AKSHARDHAM TEMPLE

Akshardham Temple, also known as the Swaminarayan Akshardham Temple, is a magnificent Hindu temple complex located in Delhi. The main monument is made of intricately carved pink sandstone and white marble. It stands 141 feet tall and features more than 20,000 statues and sculptures.

+ *CENTRAL BANK DIGITAL CURRENCY (CBDC)*
+ *GUJARAT DECLARATION*
+ *ISRO SUCCESSFULLY PLACES ADITYA L1 IN ORBIT*
+ *FAO FOOD PRICE INDEX*

CURRENT AFFAIRS & PRACTICE QUESTIONS

ADMISSIONS OPEN

NEW BATCH STARTS OCTOBER 2023

COURSE HIGHLIGHTS

- BASIC NCERT FOUNDATION

- PRELIMS CLASSES

- WEEKLY CURRENT AFFAIRS

- MAINS UPGRADATION

- ANSWER WRITING PRACTICE

- PERSONALISED MENTORING

- STUDY MATERIALS

RV TRAINING ACADEMY

Eminent Personality

Sir M Visvesvaraya
An Excellent Statesman and Eminent Engineer

Sir M Visvesvaraya, popularly known as Sir MV, was an engineer, statesman, and scholar. Sir MV served as the Diwan of Mysore during the period of 1912-1918. In 1955, he was honored with Bharat Ratna. For his contributions to public goodness, he was bestowed as Knight Commander, by King George V, during the British Indian Empire.

September 15 is celebrated as Engineers day, in his loving memory. Sir MV was recognized for engineering the Krishna Raja Sagara Dam located in Mysore. Also, he was one of the Chief designing engineers for bringing up a system for flood protection in Hyderabad.

Mokshagundam Visvesvaraya was born on 15th September 1861 to a Telugu Brahmin Family in Muddenahalli village in Chikkaballapur District. His parents were Mokshagundam Srinivasa Shastry and Venkatalakshmamma. Mokshagundam Srinivasa Shastry was a renowned Sanskrit scholar. At the age of 12, Visvesvaraya lost his father.

Sir MV enrolled for his early education in Chikaballapur, where he completed his primary education. Then for his high school education, Sir MV came to Bangalore. In 1881, after receiving a bachelor's degree in Arts from the Central College in Bangalore, affiliated to the Madras University, he pursued civil engineering from the reputed College of Engineering, Pune.

Sir M Visvesvaraya and the building of the Krishnarajasagara reservoir and dam

The Krishnarajasagara dam is the biggest landmark in Mysuru. Dating back to the 1930s, this 130 feet high dam isn't just a popular tourist attraction, it is also the source of irrigation and drinking water for large parts of Karnataka. The dam is closely linked to two individuals; Krishnaraja Wodeyar IV, the erstwhile king of Mysuru at the time this dam was built and the dam's designer and engineer, Sir Mokshagundam Visvesvaraya.

At the time of its planning and construction, the project was unprecedented not just in India but around the world. Dam building was a relatively new pursuit. It took over a year of planning and political, technical and financial negotiations with all the parties involved for the Krishnarajasagara dam project to be given the green light.

Few of the many things he was responsible for:

1. The architect of the Krishnarajasagara dam – or KRS or Brindavan gardens. One of the biggest dams in India which irrigate a hundred and twenty thousand acres of land. This was built at a cost of Rs 2.5 crore. It changed a barren Mandya district into a rice granary, providing drinking water to Mysore and Bangalore.

2. Bhadravati Iron and Steel Works – as its Chairman he rescued it from becoming extinct.

3. Mysore Sandal Oil Factory and the Mysore soap factory

4. Mysore University – Sir M.V.'s question was "If Australia and Canada could have universities of their own for less than a million population, cannot Mysore with a population of not less that 60 lakhs have a University of its own?"

5. State Bank of Mysore (it was first named as 'The Bank of Mysore')

6. Public libraries in Mysore and Bangalore

7. Encouraging girls to attend school.

8. Mysore Chambers of Commerce

9. Kannada Sahitya Parishad or the Kannada Literary Academy

10. Sri Jayachamarajendra Occupational Institute, Bangalore – funded by the ENTIRE money [Rs 200,000] he earned from rescuing Bhadravati Iron Works.

11. In 1912 he set up the Hebbal Agricultural School, now University of Agricultural Sciences.

12. In 1903 he designed automatic, weir water floodgates, installed at Khadakvasla reservoir.

13. He implemented an irrigation system in Karnataka.

14. Sri Jayachamarajendra Polytechnic Institute.

15. The Bangalore Agricultural University (University of Agricultural Sciences).

16. The Century Club

17. Visvesvaraya College of Engineering, Bengaluru

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BURNING ISSUES

Uniform 28% tax on online gaming: Centre ready to bring the tax from Oct 1, all states yet to pass laws

- With all states yet to pass legal amendments for the 28% GST on face value at entry level for online gaming, casinos and horse racing, the Union government is fully prepared to implement the amended legal provisions from October 1.

Decision to Levy a Uniform 28% GST on Online Gaming:

- The 50th GST Council in its meeting (on July 11) had decided to levy a uniform 28% on full face value for online gaming, casinos and horse racing.

- However, after concerns raised by some states, the Council in its 51st meeting (on August 2) had decided to levy 28% tax at face value at entry level.

- The Council gave some relief by deciding not to impose the tax levy on the amount entered into games/bets out of winnings of previous games/bets in online money gaming or on total value of each bet placed.

- Recently, the Centre passed the required legal amendments in the Central GST (CGST) and Integrated GST (IGST) laws in the Parliament to give effect to the Council's decision.

- States are also required to make the corresponding legal changes in their State GST laws to bring it into effect.

Implementation at the Level of the States and Online Gaming Companies:

- So far, close to a dozen states are learnt to have passed the required amendments or ordinances.

- Some states, like Goa, MP and Maharashtra, have passed ordinances. Karnataka is reported to have deferred its decision to approve the ordinance to the next Cabinet meeting.

- Show Cause notices have been sent to online gaming companies like Dream11, Nazara Tech and Delta Corp for non-payment of GST at 28% rate on full face value.

- The government has been embroiled in a legal battle with online gaming companies.

- Recently, the SC had ordered an interim stay on the Karnataka HC ruling that online games like rummy are not taxable as 'betting' and 'gambling' under the CGST Act 2017.

POLITY AND GOVERNANCE

SWACHH VAYU SARVEKSHAN 2023 RANKINGS

In News: Climate Change Minister Bhupender Yadav recently announced awards under the Swachh Vayu Sarvekshan 2023 (clean air survey).

About Swachh Vayu Sarvekshan (Purpose, Methodology, Components, etc.)

About Swachh Vayu Sarvekshan:

- In September 2022, the Union Ministry of Environment, Forest and Climate Change released guidelines on 'Swachh Vayu Sarvekshan- Ranking of Cities' under the National Clean Air Programme (NCAP).
- The aim of launching Swachh Vayu Sarvekshan is to give ranking to 131 cities in the country for implementing City Action Plans prepared as part of NCAP for reducing air pollution up to 40% by 2025-26.

Methodology for Swachh Vayu Sarvekshan:

- 131 cities are categorized into three groups based on population.
- 47 cities are in the first group having population more than 10 lakh.
- 44 cities are in the second group having population between 3 to 10 lakh.
- Third group consists of 40 cities having population less than 3 lakh.
- Cities are required to do the self-assessment as per the framework provided on PRANA online portal.
- 'PRANA' is the acronym for Portal for Regulation of Air-pollution in Non-Attainment Cities.

Major Components of Assessment –

- solid waste management
- road dust management
- management of construction and demolition waste
- control of vehicular emissions and industrial pollution.
- 3 best performing cities in each group will be given cash award in the spirit of competitive federalism.
- This Sarvekshan provides a tool to cities to plan their actions in order to improve the air quality.

Important Point to be Noted –

- It is not based on the measurement of the air quality parameters to rank the cities.
- It is based on the actions taken by the cities to improve the air quality in different domains.

About Swachh Vayu Sarvekshan 2023:

CITY LAGS IN AIR QUALITY		
Category 1 Cities with population over 10 lakh		Swachh Vayu Survekshan is an initiative by MoEF&CC to rank cities on the basis of implementation of activities approved under city and air quality action plans in 131 NCAP cities
City	**Rank**	**CRITERIA**
Indore	1	
Agra	2	**Category 1** Population over 10 lakh No. of cities **47** / **Category 2** Population 3-10 lakh No. of cities **44**
Thane	3	
Srinagar	4	
Bhopal	5	
Trichy	6	**Category 3** Population under 3 lakh No. of cities **40**
Vadodara	7	
Ahmedabad	8	
Delhi	9	
Mumbai	10	

- Union Environment, Forest and Climate Change Minister Bhupender Yadav recently announced awards under the Swachh Vayu Sarvekshan 2023 (clean air survey).
- Under the 1st category (more than 10 lakh population) Indore ranked first followed by Agra and Thane.
- Indore received the highest score of 187 out of 200.
- In second category (between 3-10 lakhs population), Amravati secured first rank followed by Moradabad and Guntur.
- Similarly, for third category (less than 3 lakhs population) Parwanoo (Himachal Pradesh) secured first rank followed by Kala Amb (Himachal Pradesh) and Angul (Odisha).

Scores were given in eight categories –

- Biomass and municipal solid waste and burning
- Road dust
- Dust from construction and demolition waste
- Vehicular emissions
- Emissions from industries
- Other emissions
- IEC activities or public awareness
- Improvement in PM10 concentrations.
- The assessment was done based on submission of a self-assessment report, along with supporting documents, by urban local bodies.
- In the 2022 survey, Lucknow, Prayagraj and

Varanasi were ranked top 3 cities in the million plus population category. However, all three have been ranked lower this year.

National Clean Air Programme:

● National Clean Air Programme (NCAP), launched in 2019, is India's flagship program for better air quality.

● It was launched as a long-term, time-bound, national level strategy to tackle the air pollution problem across the country in a comprehensive manner.

● Goal: 20% to 30% reduction in Particulate Matter concentrations by 2024 keeping 2017 as the base year.

● Under NCAP, 132 non-attainment cities have been identified across the country based on the Air Quality data from 2014-2018.

● Non-attainment cities are those that have fallen short of the National Ambient Air Quality Standards (NAAQS) for over five years.

CONSTITUTIONALITY OF CO 272, 273

In News: The constitutional validity of Presidential Orders CO 272 and CO 273, which were instrumental in the abrogation of Article 370, has been a matter of legal and constitutional debate in India. The validity of these orders is being challenged in the Supreme Court of India based on the arguments presented by the petitioners.

CO 272 (Amending Article 367)

● CO 272, issued on August 5, 2019, amended Article 367 of the Indian Constitution. This amendment changed the reference from the "Constituent Assembly" to the "Legislative Assembly" in Article 370(3), which played a pivotal role in the subsequent steps leading to the abrogation of Article 370.

● The validity of this order has been challenged on the grounds that Article 367 is an interpretative provision and cannot be used to fundamentally alter the Constitution or amend its provisions. The argument is that the insertion of a provision in Article 367 effectively allowed for changes to Article 370 without adhering to the formal process required for constitutional amendments under Article 368.

CO 273 (Operationalizing the Abrogation)

● CO 273, issued on August 6, 2019, operationalized

the recommendation made by the Rajya Sabha (the upper house of Parliament) to abrogate Article 370. This proclamation essentially sealed the abrogation of Article 370 and the reorganization of the state of Jammu and Kashmir into two union territories.

● The validity of this order is being challenged on multiple grounds, including the manner in which it was recommended by the Rajya Sabha and the legality of the recommendation given that the state was under the President's Rule at the time. The petitioners argue that Rajya Sabha's recommendation, made on behalf of the Governor during the President's Rule, was unlawful and violated the principles and safeguards of Article 370.

Constitutional Principles involved

● The core legal arguments in these challenges revolve around the principles of constitutional interpretation, separation of powers, and the procedure for amending or altering the Constitution. The petitioners assert that the use of Article 367 to effect substantive changes to Article 370 goes beyond the scope of interpretative powers and violates the constitutional procedure for amending the Constitution.

Arguments presented by the Petitioners

● **Constituent Assembly's Dissolution**: The petitioners argued that once the Constituent Assembly of Jammu and Kashmir ceased to exist, the President could not legally revoke Article 370 by order. This is because Article 370(3) stipulated that the President could issue notifications regarding Article 370 based on the recommendation of the Constituent Assembly of the state.

● **Permanency of Article 370**: The petitioners contended that the Jammu and Kashmir Constitution granted permanency to Article 370 after the dissolution of the Constituent Assembly. They argued that without a Constituent Assembly, the President did not have the authority to exercise powers under Article 370(3).

● **Legislative Assembly's Power**: The petitioners highlighted that the Jammu and Kashmir Constitution explicitly prohibited the introduction of any Bill to alter the application of the Indian Constitution to the state. They argued that Presidential Order CO 272 (issued in 2019) could not confer the power on the Legislative Assembly to recommend the abrogation of Article 370. Therefore,

according to their argument, neither the Jammu and Kashmir Assembly nor the Indian Parliament had the authority to undo Article 370.

- **Validity of Article 367 Use**: The petitioners contended that Article 367, which deals with the interpretation of the Constitution, has inherent limitations and cannot be used to issue a Presidential Order like CO 272. They argued that Article 367 is meant for interpretation, not for making substantial amendments, which should be done through Article 368.

- **Role of the Governor during President's Rule**: The petitioners argued that the second proclamation (CO 273) issued by the President on August 6, 2019, which sealed the abrogation of Article 370, was based on the recommendation of the Rajya Sabha and the Governor of the state. They contended that the Rajya Sabha could not assume powers on behalf of the Governor during the President's Rule and that the entire process leading to the President's Rule in Jammu and Kashmir in 2018 was unlawful.

- **Unlawful Exercise of Article 356**: The petitioners asserted that how Article 356 (which deals with the imposition of President's Rule) was exercised amounted to a "fraud on the Constitution." They argued that the safeguards provided in Article 370 could not be bypassed by the President through the imposition of President's Rule under Article 356.

- The constitutional validity of CO 272 and CO 273 depends on how the Supreme Court interprets these legal and constitutional principles in light of the arguments presented by both sides. The outcome of the case will have far-reaching implications for the interpretation of the Indian Constitution and the extent to which provisions like Article 370 can be amended or abrogated.

COMMITTEE ON SIMULTANEOUS ELECTIONS

In News: "One nation, one election" is a concept aimed at synchronizing the timing of elections for various tiers of government in India, primarily the Lok Sabha (national parliament) and state legislative assemblies. The idea behind this concept is to streamline the electoral process, reduce election-related expenses, and ensure continuity in governance.

Initial Simultaneous Elections

- When India gained independence in 1947, it initially held simultaneous elections for both the Lok Sabha (House of the People) and state legislative assemblies. This synchronization was in line with the democratic principles of the newly formed nation.

Divergence in Election Cycles

- Over the years, India's political landscape evolved, leading to a divergence in the election cycles of different states. Changes in governments, political realignments, and constitutional issues disrupted the initial practice of simultaneous elections.

Past Recommendations

- The concept of "one nation, one election" has been considered and recommended by various governmental and non-governmental bodies.

- In 1983, the Election Commission of India suggested working towards simultaneous elections as a way to improve the efficiency of the electoral process.

