5% in 2022-23 and corresponding increase in LFPR for females was from 23.3% to 37.0%.

Noble Prize in Economics

Professor Claudia Goldin has been awarded the Nobel Prize in Economics for having advanced our understanding of women's labour market outcomes.



- Goldin is the third woman to be honored with this award.
- Goldin highlights the decline in women's participation in the labor market over the past

200 years, the wage gap between men and women, and the fact that many women in high-income countries are likely to be better educated than men.

India's first UPI-ATM

- It was launched by Hitachi Payment Services at Global Fintech Fest in Mumbai on September 5, 2023.
- It allows customers of certain banks to enjoy QR-based cashless withdrawals.

First Loss Default Guarantee

- In June 2023 the Reserve Bank of India granted its approval for the First Loss Default Guarantee (FLDG) framework.
- It is an arrangement whereby a third party such as a financial technology (fintech) player compensates lenders if the borrower defaults.

RBI Gold Reserve

- The Reserve Bank of India acquired about 10 tonnes of gold in the March quarter, placing it among the top five gold buyers.
- Its gold reserve now reached 794.64 metric tonnes in fiscal 2023, an increase of nearly 5 per cent over fiscal 2022.

Foreign Trade Policy 2023

- Union Minister of Commerce and Industry, Consumer Affairs, Food and Public Distribution and Textiles, on March 31, 2023 launched the Foreign Trade Policy 2023.
- The policy came into effect from April 1, 2023 and target to take India's export to 2 trillion USD by 2030.
- Applicable for the period 2023-2030.

Towns of Export Excellence (TEE)

- Four new towns - Faridabad, Mirzapur, Moradabad and Varanasi, have been designated as TEE in addition to the existing 39 towns.
- The Key Approach to the policy is based on these 4 pillars:
 - » Incentive to Remission.
 - » Export promotion through collaboration Exporters, States, Districts, Indian Missions.

- » Ease of doing business, reduction in transaction cost and e-initiatives.
- » Emerging Areas - E-Commerce Developing Districts as Export Hubs and streamlining SCOMET policy.

1st Delta Ranking of ABP

1st Delta Ranking of Aspirational Blocks Programme (ABP) was published by NITI Aayog on 7 December 2023.

- Tiriyani Block of Kumuram Bheem Asifabad district, Telangana secured the First position in this ranking followed by the Kaushambi block of Kaushambi District, Uttar Pradesh.
- The Aspirational Blocks Programme (ABP) was launched on January 7, 2023
- 500 blocks from 329 districts across 27 states and 4 Union Territories of India are part of the programme.

Migration and Development Briefs

- It is prepared by the Migration and Remittances Unit, Development Economics (DEC), the premier research and data arm of the World Bank.
- The brief is produced twice a year.
- The brief aims to provide an update on key developments in the area of migration and remittance flows and related policies over the past six months.
- The top five remittance recipient countries in 2023 are India (\$125 billion), Mexico (\$67 billion), China (\$50 billion), the Philippines (\$40 billion), and Egypt (\$24 billion).
- The United States continued to be the largest source of remittances.

Indo-Pacific Economic Framework for Prosperity

- Third Indo-Pacific Economic Framework for Prosperity (IPEF) Ministerial Meeting was held in San Francisco, California on 14 November 2023.
- IPEF was launched jointly by the USA and other partner countries of the Indo-Pacific region on May 23, 2022 at Tokyo.
- IPEF has 14 partner countries including Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam & USA.
- It is structured around four pillars - Trade, Supply Chain, Clean Energy, Fair Economy.

India- Australia RISE Acceleration

- Atal Innovation Mission (AIM), NITI Aayog launched a new accelerator called Rapid Innovation and Startup Expansion (RISE) to support Australian and Indian circular economy startups.

