



**UPSC**

**MONTHLY**  
**CURRENT**  
**AFFAIRS**  
**CAPSULES**

**OCTOBER 2021**

# Monthly Current Affairs Magazine – October 2021

It is the time to fast-track and target the UPSC Civil Services Examination preparation for Prelims 2021. To ease the preparation, we are providing monthly current affairs compilation for the aspirants. The magazine contains subject-wise distribution of comprehensive news articles.

*"Every day is a chance to begin again. Don't focus on the failures of yesterday, start today with positive thoughts and expectations." - Catherine Pulsifer*

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## Polity & Governance

### Ayushman Bharat Digital Mission

#### Context

- Recently, Prime Minister's Office has launched the Ayushman Bharat Digital Mission for the entire country that will create a seamless **online platform** to enable interoperability within the digital health ecosystem.

#### Key points

- Ayushman Bharat – Digital Mission will **connect the digital health solutions** of hospitals across the country with each other.
- Under this program, every citizen will now get a **digital health ID** and their health record will be digitally protected.
- Currently, the mission was implemented on a **pilot basis in six Union Territories**—Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Ladakh, Lakshadweep, and Puducherry.
- The initiative is designed to **benefit the poor and middle class**, specifically in finding the right doctor and a hospital.

#### Benefits

- The Mission will not only make the processes of hospitals simplified but also will **increase ease of living**.
- The platform will make the entire ecosystem related to treatment and **healthcare policy more effective**.
- Doctors and hospitals will be able to use this platform to **provide remote health service**.
- Also, with effective and reliable data, this will **improve treatment** and also save patients.
- With the help of this initiative, **information on doctors will reach everyone**. People will know about doctors who are knowledgeable and their speciality.

#### Benefits of digital ID

- The digital ID will help the doctors and the patients to **check the old records**.
- Not only this, there will also be **registration of colleagues** like doctors, nurses, paramedics.
- Moreover, the hospitals, clinics, labs, medicine shops in the country, all these will be registered.

#### Performance of Ayushman Bharat-PMJAY

- So far **more than 2 crore countrymen** have availed the facility of free treatment under this scheme, **half of which are women**.

- The poor and vulnerable beneficiaries of PM-JAY have been from **both urban and rural locations** in India.
- The efforts of the doctors, nurses, healthcare workers, para medical staff have helped in making it the **largest healthcare programme** in the world.

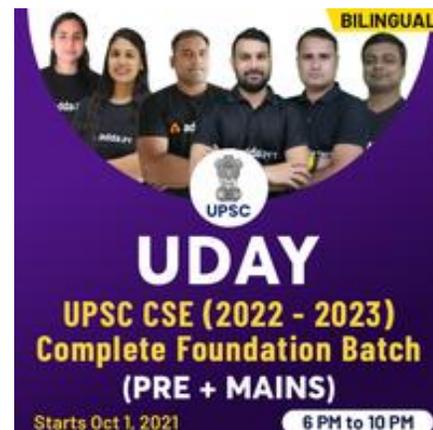
### Botanical Survey of India (BSI)- Plant Discoveries 2020

#### Context

- The Botanical Survey of India, in its new publication **Plant Discoveries 2020** has added 267 new taxa/species to the country's flora.
  - The 267 new discoveries include 119 angiosperms; 3 pteridophytes; 5 bryophytes, 44 lichens; 57 fungi, 21 algae and 18 microbes.
- Total Plant diversity in India:** With these new discoveries the latest estimate of plant diversity in India stands at 54,733 taxa.

#### Key Findings

- Since 2012, a total number of 3,245 taxa of plants from different plant groups have been discovered from India.
  - Most discoveries have been made from seed plants, with 1,199 (37%) taxa, followed by fungi 894 (27%).
- Geographical distribution:** 22% of the discoveries were made from the Western Ghats followed by Western Himalayas (15%), Eastern Himalayas (14%) and Northeast Ranges (12%).
  - The West coast contributed 10% while East Coast contributed (9%) in total discoveries;
  - Eastern Ghats and South Deccan contribute 4% of each and
  - Central Highland and North Deccan added 3% each.



### Key Points

- **Background:** BSI was established in 1890 with the aim to explore plant resources of country and to identify plants species with economic virtues.
- **About:** Botanical Survey of India is the apex research organization under Ministry of Environment and Forests (MoEFCC).
  - **Headquarter:** Kolkata, West Bengal.
  - It also has nine regional circles
- **Mandate:** BSI is responsible for carrying out taxonomic and floristic studies on wild plant resources of country.

### Key Initiatives

- BSI has Floristic surveys of many of the Indian state and Union territories.
  - Floristic survey of 68 protected areas, 26 sacred groves, 01 Ramsar site, 12 fragile ecosystem and 23 Tiger Reserves have been completed.
- Towards fulfilling the **Global Strategy for Plant Conservation target** on ex-situ conservation, the department has **12 botanical gardens** spread in different biogeographical zones of the country.
- BSI has also developed a digital platform '**Indian Plant Diversity Information System (IPDIS)**'.

## Bureaucracy's Digital Challenge

### Context

- If civil servants don't use social media appropriately, their role as independent advisers stands threatened.

### Shift from Desk to Digital

- This shift is in multiple areas like transition towards e-office and e-governance.
- **Unaddressed Areas:** The shift in organizational and bureaucratic response to digital spaces, especially the use of social media has largely been unaddressed.

### Issue of using Social Media by Civil Servants

- Many support the use of social media by civil servants in their official capacity while many argue that anonymity, the defining feature of Indian bureaucracy, gets compromised in the process.
- **Social Media vs Bureaucracy: Both are incompatible with each other.**
  - While bureaucracy is characterized by hierarchy, formal relationships and standard procedures, social media is identified by openness, transparency and flexibility.

- **Use of social media for self-promotion:** Social media is getting used by civil servants for self-promotion and justify that in the name of accessibility and accountability.
  - But it's not the right way to ensure accountability and accessibility as civil servants are at an advantage to share the information they want and respond to those they want.
  - It is not a formal setup where accessibility and accountability are based on uniformity of treatment.
- **Issue with Anonymity and opaqueness:** Anonymity and opaqueness have already been watered down through the Right to Information Act of 2005. But they continue to be prominent features.
  - In the era of public governance, there is no sense for the bureaucracy to be habitually anonymous.

### Positives of social media on governance

- **Increased Accessibility:** many civil servants have become accessible to the common people and public service delivery issues have been resolved through the use of social media.
- **Builds trust and promote openness:** social media has also created a positive outlook towards an institution long perceived as opaque and inaccessible.
  - Social media has increased awareness among people about government policies and programs.
- **Social media** provides an opportunity to bureaucrats to shape the public discourse and engage with the public while being politically neutral.

### Way Forward

- **Bureaucracy as the epitome of public values and a storehouse of facts:** shouldn't be expected to govern in private, especially when both values and facts are getting reshaped due to fake news and systematic propaganda within public policy circles as well.
- **Institutionalize the use of Social Media:** as being done in many Westminster system-based countries.
  - For instance, during the Brexit debate in the U.K., many civil servants shaped public debate through the use of social media even while remaining politically neutral.

- **Social media accountability is no alternative to institutional and citizen-centric accountability:** It is, in fact, partly unethical to use social media during office hours and justify it when some people who have travelled long distances are waiting outside the office.

### Conclusion

- Bureaucrats should use social media to improve public policies. If they don't use social media appropriately, their role as independent advisers stands threatened.

## Drug Controller General of India

### Context

- Recently, the Central government has constituted a committee for framing/preparing new drugs, cosmetics and medical device laws.
- The eight-member panel is headed by Drug Controller General of India (DCGI) V.G. Somani.

### Key Points

- **About DCGI:** Drug Controller General of India is the head of Central Drugs Standard Control Organization (CDSCO) in India.
  - DCGI is the central licensing authority for medical devices which fall under the Medical Device Rules 2017.
- **Parent Ministry:** CDSCO headed by Drug Controller General of India, functions under Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India.
- **Key Functions of Drug Controller General of India:** DCGI is responsible for-
  - Establishing standards for the manufacturing, sales, import, and distribution of drugs in India.
  - Regulating medical and pharmaceutical devices.
  - Acting as appellate authority in case of any dispute with respect to the quality of the drug.
  - Preparing and maintaining the national reference standard for drugs.
  - Ensuring uniformity in the implementation of the Drugs and Cosmetics Act.

### Central Drugs Standard Control Organization (CDSCO)

- **About CDSCO:** It is the central drug regulatory authority in India headed by Drug Controller General of India and functions under Ministry of Health and Family Welfare.
  - **Headquarter:** New Delhi. It also has six zonal offices.

- **Mandate of CDSCO:** To bring out transparency, accountability and uniformity in its services in order to ensure safety, efficacy and quality of the medical product manufactured, imported and distributed in the country.
- **Key responsibilities of the CDSCO:** Under the Drugs and Cosmetics Act, CDSCO is responsible for-
  - Approval of Drugs,
  - Conduct of Clinical Trials,
  - Laying down the standards for Drugs,
  - Control over the quality of imported Drugs in the country and
  - Coordination of the activities of State Drug Control Organizations by providing expert advice with a view of bring about the uniformity in the enforcement of the Drugs and Cosmetics Act.
  - Registration of foreign manufacturers of drugs and medical devices whose products are to be imported into the country.
  - Grant of licences to import drugs by Government hospitals or Medical Institutions for the use of their patients.
  - Recommend banning of drugs considered harmful or sub-therapeutic under section 26A drugs and Cosmetics Act.

## Eat Right Station Certificate

### Context

- Indian Railways' **Chandigarh Railway Station** has been awarded a 5- star 'Eat Right Station' certification for providing high-quality, nutritious food to passengers.

### Key points

- This certification is granted by FSSAI to railway stations adhering to standard **food storage and hygiene practices**.
- The 'Eat Right Station' certification is awarded by FSSAI to railway stations that set benchmarks in providing **safe and wholesome food to passengers**.
- The station is awarded a certificate upon a conclusion of an FSSAI-empanelled third-party audit agency with **ratings from 1 to 5**.
- The 5-star rating indicates **exemplary efforts by stations** to ensure safe and hygienic food is available to passengers.
- The certification is part of the '**Eat Right India**' movement

### Indian Railway Stations Development Corporation

- The **Indian Railway Stations Development Corporation (IRSDC)** is a special purpose vehicle that looks after the food supply and the up-gradation of Railway stations.