- In 1999, the Law Commission of India recommended the synchronization of elections to Lok Sabha and state assemblies, stating the need to "go back to the situation where elections to Lok Sabha and all the Legislative Assemblies are held at once."

Recent Developments

- After the election in 2019, the Prime Minister emphasized the idea of "one nation, one election." He proposed the formation of a committee to examine the feasibility of holding simultaneous elections and announced his intention to hold discussions with various political parties to build consensus on the issue.

- In 2018, the Law Commission issued a draft report acknowledging the need for constitutional amendments and legal changes to facilitate simultaneous elections. The draft report recommended that all elections due in a calendar year should be conducted together.

- As of 2023, the concept of "one nation, one election" continues to be a subject of debate and discussion in India's political landscape. Opposition parties remain divided on the issue, with concerns about its impact on regional politics and the prominence of national leaders in the electoral process.

Features of "one nation, one election."

Synchronization

- The central feature of "one nation, one election" is the synchronization of elections for both the Lok Sabha (the lower house of India's national parliament) and state assemblies. Currently, elections for the Lok Sabha and state assemblies are held at different times, often leading to a continuous cycle of elections across various states and the national level.

- Synchronization means that elections for these two levels of government would be conducted simultaneously on a single day or within a closely coordinated time frame.

Common Election Cycle

- "One nation, one election" proposes the establishment of a common election cycle for all state assemblies and the Lok Sabha. This common election cycle implies that elections at both the national and state levels would be scheduled together at fixed intervals, typically every five years.

- The goal is to reduce the frequency of elections and create a more streamlined and predictable electoral schedule.

Amendments

- Implementing "one nation, one election" would require significant amendments to India's legal and constitutional framework:

- Constitutional Amendments: Changes to the Indian Constitution may be necessary to align the terms of state legislative assemblies with that of the Lok Sabha, ensuring that elections can be held concurrently. This would likely involve altering articles related to the tenure of state assemblies.

- Representation of the People Act 1951: Amendments to this act would be required to accommodate the synchronized election schedule and address logistical and legal issues that arise due to simultaneous elections. The act governs the conduct of elections in India.

- Rules of Procedure: The rules governing the functioning of the Lok Sabha and state legislative assemblies may need to be modified to accommodate the new election cycle and procedures associated with simultaneous elections.

- These amendments are crucial for legalizing and implementing the concept of "one nation,

one election." They would require thorough deliberation, consensus-building among lawmakers, and a rigorous legislative process to enact the necessary changes.

Significance of "one nation, one election"

Reduced Election Costs

- Conducting elections at different times for the Lok Sabha and state assemblies involves substantial financial expenditure for the government, political parties, and candidates.

- By holding elections simultaneously, there would be a significant reduction in overall election-related costs. This includes expenses for security, transportation, polling staff, and campaigning.

- A single election cycles every five years would allow for better financial planning and allocation of resources, reducing the burden on the exchequer.

Continuous Governance

- The enforcement of the Model Code of Conduct (MCC) during election periods can disrupt the normal functioning of both the central and state governments.

- Frequent elections at different levels result in a continuous cycle of MCC enforcement, leading to potential policy paralysis as the government refrains from announcing new policies or projects during the MCC period.

- Simultaneous elections would reduce the frequency of MCC enforcement, ensuring that governance is not disrupted by election-related restrictions. This could lead to more effective and uninterrupted governance.

Efficient Use of Resources

- Holding multiple elections at different times requires a substantial deployment of essential manpower and resources, including security personnel, administrative staff, and electoral machinery.

- Simultaneous elections would enable more efficient use of these resources. Staff and security forces could be deployed more strategically, and electoral machinery could be streamlined.

- This efficient allocation of resources would not only reduce the burden on government agencies but also enhance the overall management of elections.

- These arguments emphasize the potential benefits of "one nation, one election" in terms

of cost savings, uninterrupted governance, and resource efficiency. Supporters argue that these advantages would contribute to a more effective and streamlined electoral process in India.

Challenges in Implementing "One Nation, One Election"

Constitutional Amendments

- One of the foremost challenges in implementing "one nation, one election" is the requirement for significant constitutional amendments. These amendments would need to address various aspects of election scheduling, terms of legislatures, and related provisions. To enact these changes, the Constitution of India mandates that at least 50% of the states must ratify the amendments, making it a complex legal and political process.

- Achieving consensus among diverse states with varying political interests can be challenging.

Logistical Complexity

- Implementing simultaneous elections in India, given its vast size, diversity, and federal structure, is an intricate and challenging task. Coordinating elections across all states and union territories, each with its unique political landscape and regional dynamics poses significant logistical complexities.

- Ensuring uniformity in election schedules, voter lists, and campaign periods across the country can be a daunting administrative challenge.

- Critics argue that such complexity could lead to operational issues, delays, and potential disputes, undermining the efficiency of the electoral process.

Dominance of National Parties

- Critics of "one nation, one election" argue that this system could favour nationally dominant parties at the expense of regional players.

- National parties tend to have more extensive resources and a broader presence, potentially overshadowing regional parties. This could affect the diversity of political representation in India, which is known for its regional and linguistic diversity.

Government Stability

- Another critical challenge is the **potential impact on government stability.** In a scenario where any government, be it at the state or national level, collapses before completing its full term, simultaneous elections could lead to political instability. The need for fresh elections at all levels simultaneously could disrupt governance and create uncertainty. This challenge emphasizes the importance of ensuring that governments remain stable throughout their terms.

Legal and Procedural Changes

- Implementing "one nation, one election" would require comprehensive changes to existing election laws and procedures, including the Representation of the People Act, 1951, and the Rules of Procedure of the Lok Sabha and state assemblies. Ensuring that these legal and procedural changes are well-drafted and effectively implemented is a significant challenge.

Public Awareness and Education

- To successfully transition to simultaneous elections, **there would be a need for extensive public awareness and education campaigns.** Citizens would need to understand the changes in election cycles, voting procedures, and the implications of their votes at multiple levels of government.

Political Consensus

- Achieving political consensus among various political parties is essential for the successful implementation of "one nation, one election." Currently, opposition parties have expressed divided opinions on the concept, and building consensus on such a significant change in the electoral system can be a challenging task.

Funding and Resources

- Coordinating simultaneous elections would require a substantial allocation of funds and resources. Ensuring that the necessary financial and logistical resources are available to conduct elections across the country simultaneously is a logistical challenge.

Security and Law Enforcement

- Maintaining security during simultaneous elections, particularly in regions with security concerns, is a significant challenge. Law enforcement agencies would need to manage and coordinate security measures effectively to ensure the safety of voters and the integrity of the electoral process.

Impact on Regional Issues

- Simultaneous elections could **potentially shift the focus of political campaigns away from regional issues and towards national agendas**. This shift could impact the representation of regional concerns and issues in the political discourse.

- Addressing these challenges would require careful planning, collaboration among political parties, and a well-structured approach to constitutional amendments and legal changes. Simultaneous elections are a complex undertaking, and policymakers must consider these challenges when evaluating the feasibility and implications of such a system.

Way Forward for Implementing "One Nation, One Election"

Political Consensus

- **Building a broad political consensus** on the concept of "one nation, one election" is paramount. The government should engage in dialogues and consultations with various political parties to address their concerns and seek their input. A consensus-driven approach is essential to garner support for this significant electoral reform.

Legal Amendments

- To move forward, the **government must initiate the process of drafting and proposing the necessary constitutional amendments and legal changes.** This includes addressing issues related to no-confidence motions and government stability. Legal experts, lawmakers, and constitutional authorities should collaborate to ensure that the proposed amendments are well-considered and well-crafted.

Pilot Projects

- Before implementing simultaneous elections nationwide, it may be prudent to conduct pilot projects or trials in selected states or union territories. These pilot projects can serve as testing grounds to assess the feasibility, identify challenges, and fine-tune the logistical aspects of simultaneous elections. The lessons learned from these trials can inform the broader implementation strategy.

Public Awareness Campaigns

- To ensure that citizens are well-informed about the benefits and implications of simultaneous elections, comprehensive public awareness campaigns should be conducted. These campaigns can help citizens understand the changes in the electoral process, the importance of their votes at various levels of government, and the potential advantages of synchronized elections.

Parliamentary Approval

- Any proposed constitutional amendments and legislative changes must go through the established parliamentary approval process. This involves debates, discussions, and voting in both houses of Parliament. Lawmakers should have the opportunity to scrutinize and provide input on the proposed reforms, ensuring a transparent and democratic decision-making process.

Consultation with State Governments

- Since states play a significant role in the electoral process, it is crucial to consult with state governments and seek their input on the implementation of simultaneous elections. State governments may have unique concerns and considerations that need to be addressed in the reform process.

Expert Committees

- Establishing expert committees comprising legal experts, political scientists, election commission officials, and representatives from various political parties can help analyze the technical and practical aspects of implementing simultaneous elections. These committees can provide valuable recommendations and insights.

Gradual Transition

- Rather than implementing simultaneous elections abruptly, a gradual transition approach could be considered. This could involve synchronizing elections in phases, starting with a subset of states and gradually expanding to cover the entire country. Such an approach allows for a smoother transition and better management of resources and logistics.

International Best Practices

- India can learn from international best practices in implementing synchronized elections. Studying how other countries have managed simultaneous elections can provide valuable insights into the challenges and solutions.

Continuous Evaluation

- After the initial implementation, a system of continuous evaluation and feedback should be established. This will help identify any issues that arise during the transition and allow for timely adjustments and improvements.

NASHA MUKT BHARAT ABHIYAAN-SIGNING OF MOU BETWEEN DEPARTMENT OF SOCIAL JUSTICE & EMPOWERMENT AND GAYATRI PARIVAR

- Substance use disorder is an issue which is adversely affecting the social fabric of the country. Dependence to any substance not only affects the individual's health but also disrupts their families and the whole society. Regular consumption of various psychoactive substances leads to dependence of the individual. Some substance compounds may lead to neuro-psychiatric disorders, cardiovascular diseases, as well as accidents, suicides and violence. Therefore, substance use and dependence needs to be viewed as a psycho-social-medical problem.

- As per report of first comprehensive national Survey on extent and pattern of substance use in India conducted by department of social justice & empowerment through national drug dependence treatment centre (nddtc), AIIMS, New Delhi, alcohol is the most common psychoactive substance used by Indians followed by cannabis and opioids.

- To curb the menace of drug demand, the ministry of social justice and empowerment (mosje), government of India has been implementing national action plan for drug demand reduction (napddr) which is an umbrella scheme under which financial assistance is provided to state Governments/ union territory (ut) administrations for preventive education and awareness generation, capacity building, skill development, vocational training and livelihood support of ex-drug addicts, programmes for drug demand reduction by states/uts etc. And ngos/vos for running and maintenance of integrated rehabilitation centers for addicts (lrcas), community based peer led intervention (cpli) for early drug use prevention among adolescents and outreach and drop in centers (odic) and district de- addiction centers (ddacs) in the identified districts and addiction treatment facilities (atfs) in government hospitals'.

SHRI DHARMENDRA PRADHAN LAUNCHES THE MALAVIYA MISSION - TEACHERS TRAINING PROGRAMME BY UNIVERSITY GRANTS COMMISSION

More on the Topic:

- Union Minister for Education and Skill Development & Entrepreneurship Shri Dharmendra Pradhan launched the Malaviya Mission - Teachers Training Programme by the University Grants Commission at Kaushal Bhawan, New Delhi. He also inaugurated the Portal of the Programme and released its information brochure. Organised by the University Grants Commission, in association with the Ministry of Education, the Malaviya Mission - Teacher Training Programme aims to provide tailored training programmes for teachers. This programme will work for the capacity building of faculty members in higher educational institutions.

- Secretary, Higher Education, Ministry for Education, Shri K. Sanjay Murthy; Chairman of UGC Prof. Mamidala Jagadesh Kumar; Vice Chairman, UGC, Prof. Deepak Kumar Srivastava; Secretary, UGC, Prof. Manish Joshi; officials of the Ministry of Education and UGC, and Vice Chancellors of several universities also graced the event. Educators and dignitaries from the entire nation joined through virtual mode.

- While launching the training programme for teachers, Shri Dharmendra Pradhan emphasised improving the quality of education at all levels by infusing quality and excellence in teachers and teaching methods. He also announced the renaming of Human Resource Development Centres (HRDCs) as Madan Mohan Malaviya Teachers' Training Centre. He mentioned that this programme will ensure continuous professional development and help in building capacities of 15 lakh teachers of HEIs through 111 Malaviya Mission centres across India in a time-bound manner.

- He stated that the programme is an endeavour to make our educators future-ready with a deeper understanding of Indian values. It aims to improve the quality of teachers' training, build leadership skills in teachers and help realise the goals of NEP, he added.

- Shri Pradhan also informed that capacity

building under the Malaviya Mission will be mapped to the credit framework to ensure career progression pathways for educators. He said that societal transformation can only be led through the development of education and teachers are the catalysts of the change. Dwelling on the various themes of the training programmes, Shri Pradhan said that the theme-wise training sessions will help enthuse "Samagrata" in the participants. He also mentioned that the Indian Knowledge System has been included in the modules of the Programme.

JAL JEEVAN MISSION ACHIEVES MILESTONE OF 13 CRORE RURAL HOUSEHOLDS TAP CONNECTIONS.

- **JJM Increases Rural Tap Connection Coverage From 3 Crore To 13 Crore In Just 4 Years. On Average, 87,500 Tap Connections Provided Every Day Since 1st January, 2023 Uttar Pradesh Tops Progress Chart By Installing Over 61 Lakh Functional Household Tap Connection Since January, 2023**

- The Jal Jeevan Mission (JJM) today achieved another milestone of providing tap water connections to 13 Crore rural households. Working with 'speed and scale', the life changing mission has increased the rural tap connection coverage from only 3.23 Crore households at the start of the Mission in August, 2019 to 13 crore in just 4 years. Jal Jeevan Mission was announced by the Prime Minister, Shri Narendra Modi from the ramparts of the Red Fort on 15th August, 2019 as the country celebrated its 73rd Independence Day. As on date, 6 States namely Goa, Telangana, Haryana, Gujarat, Punjab and Himachal Pradesh and 3 UTs - Puducherry, D&D and D&NH and A&N Islands, have reported 100% coverage. Bihar at 96.39%, followed by Mizoram at 92.12%, are also poised to achieve saturation in the near future. Goa, Haryana, Punjab, A&N Islands, Puducherry, D&NH and D&D are 'Har Ghar Jal certified States/ UTs i.e., in these states/ UTs, the villagers have confirmed through Gram Sabhas that all households and public institutions' in the village are getting adequate, safe and regular supply of water. As many as 145 districts and 1,86,818 villages in the country have reported 100% coverage.