Net-Zero Industry Tracker Report

- Published by World Economic Forum on 28 November 2023.
- The report also calls for industrial sectors to focus on the following five areas: Technology, Infrastructure, Demand, Policy & Capital

Bharat Bill Payment System (BBPS)

- Bharat Bill Payment System is a Reserve Bank of India (RBI) conceptualised ecosystem driven by National Payments Corporation of India (NPCI).
- Through this, non-resident Indians (NRIs) in UK would be able to make use of the system for direct payments towards bill payments through multiple modes such as Unified Payments Interface or UPI, National Electronic Funds Transfer or NEFT, e-wallets, debit and credit cards.
- India is set to expand its presence for cross-border bill payments in the United Kingdom through the Bharat Bill Payment System (BBPS).
- Enabled by the Reserve Bank of India (RBI) in September 2022, the facility, so far, is available to NRIs living in Oman, Kuwait, Bahrain and the United Arab Emirates (UAE).

Global Innovation Index 2023

- Published by World Intellectual Property Organization (WIPO) on September 27, 2023.
- **Report Title:** The Global Innovation Index 2023: Innovation in the face of uncertainty.
- Total countries - 132
- Switzerland ranks first in the Global Innovation Index 2023 followed by Sweden (rank 2)
- India ranked 40th out of 132.

Fortune Global 500

- Recently, Fortune Global 500 companies list has been released by Fortune magazine.
- As per magazine, Walmart remains No. 1 for the 10th consecutive year, while Saudi Aramco,

which grew its revenues by 51%, claims the No. 2 spot (up from No. 6 last year).

- Companies are ranked by total revenues for their respective fiscal years ended on or before March 31, 2023.

America's Richest Self-Made Women

- Forbes has released the 'America's Richest Self-Made Women' 2023 annual list.
- Four Indian-origin women, including Jayshree Ullal and Indra Nooyi, have made it to the Forbes list of America's 100 most successful self-made women, with a combined net worth of a USD 4.06 billion.

National Multi-Dimensional Poverty Index 2023

- Released by NITI Aayog on July 17, 2023.
- It was 2nd edition and the first edition of MPI was released in 2021.
- It is based on- 5th round of the National Family Health Survey [NFHS-5 (2019-21)].
- As per report India has registered a decline in the number of multidimensionally poor from 24.85% in 2015-16 to 14.96% in 2019-2021.
- In absolute terms, ~13.5 crore Indians escaped poverty during the five-year time period.

Global Multi-Dimensional Poverty Index 2023

- Global Multidimensional Poverty Index, 2023 published by United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) at the University of Oxford.
- As per report, 1.1 billion out of 6.1 billion people (just over 18%) live in acute multidimensional poverty across 110 countries.
- Nearly two-thirds of all poor people (730 million people) live in middle-income countries.
- Although low-income countries constitute only 10% of the population included in the MPI, these are where 35% of all poor people reside.

Global Gender Gap Report, 2023

- Published by World Economic Forum (WEF) in July 2023.
- India was ranked at 127 out of 146 countries in terms of gender parity, an improvement of eight

places from last year.

- The report stated that at the current rate of progress, it will take 131 years to reach full parity.
- The Global Gender Gap Index annually benchmarks the current state and evolution of gender parity across four key dimensions
- Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment.
- Top three countries in the index - Iceland (Rank 1)- Norway (rank 2) , Finland (rank 3) .
- Bottom three countries- Afghanistan (146 rank), Chad (rank 145), Algeria (rank 144).

Logistics Performance Index, 2023

- It was the 7th edition of the Logistics Performance Index, 2023 released by World Bank.
- India has jumped 6 places and ranked 38 out of 139 countries.
- **Report Title:** 'Connecting to Compete 2023 "Trade Logistics in an Uncertain Global Economy"'.
Singapore, Finland and Denmark are the top countries in the ranking.
- Libya (1.9) Afghanistan (1.9) and Somalia (2.0) are the bottom countries.
- India was ranked 44(th) on the index in 2018 hence ranked improved 6 point.

Index of Economic Freedom, 2023

- Index of Economic Freedom released on February 28, 2023 by Washington-headquartered think tank The Heritage Foundation.
- Singapore (83.9) placed at the first rank followed by Switzerland (83.8), Ireland (82.0) and Taiwan (80.7).
- India ranked at 131st position in the 2023 Index.
- North Korea (2.9) placed at the last position (176).