### Eat Right India Movement

- FSSAI launched 'The **Eat Right Movement**' in 2018 to **improve public health** in India and **combat negative nutritional trends** to fight lifestyle diseases.
- The tagline of the movement is '**Sahi Bhojan. Behtar Jeevan**'.
- Eat Right India adopts a judicious mix of **regulatory, capacity building, collaborative, and empowerment approaches** to ensure that our food is suitable both for the people and the planet.
- it builds on the **collective action of all stakeholders**—the government, food businesses, civil society organizations, experts and professionals, development agencies and citizens at large.

### 5 Star Railway Stations

- **Anand Vihar Terminal** Railway Station; (Delhi)
- **Chhatrapati Shivaji Terminus**; (Mumbai)
- **Mumbai Central** Railway Station; (Mumbai)
- **Vadodara** Railway Station
- **Chandigarh** Railway Station

### FSSAI

Food Safety and Standards Authority of India (FSSAI) is an **autonomous statutory body** established under the **Ministry of Health & Family Welfare**.

It has been established in 2011 under the **Food Safety and Standards Act, 2006**.

FSSAI is responsible for **protecting and promoting public health** through the regulation and supervision of food safety.

### Social and Emotional Learning- Empathy Through Education

#### Background

- Social and Emotional Learning (SEL) as an important facet of education in India as mentions in the latest National Education Policy (NEP-2020).

#### Empathy Through Education

- **Definition of Social and Emotional Learning:** SEL is the process of learning to recognize and manage emotions and navigate social situations effectively.

- **Importance of SEL:** It supports skills such as communication, collaboration, critical thinking and creativity among students which is as important as numeracy and literacy (central aims of NEP 2020).
  - **SEL is foundational for-**
    - Human development,
    - Building healthy relationships,
    - Having self and social awareness,
    - Solving problems,
    - Making responsible decisions, and
    - Academic learning.
  - Research finds that students with greater social skills and emotional regulation are more likely to have success.
- **Key Elements of SEL:** Key elements of SEL include cultivating 'empathy' and 'theory of mind'.
  - **Empathy:** It is the ability to understand another person's emotions and be aware of why they might be feeling those emotions from their perspective.
  - **Theory of Mind:** It is the ability to understand others' intentions, knowledge and beliefs and recognize that those might be different from your own.
- **Impact of Covid-19 led school closure:**
- **Negative Impact:** school closures reduced opportunities for students to deepen social relationships and learn collaboratively in shared physical spaces.
- **Positive Impact:** Remote learning gave parents the opportunity to discover their children' social and emotional lives.

#### Way Forward

- **Social and Emotional Learning (SEL)** should be integrated with the larger curriculum rather than just being added as a chapter in it.
  - It is vital to consider that the learning process is a social and emotional experience.
- **Develop an Indian SEL framework:** This should be based on followings-
  - Application of SEL practices should be based on students' socioeconomic backgrounds,
  - SEL strategies of caretakers and educators must align with one another,
  - Long-term success requires SEL to be based on scientific evidence.
- **Role of Policymakers:** policymakers have to ensure that future changes prioritize "inclusive and equitable quality education and promote lifelong learning opportunities for all."

## FASTER system of Supreme Court

### Context

- Supreme Court has introduced a new system called FASTER system that will facilitate e-transfer of orders to jails and result in prisoner release.
- The process for developing FASTER system began after SC took suo motu cognizance of a case regarding the delay in release of convicts after grant of bail'.

### Key Points

- FASTER is an acronym "Fast and Secured Transmission of Electronic Records". Under it, the e-authenticated copies of the record of proceedings/orders, digitally signed by the authorized officer may be transmitted to the duty-holders of the justice system.
- **Background:** Presently the undertrials are made to wait for days on end behind bars to be released because the certified hard copies of their bail orders were late to reach the prison.
  - The FASTER System will remedy this injustice against undertrials along with ensuring speedy justice delivery on the ground.
- **Objective of FASTER system:** It aims to ensure undertrials are not made to wait for days on end to be released.
- **Expected benefits:** Through FASTER system, Supreme Court's crucial decisions, including orders on bail and stay of arrest, can be communicated electronically to prison authorities and investigating agencies through a secure channel.

### Key Significance

- FASTER system will promote the fundamental rights of life, dignity and personal liberty of prisoners, hence deepening the constitutional values.
- The FASTER system would also prevent unnecessary arrests and custody of people even after the court has already granted them its protection.
  - It may even communicate a stay on an execution ordered by the final court on time.

## Goods and Services Tax (GST) Council

### Context

- Recently the 45<sup>th</sup> Goods and Services Tax (GST) Council meeting was chaired by the Union Finance Minister in Lucknow, Uttar Pradesh.

### Key Outcomes of the 45<sup>th</sup> GST Council Meeting

- **Exclusion of Petroleum Products and Natural gas:** The GST Council has decided to keep petroleum products and Natural gas out of the GST regime.
- **Extension of tenure of Compensation Cess:** consumers will have to keep paying the Compensation Cess levied on products like automobiles till March 2026 instead of July 2022 as originally envisaged.
  - The GST Council had decided last year that the Compensation Cess levy will be extended to repay the principal amount as well as the interest payable on these borrowings.
- **Formation of two groups of ministers (GoMs):** They would recommend measures to shore up GST revenues.
  - **The first one** has been tasked with reviewing tax rate, rationalization issues to correct anomalies in the rate structure, and
  - **Second one** will look to tap technology to improve compliance and monitoring. It will look at e-way bills, Fastags, compliance and composition schemes to plug loopholes.

### Key Points

- **Background:** The Parliament passed the 101<sup>st</sup> Amendment Act of 2016 which paved the way for the introduction of the goods and services tax (GST) in the country. The GST Council was established to-
  - To ensure smooth and efficient administration of the GST tax and
  - Cooperation and coordination between the centre and the states.
- **About GST Council:** The 101<sup>st</sup> amendment inserted a new Article 279-A in the Constitution of India. This article empowered the President to constitute a GST Council by an order.
  - **Secretariat:** located in New Delhi and the Union Revenue Secretary acts as the ex-officio Secretary to the Council.
  - The GST Council is considered as a constitutional federal body where both the centre and the states get due representation.
- **Mandate of GST Council:** Responsible for making recommendations to the Union and State Government on issues related to Goods and Service Tax.
  - It is the first constitutional federal body vested with powers to take all major decisions relating to GST.
- **Vision:** To establish the highest standards of the cooperative federation in the functioning of the Council.

**Composition of the Goods and Services Tax (GST)**

**Council:** It consists of following members-

- **Chairperson:** The Union Finance Minister
- The Union Minister of State in-charge of Revenue or Finance
- Ministers in-charge of Finance or Taxation of all the States
  - **Vice-chairperson:** The members of the Council from the states have to choose one amongst themselves to be the Vice-Chairperson of the Council.
- **Chairperson of the Central Board of Excise and Customs (CBEC):** to be included as a permanent invitee (non-voting) to all proceedings of the Council.

**Working of the GST Council**

- **Quorum for GST Council:** One-half of the total number of members of GSTC form quorum in meetings of GST Council.
- **Voting Share and Decision Making in GST Council:**
  - **Decision Making:** Decisions in GST Council are taken by a majority of not less than three-fourth of weighted votes cast.
  - **Voting share:** Centre has one-third weightage of the total votes cast and all the states taken together have two-third of weightage of the total votes cast.
- **Voting in the council will not be considered invalid only because-**
  - There was a vacancy or deficiency in the constitution of the GST Council
  - There was a defect in the appointment of a person as a member of the GST Council
  - There were procedural irregularities in the functioning of the GST Council.

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**India and SDG 12****Context**

- Recently, it was reported that India's progress in regard to the SDG 12 is fair enough but not satisfactory.

**SDG 12**

- The United Nations-mandated Sustainable Development Goal (SDG) 12 deals with resource usage.

**Resource usage in India**

- According to 2015 statistics, the average lifestyle material footprint of India is around 8,400 kilograms per capita per year.
- It is acceptable as the SDG asks to maintain sustainable material footprint of 8,000 kg per capita.
- India has achieved a relative decoupling with respect to material footprint and domestic material consumption while resource-exporting nations like Russia saw a decline in resource productivity.

**Food wastage**

- The SDG 12.3 focuses on reducing per capita global food waste by 2030.
- In the UNEP report 2021, about 50 kg food is wasted per person per year in India.
- India, however, among South Asian countries, has lower level of food wastage compared to its neighbouring countries.
- It, nevertheless, is almost impossible to achieve the goal to halve food waste by the stipulated time, without significant investment.

**Why to reduce food wastage**

- Food wastage reduction can have a significant effect on greenhouse gas emissions, hunger, pollution and money-saving during recessions.
- Moreover, curbing food loss and wastage can serve to fulfil multiple SDGs at once as well as help bridge the food gap by 2050.

**Improvements**

- The estimated loss in value of production of horticulture in 2012-13 was about 11 per cent and that of livestock was 3.7 per cent. The losses declined by 2 per cent from 2005-07.
- Storage loss has been brought down from 0.22 per cent in 2012-13 to 0.03 per cent in 2019-20 and transit loss from 0.47 per cent to 0.33 per cent during the same time period.



- Though these are good signs, it is still a long way from the 12.3 goal.

### Municipal waste

- As per Nichols and Smith in their June 2019 analysis, estimated waste generated per capita in Canada and the United States is way above India.
- The population of China and India together constitutes 36 per cent of the global population but generates only 27 per cent of the global municipal waste.
- Whereas, the United States constitutes only four per cent of the global population that produces 12 per cent of the waste.

### Phytoremediation

- China, India and Pakistan use the method of 'phytoremediation', which involves tree plantation to restore environment as well as degraded soil restoration.
- This method is, however, less efficient. The domestic recycling rate of India was about 30 per cent in 2019 and is expected to improve in the near future.

### Recycling in India

- A considerable part of the total hazardous waste that India produces is recyclable but only 4% is recycled.
- India can achieve self-sufficiency in the next 10 years if National Recycling Policy is implemented properly and scrap care techniques are shifted in the recycling industries.