- The Mission implements the programme in partnership with States/ UTs and it is the combined efforts of all including development partners that transformational change is seen on ground. Every second, one tap water connection is getting installed thereby changing the rural landscape of the country. Since 1st January 2023, on an average 87,500 tap connections are provided every day. Uttar Pradesh has topped the progress chart in the current FY by installing 61.05 lakh Functional Household Tap Connection (FHTC) since January 2023.
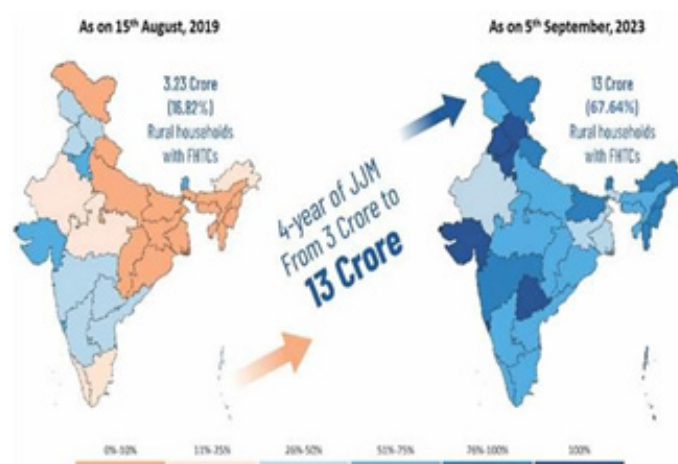
- The relentless efforts of the Union and State governments have also resulted in ensuring the provision of tap water supply in 9.15 lakh (88.73%) schools and 9.52 lakh (84.69%) anganwadi centres in the country. In the 112 aspirational districts of our country, at the time of the launch of the Mission, only 21.41 lakh (7.86%) households had access to tap water which has now increased to 1.81 Crore (66.48%).

- Work under 'Har Ghar Jal' is resulting in significant socio-economic benefits for the rural population. Regular tap water supply relieves people, especially women and young girls, from centuries old drudgery of carrying heavy bucket loads of water to meet their daily household needs. The time saved can be used for income generation activities, learning new skills and supporting children's education.

- In order to achieve long-term sustainability of the schemes, community participation from the very beginning has been at the heart of planning, implementation, operations and maintenance (O&M) of rural piped water supply schemes. More than 5.27 lakh Village Water & Sanitation Committees (VWSC)/ Pani Samitis have been constituted in the country and 5.12 lakh Village Action Plans (VAPs) have been prepared including the

plans for drinking water source augmentation, greywater treatment and its reuse, and regular O&M of in-village water supply systems.

- At the time of launch of Jal Jeevan Mission, 22,016 habitations (Arsenic – 14,020, Fluoride- 7,996), having 1.79 Crore population (Arsenic -1.19 crore, Fluoride-0.59 crore), were affected with Arsenic/ Fluoride contamination in drinking water sources. As reported by States/ UTs, now safe drinking water is available in all the Arsenic/ Fluoride-affected habitations.

- Jal Jeevan Mission believes in not just providing water but ensuring that quality water is supplied every time. In this regard regular testing of water sample from source and delivery points are collected and checked. Recognizing the work carried out by the Department, this year Silver Award was bestowed by Department of Personnel & Training upon the WQMIS under the category "Application of emerging technologies for promoting citizen centric services".

- Working on the motto of Sabka Saath, Sabka Vikas, Sabka Vishwas aur Sabka Prayas, Jal Jeevan Mission is marching towards achieving the SDG 6, i.e., safe and affordable water to all, through provision of safe water through taps to all households, schools, anganwadis and other public institutions, in rural areas.

THE PRADHAN MANTRI DAKSHATA AUR KUSHALATA SAMPANNA HITGRAHI (PM-DAKSH) YOJANA

More on the Topic:

- The Pradhan Mantri Dakshata Aur Kushalata Sampanna Hitgrahi (PM-DAKSH) Yojana, a Central Sector Scheme, was launched during 2020-21. The main objective of the Scheme is to enhance competency level of the target groups to make them employable both in self- employment and wage-employment for their socio-economic development.

- The target group under this scheme are SCs, OBCs, EBCs, DNTs Safai Karamcharis including waste pickers etc. The age criterion of scheme between 18-45 years and income criteria is no income limit for SCs, Safa- iKaramcharis Including wastepicker and DNT. The annual family income should be below Rs.3 lakh for OBCs and the EBCs (Economically Backward Classes) annual family income below Rs.1 lakh.

Types of Trainings, duration and average cost per candidate

- Up-skilling/Reskilling (35 to 60 hours/ 5 days to 35 days):-Rs.3000/- to Rs.8000/-

- Short Term Training (300 hours/3 months) :-Rs.22,000/-

- Entrepreneurship Development Programme (90 hours/15 days):Rs.7000/-

- Long Term Training (650 hours/7 months) :- Rs.45,000/-

- The cost of training is as per common norms issued by Ministry of Skill Development & Entrepreneurship; Government of India and it varies as per duration of the course. Up-skilling for Safai Karamcharis including waste pickers is for 35 hours/5 days with average cost of Rs.3000/- per candidate.

- The Cost of the training to trainees is free of cost. The stipend under this scheme of Rs.1,500/- per month to SCs and Safai Karamcharis and Rs.1,000/- per month to OBCs/EBCs/DNTs for non-residential Short Term and Long Term training courses and the Wage compensation Rs.2500/- per candidate is given to SCs/OBCs/EBCs/ DNTs candidates for Upskilling/Reskilling programme. Wage compensation Rs.500/- per candidate is given to Safai Karamcharis candidates for Upskilling programme.

Gramodyog Vikas Yojana

- It was launched in March 2020. It is one of the two components of the Khadi Gramodyog Vikas Yojana which is a Central Sector Scheme (CSS). The other component of Khadi Gramodyog Vikas Yojana is the Khadi Vikas Yojana (KVY) which includes two new components such as Rozgar Yukt Gaon, Design House (DH)

- GVY aims to promote and develop the village industries through common facilities, technological modernization, training etc.

Included Activities:

- Agro-Based & Food Processing Industry (ABFPI)

- Mineral-Based Industry (MBI)

- Wellness & Cosmetics Industry (WCI)

- Handmade Paper, Leather & Plastic Industry (HPLPI)

- Rural Engineering & New Technology Industry (RENTI)
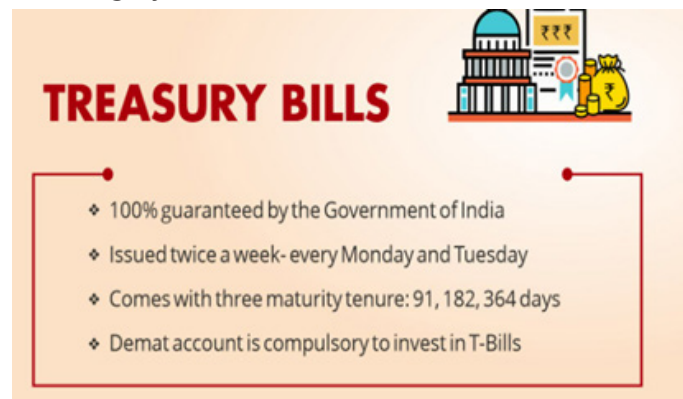
Service Industry
Components:

- R & D and Product Innovation: R&D support is given to institutions that intend to carry out product development, new innovations, design development, product diversification processes etc.

- Capacity Building: The existing MDTCs (Master Development Training Centers) and institutions of excellence address the capacity building of staff and artisans as part of the Human Resource Development and Skill Training components.

- Marketing & Publicity: The village institutions provide market support by way of preparation of a product catalogue, industry directory, market research, new marketing techniques, buyer-seller meetings, arranging exhibitions etc.

INDIAN ECONOMY

TREASURY BILLS

In News: Recently, the yields on Treasury Bills (T-Bills) eased by up to seven basis points (bps) following an improvement in liquidity in the banking system.

TREASURY BILLS
- 100% guaranteed by the Government of India
- Issued twice a week- every Monday and Tuesday
- Comes with three maturity tenure: 91, 182, 364 days
- Demat account is compulsory to invest in T-Bills

More on the Topic:

- T-Bills are money market instruments. These are short-term debt instruments issued by the Government of India.

- Tenure: These are presently issued in three tenors, namely, 91 days, 182 days and 364 days.

- These are zero coupon securities and pay no interest. Instead, they are issued at a discount and redeemed at the face value at maturity.

When were treasury bills introduced?

- Treasury bills were first issued in India in 1917. They are issued via auctions conducted by the Reserve Bank of India (RBI) at regular intervals.

Who can buy it?

- Individuals, trusts, institutions and banks can purchase T-Bills. But they are usually held by financial institutions.

- They have a very important role in the financial market beyond investment instruments.

- Banks give treasury bills to the RBI to get money under repo.

- Similarly, they can also keep it to fulfil their Statutory Liquid Ratio (SLR) requirements.

T-bills work

- Treasury bills are issued at a discount to the original value, and the buyer gets the original value upon maturity.

- For example, a Rs 100 treasury bill can be

availed of at Rs 95, but the buyer is paid Rs 100 on the maturity date. The return on treasury bills depends on the liquidity position of the economy. When there is a liquidity crisis, the returns are higher, and vice versa.

UPI QR CODE-CENTRAL BANK DIGITAL CURRENCY INTEROPERABILITY BANKS ARE ENABLING THE INTEROPERABILITY OF UNIFIED PAYMENTS INTERFACE'S (UPI) QUICK RESPONSE (QR) CODE WITH THEIR CENTRAL BANK DIGITAL CURRENCY (CBDC) OR E₹ APPLICATION.

- Interoperability is the technical compatibility that enables a payment system to be used in conjunction with other payment systems.
- It allows system providers and participants in different systems to undertake, clear and settle payment transactions across systems without participating in multiple systems.
- With this, users of retail digital rupee will be able to make transactions by scanning any UPI QR at a merchant outlet.
- Merchants can also accept digital rupee payments through their existing UPI QR codes.
- This integration of UPI and CBDC is part of the Reserve Bank of India's (RBI) ongoing pilot project on pushing the retail digital rupee (e₹-R).

Central Bank Digital Currency (CBDC)

- CBDC is the legal tender issued by a central bank in a digital form.
- The digital rupee (e-Rupee) is the digital currency launched by Reserve Bank of India.
- It is the same as a fiat currency and is exchangeable one-to-one with the fiat currency, only its form is different.

Launch of Digital Rupee

- RBI has demarcated the digital rupee into two broad categories: general purpose (retail) and wholesale.
- This demarcation is based on the usage and the functions performed by the digital rupee and considering the different levels of accessibility.
- From November 1, 2022, RBI launched its first pilot project to use digital rupee in the wholesale market for secondary trade in government securities (G-secs).

- Wholesale CBDC has the potential to transform the settlement systems for financial transactions undertaken by banks in the government securities (G-Sec) segment, inter-bank market and capital market more efficiently and securely in terms of operational costs, use of collateral and liquidity management.
- From December 1, 2022, retail digital rupee (e-R) pilot was launched.
- In effect, the retail e-rupee is an electronic version of cash, and will be primarily meant for retail transactions.
- It is available for use by all — the private sector, non-financial consumers and businesses.
- It will be distributed through intermediaries, i.e., banks.
- It will not earn any interest and can be converted to other forms of money, like deposits with banks.
- News Summary: UPI QR Code-Central Bank Digital Currency interoperability
- UPI QR code-CBDC interoperability
- Interoperability of UPI with the digital rupee means all UPI QR codes are compatible with CBDC apps.
- Initially, when the pilot for the retail digital rupee was launched, the e₹-R users had to scan a specific QR code to undertake transactions.
- However, with the interoperability of the two, payments can be made using a single QR code.
- The e₹ is held in a digital wallet, which is linked to a customer's existing savings bank account.
- UPI is directly linked to a customer's account.

Benefit customers and merchants

- The interoperability of UPI and CBDC will ensure seamless transactions between a customer and merchant without having the need to switch between multiple digital platforms.
- It will allow a digital rupee user to make payments for their daily needs, such as groceries and medicines, by scanning any UPI QR codes at any merchant outlet.
- Even merchants are not required to keep a separate QR code to accept the digital rupee payments. They can accept CBDC payments

on their existing QR code.

- If the merchant has a CBDC account, the payment will be settled in the CBDC wallet.
- If a merchant does not have a CBDC account, then there will be an option to make payment using UPI.
- How will interoperability help in increasing CBDC adoption?
- Currently, UPI is a widely used payment method, and the interoperability between it and the CBDC will propel the adoption of the digital rupee.
- At present, more than 70 mobile apps and over 50 million merchants accept UPI payments.
- In July, RBI Deputy Governor said there were 1.3 million customers and 0.3 million merchants using the retail digital rupee.
- The daily per-day e₹-R transactions in July were around 5,000-10,000.
- The seamless integration of CBDC with UPI will enhance the acceptance and utilization of digital currencies in everyday transactions.

ONE-HOUR TRADE SETTLEMENT

In News: The SEBI (Securities and Exchange Board of India) is planning to launch a One-hour trade settlement system by March next year. It will allow investors to receive their funds and securities within an hour of the trade execution, instead of the current T+1 cycle, which takes a day.

- Trade settlement is a financial process that involves the transfer of funds and securities on a specified settlement date. It represents the final step in completing a financial transaction, such as buying or selling securities.

Trade Settlement is a two-way process that encompasses two main actions:

- Transfer of Funds: The buyer transfers the agreed-upon amount of money to the seller.
- Transfer of Securities: The seller delivers the purchased securities to the buyer.

- A trade settlement is considered complete when the securities of a listed company that were purchased are successfully delivered to the buyer, and the seller receives the money for the transaction.
- **T+1 Settlement Cycle:** Currently, the T+1 settlement cycle is in effect, which means that trade-related settlements occur within one day or 24 hours of the actual transactions. This change was implemented in January of this year in India, making it the second country in the world to adopt the T+1 settlement cycle for top-listed securities, following China. The aim was to bring operational efficiency, faster fund remittances, quicker share delivery, and ease for stock market participants.
- **SEBI's new Plans:** The Securities and Exchange Board of India (SEBI) has stated its intention to expedite the settlement process further. They are considering implementing a one-hour trade settlement cycle as a step towards achieving instantaneous settlement.

Benefits of One-Hour Trade Settlement

- **Faster Liquidity:** Investors can access the funds resulting from their sales more rapidly. This quick access to liquidity allows for more agile decision-making, such as reinvesting the proceeds in other assets or withdrawing profits for other purposes. In a one-hour settlement, the funds are available for use within an hour, compared to longer settlement cycles where investors may have to wait longer to access their money.
- **Reduced Risk:** Shorter settlement cycles significantly reduce the risk associated with market fluctuations and counterparty risk. In longer settlement cycles, market conditions can change between the trade execution date and the settlement date, exposing investors to potential price volatility. A one-hour settlement minimizes this exposure by settling transactions quickly after they are executed, reducing the time for market conditions to change.
- **Increased Efficiency:** Quicker settlements enhance the overall efficiency of financial markets. Transactions are processed more swiftly, reducing administrative and operational overhead. This efficiency benefits all participants in the market, including traders, brokers, and clearinghouses, as it streamlines the settlement process and reduces the need

for manual interventions.

- **Enhanced Market Attractiveness:** Faster settlement times make the market more attractive to traders and investors. It can encourage greater participation in the market, especially by day traders and short-term investors who seek rapid turnover of their investments. An attractive and efficient market can lead to increased trading volumes, liquidity, and overall market activity.

- In the one-hour settlement system, when an investor sells a share, the money will be credited to their account within an hour, and the buyer will receive the shares in their demat account within an hour, compared to the next day settlement in the T+1 cycle.

HINDENBURG REPORT PROBE & FINDINGS

- The Enforcement Directorate has concluded its preliminary investigation into the Hindenburg Research report.