Global Unicorn Index 2023

- The Hurun Research Institute released the Global Unicorn Index 2023 on 18 April, 2023.
- India has retained the third-highest number of unicorns in the world after USA and China.
- Hurun finds 1361 unicorns in the world, up 303 or 29% in the last year and 867 or 175% since Covid began.

NFHS-5 National Report 2019- 2021

- Union Ministry for Health and Family Welfare released the National Report of the fifth round of National Family Health Survey (NFHS-5) for the year 2019-2021.
- The Total Fertility Rate (TFR), has further declined from 2.2 to 2.0 at the national level between NFHS 4 and 5.
- There are only five states in India which are above replacement level of fertility of 2.1. (Bihar, Meghalaya, Uttar Pradesh, Jharkhand and Manipur).
- Bihar (3.0) and Meghalaya have the highest fertility rates in the country, while Sikkim (1.1) and Andaman and Nicobar Islands have the lowest.
- Total fertility rate (children per women) is 2.4 (total) in Uttar Pradesh (for rural areas it is 2.5 and for urban areas it is 1.9)
- In rural areas, TFR has declined from 3.7 children per woman in 1992-93 to 2.1 children in 2019-21.

Project PRAYAS

- On December 21, 2023, to commemorate the International Migrants Day (18 December), Secretary (CPV& OIA) Shri Muktesh Pardeshi launched Project PRAYAS (Promoting Regular & Assisted Migration for Youth and Skilled Professionals) at New Delhi.
- The project is a joint collaboration between the International Organisation for Migration (IOM) India and Indian Council of World Affairs (ICWA).

National Programme on Anganwadi-cum-Crèche

- National Level Programme on Anganwadi- Cum-Crèche Under Palna was held at Vigyan Bhawan, New Delhi.
- It was organised by Ministry of Women and Child Development.
- The government aims to establish 17000 Crèches out of which 5222 have been approved till date.

MSME Launches Three Sub-Schemes Under the RAMP Program

On December 20, 2023, Union Minister for MSME Shri Narayan Rane launched three sub-schemes under the aegis of the RAMP programme.

- **The MSME Green Investment and Financing for Transformation Scheme (MSME GIFT Scheme):** It

intends to help MSMEs adopt green technology with interest subvention and credit guarantee support.

- **The MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme):** It is the first ever scheme in the Government to support circular economy projects which will be done through credit subsidy and will lead to realising the dream of MSME sector towards zero emissions by 2070.
- **The Support for Commercialisation of IP Programme (MSME – SCIP Programme):** It will enable the innovators in the MSME sector to commercialize their IPR.

'Bharat' Atta

- Union Minister for Consumer Affairs, Food and Public Distribution, Textiles and Commerce and Industry, Shri Piyush Goyal flagged off 100 mobile vans for sale of wheat flour (Atta) under 'Bharat' brand.
- It was launched by Ministry of Consumer Affairs, Food & Public Distribution at Kartavya Path, New Delhi.
- The 'Bharat' atta will be available at an MRP not exceeding Rs. 27.50/Kg.

Drones to the Women Self Help Groups

- Union Cabinet chaired by the Prime Minister of India has approved the Central Sector Scheme for providing Drones to the Women Self Help Groups (SHGs).
- **Duration:** From 2024-25 to 2025-26.
- The scheme aims to provide drones to 15,000 selected Women SHGs during the period 2023-24 to 2025-2026 for providing rental services to farmers for agriculture purpose.

RODTEP Scheme

- Scheme for Remission of Duties and Taxes on Exported Products (RoDTEP) support which was notified till 30th September 2023 is now being extended till 30th June 2024.
- RODTEP scheme has been introduced by the Government of India by making amendments in the Foreign Trade Policy 2015-20 in the year 2021.
- This scheme provides for rebate of all hidden Central, State, and Local duties/taxes/levies

on the goods exported which have not been refunded under any other existing scheme.