### Sustainable tourism

- The project of 'Responsible Tourism' in Kumarakom, Kerala takes the help of the local community by linking them to the hospitality industry and sustaining eco-friendly tourism.
- Similarly, Himachal Pradesh has introduced a 'Homestay Scheme' to draw tourists to rural areas with natural, comfortable and budget-friendly accommodation and food.
- These initiatives give a raw experience to the tourists and also boost local incomes.

## Indian Nursing Council (INC)

### Context

- Recent notification of the **Indian Nursing Council's (INC)** restricted the **5% reservation for persons with disabilities (PwD) in B.Sc. Nursing courses** only to those with lower limb disability, and that too for the 40-50% disabled.

- The **Indian Nursing Council's (INC)** notification has come under criticism from a pan-India group of health professionals with disabilities.
- The group demanded following from **the Union Health Ministry and the Department of Empowerment of Persons with Disabilities** -
  - Repeal of the allegedly discriminatory clause.
  - Nurses with disabilities and disability rights activists be involved in the framing of new guidelines.

### Key Points

- **About Indian Nursing Council's (INC):** It is an Autonomous Body under the Government of India, Ministry of Health & Family Welfare.
  - The Indian Nursing Council (INC) was constituted by the Central Government under the provisions of the Indian Nursing Council Act, 1947 of parliament.
- **Mandate of Indian Nursing Council (INC):** To establish a uniform standard of training for nurses, Midwives and health visitors.
- **Regulation:** The Indian Nursing Council regulates nursing education through prescription, inspection, examination, and certification.
- 91% of the nursing education institutions are private and weakly regulated. The quality of training of nurses is diminished by the uneven and weak regulation.

### Nursing Sector in India

- **Insufficient Strength:** India's nursing workforce is about two-thirds of its health workforce.
  - There are 7 nurses per 1,000 population is 43% less than the World Health Organization norm (India needs 2.4 million nurses to meet the norm).
- **Structure Challenges of the Nursing Sector** in India lead to poor quality of training, inequitable distribution, and non-standardized practices.
- **Gaps in Nursing Education:**
  - **Vacancy in faculty positions:** There are around 86% and 80% vacancy in nursing college and schools, respectively.
  - **Uneven distribution of Nursing institutions:** Around 62% of nursing institutions are situated in southern India.

## Recent Developments

- **The National Nursing and Midwifery Commission Bill** has been prepared by the government to replace the Indian Nursing Council with a new body called National Nursing and Midwifery Commission.
- **National Nursing and Midwifery Commission:** This body would have representatives of the Centre and the states. **Its key functions would be-**
  - To frame policies and regulate standards for the governance of nursing and midwifery education and institutions.
  - To provide standards for nursing and midwifery faculty and clinical facility in teaching institutions.
  - To frame policies and codes to ensure observance of professional ethics in nursing and midwifery profession.
  - It will also assess and rate different institutions offering courses.

## International Literacy Day 2021

### Context

- Kochi Metro will offer free ride to all school teachers as a mark of respect for them on International Literacy Day on September 8, 2021.
- United Nations Celebrates the International Literacy Day each year on 8 September 10, 2021.

### Key Points

- **Background:** The 8th of September was proclaimed as the 'International Literacy Day' by UNESCO in 1966.
- **Main Aim:** To remind the international community of the importance of literacy for individuals, communities and societies, and the need for intensified efforts towards more literate societies.
- **Other measures by United Nations to Promote literacy:**
  - **The UN's Sustainable Development Agenda (2015)** promotes universal access to quality education and learning opportunities throughout people's lives.
  - **Sustainable Development Goal 4** has as one of its targets ensuring all young people achieve literacy and numeracy and that adults, who lack these skills are given the opportunity to acquire them.
- **UNESCO International Literacy Prizes:** Since 1967, UNESCO rewards excellence and innovation in the field of literacy through its Literacy Prizes.

## International Literacy Day 2021

- **Theme:** The theme for International Literacy Day 2021 is "**Literacy for a human-centred recovery: Narrowing the digital divide**".
  - 2020 theme was- "Literacy teaching and learning in the COVID-19 crisis and beyond."
- **Impact of COVID-19 on Literacy:** The COVID-19 crisis has disrupted the learning of children, young people and adults at an unprecedented scale.
  - Covid-19 has also magnified the pre-existing inequalities in access to meaningful literacy learning opportunities, disproportionately affecting 773 million non-literate young people and adults.
- **Role of Literacy in COVID-19 times:** Literacy is a driver of sustainable development. It empowers individuals and improves their living standards. Literacy is important to a human-centred recovery from COVID-19.
- **Covid-19 and role of International Literacy Day (ILD) 2021:** It will explore-
  - How literacy can contribute to building a solid foundation for a human-centred recovery, with a special focus on the interplay of literacy and digital skills required by non-literate youth and adults.
  - What makes technology-enabled literacy learning inclusive and meaningful to leave no one behind.
  - Opportunities to reimagine future literacy teaching and learning, within and beyond the context of the pandemic.

## Assam Model Tenancy Act 2021

### Context

- Recently, Assam has become the first Indian state to adopt and implement the Model Tenancy Act.

### Key points

- The Act is aimed at establishing a rent authority to regulate market-driven renting of premises while protecting the interests of both the landlord and the tenant.
- The Act proposes a three-tier quasi-judicial mechanism to govern tenancy agreements in residential and commercial premises and undertake dispute resolution by instituting district-level Rent Authorities and Rent Courts along with state-level Rent Tribunals

- The Act also moves away from the mechanism of imposing a ceiling on rent, and allows landlords to charge the rent based on the market value of the property.

### Benefits

- The adoption of the new Act, by dismantling rent control, has the potential to rationalize the rental housing sector.
- Establishment of a separate mechanism for the efficient redressal of disputes will generate confidence among home-owners.
- The new Act can also benefit tenants in cases where landlords often ask for a large security deposit.

### About the Model tenancy Act approved by the Union Cabinet

- The Model Act requires the landlord and tenant to sign a written agreement which specifies the rent, period of tenancy and other related terms. Security deposit is capped at two months' rent for residential premises, and six months' rent for non-residential premises.
  - Conditions for eviction of tenant under the Model Act include
    - Refusal to pay agreed upon rent
    - Failure to pay rent for more than two months
    - Occupation of part or whole of premises without written consent
    - Misuse of premises despite a written notice.
- The Model Act establishes a three-tier quasi-judicial dispute adjudication mechanism consisting of
  - Rent Authority
  - Rent Court and
  - Rent Tribunal.
- No civil court will have jurisdiction over matters pertaining to provisions under the Model Act.
- Rent Authorities and Rent Courts may be established by the District Collector with the approval of the state government. The state or union territory government may establish a Rent Tribunal after consulting with the jurisdictional High Court.

### A-HELP: MoU between DoRD and DAHD

#### Context

- Department of Animal husbandry & Dairying (DAHD) and Department of Rural Development (DoRD) signed an MoU (Memorandum of Understanding) to help **increase outreach of DAHD schemes and enhance sustainability.**

### Key point(s)

- DAHD and MoRD will **leverage SHG** (Self-Help Groups) platform for rural economic growth through **convergence** of DAHD and National Rural Livelihoods Mission (NRLM), Ministry of Rural Development.

### A-HELP

- **Accredited Agent for Health and Extension of Livestock Production (A-HELP)** Is a new accredited model to use the services of the members of the SHGs as **livestock resource persons and primary service provider.**
- This model will be implemented across the country by using the existing cadre developed under DAY-NRLM for livestock (**Pashusakhis**) by providing further training and accreditation as A-HELP worker.

### Steps taken by the DAHD and DoRD to provide employment and entrepreneurship opportunities to the farming community

- Through flagship schemes
  - **AHIDF** (Animal Husbandry Infrastructure Development Fund)
  - **DIDF** (Dairy Infrastructure Development Fund)
  - **NADCP** (National Animal Disease Control Program) for FMD (Foot and Mouth Disease) and Brucellosis.
- Government has approved implementation of a **Special Livestock Sector Package** consisting of several activities by revising and realigning various components of existing schemes to have focused development of animal husbandry and dairying across the country for next 5 years starting from 2021-22.
- **Department of Rural development** is also working for **rural upliftment** through various programmes where more women are involved in livelihood activities, especially in the livestock sector.

### DAY-NRLM for livestock sector

- DAY-NRLM (**Deendayal Antyodaya Yojana - National Rural Livelihood Mission**) has been supporting farm livelihood sector both through **backward and forward linkages.**
- Support is being provided through cadre of **pashu sakhis** who are being trained through structured modules as part of training and capacity building architecture and are providing services by handholding the **Mahila Kisans through Pashu Pathsalas** and services at the doorstep of farmers.



- The mission has more than **40,000 Pashusakhis** in their fold. It will help in **increasing the outreach of DAHD schemes** through these community cadres and also help in additional earning for the cadres thus supporting in enhancing their sustainability.

## National Crime Records Bureau (NCRB) Crime in India 2020 Report

### Relevance for UPSC Exam

- GS Paper 3: Security-** Challenges to internal security through communication networks; Various Security forces and agencies and their mandate.

### Context

- According to the recently released National Crime Records Bureau (NCRB) report, overall crime numbers in the country increased by 28 per cent in 2020 over the non-pandemic year 2019.
- However, this increase has been largely attributed to crimes registered for Covid-19 violations as other crimes actually decreased in 2020 compared to 2019.
  - According to home ministry, people violating the Centre's guidelines on Covid containment were supposed to be booked under IPC Section 188 and Disaster Management Act.

### Key Findings

- Increase in Overall Crime Case Registration:** Overall crime registration in India increased by 14,45,127 (28%) cases over 2019 (51,56,158 cases).
  - The NCRB Report recorded 66,01,285 cognizable crimes comprising 42,54,356 Indian Penal Code (IPC) crimes and 23,46,929 Special and Local Laws crimes.
- Increased Crime Rate:** Crime rate (number of cases registered per one lakh population) increased from 385.5 in 2019 to 487.8 in 2020.
- Increase in Caste-based crimes:**
  - Crimes against Scheduled Castes:** showed an increase of 9.4%.
  - Crime against Scheduled Tribes:** Showed an increase of 9.3% over 2019.
- Decline in Crime Against Women:** There was an 8.30% decline in cases of crime against women.
  - A majority of the cases were related to "cruelty by husband or his relatives" (30.0%), followed by "assault on women with intent to outrage her modesty" (23.0%), "kidnapping & abduction of women" (16.8%) and "rape" (7.5%).
  - Crime Rate against women:** The crime rate registered per lakh women population is 56.5 in 2020 in comparison with 62.3 in 2019.