- Hindenburg Research is a US-based research team that offers services in forensic financial research, with a focus on equity, credit and derivatives analysis. Their fundamental research often includes studying and reporting on companies with accounting irregularities, unethical practices in business/related-party transactions, bad management etc.

- Its primary method for investment is said to be short-selling.

- Short selling basically involves borrowing an asset now in order to sell it, only to buy it back at a lower price and then return the borrowed asset.

- The view taken basically is bearish one.

ENVIRONMENT AND ECOLOGY

KORAPUT KALAJEERA RICE

In News: The farmers of Koraput district in Odisha have domesticated Kalajeera rice over generations.

More on the Topic:

- **It is known as the 'Prince of Rice' and is an aromatic variety of rice.**

- The ancestors of the present tribal communities of Koraput district have domesticated the rice in the region for thousands of years, contributing to the conservation of the crop.

- It is popular among rice consumers for its black colour, good aroma, taste and texture.

- The ancient text explains that Kalajeera rice improves memory and controls diabetes.

- It is believed to increase haemoglobin levels and the body's metabolism.

- This fragrant grain has antispasmodic, stomachic, carminative, antibacterial, astringent and sedative properties.

- The rice is grown in Koraput district's Tolla, Patraput, Pujariput, Baliguda and Mohuli areas.

FIN WHALES

In News: Iceland's decision to resume hunting fin whales has raised concerns and sparked discussions about the ethics and sustainability of such practices. Iceland resumed hunting fin whales in 2006 after a 20-year pause, which was followed by a suspension in June due to concerns about animal welfare.

More on the Topic:

- The IWC imposed a moratorium on commercial whaling in 1986 to protect whale populations.

- While some countries, including Iceland, Norway, and Japan, have continued commercial whaling despite the moratorium, it remains a contentious issue.

Animal Welfare Concerns

- The decision to resume hunting is rooted in the belief that the time it takes for harpooned whales to die violates Iceland's animal welfare laws. There are concerns about the suffering experienced by the whales during this process.

New Guidelines

- Iceland's government has introduced new guidelines aimed at reducing the suffering of the hunted fin whales. These guidelines include stricter requirements for hunting equipment, methods, and increased supervision. Whale hunters will also be required to complete a course in whale biology, pain perception, and stress.

Ethical and Conservation Debates

- The resumption of whaling activities raises ethical questions about the treatment of these intelligent and sensitive animals.
- It also contradicts the global efforts to protect whale populations and conserve marine biodiversity.

Sustainable Alternatives

- Advocates for whale conservation argue that sustainable alternatives to whaling, such as whale-watching tourism, can provide economic benefits while protecting whales and their habitats.

Background on Fin Whales

- Fin whales are the second-largest animals on Earth and are listed as vulnerable on the International Union for Conservation of Nature (IUCN) Red Lis
- Their populations were severely impacted by historical whaling.
- The fin whale, scientifically known as Balaenoptera physalus, is a marine mammal belonging to the family.
- Fin whales are baleen whales, characterized by their baleen plates used for filter-feeding.

NITI AAYOG AND UNDP SIGN MEMORANDUM OF UNDERSTANDING ON FAST TRACKING SDGS

- Reiterating a mutual commitment towards fast-tracking progress towards the Sustainable Development Goals, NITI Aayog and UNDP India have signed today, a Memorandum of Understanding (MoU) to formalise a framework of cooperation on a range of areas, including SDG localisation, data-driven monitoring, Aspirational Districts and Blocks, among others.

- Welcoming the partnership, Shri B. V. R. Subrahmanyam said, "Over the years, NITI Aayog and UNDP's collaboration has grown from strength to strength. With monitoring going beyond districts down to the block level, we see this partnership fostering data-driven policy interventions and programmatic action. Standing at the midpoint of the 2030 agenda, we look forward to working together with the States in the true spirit of cooperative federalism. We also look forward to partnering with UNDP to showcase and share India's successes in realizing its development priorities to its peers"

- Reaffirming UNDP's commitment Ms Shoko Noda, Resident Representative, UNDP India said, "Midway to 2030, India's leadership is critical for making the SDGs a reality. India nearly halved multidimensional poverty between 2015-2016 and 2019-2021, demonstrating that despite complex challenges, accelerating progress towards the Goals is possible. Through this MoU with NITI Aayog, UNDP stands ready to enhance its support for localization of the SDGs, data-driven decision- making through various indices, the Aspirational Districts and Blocks programme, and SDG financing. UNDP will also provide support for NITI Aayog's work on women's livelihoods, innovation, and Mission LiFE."

- The MoU was signed for a period of five years. NITI Aayog is the nodal Institution for coordinating the adoption and monitoring of SDGs at the national and sub-national levels. UNDP plays the integrator role in coordinating efforts to fast-track progress on the SDGs within the UN system NCERT, UNESCO, and DIKSHA websites.

United Nations Development Programme (UNDP)

- The United Nations Development Programme (UNDP) provides expert advice, training and grants support to developing countries, with an increasing emphasis on assistance to the least developed countries. It promotes technical and investment cooperation among nations.

- The UNDP Executive Board is made up of representatives from 36 countries around the world who serve on a rotating basis.

- It is funded entirely by voluntary contributions from member nations.

- UNDP is central to the United Nations Sustainable Development Group (UNSDG), a network that spans almost 170 countries and unites the 40 UN funds, programmes, specialized agencies, and other bodies working to advance the 2030 Agenda for Sustainable Development.

- The UNDP is considered an executive board within the UN General Assembly (UNGA).

- It is headed by an Administrator.

HUMAN DEVELOPMENT REPORT

- The Human Development Report (HDR) is an annual report published by the Human Development Report Office of the United Nations Development Programme (UNDP).

- The Human Development Index (HDI) is a statistical composite index of life expectancy, education, and per capita income indicators, which are used to rank countries into four tiers of human development.

- A country scores a higher HDI when the lifespan is higher, the education level is higher, and the Gross National Income GNI (PPP) per capita is higher.

UNDP and India

- India and the United Nations Development Programme (UNDP) have worked since 1951 on various issues related to human development involving sustainable livelihoods, environment, literacy, institutional strengthening, sustainable energy and resilience.

- The Government of India aligned with UNDP to work on the India 2030 National Development Mission and build further Sustainable Development Goals (SDGs).

- The three major areas of focus for UNDP India's country programme for 2018-2022 are:

- Inclusive Growth

- Environment & Energy

- Strengthening Systems & Institutions

- The nodal agency for all matters related to UNDP in India is the Department of Economic Affairs, Finance Ministry, GOI.

- The UNDP has offices in 6 locations in India.

UNDP's Accelerator Lab

- In November 2019, the United Nations Development Programme launched its Accelerator Lab in India to work on tackling pollution in collaboration with the government's Atal Innovation Mission (AIM).

Air pollution and Sustainable water management will be the issues addressed by the lab.

What is an Accelerator Lab?

- Developed by the collaboration of UNDP, Federal Republic of Germany and the State of Qatar, Accelerator Lab is an innovative initiative to find solutions for the new complex challenges faced by the world.

- India's Accelerator Lab will be part of a network of 60 global labs covering 78 nations, that will test and scale new solutions to global challenges like climate change and inequality.

- These Labs will identify grassroots solutions together with local actors and validate their potential to accelerate development.

CLETHODIM

About the study and findings

- It was a collaborative study of researchers from Kasturba Medical College (KMC), Manipal Academy of Higher Education (MAHE), Manipal, and Yenepoya Research Center, Mangaluru.

- The findings were published in the journal Chemosphere.

- The research has unveiled alarming insights into the potential impact of the widely used herbicide clethodim on male reproductive health.

- The study reveals a spectrum of effects including a reduction in testicular weight, a decrease in germ cell population, lower levels of serum testosterone, abnormalities

in sperm, and compromised preimplantation embryo development.

Importance of the findings

- These findings necessitate further investigation and reconsideration of the use of such herbicides to ensure the well-being of both humans and our environment.

- There is a necessity for molecular-level screenings to comprehend the potential effects of herbicides on human and environmental health.

- The researchers underlie the urgency of comprehensive testing for this post-emergent herbicide.

- There is a need for revisiting the application of the herbicide.

- Advocacy for upgraded standards in the formulation of new agents for similar uses can be done.

About Clethodim

- It is an organic compound.

- It is a member of the cyclohexanedione family of herbicides.

- It is used to control grasses, especially Lolium rigidum.

- Clethodim has been an approved herbicide in India and globally for some time.

ECHIDNA

- Monotremes are egg-laying mammals and echidnas along with the platypus, are the only surviving members of this group. Echidnas are found in Australia and New Guinea and they have several distinctive features and behaviors that make them interesting subjects of study. Often described as a curious blend of hedgehog and ant-eater, echidnas are even more enigmatic and remarkable than commonly thought.

Ancient Egg-Laying Mammals

- Short-beaked echidnas are among the five surviving monotreme species in the world. Monotremes lay eggs through cloacas and nurture hatchlings in pouch-like skin folds. Echidnas likely evolved from aquatic ancestors, retaining rudimentary electroreception. The English name may stem from the mythological figure Echidna, reflecting its mixed traits.

Adaptable Explorers of Diverse Environments

- Echidnas are found across various climates, from tropical savannahs to snowy mountains.

- Five subspecies of short-beaked echidnas exhibit distinct adaptations in different regions.

- Variations in hairiness and spine characteristics are evident among subspecies.

Mating Behavior and Hibernation Strategies

- Kangaroo Island echidnas engage in mating trains with multiple males pursuing one female.

- Tasmanian echidnas have unique winter mating habits, allowing pregnancy delay.

- Different subspecies have varying lactation periods and mating-to-egg-laying durations.

Evolutionary Parallels: Marsupials and Monotremes

- Echidna embryos and tammar wallaby embryos reach similar developmental milestones.

- Despite evolutionary differences, both groups share a conserved developmental process.

- Echidnas tie this milestone to egg-laying and pouch incubation, while marsupials complete in-utero development.

AGRICULTURE

INDIA'S FALLING COTTON PRODUCTION

- India's cotton production is facing a serious challenge from the pink bollworm, a pest that damages the crop and reduces the yield. The conventional methods of pest control, such as pesticides and genetically modified seeds, have not been very effective in containing the problem.

- Cotton is an important crop in India that serves multiple purposes. It provides food in the form of cotton seed oil, feeds in the form of protein-rich cotton seed cake, and fiber used in the textile industry.

- The growth of cotton production in India from 2000-01 was significantly driven by the adoption of genetically modified (GM) cotton hybrids known as Bt cotton. These hybrids were engineered to resist the American bollworm insect pest, leading to increased yields.

- The success of Bt cotton was challenged by the emergence of the pink bollworm (PBW), which began infesting cotton crops in various states. Unlike the American bollworm, PBW is monophagous, primarily feeding on cotton, and it developed resistance to Bt proteins over time.

- Traditional insecticides had limited efficacy against PBW, so alternative approaches were explored. One such method is "mating disruption," which involves using artificial pheromones to prevent mating and egg-laying by PBW moths.

- Two products, PBKnot and SPLAT, were developed to implement mating disruption. PBKnot uses a dispenser with synthetic pheromone to attract male PBW moths, while SPLAT-PBW is an emulsion formulation delivering the pheromone. These products aim to reduce PBW populations and increase cotton yields.

Cotton production in India

- India has historically been the world's largest producer of cotton, accounting for approximately 25% of global cotton output.

- India is facing a significant decline in cotton exports during the current financial year. This decline is attributed to multiple factors, including a shift by farmers to more profitable crops like oilseeds and pulses, leading to a drop in cotton production.

Factors that have contributed to the decline in cotton farming

Climate Change

- Climate change has had a significant impact on cotton farming in several ways.

- **Erratic Rainfall Patterns:** Changing climate patterns have led to unpredictable and irregular rainfall, which is detrimental to cotton crops. Cotton requires specific amounts of water at various growth stages, and irregular rainfall can lead to water stress, affecting the crop's yield and quality.

- **Extreme Weather Events:** Increasing frequency and intensity of extreme weather events such as droughts, floods, and hurricanes can devastate cotton fields. Floods can damage cotton plants, while droughts can lead to water scarcity and stunted growth.

- **Temperature Extremes:** Rising temperatures can also affect cotton crops by altering the flowering and fruiting patterns, making them less productive.

Pest and Diseases

- Cotton is vulnerable to a range of pests and diseases, and several factors have exacerbated this problem.

- **Emergence of Resistant Strains:** Over time, pests and diseases have evolved to become more resistant to conventional pesticides and control methods. This has made it increasingly challenging for cotton farmers to manage these threats effectively.

- **Monoculture Farming:** Continuous cotton cultivation in the same fields year after year can create favourable conditions for the buildup of pests and diseases. This practice, common in some regions, increases the risk of infestations.

High Input Costs

- The cost of agricultural inputs has risen

steadily over the years, impacting the profitability of cotton farming.

- **Seeds:** High-quality cotton seeds are essential for a good yield. The cost of purchasing improved cotton varieties has increased, and genetically modified (GM) cotton seeds, which are resistant to certain pests, often come with licensing fees.

- **Fertilizers and Pesticides:** The cost of fertilizers and pesticides required to maintain cotton crops has also gone up. Farmers need to invest in these inputs to protect their crops and maintain yields.

- **Labour and Machinery:** Labor costs for planting, harvesting, and maintaining cotton crops, as well as machinery expenses, add to the overall input costs.

Competition from Other Crops

- Cotton faces competition for land and water resources from other more profitable or less risky crops like pulses and oilseeds.

- **Profitability:** Farmers may switch to crops like pulses or oilseeds because they offer higher market prices and returns compared to cotton. These crops are often less resource-intensive and have a shorter growth cycle, reducing the risks associated with cotton farming.

- **Drought Resistance:** Some alternative crops may be more resilient to changing climate conditions, making them a more attractive option for farmers in regions prone to water scarcity.

- A combination of climate change-related challenges, increased pest and disease pressure, rising input costs, and competition from other crops has contributed to the decline in cotton farming.

Decline in cotton production has far-reaching implications Textile Industry

- The textile industry is a cornerstone of India's economy, employing millions of people and contributing significantly to the country's exports. A decline in domestic cotton production can have adverse effects on this industry.

- **Higher Input Costs:** Reduced domestic cotton availability may result in higher cotton prices in the domestic market. This can increase the cost of raw materials for textile manufacturers, potentially leading to reduced competitiveness in the global market.

- **Job Losses:** The textile sector is a major employer, especially in rural areas. A decline in cotton production can lead to reduced demand for labour in the cotton farming and ginning sectors, potentially causing job losses and affecting livelihoods in these regions.

- **Impact on Exports:** India is a significant exporter of textile and garment products. A drop in cotton production can affect the quantity and quality of cotton available for textile manufacturing, potentially impacting the export potential of the sector.

Dependency on Imports

- As domestic cotton production declines, India becomes more reliant on imported cotton to meet the demand of its textile industry. This dependence on imports can have several consequences.

- **Vulnerability to Price Fluctuations:** Global cotton prices can be volatile, influenced by factors such as weather events, international trade policies, and demand-supply dynamics. Relying on imported cotton makes India vulnerable to these price fluctuations, which can affect the cost structure of the textile industry.