National Turmeric Board

- On October 4, 2023, the Government of India notified the constitution of the National Turmeric Board.
- It will focus on the development and growth of turmeric and turmeric products in the country.
- The Board shall have a Chairperson, who will be appointed by the Central Government.
- It will have members from the Ministry of AYUSH, Departments of Pharmaceuticals, Agriculture & Farmers Welfare, Commerce & Industry of the Union Government, senior State Government representatives from three states (on rotation basis).

Ujjwala Yojana

- The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, has approved the extension of Pradhan Mantri Ujjwala Yojana (PMUY) for release of 75 lakh LPG connections over three years from Financial Year 2023-24 to 2025-26.
- Pradhan Mantri Ujjwala Yojana was launched by Prime Minister of India Narendra Modi on 1 May 2016 to distribute 50 million LPG connections to women of Below Poverty Line families.

Yashobhoomi

- Prime Minister recently inaugurated the first phase of the India International Convention and Expo Centre (IICC), named Yashobhoomi, in New Delhi's Dwarka.
- Yashobhoomi' or India International Convention and Expo Centre (IICC) is a state-of-the-art modern convention centre.
- Yashobhoomi is developed at a cost of around Rs. 5400 crore and total project area of over 8.9 lakh square metres.

PM Vishwakarma Scheme

- Under PM Vishwakarma scheme, the artisans and craftspeople will be provided recognition through PM Vishwakarma certificate and ID card.
- It will provide Credit Support up to Rs.1 lakh (First Tranche) and Rs.2 lakh (Second Tranche) with a concessional interest rate of 5%.

- The scheme will provide support to artisans and craftspeople of rural and urban areas across India.

Vivad se Vishwas - II

- This Scheme was for to settle contractual disputes of government and government undertakings, wherein arbitral award is under challenge in a court.
- It was launched by the Department of Expenditure, Ministry of Finance.

PM SVANidhi Scheme

- The Union Housing and Urban Affairs Ministry has set a new target for its loan scheme for street vendors, 63 lakh new loans till December 2023.
- Scheme launched by Ministry of Housing and Urban Affairs (MoHUA).
- It was central sector scheme for Street vendors/hawkers vending in urban areas, as on or before March 24, 2020.
- Facilitate collateral free working capital loan up to Rs. 10,000, of 1 year tenure, with enhanced loan of Rs. 20,000 and Rs. 50,000 in the second and third tranches respectively, on repayment of earlier loans.

Credit Guarantee Scheme for Livestock Sector

- In July, 2023, Ministry of Fisheries, Animal Husbandry & Dairying has launched 'Credit Guarantee Scheme' for Livestock Sector.
- The Scheme is implemented under Animal Husbandry Infrastructure Development Fund (AHIDF).
- It will reboot rural economy by leveraging MSMEs.

Mahila Samman Savings Certificate (MSSC), 2023

- It was announced in the 2023-24 Budget and launched on March 31, 2023.
- Scheme launched by Department of Post for Women/Girls.
- An account can be opened under this scheme on or before the March 31, 2025 for a tenure of two years.
- Minimum of Rs. 1000 and any sum in multiple

of 100 may be deposited within the maximum limit of Rs. 200,000.

- Maturity of the investment under this scheme is two years from the date of opening of the account under the scheme.

Three Centers of Excellence for Horticultural crops

- The Mission for Integrated Development of Horticulture (MIDH), under the Ministry of Agriculture & Farmers Welfare has approved three new center of Excellence (CoEs) for horticultural crops on March 9, 2023.

SWAYATT Initiative

- Recently, a function was held to commemorate the success of “SWAYATT”, an initiative that was first launched in February 2019.
- It is an initiative to promote Start-ups, Women and Youth Advantage Through eTransactions on Government eMarketplace (GeM).

PM MITRA Parks

- The Government of India in March 2023 announced the sites for setting up of 7 PM Mega Integrated Textile Regions and Apparel (PM MITRA) Parks for the Textile industry. The Parks will come up in Tamil Nadu, Telangana, Gujarat, Karnataka, Madhya Pradesh, Uttar Pradesh and Maharashtra.