- Decline in Crimes by Juveniles:** A total of 29,768 cases were registered against juveniles during 2020, showing a decrease of 7.8%.
- Murder registered a marginal increase** of 1 per cent while offences in the category of "Violent Crimes" decreased by 0.5 per cent.
- Increased rate of Charge-sheet filing:** In nearly 26.12 lakh cases, charge sheets were filed, resulting in a charge-sheeting rate of 75.8%, an increase by 12.50% compared to 2019.
  - The States reporting high charge-sheeting rate under IPC crimes were Gujarat (97.1%), Kerala (94.9%) and Tamil Nadu (91.7%).
- COVID-19 led Lockdown Effect:** due to covid led lockdown in India last year, cases of crime against women, children and senior citizens, theft, burglary, robbery and dacoity declined.
- Decline in overall registered Economic Offenses:** showing a decrease of 12%.
  - Decline** of 27% in cases under the **Prevention of Corruption Act** from 4,244 to 3,100 cases.
  - Increased Cybercrimes:** with 50,035 cases, cybercrimes recorded an 11.80% increase.
- Decline in Cases of Human Trafficking:** declined from 2,208 to 1,714 cases.
  - The number of missing persons decreased by 15%. A 19.80% dip in children who were reported missing in 2020, compared to 2019.
- Increase in Environment related offenses:** The year 2020 saw a 78.1 per cent increase in Environment Related Offences compared to 2019.

### Key Points

- About NCRB:** It is a government agency, established in 1986, for collecting and analyzing crime data as defined by the Indian Penal Code (IPC) and Special and Local Laws (SLL).
  - Headquarter: New Delhi, India
- Parent Ministry:** It functions under administrative control of the Ministry of Home Affairs.
- Key Functions of the NCRB:** The following are the key functions of the NCRB-
  - To Create, lead, and coordinate the development of IT applications for Police.
  - To Collate information and maintain statistics on crime and criminals at the national level.
  - Creation and maintenance of Database at the National level for law enforcement agencies.

- To coordinate, guide and assist the functioning of the State Crime Records Bureaux, along with, providing training facilities to personnel of the Crime Records bureaux
- To function as the National storehouse of fingerprint (FP) records of convicted persons including FP records of foreign criminals
- To keep the central and state governments updated with the official records and findings related to any case.
- Maintain a national database of fingerprints of all criminals in India.

### NIRF India Ranking 2021

#### Context

- Recently, Ministry of Education released its India Rankings 2021 under the National Institutional Ranking Framework (NIRF).
- While releasing the rankings, Education Minister said that there was need for developing regional ranking frameworks and increasing participation by institutions.

#### Key Findings

- 4,030 institutions across India had applied for NIRF India rankings 2021 this year. This is a noticeable increase (2426 in 2020) in institutional participation in the rankings exercise
- **Overall Ranking 2021:**
  - IITs dominated the overall rankings, with seven of the top 10 positions.
  - **The Indian Institute of Technology (IIT)-Madras was ranked the best higher education institution** in the country for the third year in a row.
  - **The Indian Institute of Science (IISc) in Bengaluru ranked second**, followed by IIT-Bombay, IIT-Delhi, IIT-Kanpur, IIT-Kharagpur, IIT-Roorkee and IIT-Guwahati. Jawaharlal Nehru University (JNU) and Banaras Hindu University (BHU).
- **Ranking of Universities:** IISc was ranked one, followed by JNU, BHU, Calcutta University, Amrita Vishwa Vidyapeetham in Coimbatore, Jamia Millia Islamia in New Delhi.
- **Ranking of Engineering Institutions:** IIT-Madras remained number one, followed by IIT-Delhi, IIT-Bombay, IIT-Kanpur, IIT-Kharagpur, IIT-Roorkee, IIT-Guwahati, IIT-Hyderabad.

- **Ranking of Management Institutions:** Indian Institute of Management (IIM)-Ahmedabad was ranked one, followed by IIM-Bangalore, IIM-Calcutta, IIM-Kozhikode, IIT-Delhi, IIM-Indore.
- **Ranking of Medical Institutions:** All-India Institute of Medical Sciences in New Delhi scored the top rank for medical institutions, followed by Post Graduate Institute of Medical Education and Research in Chandigarh, Christian Medical College in Vellore.
- **Ranking of Pharmacy Institutions:** **Jamia Hamdard** was ranked one followed by Panjab University.
- **Ranking of Dental Institutions:** **Manipal College of Dental Sciences** was ranked the best.
- **Ranking of Law Institutions:** National Law School of India University, Bengaluru was ranked number one, followed by National Law University in Delhi.
- **Ranking of Research Institutions:** IISc was ranked the best research institution, a category included for the first time.
- **Ranking of the Collages:** Miranda House in Delhi remained the best college, followed by Lady Shri Ram College for Women and Loyola College.
- **Ranking of Architecture Institutions:** Indian Institute of Technology (IIT), Roorkee ranked first followed by National Institute of Technology Calicut, Indian Institute of Technology Kharagpur.

#### Key Points

- **About NIRF Ranking:** The National Institutional Ranking Framework (NIRF) is a framework adopted in 2015 by the Ministry of Education (Erstwhile Ministry of Human Resource Development) to rank institutions of higher education in India.



- **Categories for Ranking:** NIRF ranks higher education institutions under 11 different categories. Initially, there were only four categories in the first NIRF Ranking 2016. The **11 categories are-**
  1. Management
  2. Engineering
  3. Universities
  4. Pharmacy
  5. Architecture
  6. Medical
  7. Dental
  8. Law
  9. Colleges
  10. Research Institutions
  11. Overall
- **Parameters used for NIRF Rankings:** Assessment of Higher Educational Institutions are done by the ministry on following five parameters-
  1. Teaching, Learning and Resources (TLR)
  2. Research and Professional Practice (RP)
  3. Graduation Outcomes (GO)
  4. Outreach and Inclusivity (OI)
  5. Peer Perception

### National Statistical Office (NSO)

#### Context

- Recently, **National Statistical Office** released quarterly statistics of Indian Economy for April-June quarter of 2021-22
- **Key Findings:**
  - Gross Value Added (GVA) in the economy during the April to June period rose 18.8%, from a 22.2% dip in the first quarter of 2020-21.
  - India's Gross Domestic Product (GDP) grew by 20.1% in the first quarter of 2021-22, compared to the 24.4% contraction recorded in the same quarter a year ago.

#### Key Points

- **About:** The government has formed an overarching body NSO by merging the National Sample Survey Office (NSSO), Computer Centre and Central Statistical Office (CSO).
  - NSO was first envisaged by **Rangarajan Commission** to implement and maintain statistical standards and coordinate statistical activities of Central and State agencies as laid down by the National Statistical Commission (NSC).

- NSO would be headed by Secretary (Statistics and Programme Implementation).
- CSO coordinates the statistical activities in the country and also evolves statistical standards.
- NSSO is responsible for conduct of large scale sample surveys in diverse fields on an all India basis.
- **Parent Ministry:** It is statistics wing of the Ministry of Statistics and Programme Implementation (MoSPI).

#### Key Functions

- NSO is mandated with the following responsibilities-
  - **Acts as the nodal agency for planned development of the statistical system** in the country,
  - **Lays down and maintains norms and standards in the field of statistics, involving concepts and definitions, methodology of data collection, processing of data and dissemination of results.**
  - **Prepares national accounts as well as publishes annual estimates of national product**, government and private consumption expenditure, capital formation, savings, estimates of capital stock and consumption of fixed capital.
  - **Maintains liaison with international statistical organizations**, such as, the United Nations Statistical Division (UNSD), the Economic and Social Commission for Asia and the Pacific (ESCAP), the Statistical Institute for Asia and the Pacific (SIAP), etc.
  - **Compiles and releases the Index of Industrial Production (IIP)** every month in the form of 'quick estimates' and conducts the Annual Survey of Industries (ASI)
  - Organizes and conducts periodic all-India Economic Censuses and follow-up enterprise surveys.

### Personal Data Protection Bill 2019

#### Context

- Recently, the Joint Parliamentary Committee (JPC) started working again after a gap of more than months towards finalizing the Personal Data Protection Bill 2019.
- Earlier, the Personal Data Protection Bill 2019 was introduced in the Lok Sabha in December 2019 and then sent to JPC for detailed discussion and considerations.
  - JPC is yet to submit its report on the Bill.

### Key Points

- **Background:** In its landmark 'Justice K.S. Puttaswamy (Retd) v. Union of India' judgement, supreme court called for a data protection law that can effectively protect users' privacy over their personal data.
  - This followed the formation of an Experts Committee under the Chairmanship of Justice (Retd) **B.N. Srikrishna** which suggested a draft data protection law.
  - The Personal Data Protection Bill, 2019 is a revised version of the draft legislative document proposed by the Committee.
- **The Personal Data Protection Bill** amends the **Information Technology Act, 2000** to delete the provisions related to compensation payable by companies for failure to protect personal data.
- **Definition of personal data:** Personal data is data which pertains to characteristics, traits or attributes of identity, which can be used to identify an individual.
- **Scope of the Bill:** The Bill governs the processing of personal data by-
  - Government,
  - Companies incorporated in India, and
  - Foreign companies dealing with personal data of individuals in India.

### Key Features

- **Categorizes certain personal data as sensitive personal data:** This includes financial data, biometric data, caste, religious or political beliefs, or any other category of data specified by the government, in consultation with the Authority and the concerned sectoral regulator.
- **Defines certain Privacy-related terms:**
  - **Data Principal:** The individual whose data is being stored and processed is called the data principal.
  - **Data Fiduciary:** The 'data fiduciary' may be a service provider who collects, stores and uses data in the course of providing such goods and services.
  - **Data Transfer:** Data is transported across country borders in underwater cables.
  - **Data localization:** It is the act of storing data on any device physically present within the borders of a country.
- **Categorization of data:** Personal Data Protection Bill categorized data into three category-
  - **Personal data:** Data from which an individual can be identified like name, address etc.