- **Supply Chain Disruptions:** Imports introduce an element of uncertainty into the supply chain. Disruptions in the global cotton supply chain, such as shipping delays or trade disputes, can impact the timely availability of cotton for Indian textile manufacturers.

Economic Impact on Cotton Farmers

- The decline in cotton production directly affects cotton farmers, many of whom are smallholders. This has several economic and social consequences.

- **Reduced Incomes:** Lower cotton yields and profitability can lead to reduced incomes for cotton farmers. This can exacerbate their financial difficulties and lead to debt burdens.

- **Rural Poverty:** Cotton farming is a significant source of livelihood in rural areas. A decline in cotton production can contribute to rural poverty and increased vulnerability, as farming households may struggle to meet their basic needs.

- **Migration:** Economic hardships in rural areas can drive migration to urban centres in search of alternative employment opportunities, which can strain urban infrastructure and services.

ENTAZIA

In News: FMC India unveiled ENTAZIA biofungicide, its newest product in the market. ENTAZIA biofungicide is an innovative biological crop protection product that contains Bacillus Subtilis, a beneficial bacterium that can suppress fungal pathogens.

More on the Topic:

- ENTAZIA is a biofungicide crop protection product developed by FMC India. It is specifically formulated with Bacillus subtilis, a naturally occurring bacterium, as its active ingredient. The product is designed to offer farmers an effective and sustainable solution for safeguarding their crops against fungal diseases while ensuring environmental integrity.

- ENTAZIA is categorized as a biofungicide, which means it is derived from natural sources and relies on living organisms or their byproducts to control plant diseases. In this case, Bacillus subtilis is utilized for its known capabilities in combating plant pathogens.

- FMC India is the entity responsible for the development of ENTAZIA. FMC is a global agricultural sciences company with a focus on delivering innovative and sustainable solutions to the agricultural sector. The development of ENTAZIA underscores FMC's commitment to providing farmers with effective and eco-friendly crop protection options.

Biofungicide

- It is a type of biological pesticide that is used to control fungal diseases in plants. Unlike chemical fungicides, which are synthetic compounds, biofungicides are formulated with living organisms or their byproducts. These natural agents help prevent, inhibit the growth of, or suppress fungal pathogens that can damage crops, trees, and other plants.

- Examples of microorganisms commonly used in biofungicides include Bacillus spp. (bacteria), Trichoderma spp. (fungi), and mycoviruses (viruses that infect fungi). These organisms have been found to effectively combat a range of fungal pathogens, providing sustainable solutions for disease management in agriculture and horticulture.

Key characteristics and components of biofungicides:

- Biofungicides often contain beneficial microorganisms such as bacteria, fungi, or viruses that have antagonistic effects on plant pathogens. These microorganisms may either directly attack the pathogen or stimulate the plant's natural defence mechanisms.

- They work through various modes of action. Some directly parasitize or compete with the fungal pathogens for resources, while others produce compounds that inhibit the growth of the pathogens.

- They are considered environmentally friendly because they are derived from natural sources and generally have minimal impact on non-target organisms, beneficial insects, and the overall ecosystem.

- They are often safer for humans and the environment compared to chemical fungicides, as they do not leave behind harmful residues.

- They can be used as part of an integrated pest management (IPM) strategy to reduce the risk of developing resistance to fungal pathogens.

- They can be used on a variety of crops, including fruits, vegetables, ornamental plants, and crops.

- In some cases, biofungicides are used in combination with chemical fungicides to improve disease control and reduce the amount of synthetic chemicals required.

- The use of biofungicides aligns with the broader goals of sustainable agriculture and reducing the environmental impact of conventional farming practices. It offers an alternative approach to disease control while minimizing the potential negative consequences associated with the use of chemical fungicides.

Advantages of ENTAZIA

Control of Bacterial Leaf Blight

- ENTAZIA harnesses the natural capabilities of Bacillus subtilis to effectively control bacterial leaf blight. Bacterial leaf blight is a serious and common disease that adversely affects rice crops, often leading to significant yield losses in rice cultivation.

GEOGRAPHY

ZEALANDIA

In News: Geoscientists recently discovered a continent known as Zealandia that had been hiding in plain sight for almost 375 years.

- It is a long, narrow microcontinent that is mostly submerged in the South Pacific Ocean.

Location:

- It is located in the southwestern Pacific Ocean, primarily to the east of Australia and to the south of New Caledonia. It encompasses the region that includes New Zealand and New Caledonia.

Formation:

- Zealandia or Te Riu-a-Māui in the Māori language was formally one of the constituent continents of the ancient supercontinent called Gondwana, which also included Western Antarctica and Eastern Australia over 500 million years ago.

- It began to "pull away" from Gondwana roughly 105 million years ago.

- As Zealandia started pulling away, it began to sink beneath the waves, with over 94 per cent remaining underwater for millennia.

- It is approximately 1.89 million square miles (4.9 million square km) in size, about half the size of Australia.

- The vast majority of this new continent lies beneath 6,560 feet (2km) of water.

- The part of Zealandia that is above water forms the foundation of New Zealand's north and south islands as well as the island of New Caledonia.

- Tectonic Plate Boundaries: Zealandia is situated along the boundary of several tectonic plates, including the Australian Plate, Pacific Plate, and Indo-Australian Plate.

- The existence of Zealandia was first recorded in 1642 by Dutch businessman and sailor Abel Tasman, who was on a mission to find the "great Southern Continent," or Terra Australis.

GUJARAT DECLARATION

- The WHO Traditional Medicine Global Summit 2023 in Gujarat, India, concluded with the "Gujarat Declaration", a document that reaffirms the global commitments to indigenous knowledge, biodiversity, and traditional, complementary, and integrative medicine (TCIM).

- In Gandhinagar, Gujarat, India, the Ministry of Ayush co-hosted the First Global Summit on Traditional Medicine 2023. The summit was a platform for experts and stakeholders to exchange views and experiences on how to integrate traditional medicine into global health strategies and policies. The summit aimed to promote the August recognition, regulation and research of traditional medicine as a valuable resource for health and well-being.

- **Summit concluded with the "Gujarat Declaration",** The declaration recognizes the value and potential of TCIM for health and well-being, and calls for increased collaboration, research, and regulation of indigenous knowledge, biodiversity, and traditional, complementary, and integrative medicine (TCIM) practices and products.

- The declaration also urges the protection and promotion of the rights and interests of indigenous peoples and local communities, who are the custodians of TCIM knowledge and resources.

Key points from the declaration
Scientific Rigor

- The declaration underscores the importance of applying rigorous scientific methods in the field of traditional medicine. This scientific approach is necessary to gain a deeper understanding of traditional medicine practices, assess their effectiveness, and determine when and how to apply them.

- It emphasizes the need to take into account the holistic, context-specific, complex, and

personalized nature of traditional medicine when considering its role in health and well-being.

India's Role

- India's hosting of the WHO Global Traditional Medicine Centre in Jamnagar, Gujarat, is recognized as a significant contribution to advancing traditional medicine globally. This centre is seen as instrumental in enhancing WHO's capacity to assist member states and stakeholders in implementing the action agenda established during the summit.
- India's commitment to traditional medicine is acknowledged as a valuable asset in promoting the use of traditional medicine worldwide.

Action Points

- The action points of the summit are formulated based on the evidence, discussions, and outcomes of the event. These action points cover a wide array of topics, including:
- Strategies and policies that promote the well-being of individuals and the planet.
- The importance of researching to gather evidence supporting traditional medicine practices.
- The goal of achieving universal health coverage and making healthcare accessible to all.
- Strengthening primary healthcare systems and integrating traditional medicine into these systems.
- Utilizing data and information systems for monitoring and assessing traditional medicine practices.
- Exploring the use of digital health technologies, especially artificial intelligence, in the context of traditional medicine.
- Strategies for preserving biodiversity and ensuring sustainable use of natural resources in traditional medicine.
- Upholding human rights, promoting equity, and adhering to ethical principles in traditional medicine research and practice.

Commitment to Traditional Medicine

- The Union Minister of Ayush highlights the declaration as a demonstration of India's commitment to promoting traditional medicine systems. The emphasis is on collaborative efforts and sustainable practices to secure a healthier future for generations by integrating traditional medicine into modern healthcare.

CHOKUWA RICE

- It is also known as Magic rice cultivated in Assam.
- It is a part of Assam's culinary heritage; this unique rice has been a staple of the troops of the mighty Ahom dynasty.
- This unique and healthy rice is cultivated around the Brahmaputra River area.(In several parts of Assam like Tinsukia, Dhemaji, Dibrugarh, etc.)
- It is basically semi-glutinous winter rice, known as Sali rice.
- The sticky and glutinous variety is categorized as Bora and Chokuwa based on their amylose concentration.
- The low amylase Chokuwa rice variants are used to make soft rice, which is known as Komal Chaul or soft rice.
- This whole grain can be consumed after soaking the rice in cold or lukewarm water. This rice variety is widely consumed for its convenience of preparation and nutritional value.
- This unique rice variety is consumed with curd, sugar, jaggery, and bananas to name a few.
- This rice is also used in making several Assamese delights like Pithe and other local dishes.

INTERNATIONAL RELATIONS

INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)I

- The International Atomic Energy Agency (IAEA) said its experts deployed at the Russia-occupied Zaporizhzhia Nuclear Power Plant reported hearing numerous explosions over the past week, in a possible indication of increased military activity in the region.

- International Atomic Energy Agency (IAEA)

- The International Atomic Energy Agency (IAEA) is an intergovernmental organization that seeks to promote the peaceful use of nuclear energy and to inhibit its use for any military purpose, including nuclear weapons.

Establishment

- It was established in 1957 as an autonomous organization within the United Nations system; though governed by its own founding treaty, the organization reports to both the General Assembly and the Security Council of the United Nations.

HQ

- It is headquartered at the UN Office at Vienna, Austria.

Creation

- The IAEA was created in response to growing international concern toward nuclear weapons, especially amid rising tensions between the foremost nuclear powers, the United States and the Soviet Union.

Mandate

- The IAEA serves as an intergovernmental forum for scientific and technical cooperation on the peaceful use of nuclear technology and nuclear power worldwide.

- It maintains several programs that encourage the development of peaceful applications of nuclear energy, science, and technology; provide international safeguards against misuse of nuclear technology and nuclear materials; and promote and implement nuclear safety (including radiation protection) and nuclear security standards.

- The organization also conducts research in nuclear science and provides technical support and training in nuclear technology to countries worldwide, particularly in the developing world.

- Following the ratification of the Treaty on the Non-Proliferation of Nuclear Weapons in 1968, all non-nuclear powers are required to negotiate a safeguards agreement with the IAEA, which is given the authority to monitor nuclear programs and to inspect nuclear facilities.

43RD ASEAN SUMMIT IN JAKARTA TO BE HELD FROM 5TH TO 7TH SEPTEMBER

- The 43rd Association of Southeast Asian Nations (ASEAN) summit in Jakarta will be held from 5th to 7th of this month. The meeting comes amid heightened tensions in the South China Sea, after China released a new map laying claims over large swathes disputed by some ASEAN members, triggering protests by these states.

- Singapore Prime Minister Lee Hsien Loong will lead a delegation to the summit where the bloc's leaders will discuss the crisis in Myanmar, among other issues. Singapore's Prime Minister's Office said in a statement today that ASEAN leaders will discuss ways to ensure the bloc's continued relevance and centrality in the evolving regional architecture. The leaders will also discuss strengthening ASEAN integration and expanding collaboration in key areas such as the digital and green economies.

PARTICIPATION OF INDIAN AIR FORCE IN EXERCISE BRIGHT STAR-23 AT CAIRO AIR BASE, EGYPT

- An Indian Air Force (IAF) contingent departed today, for participating in Exercise BRIGHT STAR-23 a biennial multilateral tri-service exercise scheduled to be held at Cairo (West) Air Base, Egypt from 27 August to 16 September 2023.

- **This is for the first time that IAF is participating in Ex BRIGHT STAR-23 which will also see participation of contingents from the United States of America, Saudi Arabia, Greece and Qatar.** The Indian Air Force contingent will consist of five MiG-29, two IL-78, two C-130 and two C-17 aircraft. Personnel from the IAF's Garud Special Forces, as well as those from the Numbers 28, 77, 78 and 81 Squadrons will be participating in the exercise. The IAF transport aircraft will also provide airlift to approximately 150 personnel from the Indian Army.

- The objective of the exercise is to practice planning and execution of joint operations. Besides leading to the formation of bonding across borders, such interactions also provide a means to further strategic relations between participating nations. IAF contingents to flying exercises abroad are thus no less than Diplomats in Flight Suits.

- India and Egypt have had exceptional relationship and deep cooperation wherein the two jointly undertook development of aero- engine and aircraft in 1960s and training of Egyptian pilots was done by Indian counterparts. The relationship between the two civilizational countries was further strengthened with the recent visits by the Chief of Air Forces of the two countries and the Indian Defence Minister and Prime Minister to Egypt. The two countries have also enhanced their joint training with regular exercises between their Armed Forces.

INDIA AND BANGLADESH ANNUAL DEFENCE DIALOGUE

In News: India and Bangladesh held the fifth Annual Defence Dialogue on 28 August 2023 in Dhaka

More on the Topic:

- The Annual Defence Dialogue between India and Bangladesh is the highest institutionalized interactive mechanism between both countries.

- In the dialogue, both countries highlighted its significance in chartering the future course of the relations between the two-armed Forces.

- During the meeting, the on going defence cooperation activities between the two countries were reviewed and both sides expressed satisfaction at the increasing defence cooperation engagements. The talks covered the existing bilateral exercises

and both sides agreed to increase the complexity of these exercises India Bangladesh Defence Relations

- India and Bangladesh have a close and friendly defence relationship that covers diverse areas of cooperation and is guided by the spirit of their shared sacrifices during the Liberation War of Bangladesh.

- Defence cooperation between India and Bangladesh has significantly progressed in the last few years. It is depicted in the exchange of visits between the two countries' leaders and the conduct of training programmes, joint exercises, and humanitarian assistance and disaster relief (HADR).

- Under joint training and exercises, the defence services of both countries now participate in joint exercises, medical assistance, and training programmes. SAMPRITI, the joint military exercise operation to counter terrorism, completed its 10th edition at Jashore Military Station on June 16, 2022.

- The exercise allows the contingents from both Armies to understand each other's tactical drills and operational techniques and share their experience in counter-insurgency/ Counter Terrorism, peacekeeping, and Disaster Relief Operations under the United Nations mandate.

- India considers Bangladesh as an eternal strategic ally. India has extended a $500 million line of credit to Bangladesh for defence imports from India and has gifted 18 new 120mm mortars to the Bangladesh Army in December 2020 under army-to-army cooperation.

INDIA AND NEW ZEALAND SIGN MOU TO BOOST COOPERATION IN CIVIL AVIATION

- MoU includes scheduling of new routes, code share services, traffic rights and capacity entitlement. Government of India and the Government of New Zealand have signed a Memorandum of Understanding (MoU) to boost cooperation in civil aviation. This will cover the scheduling of new routes, code share services, traffic rights and capacity entitlement.

- The MoU was signed by Shri Rajiv Bansal, Secretary, Ministry of Civil Aviation and HE Mr David Pine, the New Zealand High Commissioner in the presence of Shri Jyotiraditya M. Scindia, Minister for Civil

Aviation of India and Mr Damien O' Connor, Minister for Trade and Export Growth, Minister of Agriculture, Minister for Biosecurity, Minister for Land Information, and Minister for Rural Communities of New Zealand.