National Manufacturing Innovation Survey (NMIS) 2021-22

- Department of Science and Technology has released the “National Manufacturing Innovation Survey (NMIS) 2021-22: Summary for Policymakers” on April 27, 2023.
- Its objective to evaluate the innovation performance of manufacturing firms in the India.
- The state of Karnataka (33.41) ranked highest on NMII 2022 and the lowest was North-eastern states (excluding Assam) (19.69).

Indian States' Electricity Transition

- The report was jointly published by the Institute for Energy Economics and Financial Analysis (IEEFA) and Ember.

- It analysed 16 Indian states.
- Karnataka and Gujarat made the most progress towards clean electricity transition.
- Haryana and Punjab are best positioned to further this transition.
- Bihar, Uttar Pradesh and West Bengal must ramp up efforts to maximise their renewable energy generation potential and increase clean electricity transition commitments.

QS World University Rankings

- In March 2023, QS World University Rankings 2023 by subject were released.
- Massachusetts Institute of Technology (MIT) of US is ranked first followed by University of Cambridge of UK, Stanford University of US respectively.
- IIT-Madras (in Petroleum Engineering, ranked 21), IIT-Bombay (Mathematic, ranked 92nd) IIT-Delhi (Electrical engineering, ranked 49th).
- Jawaharlal Nehru University (Sociology, ranked 68).

First Six Lane Steel Slag Based Road

- India's first six lane steel slag based road connecting NH-6 to Hazira port was constructed in May, 2022 at Surat.
- Steel Slag is generated as a solid waste during steel production.

Akhaura-Agartala Cross-Border Rail Link

- Prime Minister Shri Narendra Modi and Prime Minister of Bangladesh, H.E. Sheikh Hasina have jointly inaugurate three Indian assisted development projects on 1 November 2023.
- The three projects are:
 - » Akhaura - Agartala Cross- Border Rail Link.
 - » Khulna Mongla Port Rail Line.
 - » Unit II of the Maitree Super Thermal Power Plant.
- The Akhaura-Agartala Cross-Border Rail Link project has been executed under Government of India grant assistance of INR 392.52 crore extended to Bangladesh.
- The length of the rail link is 12.24 km with a 6.78 km.

Circular Rail Network

- In November, 2023, the Ministry of Railways has proposed to develop a circular rail network of around 287 km on the outskirts of Bengaluru.

India's Fastest Solar-Electric Boat

- For eco-friendly maritime transportation, Barracuda, India's fastest solar-electric boat, was launched at the yard of Navalt Solar and Electric Boats, located off Aroor in Alappuzha.
- The 14-metre-long, 4.4-metre-wide vessel can attain a top speed of 12.5 knots (23 kmph) and has a range of seven hours on a single charge.

First High-Tech Sports Training Centre for Divyangjan

- On October 2, 2023, Prime Minister Narendra Modi inaugurated the country's first high-tech sports training centre for Divyangjan, named after former Prime Minister Shri Atal Bihari Vajpayee, in Gwalior, Madhya Pradesh.

Wax Statue of Baba Saheb Ambedkar

- A wax statue of the father of the Constitution Baba Saheb B.R. Ambedkar was installed in Jaipur Wax Museum, Nahargarh Fort on the occasion of Mahaparinirvan Day.
- The height of the statue is 5 feet 11 inches, while the weight is about 38 kg.

Payment Infrastructure Development Fund

- In December 2023, the Reserve Bank of India (RBI) has decided to extend the Payments Infrastructure Development Fund (PIDF) for two years up to December 31, 2025.
- This scheme was launched in 2021 for a period of three years.
- The PIDF scheme was set up to encourage the deployment of payment acceptance infrastructure such as physical Point of Sale (PoS) terminals, Quick Response (QR) codes, in tier three to tier six centres, and North eastern states and UTs of J &K and Ladakh.