- **Sensitive personal data:** Some types of personal data like as financial, health, sexual orientation, biometric, genetic, transgender status, caste, religious belief, or any other category of data specified by the government, in consultation with the Authority and the concerned sectoral regulator.
- **Critical personal data:** Anything that the government at any time can deem critical, such as military or national security data.
- **Provides for Independent Regulator:** The Bill provides for a **Data Protection Authority**. It will consist of a **chairperson and six members**, with at least 10 years' expertise in the field of data protection and information technology.
- **Key functions:**
  - Take steps to protect interests of individuals,
  - Prevent misuse of personal data, and
  - Ensure compliance with the Bill.
- Orders of the Authority can be appealed to an Appellate Tribunal. Appeals from the Tribunal will go to the Supreme Court.
- **Sharing of non-personal data with government:** The central government may direct data fiduciaries to provide it with any-
  - Non-personal data and
  - Anonymized personal data (where it is not possible to identify data principal) for better targeting of services.

### PMGDISHA

#### Context

- Recently, Ministry of Electronics, Ministry for Electronics & IT (MeitY) launched the program of PMGDISHA Drive & Announcement of 100% Digital Literacy of all digital villages' under Azadi Ka Amrit Mahotsav.

#### Key points of PMGDISHA drive

- Under the campaign, a three-day certification communities will be conducted for the rural citizens especially women and disadvantaged.
- A certification drive for the PMGDISHA scheme will be conducted in a similar manner.
- Moreover, Common Service Center (CSC) also proposed to make all the Digital Villages 100 percent Digital Literate.

### Performance so far

- As on 02.08.2021, around crore beneficiaries have been enrolled and more than 4 crores have been trained under the PMGDISHA Scheme.
- So far, over 2.5 crore women beneficiaries have been registered which is 52 % of the cumulative registration count.
- Out of the above, over 1.78 Crore women beneficiaries are certified under the scheme which is 54 % of the total certified beneficiaries under the PMGDISHA Scheme.

### PMGDISHA

#### About

- The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) is a program under Digital India Programme to usher digital literacy in rural India.
- Under the scheme, 6 crore households in rural areas will be covered and will be made digitally literate by 31.03.2022.
- To ensure equitable geographical reach, each of the 2,50,000 Gram Panchayats across the country are envisaged to register an average of 200-300 candidates.

#### Eligibility

- The Scheme is applicable only for rural areas of the country.
- All such households where none of the family member is digitally literate will be considered as eligible household under the Scheme.
- Only one person per eligible household would be considered for training.
- All the members of the family in the age group of 14 - 60 years would be covered.
- Preference would be given to SC, ST, BPL, women, differently-abled persons and minorities
- The identification of the beneficiaries would be carried out by CSC-SPV (Special Purpose Vehicle) in active collaboration with DeGS (Delhi e-Government Society), Gram Panchayats, and Block Development Officers.

### Rail Kaushal Vikas Yojana

#### Context

- Recently, Indian Railways launched a Rail Kaushal Vikas Yojana to train 50000 youths of 75 railway institutes across the country.

### Key Points

- **About Rail Kaushal Vikas Yojana:** It is a skill development scheme of the Ministry of Railway with special focus on providing training for jobs that are relevant to the Railways.
  - It will be a sub-scheme under Pradhan Mantri Kaushal Vikas Yojana (PMKVY).
- **Key Features:**
  - It aims to train 50k youths in the next three years across the country in various industry-relevant (Railways) skills.
  - In the initial phase, training will be provided to 1,000 candidates initially in four trades – electrician, welder, machinist, and fitter, spread across 100 hours.
  - Training program in other trades will be added zonal railways and production units based on regional demands and needs assessment.
  - Government cautioned that the training under this scheme does not guarantee in the Railways.
  - **Fee for candidates:** Training will be provided free of cost.
- **Selection Procedure:** Participants will be selected from applications received online, following a transparent mechanism on the basis of marks in matriculation.
- **Eligibility Criteria:** Candidates, who had passed class X and aged between 18 and 35 are eligible to apply.
- **Dedicated Nodal Website:** Will act as a single source of information about the programs offered, notification inviting applications, lists of selected candidates, results of selection, final assessment, study material, and other details.
- **Certification:** After the end of the program, trainees have to pass standardized assessment followed by a certificate in the allotted trade by the National Rail and Transportation Institute.

### Significance

- Effective implementation of the scheme may lead to following benefits-
  - Improvement in the employability of the youth,
  - Upgrade the skills of self-employed and those who are working with contractors through re-skilling and up-skilling and
  - Contribute towards Skill India Mission.

## Ramon Magsaysay Award

### Context

- **Ramon Magsaysay Award 2021** was recently awarded to five recipients including a Bangladeshi vaccine scientist and a microfinance pioneer from Pakistan.
  - Dr. Firdausi Qadri (Bangladesh) was recognized for “her passion and life-long devotion to the scientific profession,”
- In 2019, Indian journalist Ravish Kumar was awarded the Ramon Magsaysay Award for “harnessing journalism to give voice to the voiceless”.

### Key Points

- **About:** The Ramon Magsaysay Award, Asia’s premier prize and highest honor, recognizes greatness of spirit shown in selfless service to the peoples of Asia.
  - The Ramon Magsaysay awards are regarded as Asia’s version of the Nobel Prize.
  - The Ramon Magsaysay Award was conceived to honor greatness of spirit shown in service to the peoples of Asia—regardless of race, gender, or religion.
- **Origin:** The Ramon Magsaysay Award was established in 1957. Since 1858, it has been annually given to the winners.
  - It is named after Ramon Magsaysay, former president of the Republic of the Philippines who died in a 1957 plane crash.
- **Ramon Magsaysay Award Foundation (RMAF):** It is responsible for awarding the **Ramon Magsaysay Award**.
  - **Selection:** The Ramon Magsaysay Awardees are annually selected by the **RMAF board of trustees**.
  - **Eligibility:** Asian individuals who have achieved excellence in their respective fields and have been known to help others generously without anticipating public recognition.
- **Content of the Award:** Awardees are presented with a certificate and a medallion with an embossed image of Ramon Magsaysay facing right in profile and cash prize.

### Categories

- From 1958 to 2008, the Ramon Magsaysay Award was annually given under six categories-
  1. **Government Service**
  2. **Public Service**
  3. **Community Leadership**

### 4. Journalism, Literature, and Creative Communication Arts

### 5. Peace and International Understanding

### 6. Emergent Leadership: It was inaugurated in 2000 and is supported by a grant from the Ford Foundation.

- It is given to recognize an individual, forty years of age or younger, for outstanding work on issues of social change in his or her community, but whose leadership may not yet be broadly recognized outside of this community.
- Starting in 2009, the Ramon Magsaysay Award is no longer being given in fixed Award categories, except for **Emergent Leadership**.

## Report on Reforms in Urban Planning Capacity in India

### Context

- NITI Aayog has recently launched a report on Reforms in Urban Planning Capacity in India to **ramp up urban planning** capacity in India.

### Reforms in Urban Planning Capacity: Why needed?

- **India is home to 11% of the total global urban population.** By 2027, India will surpass China as the most populous country in the world.
- Unplanned urbanization, however, **exerts great strain** on our cities.
- In fact, the Covid-19 pandemic has revealed the dire need for the planning and management of our cities.
- Urban planning is the **foundation for an integrated development** of cities, citizens, and the environment.
- Unfortunately, it has not received due attention so far. The existing urban planning and **governance framework is complex**, which often leads to ambiguity and lack of accountability.

### Key recommendations

- **Programmatic Intervention for Planning of Healthy Cities**
  - Every city must aspire to become a ‘Healthy City for All’ by 2030.
  - The report recommends a Central Sector Scheme ‘500 Healthy Cities Programme’, for a period of 5 years, wherein priority cities and towns would be selected jointly by the states and local bodies.

- **Programmatic Intervention for Optimum Utilization of Urban Land**

- All the cities and towns under the proposed 'Healthy Cities Programme' should strengthen development control regulations based on scientific evidence to maximize the efficiency of urban land.
- The report recommends a sub-scheme 'Preparation/Revision of Development Control Regulations' for this purpose.

- **Ramping Up of Human Resources**

To combat the shortage of urban planners in the public sector, the report recommends that the states/UTs may need to

- Expedite the filling up of vacant positions of town planners, and
- Additionally, sanction 8268 town planners' posts as lateral entry positions for a minimum period of 3 years and a maximum of 5 years to meet the gaps.

- **Ensuring Qualified Professionals for Undertaking Urban Planning**

- State town and country planning departments face an acute shortage of town planners.
- States may need to undertake requisite amendments in their recruitment rules to ensure the entry of qualified candidates into town-planning positions.

- **Re-engineering of Urban Governance**

- There is a need to bring in more institutional clarity and also multi-disciplinary expertise to solve urban challenges.
- The report recommends the constitution of a high-powered committee to re-engineer the present urban-planning governance structure.

- **Revision of Town and Country Planning Acts**

- Most States have enacted the Town and Country Planning Acts, that enable them to prepare and notify master plans for implementation. However, many need to be reviewed and upgraded.
- Therefore, the formation of an apex committee at the state level is recommended to undertake a regular review of planning legislations.

- **Demystifying Planning and Involving Citizens**

- While it is important to maintain the master plans' technical rigour, it is equally important to demystify them for enabling citizens' participation at relevant stages.
- Therefore, the committee strongly recommends a 'Citizen Outreach Campaign' for demystifying urban planning.

- **Steps for Enhancing the Role of Private Sector**

- The report recommends that concerted measures must be taken at multiple levels to strengthen the role of the private sector to improve the overall planning capacity in the country.

- **Steps for Strengthening Urban Planning Education System**

- The Central universities and technical institutions in all the other States/UTs are encouraged to offer postgraduate degree programmes (MTech Planning) to cater to the requirement of planners in the country in a phased manner.

- **Measures for Strengthening Human Resource and Match Demand-Supply**

- The report recommends the constitution of a 'National Council of Town and Country Planners' as a statutory body of the Government of India.
- Also, a 'National Digital Platform of Town and Country Planners' is suggested to be created within the National Urban Innovation Stack of MoHUA (Ministry of Housing and Urban Affairs).
- This portal will enable self-registration of all planners and evolve as a marketplace for potential employers and urban planners.