- An Air Services Agreement was signed between New Zealand and India at Auckland on 1 May 2016. The Government of New Zealand and the Government of India have reviewed the existing arrangements relating to air service between the two countries. The MoU signed today is expected to further boost the bilateral ties in civil aviation between the two countries.

- According to the MoU, the designated airline(s) of New Zealand may operate any number of services with any type of aircraft, with third and fourth freedom traffic rights to/from six points in India, namely New Delhi, Mumbai, Bengaluru, Chennai, Hyderabad, and Kolkata.

- Speaking on the occasion, Shri Jyotiraditya M. Scindia said "Today is an important day for Civil Aviation air services between India and New Zealand. We have signed an MoU that has opened the possibilities of furthering air transport between our two countries. The open sky policy has been put in place. The number of calls has increased. We have also increased intermediate points."

- The designated airline(s) of India may operate any number of services with any type of aircraft with third and fourth freedom traffic rights to/from Auckland, Wellington, Christchurch and three more points in New Zealand to be named by the Government of the Republic of India.

- The designated airlines of both parties may operate any number of all-cargo services with any type of aircraft with third, fourth and fifth freedom traffic rights to/from any points in the territory of the other party via any intermediate point(s) and to any beyond point(s) regardless of the points specified in the Route Schedule.

SCIENCE AND TECHNOLOGY

ONE SUN, ONE WORLD, ONE GRID

In News: Conference on Transnational Grid Interconnections for One Sun, One World, One Grid held in New Delhi

More on the Topic:

- Once we have OSOWOG, no one will ever have to go without electricity: Union Minister for Power and New & Renewable Energy R. K. Singh

- In the run-up to the 18th G20 Summit, a day-long conference on "Transnational Grid Interconnections for One Sun, One World, One Grid (OSOWOG)" was held in New Delhi, on 6th September, 2023. The conference was organized by Power Grid Corporation of India Limited (POWERGRID), a 'Maharatna' company under Ministry of Power, Govt. of India.

- Addressing the conference virtually, Union Minister for Power and New & Renewable Energy Shri R. K. Singh said that India has already established cross border interconnections with its neighbours and that strengthening of various cross border links is under process. "OSOWOG will enable all nations to reap the benefit of energy from the sun. This is very relevant to today's context particularly when we are transitioning to renewable energy. It will make round-the-clock renewable energy much cheaper. It will also reduce the necessity for reserves. It will thus bring down the cost of electricity for the general population and will help in energy transition."

- The Minister said that once the transnational grid interconnection happens, it will do away with dependence on storage, which is costlier and required for round-the-clock renewable energy. "Once we have OSOWOG, no one will

ever have to go without electricity. This will unite the world and ensure energy access to the millions of people who do not have access. It is essential that all of us take this forward, I am sure this will become a reality." The Minister wished the seminar a great success.

- Special Secretary & Financial Adviser, Ministry of Power, Shri Ashish Upadhyaya; Chairperson, CEA, Shri Ghanshyam Prasad; Additional Secretary, Ministry of Power, Shri Ajay Tewari; and CMD, POWERGRID, Shri K. Sreekant, addressed the inaugural session of the seminar, which was attended by think tanks, industry, academia, sector experts and media.

- The panel for the conference consisted of eminent experts from India and abroad. Mr. Waleed S. Alsuraih from The World Bank presented the Transnational Grid Interconnection-Middle East & Africa perspective. He emphasized that once the full Pan Arab Electricity Market (PAEM) is operational, it will enable interregional grids' integration between South Asia via GCC, EU & Africa, and trade with 5 regional electricity markets. The envisaged PAEM grid connects its 3 sub-regions and strengthens the potential for further integration with other regional markets.

RAMON MAGSAYSAY AWARD

In News: Assam-based oncologist Ravi Kannan wins 2023 Ramon Magsaysay award

About the award:
- It was established in 1957.
- It was founded to preserve former Phillippine President Ramon Magsaysay's example of integrity in governance and idealism in a democratic society.

- It was funded by the Rockefeller Brothers trustees with Philippine government's agreement.
- Ramon Magsaysay was the third president of the Philippines after World War II.
- The foundation gives the prize to Asians achieving excellence in their field.

Selection and presentation
- The Award recognises and honours individuals and organisations in Asia, regardless of race, creed, gender, or nationality, who have achieved distinction and have helped others generously without aiming for public recognition.
- The trustees of the foundation annually select the awardees who are then presented with a certificate and a medal.
- The first Ramon Magsaysay Awards were given to five individuals working in India, Indonesia, the Philippines, China (Taiwan) and Sri Lanka, and a Philippine-based organisation.

ISRO SUCCESSFULLY PLACES ADITYA-L1 IN ORBIT

In News: The Indian Space Research Organisation (ISRO) successfully launched the observatory that will study the Sun from 1.5 million kilometres away. It is the space organisation's maiden expedition to study the Sun.

- It is also ISRO's second astronomy observatory-class mission after AstroSat (2015).
- It took nearly 63 minutes for one of the heaviest configurations of the PSLV to place the spacecraft in a precise elliptical orbit of nearly 235 km x 19,500 km.
- Launched by the PSLV-C57, Aditya-L1 mission aims to study the prospects of the Sun.
- The solar probe was carried into space by the Polar Satellite Launch Vehicle (PSLV) in 'XL' configuration.
- This mission is India's solar mission where the spacecraft will be placed in a halo orbit around the Lagrange point 1 (L1) of the Sun-Earth system.

- The Lagrange point as defined by NASA refers to positions in space where the gravitational forces of a two-body system like the Sun and Earth produce enhanced regions of attraction and repulsion.
- There are five Lagrange points -L1, L2, L3, L4, and L5.
- Placing the satellite in a halo orbit around L1 of the Sun-Earth system enables continuous viewing of the Sun without any eclipses or obstructions.
- The mission will span five years and carry seven specialized payloads designed to observe various aspects of solar activity.

Trajectory followed

- The PSLV initially placed the Aditya-L1 in a lower Earth orbit.
- Subsequently, the spacecraft's orbit around the Earth will be raised multiple times before it is put on a path to a halo orbit around the L1 Lagrange point.
- A spacecraft can orbit about an unstable Lagrange point with a minimum use of thrusters for station keeping.
- Such an orbit is known as a halo orbit as it appears as an ellipse floating over the plane
- A halo orbit, however, is not the usual orbit because the unstable Lagrange point doesn't exert any attractive force on its own.
- The spacecraft will finally be stationed in a halo orbit around the Lagrange point 1 (L1) of the Sun-Earth system, which is about 1.5 million km from the Earth.
- The Aditya L-1 will cover its journey to the L1 point in about four months.

Objectives of the Aditya L-1

- **To expand our knowledge of the Sun, and how its radiation, heat, flow of particles, and magnetic fields affect us;**
- To study the upper atmospheric layers of the Sun called chromosphere and corona;
- While the corona is the outermost layer, the chromosphere is just below it.
- To examine coronal mass ejections (CMEs), which are large expulsions of plasma and magnetic fields from the Sun's corona;
- To analyse the corona's magnetic field and the driver of the space weather;
- To understand why the Sun's not-so-bright corona is a million degree Celsius hot when the temperature on the surface of the Sun is just about 5,500 degree Celsius;
- To help scientists know the reasons behind the acceleration of particles on the Sun, which leads to the solar wind — the constant flow of particles from the Sun;

Payloads

- The spacecraft carries seven payloads. Out of these, 4 will be the remote sensing payloads which will study the sun and remaining 3 will be the payloads to study the L1 in situ.
- Remote sensing payloads which will study the sun:
- Visible Emission Line Coronagraph (VELC) for corona/imaging and spectroscopy.
- Solar Ultraviolet Imaging Telescope (SUIT) for photosphere and chromosphere imaging.
- Solar Low Energy X-ray Spectrometer (SoLEXS), which is a soft X-ray spectrometer for Sun-as-a-star observation; and
- High Energy L1 Orbiting X-ray Spectrometer (HEL1OS), which is a Hard X-ray spectrometer for Sun-as-a-star observation

The payloads to study the L1 in situ

- Aditya Solar wind Particle Experiment (ASPEX), for solar wind/particle analyzer protons and heavier ions with directions;
- Plasma Analyser Package For Aditya (PAPA), for solar wind/particle analyzer electrons and heavier ions with directions; and
- Advanced Tri-axial High Resolution Digital Magnetometers for in situ magnetic field study.

Why is Aditya-L1 important?

India in the big league

- It is the first space-based Indian mission to study the Sun.
- So far, only two other space agencies have had their spacecraft reach L1 or the Lagrange point: USA's National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA).
- Need to study sun from space
- Studying the Sun from space is essential because the Sun emits various forms of radiation, energetic particles, and magnetic fields in all wavelengths.

- Earth's atmosphere and magnetic field act as protective shields against harmful solar radiation, making space-based observations crucial for comprehensive understanding.

Understanding space weather

- Every planet, including Earth and the exoplanets beyond the Solar System, evolves — and this evolution is governed by its parent star.

- The solar weather and environment affect the weather of the entire system.

- Variations in this weather can change the orbits of satellites or shorten their lives, interfere with or damage onboard electronics, and cause power blackouts and other disturbances on Earth.

- Knowledge of solar events is key to understanding space weather.

SODIUM ION BATTERY

- **Coimbatore-based start-up AR4 Tech has announced a strategic partnership with Singapore's Sodion Energy to produce sodium ion battery packs for both the domestic and export markets.**

- **The collaboration aims to leverage Sodion Energy's expertise in sodium-ion battery technology and AR4 Tech's manufacturing capabilities.**

- **Factory Setup and Production Plans**

- AR4 Tech is in the process of establishing a new factory spanning 15,000 square feet in Coimbatore.

- The factory is expected to be operational within the next four months and will focus on the production of battery packs using the sodium-ion batteries developed by Sodion Energy.

- The facility will be equipped with semi-automatic production lines featuring imported equipment, enabling the production of approximately 100 battery packs per day.

- **Combined Index of Eight Core Industries increases by 8.0% (provisional) in July 2023 as compared to the Index of July 2022**

INDEX OF EIGHT CORE INDUSTRIES (BASE: 2011-12=100) FOR JULY, 2023

Eight Core Industries (Weightage)

Coal (10.33%) | Crude Oil (8.98%) | Natural Gas (6.88%) | Refinery (28.04%)
Steel (17.92%) | Cement (5.37%) | Fertilizer (2.63%) | Electricity (19.85%)

The combined Index of Eight Core Industries (ICI) increased by 8.0 per cent (provisional) in July 2023 as compared to the Index of July 2022.

- The production of Coal, Steel, Natural Gas, Cement, Electricity, Refinery Products, Fertilizers and Crude Oil increased in July 2023 over the corresponding month of last year. Details of annual and monthly indices and growth rates are provided at Annex I & II respectively.

- ICI measures combined and individual performance of production of eight core industries viz. Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity. The Eight Core Industries comprise 40.27 percent of the weight of items included in the Index of Industrial Production (IIP).

- Final growth rate of Index of Eight Core Industries for April 2023 is revised to 4.6 per cent from its provisional level 3.5 per cent. The cumulative growth rate of ICI during April to July, 2023-24 reported 6.4 per cent (provisional) as compared to the corresponding period of last year.

- The summary of the Index of Eight Core Industries is given below:

- **Coal** - Coal production (weight: 10.33 per cent) increased by 14.9 per cent in July, 2023 over July, 2022. Its cumulative index increased by 10.1 per cent during April to July, 2023-24 over the corresponding period of the previous year.

- **Crude Oil** - Crude Oil production (weight: 8.98 per cent) increased by 2.1 per cent in July, 2023 over July, 2022. Its cumulative index declined by 1.0 per cent during April to July, 2023-24 over the corresponding period of previous year.

- **Natural Gas** - Natural Gas production (weight: 6.88 per cent) increased by 8.9 per cent in July, 2023 over July, 2022. Its cumulative index increased by 2.3 per cent during April to July, 2023-24 over the corresponding period of previous year.

- **Petroleum Refinery Products** - Petroleum Refinery production (weight: 28.04 per cent) increased by 3.6 per cent in July, 2023 over July, 2022. Its cumulative index increased by 2.3 per cent during April to July, 2023-24 over the corresponding period of previous year.

- **Fertilizers** - Fertilizer production (weight: 2.63 per cent) increased by 3.3 per cent in July, 2023 over July, 2022. Its cumulative index increased by 9.1 per cent during April to July, 2023-24 over the corresponding period of previous year.

- **Steel** - Steel production (weight: 17.92 per cent) increased by 13.5 per cent in July, 2023 over July, 2022. Its cumulative index increased by 15.3 per cent during April to July, 2023-24 over the corresponding period of previous year.

- **Cement** - Cement production (weight: 5.37 per cent) increased by 7.1 per cent in July, 2023 over July, 2022. Its cumulative index increased by 11.2 per cent during April to July, 2023-24 over the corresponding period of previous year.

- **Electricity** - Electricity generation (weight: 19.85 per cent) increased by 6.9 per cent in July, 2023 over July, 2022. Its cumulative index increased by 2.7 per cent during April to July, 2023-24 over the corresponding period of previous year.

REPORTS AND INDICES

FAO FOOD PRICE INDEX
About the FAO Food Price Index:

- The Food and Agriculture Organization's (FAO) food price index is a measure of the monthly change in international prices of a basket of food commodities.

- It consists of the average of five commodity group price indices (cereal, vegetable, dairy, meat, and sugar), weighted with the average export shares.

- **Base year: 2014-16**

- Key facts about FAO The Food and Agriculture Organization's (FAO) price index fell to a new two-year low in August.

- It is a specialised agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security.

- Its goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.

- Headquarter: Rome (Italy).

- Member countries: With 195 members - 194 countries and the European Union, FAO works in over 130 countries worldwide.

- The World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD) are its sister bodies.

- Reports published by the FAO: The State of the World's Forests (SOFO), The State of World Fishery.

AIR QUALITY LIFE INDEX (AQLI) REPORT FOR 2023

- The world's 50 most polluted regions belong to the Northern Plains of India, showed the Air Quality Life Index (AQLI) report for 2023

by the Seven states and Union territories that include Bihar, Chandigarh, Delhi, Haryana, Punjab, Uttar Pradesh and West Bengal, comprise a majority of this region.

- They also face the greatest health burden due to particulate pollution in India.

- In north India, fine particulate air pollution (particulate matter 2.5) shortens lives by eight years.

- This underscores the outsized benefits effective pollution policy would have, allowing residents of north India to gain 4.2 billion life years in total.

University of Chicago.

- **Delhi is the most polluted city in India and the world.**

- All of the 521.2 million people living in the Northern Plains — 38.9 per cent of India's population — live in areas where the annual average particulate pollution level is 17.3 times higher than the WHO guideline.

- The particulate pollution in the Northern Plains is exacerbated by geological and meteorological factors.

- The AQLI's dust and sea salt-removed PM2.5 data implies that human activity plays a key role in generating the severe particulate pollution that these residents face.

- This is likely due to the fact that the region's population density is nearly three times that of the rest of the country, meaning more pollution from vehicular, residential and agricultural sources.

- A denser population also means more human lives are impacted by each pollution source.