National Transit Pass System (NTPS)

- Union Minister for Environment, Forest and Climate Change and Labour and Employment

Shri Bhupender Yadav today launched the National Transit Pass System (NTPS) pan-India to facilitate the seamless transit of timber, bamboo, and other forest produce across the country.

- The NTPS is envisioned as a "One Nation One Pass" regime, which will enable seamless transit across the country.

National Digital Nagrik Forum

- Recently, the Confederation of All India Traders (CAIT) announced the creation of a National Digital Nagrik Forum.
- It was launched by the Confederation of All India Traders (CAIT) in August 2023.
- The National Digital Nagrik Forum aims to raise awareness about digital regulations and help build capacities of citizens to engage with innovation via expert sessions and instructional materials.

World Bank Global Economic Prospects Report

- The World Bank in its Global Economic Prospects report (June, 2022) said that global growth is likely to slow to 2.1% in 2023.
- It lowered India's growth outlook to 6.3% in FY2023/24 (April- March), a 0.3 percentage point downward revision from January, 2023.

India's 1st Eco-Friendly Debit Card

- Airtel Payments Bank has become the first Indian bank to launch an eco-friendly debit card for its new and existing customers with a savings bank account.
- The debit cards will come in r-PVC material, a certified eco-friendly material.
- As per bank that every batch of 50,000 cards produced would reduce carbon emissions by 350 kilograms, compared to conventional PVC cards in the market.

Navratna Status for RITES & IRCON

- Railway undertakings RITES and IRCON have been granted Navratna status.
- IRCON and RITES Ltd have become the 15th and 16th Navratna respectively among CPSES.

13th 'Maharatna' Company

- OIL will be the 13th Maharatna amongst the CPSEs.
- Oil India Limited (OIL) is a central public sector undertaking involved in the exploration, development, and production of crude oil and natural gas.

Kirit Parikh Panel

- The Kirit Parikh panel to review natural gas prices in India has recommended a price band of \$4-6.50/unit for gas from old legacy fields, which account for over 70 per cent of the domestic output, and ushering in of fully market-determined rates by January 2027.

OPS Vs NPS

Old Pension Scheme

- The Old Pension Scheme is a fixed pension plan for government employees in India. Employees who have worked for at least 10 years get a monthly pension based on their last salary. In this scheme, the government pays the whole pension amount without deducting it from the employee's salary during service.
- This scheme is only available for government employees. Once retired, government employees receive their pension regularly.

National Pension Scheme (NPS)

- In 2004, National Pension Scheme was brought. Earlier, this scheme was only available for government employees. From 1st May 2009, the Pension Fund Regulatory and Development Authority (PFRDA) made it voluntarily available to all government and private sector employees, including self-employed citizens. It is also called the New Pension Scheme.
- In this scheme, the employee has to contribute from their salary. For corporate NPS, employers also contribute.

Differences

- OPS is a guaranteed fixed pension plan that guarantees 50% of the final salary post-retirement. In contrast, NPS serves as both an investment and a pension scheme. NPS does not offer a fixed pension but gives a long-term return as the amount is invested in market securities. NPS, unlike OPS, also gives tax benefits under sections 80CCD and 80C of the Income-tax Act, 1961.

Social Impact Bond

The National Bank for Agriculture and Rural Development (NABARD) recently issued its inaugural social bonds with a total size of Rs 1,040.50 crore.

About Social Bonds:

- Social bonds, also known as social impact bonds and abbreviated as SIB, are the type of bond where the bond issuer is gathering funds for a project that has some socially beneficial implications.
- These bonds are designed to finance projects that address various social issues, such as healthcare, education, affordable housing, poverty alleviation, and environmental sustainability.
- The Pimpri Chinchwad Municipal Corporation (PCMC) in Maharashtra's Pune and United Nations Development Programme (UNDP) in 2020 co-created India's inaugural SIB.

Features of Social Bonds issued by NABARD:

- This is the first externally certified AAA-rated Indian Rupee-denominated SIB in the country. The bonds have been rated 'AAA' by CRISIL and ICRA.
- The base issue size of the social bonds was Rs.1,000 crore, with an option to retain oversubscription up to Rs. 2,000 crore, thereby aggregating up to Rs 3,000 crore.
- The face value of each bond is Rs. 1 lakh.
- **Maturity:** 5 years
- **Coupon Rate:** 7.63 per cent.