## Right to Sit

### Context

- Recently, the **Tamil Nadu** government has tabled a bill, which makes it mandatory for business establishments to provide **seating arrangements for their employees**, who stand for long hours — particularly those working in textile and jewellery showrooms.



### Key points

- If passed, Tamil Nadu would be the **second state after Kerala** to legalise the 'right to sit' at the workplace.
- This new Bill is meant for thousands of employees, especially women, attached to the retail sector.
- According to the Bill, the premises of every establishment shall have suitable seating arrangements for all employees so that they may take advantage of any opportunity to sit which may occur in the course of their work and thereby avoid 'on their toes' situation throughout the working hours.

### Need for the Bill

- People employed in shops and similar establishments are **made to stand for long hours** that lead to various health issues.
- Some shop owners are so harsh that they **forbid even leaning against the wall**.
- The Bill would guarantee that the workers in these establishments **avoid 'on their toes' situation throughout** the working hours.

### Kerala's right to sit

- In 2010, **saleswomen and female cleaners** and sweepers in retail establishments in Kozhikode, Kerala came together under the leadership of the Asangatitha Meghala Thozhilali Union (AMTU) to demand toilet facilities.
- **AMTU became the first all-women trade union** that focuses on workers in the unorganised sector in Kerala.
- Then in 2014, AMTU has sent representations to the state government and the Kerala State Women's Commission, demanding **better working conditions**, including the right for salespersons in shops to sit.
- In 2016, the National Human Rights Commission (NHRC) issued a notice to the Kerala government on the **poor working conditions of women** at textile shops in the state.
- The **Kerala Shops and Commercial Establishments (Amendment) Act, 2018**, was passed in December 2018, guaranteeing improved working conditions in commercial shops.

### Significance

- These steps are in line with **Article 42** of India constitution, which states that State shall make provisions for securing just and humane conditions of work.

- These provisions ensures that the shop owners are not exploiting the workers at their own will, and work in a **regulated environment**.

### Road Accidents in India - NCRB Report 2020

#### NCRB Report 2020

- Recently released the National Crime Records Bureau (NCRB) Report 2020 shows that India recorded 1.2 lakh cases of "deaths due to negligence relating to road accidents" in 2020.
  - The National Crime Records Bureau (NCRB) released its annual report named 'Crime India' report for 2020.

#### Key Findings

- **Daily Casualty:** NCRB Report finds that 328 persons lose their lives every day on an average, despite the COVID-19 lockdown.
- **Deaths due to Road Accidents:** While 1.2 lakh deaths due to road accidents were recorded in 2020, the figures stood at 1.36 lakh in 2019 and 1.35 lakh in 2018.
  - As many as 3.92 lakh lives have been lost in three years in deaths due to negligence related to road accidents.
- **Hit and Run Cases:** NCRB Report reveals that the country logged 1.35 lakh cases of "hit and run" since 2018.
  - On an average, there were 112 cases of "hit and run" reported across the country every day in the past year.
- **State-wise:** Uttar Pradesh continues to top the list in road accidents in 2020 followed by Madhya Pradesh and Karnataka.
- **Death due to Negligence:**
  - **Due to Rail Accidents-** As many as 52 cases of deaths due to negligence relating to rail accidents were recorded across the country in 2020 from 55 in 2019 and 35 in 2018.
  - **Due to Medical Negligence:** India also logged 133 cases of "deaths due to medical negligence in 2020.
  - **Due to Negligence of civic bodies:** There were 51 cases of "deaths due to negligence of civic bodies" in 2020.
  - **Death due to 'Other Negligence':** 6,367 cases of "deaths due to other negligence" were reported across the country in 2020; 7,912 cases in 2019 and 8,687 in 2018.

## Shikshak Parv 2021

### Context

- Shikshak Parv is being organised by the **Ministry of Education** from 7<sup>th</sup> to 17<sup>th</sup> September 2021 to **recognise the contributions of teachers** and take steps to implement the National Education Policy.
- Recently, Prime Minister addressed the inaugural conclave of Shikshak Parv.

### Key initiatives launched

- **Indian Sign Language Dictionary**
  - Audio and text embedded sign language video for the hearing impaired, in conformity with Universal Design of Learning.
- **Talking Books**
  - Audiobooks for the visually impaired people.
- **School Quality Assurance and Assessment Framework** of CBSE
  - It would address the deficiency of the absence of a common scientific framework for dimensions like curricula, pedagogy, assessment, infrastructure, inclusive practices and governance process.
  - SQAAF will help in bridging this inequality.
- **NISHTHA teachers' training programme for NIPUN Bharat**
  - NISHTHA is a capacity building programme for improving quality of school education through integrated teacher training.
  - NIPUN was launched for ensuring that every child in the country necessarily attains foundational literacy and numeracy (FLN) by the end of Grade 3, by 2026-27.
- **Vidyanjali portal:**
  - For facilitating education volunteers/ donors/ CSR contributors for school development.
  - Under this, private sector come forward and contribute to increasing the quality of education in government schools.
- **National Digital Architecture**
- N-DEAR will act as a 'super-connect' between various academic activities in the same way as UPI interface revolutionized the banking sector.
- It is likely to play a major role in eradicating inequality in education and its modernization.

### Other recent initiatives

- Government has launched Samara Shiksha Scheme 2.0 is an integrated scheme for school education covering the entire gamut from pre-school to class XII.

- Recently, government has various programs on the occasion of the first anniversary of National Education Policy.

## State Food Safety Index 2021

### Context

- Recently, Union Minister for Health and Family Welfare released Food Safety and Standards Authority of India (FSSAI)'s 3rd State Food Safety Index (SFSI) to measure the performance of States across five parameters of food safety.
  - 19 Mobile Food Testing Vans (Food Safety on Wheels) have also been flagged off to supplement the food safety ecosystem across the country.

### Key Points

- **About: Food Safety and Standards Authority of India (FSSAI)** has developed State Food Safety Index to measure the performance of states on various parameters of Food Safety.
  - The first State Food Safety Index for the year 2018-19 was announced on the first-ever World Food Safety Day on 7th June 2019.
- **Key Objective:** to galvanize States to work towards ensuring safe food for citizens.
- **Parameters used for Ranking:** State Food Safety Index is based on performance of State/Union Territory (UT) on the following five significant parameters-
  1. Human Resources and Institutional Data,
  2. Compliance,
  3. Food Testing – Infrastructure and Surveillance,
  4. Training & Capacity Building and
  5. Consumer Empowerment.
- **Significance of the State Food Safety Index:** It is a dynamic quantitative and qualitative benchmarking model that provides an objective framework for evaluating food safety across all States/UTs.

### Key Findings

- It is the 3<sup>rd</sup> State food safety index developed by FSSAI.
- Ranking of States/UTs:
  - **Among Big States:** Gujarat was the top-ranking state, followed by Kerala and Tamil Nadu.
  - **Among Small States:** Goa was the top-ranking state followed by Meghalaya and Manipur.
  - **Among UTs:** Jammu & Kashmir, Andaman & Nicobar Islands and New Delhi secured top ranks.

## Swachh Survekshan Grameen 2021

### Context

- Recently, Swachh Sarvekshan Gramin 2021 was launched by **Ministry of Jal Shakti** under the **Swachh Bharat (SBM) Mission Phase- 2** as a part of the 'Azadi ka Amrit Mahotsav'.

### Key points

- The Department of Drinking Water and Sanitation (DDWS) will undertake Swachh Survekshan Grameen 2021 countrywide to support acceleration of **ODF Plus interventions**.

### About Swachh Survekshan Grameen

- It aims to increase momentum for improving ODF Sustainability as well as **Solid and Liquid Waste Management (SLWM)** activities across the villages in the country.
- DDWS had commissioned Swachh Survekshan Grameen (SSG) on two occasions earlier in **2018 and 2019**.
- A detailed protocol has been developed to guide the ranking of districts based on their performance on **key quality and quantitative parameters**.
- SSG is not just a ranking exercise but has been a vehicle for **creating a Jan Andolan** (people's movement).

### Swachh Survekshan Grameen 2021 coverage

- The Survekshan 2021 will be conducted by an independent expert agency across **17,475 villages in 698 districts of the country**.
- As part of the Survekshan, villages, districts and states would be ranked using key parameters.
- 87,250 public places** namely schools, anganwadis, public health centres, haat/bazaars/religious places in these villages will be visited for survey.
- Around **1,74,750 households** will be interviewed for their feedback on SBM related issues.
- Moreover, citizens will be mobilised to provide **feedback on sanitation** related issues online using an application developed for the purpose.

### Weights of different parameters

- Direct observation** of sanitation at public places: 30%
- Citizen's feedback** using a mobile App: 35%
- Service level progress** on sanitation related parameters: 35%

## The End of the Ease of Doing Business Rankings

### Context

- Recently World Bank informed it had paused the next Doing Business report and initiated a series of reviews and audits of the report and its methodology.
- World Bank also informed that it will be working on a new approach to assessing the business and investment climate.

### Reasons for discontinuation

- Ease of Doing Business Rankings were paused as World Bank found data irregularities on Doing Business 2018 and 2020 which were reported internally in June 2020.
- Ethical Issues:** Distortion of data in the internal reports raised ethical matters, including the conduct of former Board officials as well as current and/or former Bank staff, leading to this decision of World Bank.

### Key Points

- Background:** Ease of Doing Business Report was introduced by the World Bank in 2003.
- Objective:** to provide an assessment of objective measures of business regulations and their enforcement across 190 economies.
- Parameters used for Ranking:** Ease of Doing Business Report used the following ten parameters-
  - Starting a Business,
  - Dealing with Construction permits,
  - Electricity availability,
  - Property registration,
  - Credit availability,
  - Protecting minority Investors,
  - Paying Taxes,
  - Trading across borders,
  - Contracts enforcement, and
  - Resolving Insolvency.
- Significance of Ease of Doing Business Report:**
  - Informs the actions of policymakers,
  - Helps countries make better-informed decisions, and
  - Allows stakeholders to measure economic and social improvements more accurately
  - Acts as a valuable tool for the private sector, civil society, academia, journalists, and others, broadening understanding of global issues.