About AQLI:

- AQLI is a pollution index that translates particulate air pollution into its impact on life expectancy.

- It is developed by the University of Chicago.

- The AQLI is rooted in research that quantifies the causal relationship between long-term human exposure to air pollution and life expectancy.

- The index then combines this research with hyper-localised, satellite measurements of global particulate matter (PM2.5), yielding unprecedented insight into the true cost of pollution in communities around the world.

- The index also illustrates how air pollution policies can increase life expectancy when they meet the WHO's guideline for what is considered a safe level of exposure, existing national air quality standards or user-defined air quality levels.

GDP GROWTH PEAK: TIME FOR PRIVATE SECTOR TO PLAY ITS PART

- **According to the recent data of the National Statistical Office (NSO), India's real Gross Domestic Product (GDP) growth rose to a four-quarter high of 7.8 per cent in April-June. However, economists say growth is likely to slow in the rest of the year due to deficient rainfall, high inflation, and global concerns.**

- GDP is the most used measure of economic activity and serves as a good indicator to track the economic health of a country.

- Economic growth (GDP growth) refers to the percent change in real GDP, which corrects the nominal GDP figure for inflation.

Analysis of the Recently Released Data for Q1 GDP Growth Rate

- Growth Rate is On Expected Lines

- The surge in GDP growth to 7.8 per cent in the first quarter is on expected lines.

- Most high-frequency indicators, including the Purchasing Managers Index (PMI) for goods and services and credit growth data already pointed to fast growth.

Weakness in Exports

- The data suggests some weakness in exports, which contracted by 6.3 per cent during the period.

- However, it did not affect the momentum of the growth rate much.

Investment to GDP Ratio on a Healthy Point

- On the demand side, the investment to GDP ratio was at a healthy 34.7 per cent (like last year).

- The Centre's aggressive budgeted spending target, along with a sharp rise in spending by states has helped.
- Spending by the Centre grew at a massive 59 per cent, and for 16 major states, it rose 76 per cent. But unlike central government capex, the high state capex growth was over a very weak base.

Importance of the Private Sector to Maintain the Momentum of the Growth Rate

- The Government Cannot Invest Beyond a Point
- Government cannot keep pumping up investments at the current rate beyond this fiscal as it needs to stick to its fiscal consolidation path.
- Therefore, the private sector will have to play its role in order to uphold the growth.

Favourable Conditions for Private Sector

- The good part is that conditions for the private sector to play its part are becoming favourable.
- Private companies have cleaned up their balance sheets and are ready to re-leverage and drive the investment cycle.
- The government's continued focus on infrastructure creation will keep improving connectivity and lower logistics costs, helping to crowd-in private investment.

The Private Sector Can Accelerate the Manufacturing Sector

- The Production-Linked Incentive (PLI) schemes could help fast-forward private investments in specific manufacturing sectors over the next few years.
- The West's desire to diversify global supply chains away from China presents good opportunities.
- Sectors such as steel and cement, which are linked to infrastructure development, and some others such as petroleum products and aluminium are seeing a notable pick-up in investment activity.
- Challenges That May Impact the Growth Rate in Upcoming Quarters
- Unclear Demand and Consumption Situation in Rural and Urban Areas
- The private consumption grew at 6 per cent over a high base. Most of this comes from the urban economy, where services growth rose sharply.
- Private Consumption is a measure of all the money spent by consumers in the country to buy goods and services. It is often called as consumer expenditure.
- Nearly two-thirds of services are urban-centric. Additionally, private corporate sector salaries are expected to grow at around 10 per cent this fiscal, which will support urban consumption.
- In contrast, the rural economy is seeing flat wages, weak demand under the MGNREGA (due to movement of labour to urban areas) and risks to agricultural output from weather vagaries.
- Private Consumption Demand Could Decline Due to Food Inflation
- In the current July-September quarter, private consumption demand could weaken sequentially because high food inflationis bound to lower the spending power.
- While inflation is likely to soften by the third quarter of this fiscal, it will entirely depend on responsive supply-side measures to bring down cereal prices, and the seasonal arrival of vegetables, which will lower prices over the next two months.
- Slowdown in West Can Impact Industrial Production
- In the second half, other challenges would come into play, all of which could impact industrial production.
- One is the slowdown in the West, particularly Europe. Though major advanced economies have remained resilient in the first half of this year, S&P Global expects a shallower but more protracted slowdown as interest rates stay elevated for longer.
- Europe will see a sharper downturn with interest rate hikes, cost of living shocks and adverse geopolitical factors.
- Poor Merchandise Export Can Impact Manufacturing Sector Growth
- For India, the poor showing on merchandise exports, which has contracted in each of the past six months, will also weigh on manufacturing sector growth.
- While the decline in exports growth is price-led, volumes are also falling for some.
- Data from the Ministry of Commerce and Industry shows export volume in 40 out of 74 commodities fell in April-June 2023.

- India's goods exports face stronger headwinds from the Asia-Pacific region than the West.

- **These could worsen as both Asia and the west are expected to decelerate in the second half of this fiscal.**

- So, despite the cushion from services exports, overall exports are on a decline this fiscal, which would weigh on domestic production sectors.

- **Impact of Series of Rate Hikes by the RBI**

- The peak impact of the series of rate hikes by the RBI will play out from now. The repo rate has been raised 250 basis points since April 2022 to tame inflation.

- The established thesis is that rate hikes first moderate growth before they impact inflation.

- **El-Nino Impact**

- After a deficient June and above-normal July, rains have again slipped below long period average (LPA).

- With El Niño conditions getting entrenched, rains in the rest of the season have become crucial to lift agricultural output and rural demand and subdue inflation.

- Rains also influence groundwater and reservoir levels for the rabi crops, which are largely irrigated.

- However, the amplified risk to agricultural output and prices is visible in the government's proactive and reactive measures to shore up supplies. For example, export bans/export tariffs, stocking limits, imports of pulses, etc.

- **Impact on Tax Collections**

- Nominal GDP was only 20 basis points higher than the real growth because of deflation in wholesale prices and low consumer price inflation in the first quarter.

- If sustained, slower nominal GDP growth can weaken tax collections.

AGEING REPORT 2023

The India Ageing Report 2023 was released recently by the United Nations Population Fund (UNFPA) and the International Institute for Population Sciences (IIPS).

The report used the latest data available from:

- the Longitudinal Ageing Survey in India (LASI), 2017–18,

- Census of India,

- Population Projections by the Government of India (2011–2036), and

- World Population Prospects 2022 by the United Nations Department of Economic and Social Affairs.

- The report projects that the number of people aged 60 and above in India will double from 149 million in 2022 to 347 million in 2050.

Key highlights of the report

Projection of elderly population in the country

- The decadal growth rate of the elderly population of India currently estimated to be at 41%.

- With this rate, the percentage of elderly population in the country projected to double to over 20% of total population by 2050.

- By 2046, it is likely that elderly population will have surpassed the population of children (aged 0 to 15 years) in the country.

Population of people aged 80+

- The report projected that the population of people aged 80+ years will grow at a rate of around 279% between 2022 and 2050 with a predominance of widowed and highly dependent very old women.

Vulnerabilities of elders

- More than 40% of the elderly in India are in the poorest wealth quintile, with about 18.7% of them living without an income.

- Such levels of poverty may affect their quality of life and healthcare utilisation.

Higher life expectancy of women

- The data showed that women, on average, had higher life expectancy at the age of 60 and at the 80, when compared to men — with variations across States and Union Territories.

- The sex ratio (females per 1,000 males) among the elderly has been climbing steadily since 1991, with the ratio in the general population stagnating.

INDIAN SOCIETY/SOCIAL ISSUES/SOCIAL JUSTICE

KATHMANDU-KALINGA LITERARY FESTIVAL CONCLUDS IN LALITPUR, NEPAL

- The three day long Kathmandu-Kalinga Literary Festival successfully came to an end yesterday in Lalitpur, Nepal. Minister for Foreign Affairs NP Saud of Nepal had inaugurated the festival. This event fulfilled its role in the exchange of culture in the South Asia promoting literary and cultural activities. Llitterateur from India, Nepal, Bhutan, Bangladesh and Sri Lanka exhibited in the Festival. The festival showcased literature, music, dance, poetry and other art forms.

- Professor Avadhesh Pradhan, actress and writer Divya Dutta, Prof Madhav Prasad Pokharel and actress Manisha Koirala were awarded 'Yashaswi Sahitya Samman'. Similarly, those awarded with the 'Yashaswi Book Prize' initiated from this year include writer Bibek Ojha towards fiction for his book 'Aithan', Dr Nawaraj KC towards creative non-fiction for his book 'Sunyako Mulya', Renuka GC towards story for her book 'Sanesh', Dr Mahendra Malla towards poetry for the anthology of poems entitled 'Bhasako Bakpatra', Govinda Giri Prerana towards biography for the biography 'Sushree Parijaat' and Anuradha towards children's literature for her book 'Chhamchhako Chhamchhami'. Others prized with the 'Yashaswi Book Prize' are Rima KC towards translation for her translation of 'Selected Poems by Amrita Preetam', Narayan Ghimire towards food and medicine for his book 'Raithane Khanpan Ra Chadparva', Lakpa Dendi Sherpa towards autobiography for his autobiography 'Himalayan Maverick' and Sushant Thapa towards English poetry writing for his anthology of poems entitled 'Means of Merit'.

KOKBOROK

- **The recent developments in Tripura regarding the Kokborok language and the strike called by the Twipra Students' Federation (TSF). Kokborok, also known as Tripuri, is an indigenous Tibeto-Burman language spoken primarily in the Indian state of Tripura and neighboring areas of Bangladesh.**

- The Kokborok language has been a focal point of debate and activism in Tripura for several decades, particularly regarding the choice of script for writing the language.

Script Debate and Recent Controversies

- The debate over the script for writing Kokborok has been ongoing for decades. The language was officially recognized in 1979, and it is spoken as the first language by many of Tripura's tribal communities.

- Two commissions, led by Shyama Charan Tripura and linguist Pabitra Sarkar, have examined the script issue.

- The Roman script has been advocated by some as the preferred script for Kokborok.

- Recent controversies have arisen regarding the imposition of Hindi script and the use of Bengali script in Kokborok exams, intensifying demands for the Roman script.

- Kokborok Language: An Overview

Etymology

- The name "Kokborok" is derived from "kok," meaning "verbal," and "borok," meaning "people" or "human."

- This name signifies the importance of the language as the means of communication among the Tripuri people.

History

- Kokborok has a rich historical heritage and has been attested since at least the 1st century AD.

- The historical records of Tripuri kings were originally written in Kokborok using the "Koloma" script.

- Later, these historical records were translated into Sanskrit and Bengali in the 19th century. Unfortunately, the original Kokborok versions of these chronicles are no longer available.

- Over time, Kokborok transitioned from being a royal language during the rule of the Tripuri kings to a common people's dialect.

Writing System

- **Traditionally, Kokborok had its own script called "Koloma."**

- However, in contemporary times, it is primarily written in the Bengali script. The Koloma script is still used in some traditional contexts and among certain groups.

- Grammar and Linguistic Features

- Kokborok exhibits unique linguistic features:

- Subject-Object-Verb (SOV) word order.

Extensive use of postpositions.

- A complex system of noun and verb inflections to indicate tense, mood, aspect, and person.
- A rich system of honorifics and politeness levels.

Vocabulary

- Kokborok has a diverse vocabulary that reflects the culture, environment, and traditions of the Tripuri people.
- It includes words related to agriculture, rituals, food, clothing, and more. Additionally, there may be borrowed words from neighboring languages and cultures.

Challenges and Preservation Efforts

- Kokborok faces challenges such as language shift towards dominant languages like Bengali, English, and Hindi.
- Efforts have been made to document, preserve, and promote the language, including the development of educational materials and language revitalization programs.

Literature and Oral Tradition

- Kokborok has a rich oral tradition with folktales, myths, and legends passed down through generations.
- In recent years, there has been a growing body of written literature in Kokborok, including poetry, short stories, and even newspapers.

PULI KALI

- **Thrissur in Kerala** recently reverberated with the energetic beats of drums and the roars of a different kind – those of 'human tigers and leopards.'
- More than 250 enthusiastic participants, adorned with vibrant stripes and spots, transformed the city into a spectacle of color and tradition during the exhilarating Pulikkali festival.
- This rollicking show served as **the grand finale to the Onam celebrations,** creating a carnivalesque atmosphere in Thrissur.
- Puli Kali, also known as "Puli Kali" or "Puli Kettu," is a vibrant and colorful traditional folk art form and cultural event that is celebrated primarily in the Indian state of Kerala.
- **Puli Kali translates to "Tiger Play" or "Tiger Dance,"** and it involves performers painting their bodies to resemble tigers and leopards and dancing in the streets to the beat of traditional percussion instruments.

History of Puli Kali

- The history of Puli Kali can be traced back to over two centuries.
- It is believed to have originated in the 18th century in the Thrissur district of Kerala.
- The credit for its creation is often given to Raja Rama Varma, also known as Sakthan Thampuran, the Maharaja of Kochi. He is said to have introduced this art form as a way to boost the festive spirit and add entertainment to the Onam celebrations.
- Pulikkali, believed to have originated as a street dance form two centuries ago, eventually became an integral part of Onam celebrations.
- Initially, it faced criticism for being rather obscene, but over time, certain rules regarding style and dance steps were introduced, enhancing its popularity and cultural significance.
- In recent years, women have broken barriers in Pulikkali. In 2016, they stormed into what was traditionally a male-dominated arena.

Significance of Puli Kali

- **Cultural Significance:** Puli Kali is a celebration of Kerala's rich cultural heritage. It brings together people from various communities and backgrounds to participate in and witness the vibrant performances.
- **Festival Highlight:** Puli Kali is one of the highlights of the Onam festival, which is celebrated to commemorate the return of the mythical King Mahabali. It adds excitement and enthusiasm to the festivities.

Dance and Music

- Puli Kali is a dance-based performance. The "tigers" dance to the rhythm of traditional percussion instruments like chenda and thakil. The synchronized movements and energetic dance routines are an integral part of the performance.

JUSTICE AMITAVA ROY COMMITTEE REPORT

In News: The Justice Amitava Roy Committee report highlighted the need for reforms in the correctional justice system to make it more inclusive of women. The Supreme Court asked the Centre and the states to respond to the report and its recommendations.

More on the Topic:

- **Gender Disparities:** Female prisoners in India face significant disparities compared to male prisoners. They lack access to basic facilities such as medical care, legal aid, paid labour, and recreational facilities. Female inmates are often housed in enclosures within larger male-dominated prison facilities rather than having exclusive women's prisons. This situation can lead to a lack of privacy, safety concerns, and limited access to essential services.

- **Sanitary Napkin Provision:** The report highlights that less than 40% of Indian prisons provide sanitary napkins for female inmates. This deficiency points to a failure to address the basic hygiene needs of women in custody, which can have adverse health implications and compromise their dignity.

- **Facilities for Children:** Only a few states and union territories (Goa, Delhi, and Puducherry) allow female prisoners to meet their children without barriers like bars or glass separation. In many cases, these barriers hinder family connections, which are crucial for the well-being of both mothers and their children.

- **Shared Facilities:** A significant concern is that 75% of female wards in Indian prisons share kitchens and common facilities with male wards. This shared arrangement can potentially lead to safety and privacy issues for female inmates, especially given the gender dynamics within prison environments.