Open Market Operation

About Open Market Operations:

- Meaning: Open Market Operations refers to buying and selling of bonds issued by the Government in the open market.
- **One of the Quantitative Tools:** OMO is one of the quantitative tools that RBI uses to smoothen the liquidity conditions through the year and minimise its impact on the interest rate and inflation rate levels.
- Quantitative tools control the extent of money supply by changing the Cash Reserve Ratio (CRR), or bank rate or open market operations.
- Qualitative tools include persuasion by the Central bank in order to make commercial banks discourage or encourage lending which is done through moral suasion, margin requirement, etc.

Impact on Money Supply:

- When RBI buys a Government bond from the

open market, it pays for it by giving a cheque. This cheque increases the total amount of reserves in the economy and thus increases the money supply.

- Selling of a bond by RBI (to private individuals or institutions) leads to reduction in quantity of reserves and hence the money supply.

Bima Sugam Portal

- Recently, the Insurance Regulatory and Development Authority of India (IRDAI) has formed a steering committee to act as the apex decision-making body for the creation of its ambitious 'Bima Sugam' online platform.
- IRDAI says Bima Sugam is an electronic marketplace protocol which would universalise and democratize insurance. This protocol will be connected with India Stack.

About Bima Sugam portal:

- It's an online platform where customers can choose a suitable scheme from multiple options given by various companies.
- All insurance requirements, including those for life, health, and general insurance (including motor and travel) will be met by Bima Sugam.

Direct listing of Indian companies in foreign stock exchanges

- The Union government recently permitted certain Indian companies to directly list on select foreign stock exchanges.
- In July 2023, the Union Finance Minister had announced that the government had decided to enable listed and unlisted domestic companies to directly list their equity shares on the International Financial Services Centre (IFSC), Ahmedabad.
- In a notification issued earlier this week, the Ministry of Corporate Affairs (MCA) said the provision, which was announced in the Companies (Amendment) Bill, 2020, came into effect on October 30.
- The amendment empowered the central government to allow certain classes of public companies to list prescribed classes of securities in foreign jurisdictions.
- This essentially means certain classes of domestic public companies can be listed on prescribed foreign stock exchanges, including GIFT IFSC, Ahmedabad.
- Currently, domestic listed companies depository receipts — use American Depository Receipts

(ADR) or Global Depository Receipts (GDR) — to list in the overseas market.

- A depository receipt (DR) is a negotiable certificate issued by a bank.
- It represents shares in a foreign company traded on a local stock exchange and gives investors the opportunity to hold shares in the equity of foreign countries.
- It gives them an alternative to trading on an international market.
- Between 2008 and 2018, 109 companies raised more than Rs 51,000 crore through the ADRs/ GDRs route. After 2018, none of the companies got listed overseas.

How will Companies Benefit by Direct Foreign Listing?

- With direct listing, domestic companies can tap foreign markets to raise funds.
- A direct listing abroad would help Indian companies attract a large and diverse pool of capital.
- It will also help improve corporate governance as well as the benefits of dollar-denominated trades which enables investors to save hedging and currency conversion costs.

Female Labour Force Participation Rate

- Periodic Labour Force Survey Report 2022-23 released by the Ministry of Statistics and Programme Implementation on 9th October 2023 shows that the Female Labour Force Participation Rate in the country has improved significantly by 4.2 percentage points to 37.0% in 2023, as per 'usual status' concept of measuring labour force participation.
- This significant jump in the female labour force participation rate is an outcome of the decisive agenda set by the Government for ensuring women's empowerment through policy initiatives aimed at their long term socio-economic and political development. Government's initiatives have spanned across women's lifecycle including large scale initiatives for girls' education, skill development, entrepreneurship facilitation and safety in the workplace. Policies and legislations in these areas have been driving Government's 'women-led development' agenda.



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