### India's Performance

- India showed most notable improvement in 2017, 2018 and 2019 Ease of Doing Business Ranking.
  - India's 2017 Ranking- 100<sup>th</sup> Rank
  - India's 2018 Ranking- Placed at 77<sup>th</sup> Position
  - India's 2019 Ranking (most recent)- Secured 63<sup>rd</sup> Ranking
- India's ranking in the Ease of Doing Business Report basically depended on the performance of only two cities- Delhi and Mumbai.
  - Weightage of Mumbai- 47%
  - Weightage of Delhi- 53%

### The World University Rankings

#### Context

- Recently, The **Times Higher Education (THE)** released the World University Rankings 2022.

#### About the ranking

- The ranking includes **1,600 universities across 99 countries** and territories.
- It is based on **13 indicators** that measure **four broad areas**: Teaching, research, knowledge transfer and international outlook.

#### Key points

- The **University of Oxford**, United Kingdom continues to be the top-ranked university in the world for the sixth consecutive year.
- The **top 20 ranks** were dominated by the **United States universities**.
- The **top 200 ranks** were dominated by **4 countries**—United States, United Kingdom, Germany and Australia.
- Rise of Chinese university**: A decade ago, there were 3 universities in the ranking while today the country has 10 universities in top 200.

#### Top 10 universities in the world

Rank	University	Country
1	University of Oxford	United Kingdom (UK)
=2	California Institute of Technology	United States of America (USA)
=2	Harvard University	United States of America (USA)
4	Stanford University	United States of America (USA)
=5	University of Cambridge	United Kingdom (UK)

=5	Massachusetts Institute of Technology	United States of America (USA)
7	Princeton University	United States of America (USA)
8	University of California, Berkeley	United States of America (USA)
9	Yale University	United States of America (USA)
10	The University of Chicago	United States of America (USA)

#### The World University Rankings 2021 India

- No Indian university is in the top 200**, IISc Bengaluru continues to be the highest-ranked Indian institution in the top 350.
- A record **71 institutes have qualified** for this year's rankings

#### Boycott of THE ranking by the Indian universities

- IITs in Mumbai, Delhi, Kanpur, Guwahati, Madras, Roorkee and Kharagpur have **not participated in the THE global rankings**.
- The institutes announced their **boycott in April 2020**, citing concerns over transparency after none of them found a place among the world's best 300 universities.

#### Reasons for the boycott

- IITs objected to the THE for allowing participating institutions to use **collaborative research projects** to increase their score on the citation metric.
  - Such research papers have high citation by virtue of multiple authors associated with it.
  - Hence, an institution that is part of such a project ends up having a **disproportionate advantage over others** because of one paper that is cited multiple times globally



## International Relations

### 13th BRICS Summit 2021

#### Context

- Recently, the 13th BRICS summit 2021 was held virtually under the chairmanship of India. Prime Minister of India chaired the 13th BRICS summit 2021 virtual meeting.
- **The 13th BRICS summit 2021** was dominated by the developments in Afghanistan, and adopted the BRICS Counter Terrorism Action Plan.
- **The 'New Delhi Declaration'**, was adopted by the BRICS Leaders which is an outcome document of the 13th BRICS summit.

#### Key Points

- It will be the third time that India will be hosting the BRICS Summit after 2012 and 2016.
- **Theme of the 13th BRICS Summit:** 'BRICS@15: Intra-BRICS cooperation for continuity, consolidation and consensus.'
- **Chairmanship:** India is chairing the 13th BRICS Summit 2021, which also coincides with the fifteenth anniversary of BRICS, as reflected in the theme for the Summit.
- **Priority Areas highlighted by India:** India had outlined four priority areas for its Chairmanship. These are Reform of the-
  1. Multilateral System.
  2. Counter Terrorism.
  3. Using Digital and Technological Tools for achieving SDGs.
  4. Enhancing People to People exchanges.

#### Key Outcomes

- **On Afghanistan Issue:**
  - The BRICS leaders called for fostering an **inclusive intra-Afghan dialogue** so as to ensure **stability, civil peace, law and order in the country.**
  - Highlighted the priority of fighting terrorism, including preventing attempts by terrorist organizations to use Afghan territory as terrorist sanctuary and to carry out attacks against other countries.
  - Called for addressing the humanitarian situation in Afghanistan and urged the need to uphold rights of women, children and minorities.
  - BRICS countries were divided on the issue of engagement with the Taliban with Russia and China adopting a proactive policy on the issue.

- The summit emphasized the importance of the principle of "non-interference" in international affairs and said disputes and conflicts should be resolved by peaceful means.
- **Adoption of BRICS Counter Terrorism Action Plan:** New Delhi Declaration also adopted the BRICS Counter Terrorism Action Plan during the summit.
- **Key Objectives of BRICS Counter Terrorism Action Plan:** To ensure cooperation between BRICS countries in areas such as-
  - Preventing and combating terrorism,
  - Radicalization,
  - Financing of terrorism,
  - Misuse of the internet by terrorists,
  - Curbing travel of terrorists, b
  - Border control,
  - Protection of soft targets,
  - Information sharing, capacity building,
  - International and regional cooperation.
- **On Countering COVID-19:** The 13th BRICS Summit also discussed the COVID-19 pandemic and the strategy to strengthen counter-pandemic cooperation and multilateral reform.
  - The New Delhi Declaration **called against playing politics** with the pandemic and the COVID-19 virus and urged for a global effort to eradicate the virus.
- **Cooperation in Space Sector:** The summit resulted in an agreement on Remote Sensing Satellite Constellation between the member country space agencies which will deepen the cooperation in the space sector.
- **On conflicts in other countries:** The BRICS leaders also took up the conflicts in Myanmar, Syria, the tension in the Korean peninsula, Israel-Palestine violence and other territorial disputes.
- **On Reforming United Nations:** The summit called for reform of the UN Security Council and urged to "revitalize" of the UN General Assembly.

### AUKUS Security Partnership

#### AUKUS Security Partnership

- Recently, the USA government has announced a new trilateral security partnership for the Indo-Pacific, between Australia, the U.K. and the U.S. (AUKUS).
- As part of this, Australia will acquire nuclear-powered submarines with help from the U.K. and the U.S.

## Key Points

- **About AUKUS:** It is a trilateral Security Alliance of USA, UK and Australia which will focus on advancing strategic interests in the Indo-Pacific region.
  - USA denied the allegation that it is forming this security alliance in order to contain and counter China growing influence and aggression in the Indo-Pacific Region, especially in South China Sea.
- **Official Mandate:** Grouping said that the 'AUKUS' partnership will work to protect our people and support a peaceful and rules-based international order.
  - AUKUS will foster deeper integration of security and defence-related science, technology, industrial bases and supply chains.
- **Nuclear powered submarines to Australia:** The AUKUS grouping has decided to share Nuclear Submarine Technology with the Australia in the coming future with an aim to enhance nuclear capability of Australia in the Indo-Pacific region.
  - Only prior instance when USA shared its nuclear submarine defense submarine technology with a country is Great Britain in 1958.
  - This makes it very significant step in terms of upping the ante in the Indo-Pacific region.
  - With this, now Australia is all set to join an elite group of only six countries – India, the US, the UK, France, Russia and China – that operate nuclear-powered submarines.

## Significance of the AUKUS Security Partnership

- **Strengthening Five Eye Alliance:** The agreement reflects the unique level of trust and cooperation between the three countries, who already share extensive intelligence through the Five Eyes alliance.
  - **Five Eyes Alliance:** It is an intelligence-sharing arrangement between five English-speaking democracies: the US, UK, Canada, Australia and New Zealand.
    - The alliance was formed in the backdrop of cold war and considered as the world's most successful intelligence alliance.
- **Countering Chinese Aggression:** The AUKUS grouping will complement the existing QUAD grouping in countering the increasing influence and aggression of China in the Indo-Pacific region.
- Quad is a grouping of India, USA, Australia and Japan.

## Build Back Better World (B3W)

### Context

- Recently, US officials have decided to tour Latin America to scout infrastructure projects, through an initiative named Build Back Better World.

### Key points

- The group has been tasked with turning Build Back Better World (B3W) into reality.
- The program is focused on areas including climate, health, digital technology and gender equality.
- A formal US B3W launch event is planned for early next year that will include details of some initial projects aimed at narrowing the \$40 trillion needed by developing nations by 2035.
- It is not yet decided how much capital the program will ultimately allocate.

### About Build Back Better World initiative

- It is an international infrastructure investment initiative announced in June 2021 by the G7 countries—Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.
- It is a values-driven, market-led, high-standard, and transparent infrastructure partnership to help narrow the \$40+ trillion infrastructure gap in the developing world by 2035.
- It aims to mobilize bilateral and multilateral as well as private-sector capital for investment in climate, health and health security, modernized digital technology, gender equity, and equality.
- The B3W is intended to be global in scope and to cover low- and middle-income countries.
- The B3W is an elaboration of the Blue Dot Network (BDN) in which the US joined forces with Japan and Australia while remaining open to other partners' participation.
- The B3W has brought together the G7 countries and also has extended invitations to join to other democracies, including India, Australia, South Korea.

### B3W and BRI: Rival or complementary?

- Although the B3W does not explicitly refer to the BRI, many experts believe that the new US-led initiative is intended to be an alternative grand infrastructure plan for developing nations to that of China's Belt and Road Initiative (BRI).
- The BRI comprises a framework of economic and trade relations between China and dozens of countries.

- It targets new export markets abroad, aims to guarantee Beijing's energy security, and seeks to enhance cross-continental connectivity and foster integration between China and Europe.
- Like the BRI, the B3W aims to forge cross-national and regional cooperation between the countries involved while facilitating large-scale projects in the developing world.
- However, the B3W has yet to evolve from the vision into a concrete plan.
- Even when B3W comes into reality, the aims of both the initiatives are different.
- China's BRI is primarily focused on traditional hard infrastructure: ports, roads, dams, railways, electric power plants, and telecommunication facilities.
- In comparison, the B3W focuses on "softer" outcomes, namely improvements in climate, health and health security, modernized digital technology, and gender equity and equality.