- **Undertrial and Convict Housing:** Regardless of their legal status (undertrial or convict), female prisoners are often housed in the same wards and barracks. This lack of differentiation based on legal status can impact the rehabilitation and reintegration prospects of female inmates.

- **Gender-Specific Training:** The report highlights a lack of gender-specific training for prison staff, including matrons responsible for handling female inmates. This training gap includes issues like conducting searches, which need to be carried out with sensitivity and respect for the dignity of female prisoners.

- **Complaint Mechanisms:** Women inmates in India are allowed to file complaints against jail staff for abuse or harassment in only 10 states and 1 Union Territory. This limited access to justice within the prison system can leave female inmates vulnerable to abuse and without proper recourse.

- **Medical and Psychiatric Care:** Many Indian prisons lack separate medical and psychiatric wards specifically designed for female inmates. This deficiency poses significant challenges in addressing the specific health needs of female prisoners, including those related to pregnancy and mental health.

- **Telemedicine and Vocational Training:** To address these issues, the report recommends introducing telemedicine facilities for remote diagnosis and virtual consultation, strengthening vocational training and education programs, and reducing the reliance on imprisonment for petty offences. Instead, it suggests implementing community service and providing proper counselling for inmates with psychological disorders.

- **Overcrowding:** The issue of overcrowding is a long-standing concern in Indian prisons. Overcrowding can lead to a host of problems, including inadequate living conditions, increased tension among inmates, and difficulty in providing essential services and rehabilitation programs.

Prison reform

- Prison reform is a process that involves reviewing and restructuring the policies, procedures, and conditions within the prison system to ensure the fair treatment, rehabilitation, and reintegration of inmates. It seeks to address issues such as overcrowding, human rights violations, and the inadequacy of rehabilitation programs in correctional facilities. Prison reform is an essential component of criminal justice reform efforts worldwide.

Human Rights

- **Dignity:** Prison reform ensures that even individuals convicted of crimes maintain their basic human dignity. It prevents cruel, inhumane, or degrading treatment or punishment within correctional facilities.

- **Access to Necessities:** It guarantees that

inmates have access to necessities such as food, clean water, proper healthcare, and sanitary conditions.

- **Protection from Torture:** Reform efforts work to prevent torture or any form of physical or psychological abuse within prisons, safeguarding inmates' physical and mental well-being.

Rehabilitation

- **Skill Development:** Prison reform focuses on equipping inmates with the skills and knowledge they need to become productive members of society after release. This includes education, vocational training, and mental health support.

- **Reduced Recidivism:** Successful rehabilitation reduces the likelihood of inmates returning to a life of crime, which enhances public safety and reduces the burden on the criminal justice system.

Fairness and Justice

- **Equality:** Prison reform ensures that all individuals, regardless of their background or socioeconomic status, are treated fairly and equally within the criminal justice system.

- **Due Process:** It upholds the principles of due process, including the right to a fair trial, access to legal representation, and the presumption of innocence until proven guilty.

Overcrowding

- **Living Conditions:** Overcrowded prisons often lead to overcrowded cells and inadequate living conditions. The reform aims to alleviate overcrowding to ensure healthier and safer environments for inmates.

- **Alternative Sentencing:** Efforts are made to promote alternatives to incarceration for non-violent offenders, reducing the strain on prison resources and facilities.

Cost-Effectiveness

- **Long-Term Savings:** While there may be upfront costs associated with implementing rehabilitation and reintegration programs, these initiatives are often cost-effective in the long run. By reducing recidivism and promoting successful reintegration into society, they can lower the financial burden on the criminal justice system and social services.

ANCIENT, MODERN ART AND CULTURE

ASI TO LAUNCH "ADOPT A HERITAGE 2.0 PROGRAMME" INDIAN HERITAGE APP AND E-PERMISSION PORTAL ON 4TH SEPTEMBER 2023

- The Archeological Survey of India (ASI) has 3696 monuments under protection, which are spread throughout the country. These monuments not only exhibit the rich cultural heritage of India but also play a significant role in fostering economic growth. In order to sustain the rich cultural legacy, the heritage sites require time to time enhancement of the amenities. To this end and to further enhance the experience of visitors, ASI will be launching "**Adopt a Heritage 2.0**" **programme on 4th September 2023 at Samvet Auditorium, IGNCA, New Delhi. Under this programme, ASI invites corporate stakeholders to enhance the amenities at the monuments by utilizing their CSR funds.**

- The programme is a revamped version of the earlier scheme launched in 2017 and clearly defines the amenities sought for different monuments as per AMASR Act 1958. The stakeholders can apply for adopting a monument or specific amenity/ amenities at a monument through a dedicated web portal with URL www.indianheritage.gov.in, which contains details of monuments sought for adoption along with gap analysis and financial estimation of amenities.

- The selected stakeholders will develop, provide and/or maintain amenities in hygiene, accessibility, safety and knowledge categories. In doing so, they will get an opportunity to be recognized as a responsible and heritage-friendly entity. The term of the appointment will be for a period of five years initially, which may be further extended up to five years.

- Further, a user-friendly mobile app, named '**Indian Heritage**' will be launched on the same day, which will showcase the heritage monuments of India. The app will feature state-wise details of monuments along with photographs, list of public amenities available, geo-tagged location and feedback mechanism for citizens. The launch will be in a phased manner, with the ticketed monuments launched in Phase I, followed by the remaining monuments. An e-permission portal, with URL www.asipermissionportal.gov.in

for obtaining permission for photography, filming and developmental projects on monuments will also be launched. The portal will fast-track the process for obtaining various permissions and solve operational and logistical bottlenecks involved.

AKSHARDHAM TEMPLE

- **Akshardham Temple, also known as the Swaminarayan Akshardham Temple, is a magnificent Hindu temple complex located in Delhi.**

- Akshardham Temple was inaugurated on November 6, 2005, by Pramukh Swami Maharaj, the spiritual leader of the BAPS Swaminarayan Sanstha (Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha), a prominent sect within Hinduism.

- The temple was built to honor Bhagwan Swaminarayan (1781-1830), the founder of the Swaminarayan tradition.

Architecture

- The temple complex showcases stunning architecture inspired by ancient Vedic and Hindu architectural principles.

- The central monument represents Mount Meru, the mythical abode of the gods.

Main Attractions

- Yagnapurush Kund: This is the world's largest stepwell and serves as the central feature of the temple complex. It hosts the spectacular Sahaj Anand Water Show, a multimedia fountain show that depicts an episode from the life of Bhagwan Swaminarayan.

- Abhishek Mandap: This area allows visitors to participate in the Abhishek ritual, where they can pour holy water over the sacred image of Bhagwan Swaminarayan.

- Exhibitions: Akshardham features several exhibitions, including the Sahaj Anand Water Show, a cultural boat ride, and the Hall of Values (Sahaj Anand Multimedia Museum), which educates visitors on Swaminarayan's teachings and values.

- Garden of India: The temple complex also includes beautifully landscaped gardens with bronze sculptures depicting India's cultural and spiritual heritage.

Spiritual Significance

- Akshardham Temple is not only a place of architectural beauty but also a center for spiritual activities, prayers, and devotion. It emphasizes the principles of non-violence, truth, purity, celibacy, and faith.

- Awards and Recognition

- Akshardham Temple has received numerous awards and recognitions for its architectural and cultural contributions, including the Guinness World Record for the World's Largest Comprehensive Hindu Temple.

G20 LEADERS ENDORSES GOA ROADMAP AND 'TRAVEL FOR LIFE' PROGRAM TO PROVIDE BIG BOOST TO TOURISM SECTOR

- The Ministry of Tourism launched a national competition on 'Tourism for Tomorrow' to identify best practices and case studies aligned with five priorities of G20 Goa roadmapThe G20 Leaders' Summit in Delhi stands as a testament to India's leadership in fostering global unity and collaboration. The summit witnessed the convergence of the world's most influential leaders, united by a shared vision for the future. Their collective commitment to addressing global challenges reaffirms the spirit of global cooperation.

- A significant milestone achieved during the G20 Leaders' Summit in Delhi was the unanimous endorsement of tourism and culture's pivotal role in sustainable socio-economic development and prosperity. The 'G20 Leaders Declaration' adopted during the summit underlined the significance of the 'Goa Roadmap for Tourism as a vehicle for achieving SDGs.

- The Delhi Declaration provides a new direction for the tourism sector with the G20 Goa Road Map outlining the challenges, objectives, opportunities and recommendations for the tourism sector to achieve sustainable

development goals.

- 'GOA Roadmap', the key deliverable of India's G20 Tourism Track, is a pioneering initiative that provides a blueprint for sustainable global tourism. Goa roadmap, aligned with the theme of India's G20 Presidency, underscores the role of tourism in society, the economy, and environmental stewardship.

- By focusing on the five interconnected priorities identified and endorsed by the G20 Tourism Working Group - Green Tourism, Digitalization, Skills, Tourism MSMEs, and Destination Management - the roadmap offers a comprehensive strategy for nations to align their tourism policies with the United Nations Sustainable Development Goals 2030.

- In furtherance of our commitment, the Ministry of Tourism, in collaboration with the United Nations World Tourism Organization (UNWTO), has launched the G20 Tourism and SDG Dashboard. This pioneering initiative will serve as a global repository, showcasing the best practices and case studies of sustainable tourism practices and policies from G20 nations. It aims to be a comprehensive resource, aiding nations and industry stakeholders in their journey towards achieving the SDGs through tourism.

SHORE TEMPLE

- The historic Shore Temple in Mamallapuram has achieved a significant milestone by becoming India's first Green Energy Archaeological Site.

- It is a historic temple complex located in Mamallapuram (Mahabalipuram), Tamil Nadu.

- It is dedicated to Lord Shiva and Lord Vishnu.

- It was probably built during the reign of Narasimhavarman II, also known as Rajasimha (Pallava ruler), who reigned from 700 to 728 CE.

- Shore Temple is one of a number of Hindu monuments at Mahabalipuram, on the Coromandel Coast of Tamil Nadu.

- It is one of the oldest structural excellence (rock-cut) stone temples in South India.

- The Mamallapuram monuments and temples, including the Shore Temple complex, were collectively designated a UNESCO World Heritage site in 1984.

- UNESCO stands for United Nations Educational, Scientific, and Cultural Organisation.

- It is a specialised agency of the United Nations (UN).

- The constitution, which entered into force in 1946, called for the promotion of international collaboration in education, science, and culture.

- Headquarters: Paris, France.

- Parent Organisation- United Nations Economic and Social Council

- Goal: The primary goals of UNESCO are to contribute to peace and security by promoting collaboration among nations through education, science, and culture and to promote sustainable development and intercultural dialogue.

PRELIMS QUESTIONS

1) Which of the following countries shares boundaries with black sea
1. Ukraine   2. Georgia
3. Bulgaria   4. Russia
Select the correct answer using the code given below.
a) 1, 3 and 4 only   b) 2 and 4 only
c) 1, 2 and 3 only   d) 1, 2, 3 and 4
Solution: (d)

2) Consider the following statements, with respect to Laser Interferometer Gravitational-Wave Observatory (LIGO) – India
1. It will be built by the Department of Atomic Energy (DAE) and the Department of Science and Technology (DST)) with the National Science Foundation (NSF), USA
2. It is going to setup in Theni district at the Bodi West Hills, Tamandu
Which of the statements given above is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2
Solution: (a)

3) Consider the following statements with reference to milk production
1.India ranks first in milk production in the world.
2.India ranks second in egg production in the world.
3.India ranks eighth in meat production in the world.
How many of the above statements is/are correct?
a) Only one   b) Only two
c) All three   d) None
Solution: (b)

4) Consider the following statements with reference to Smishing
1.Smishing refers to a type of cyber-attack or scam where fraudsters send deceptive text messages to trick individuals into revealing personal information, such as login credentials, credit card numbers, or other sensitive data.
2.Smishing messages often contain links that lead to fake websites or phone numbers that direct victims to call and provide information.
Which of the above statements is/are correct?
a) 1 only   b) 2 only
c) Both 1 and 2   d) Neither 1 nor 2
Solution: (c)

5) Consider the following statements:
1.India is the largest producer, consumer and importer of pulses.
2.The pulse's import dependency ratio has decreased in recent years.
Which of the above statements is/are correct?
a) 1 only   b) 2 only
c) Both 1 and 2   d) Neither 1 nor 2
Solution: (a)

6) With reference to Red Sand Boa, consider the following statements
1.It is a venomous snake species found throughout the dry parts of the Indian subcontinent.
2.Also known as the "Two-headed Snake".
3.The Wildlife Protection Act 1972 lists the snake in Schedule IV, trade and possession of the red sand boa is an offense.
4.It is illegally traded for medicinal and black magic.
How many of the above statements are correct?
a) Only two　　　　　　　　　b) Only three
c) All four　　　　　　　　　　d) None
Solution: (b)

7)With reference to Preeclampsia, consider the following statements
1.It is a serious blood pressure condition that develops during pregnancy.
2.People with preeclampsia often have high blood pressure (hypertension) and high levels of protein in their urine (proteinuria).
3.Low aspirin at early stages of the disease can reduce the risk of developing preeclampsia.
How many of the above statements is/are correct?
a) Only one　　　　　　　　　b) Only two
c) All three　　　　　　　　　d) None
Solution: (c)

8) With reference to One Nation One Election, consider the following statements
1.It refers to the idea of holding simultaneous polls for State Assemblies and the Lok Sabha instead of separate and continuous elections.
2.It was the norm in India until 1967.
Which of the above statements is/are correct?
a) 1 only　　　　　　　　　　b) 2 only
c) Both 1 and 2　　　　　　　d) Neither 1 nor 2
Solution:(c)

9)With reference to Global Hunger Index (GHI) 2022, consider the following statements
1.It is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels.
India's ranking in Global Hunger Index 2022 is 107 out of 121 countries.
2.It measures countries' performance on four component indicators – undernourishment, child wasting, child stunting and child mortality.
3.It is released by the International Monetary Fund every year.
How many of the above statements is/are correct?
a) Only one　　　　　　　　　b) Only two
c) All threes　　　　　　　　　d) All four
Solution: (c)

10) With reference to Eco-Sensitive Zones, consider the following statements.
1.Eco-Sensitive Zones are the areas that are declared under the Wildlife (Protection) Act, 1972.
2.The purpose of the declaration of Eco-Sensitive Zones is to prohibit all kinds of human activities in those zones, except agriculture.
Which of the above statements is/are correct?
a) 1 only　　　　　　　　　　b) 2 only
c) Both 1 and 2　　　　　　　d) Neither 1 nor 2
Solution: (d)

Purpose of the magazine

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The sources relied for selection and application of issues

The Hindu
The Indian Express
Times of India
PIB
Live Mint
Hindustan Times
News on Air
Prasar Bharati website
IDSA Website
NASA website
PRS India Website
Down to Earth
Rajya Sabha TV website
Lok Sabha TV website
Economic and Political Weekly
Yojana
Kurukshetra
NITI Aayog reports
BBC

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Current Affairs Analysis

- This month's edition covers the analysis of news from the immediately preceding month.
- The news are categorized subject wise viz. Polity, Economics, Environment and Ecology, Science and Technology, International Relations, etc. for easy and efficient study.
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