### China's first rail road link to Indian Ocean

#### Context

- Recently, China has opened a **new rail line linking Chengdu (China) with India Ocean** via **Yangon port (Myanmar)**.

#### Key points

- It is an important development as this trade corridor is **China's first mission to link western China with the Indian Ocean**.
- The **first shipments on this newly-launched railway line** from the Myanmar border to the key commercial hub of Chengdu in western China were delivered recently.

#### About the trade corridor

- The transport corridor involves a **sea-road-rail link**.
  - Goods from Singapore reached **Yangon Port**, arriving by ship through the Andaman Sea of the north-eastern Indian Ocean.
  - The goods were then transported by **road to Lincang** on the Chinese side of the Myanmar-China border in Yunnan province.
- The new **railway line** that runs from the border town of Lincang to Chengdu completes the corridor.
- Transportation time on the railway line from the Myanmar border to Chengdu takes **three days**.
- It is expected to become the **lifeblood of international trade** for China and Myanmar, while providing a source of income for Myanmar's military regime

- It is a **one-way route** and **saves around 20-22 days journey**.
- China also has plans to develop **another port in Kyaukphyu** in the Rakhine state, including a proposed railway line from Yunnan directly to the port.
  - Here, however, the progress there has been **stalled by unrest in Myanmar**.

#### Gwadar port

- **Gwadar port** in Pakistan is another **key outlet to the Indian Ocean** for China that **bypasses the Malacca Straits**.
- Gwadar is being developed as part of the **China Pakistan Economic Corridor (CPEC)** to the far western Xinjiang region.
- It too suffers from **slow progress** amid concerns over security.
- The costs and logistics through CPEC are **less favourable than the Myanmar route** with the opening of the rail transport channel from the Myanmar border right to western China's biggest commercial hub, Chengdu.

#### Implication

- The project emboldens the **string of pearls policy** by China to contain India.
- Moreover, increasing Chinese presence in Indian Ocean is considered as a message to the Indian counterparts to **stay away from the South China Sea** and remain **cautious about the future of the QUAD**.

### Eastern Economic Forum 2021

#### Context

- Our Prime Minister delivered a video-address during the plenary session of the 6th Eastern Economic Forum (EEF) held recently in Vladivostok, Russia.

#### Key points

- He applauded President Putin's vision for the development of the Russian Far East, and reiterated India's commitment as part of its "Act East Policy" of being a reliable partner of Russia in this regard.
- He also stressed on the importance of greater economic and commercial engagement between the two sides in line with the 'Special and Privileged Strategic Partnership'.

## Eastern Economic Forum

- Eastern Economic Forum is an international forum held each year in Vladivostok, Russia, for the purpose of encouraging foreign investment in the Russian Far East.
- It was established by the decree of the President of the Russian Federation in 2015.
- The Eastern Economic Forum is an international platform aiming to foster communication and cooperation between members of the business community, political figures, experts, and journalists from Russia and the Asia-Pacific region.
- The Forum business programme includes a number of business dialogues with leading partner countries in the Asia-Pacific region, and with ASEAN, a key integration organization uniting dynamically developing nations in Southeast Asia.
- This year the EEF will host the following exhibitions
  - Exhibition of the Ministry for Development of the Russian Far East and Arctic
  - 'Welcome to the Far East' exhibition
  - Exhibitions of paintings by artists from the Far East.
  - EEF 2021 partner networking areas.
  - Historical industry exhibitions including photography and other media; photography exhibitions from EEF 2021 exhibitors.

## What is Far East region?

- The Russian Far East is a region in Northeast Asia.
- It is the easternmost part of Russia, and is administered as part of the Far Eastern Federal District, which is located between Lake Baikal and the Pacific Ocean.
- It shares land borders with Mongolia, China, and North Korea to its south, as well as maritime boundaries with Japan to its southeast, and with the United States along the Bering Strait to its northeast.

## Sri Lanka Economic Emergency

### Context

- Sri Lanka has declared an **economic emergency**, to **contain the rising inflation** after the country faced a steep fall in the value of its currency.

### How the government aims to control inflation

- The administration will now **take control of the supply of basic food items**, including rice and sugar, and set prices to control rising inflation.
- The government will take steps to **provide essential food items at a concessionary rate to the public** by purchasing stocks of essential food items.

## Why the step?

- **Surge in the cost of basic foodstuffs** such as sugar, onions and potatoes.
- **Long queues outside shops** due to shortages of other goods including milk powder, kerosene and cooking gas.
- Notably, the **Sri Lankan rupee has fallen by 7.5%** against the US dollar this year.
- According to the country's bank data, **Sri Lanka's foreign reserves fell to \$2.8 billion** at the end of July, from \$7.5 billion in November 2019.
- The wide-ranging measure is also aimed at recovering **credit owed to State banks** by importers.

## Reasons for Sri Lanka economic crisis

- The government said that **increase in the foreign exchange rate** is one of the reasons behind rising prices of many essential items.
- **Month-on-month inflation rose to 6%** in August, mainly due to high food prices.
- Sri Lanka economy is a net importer of food and other commodities. In such a situation, **surge in coronavirus cases and deaths has hit tourism**, which is one of the country's main foreign currency earners.
- Partly as a result of the slump in tourist numbers, Sri Lanka's **economy shrank by a record 3.6% last year**.

## Steps taken by the government

- In March last year, the government imposed an **import ban on vehicles and other items** as it tried to stem the outflow of foreign currencies.
- Earlier this month, Sri Lanka became the **first country in the region to raise interest rates** in an attempt to shore up its currency and help ease the inflationary pressure of the high cost of imports.

## G-20 Agriculture Meeting

### Context

- Recently, Union Minister Shri Narendra Singh Tomar participated in G-20 Agriculture Meeting 2021 where he presented the **progress of Indian agriculture**.

### Key points

- The theme of this session was **"Working together to achieve the Zero Hunger goal: successful projects implemented by the Ministries of Agriculture"**.

### Millet promotion

- He emphasised on the steps taken by the Government of India in re-introducing the **traditional food items including millet**, other nutritious cereals, fruits and vegetables, fish, dairy and organic products in the diet of the people.
- Their production has been phenomenal in India in recent years and India is becoming a **destination country for healthy food items**.
- The United Nations has accepted the proposal of the Government of India and declared the year **2023 as the International Year of Millets**.

### Resilience of Indian agriculture

- The Indian agriculture sector **remained unaffected** even during the COVID pandemic.
- Various initiatives of the Government of India have **kept the Agri-market dynamic**.
- **Agri-input supply chain** during COVID have helped the agriculture sector perform better.
- During the year 2020-2021, along with increase in the production of food grains, there has been a significant **increase in exports**.

### Biofortification

- **Biofortified-varieties** of various crops are the source of staple diet rich in micronutrients.
- **17 such varieties** of different crops are being promoted to remove malnutrition.

### Water-use efficiency

- The government has taken steps to increase the **optimal use of water resources**, create infrastructure for irrigation, conserve soil fertility with balanced use of fertilizers, and provide connectivity from farms to markets.

### PM-KISAN

- He informed that under the **Pradhan Mantri Kisan Samman Nidhi Yojana** (PM-KISAN), the government is providing income support of Rs.6,000 per year to small farmers.
- So far, Rs 1.58 lakh crore has been deposited in the bank accounts of more than 11.37 crore farmers under this scheme.

### Sustainable agriculture

- The **'Per Drop- More Crop'** scheme for irrigation and **'Paramparagat Krishi Vikas Yojana'** for organic farming is being successfully implemented.

### Crop insurance

- **Unfavourable weather** affects the production and income of the farmers, in such a situation, the Government of India has implemented the **Pradhan Mantri Fasal Bima Yojana** to provide insurance cover for the farmers.

### Address Malnutrition

- To address the malnutrition problem, India is running the **world's largest food-based safety** net program, which includes the Public Distribution System and the Mid-Day Meal Scheme.
- He iterated India's resolve to continue working together to achieve the **'Poverty Reduction'** and **'Zero Hunger Goal'**.

## India-Australia 2+2 Meeting

### Context

- The first-ever 2-2 Ministerial Dialogue between India and Australia is currently underway.

### What is 2+2 ministerial dialogue?

- 2+2 Ministerial is the highest-level institutional mechanism between the two countries.
- In this format of dialogue, the defence or foreign ministers or secretaries meet with their counterparts from another country.
- India held such dialogue Japan and the USA in the past. It is the first time the decision to hold 2+2 dialogue with Australia is taken.
- A similar decision was taken for Russia but no dates have been announced so far.

### Current India-Australia relations

- The relationship between India and Australia is at a historic high.
- In June 2020, during the virtual summit between the country head of India and Australia, our bilateral relations were elevated to a 'Comprehensive Strategic Partnership'.
- Australia is a key partner in the Quad initiative as well as in the Indo-Pacific.
- It is also a partner in trilateral constructs like India-Australia-Indonesia and India-Australia-France, besides the ASEAN-led forums.
- Multiple treaties:
  - Civil Nuclear Cooperation Agreement signed in 2014,
  - Technical Agreement on White Shipping Information Exchange signed in 2015,
  - An arrangement concerning mutual logistics support agreed on in 2020,
  - Military exercises like AUSINDEX and multilateral ones such as Malabar.

- Australia is a member of a small like-minded group of NSG members, which have been consistently supporting India's admission to the Nuclear Suppliers Group.
- In the context of Covid, India, Australia and Japan have launched the Supply Chain Resilience Initiative (SCRI) to diversify and secure supply chains, and to counter Chinese dependence.

### Why is Australia important for India?

- Australia is a resource powerhouse and has large deposits of several types of critical minerals.
- Moreover, Australia is a major educational destination for Indian students, who currently number over 100,000.
- To deal with Chinese hegemony in Indian Ocean.

## India US Strategic Clean Energy Partnership (SCEP)

### Context

- Recently, Ministry of Petroleum and Natural Gas and the U.S. Secretary of Energy launched the **revamped U.S.-India Strategic Clean Energy Partnership (SCEP)**.

### Key points

- The SCEP was launched in accordance with the U.S.-India Climate and Clean Energy Agenda 2030 Partnership announced by both the countries at the **Leaders' Summit on Climate** held in April this year.

### Biofuels

- A new **India-U.S. Task Force on Biofuels** to build on the scope of work on cooperation in biofuels sector.
- With this, the SCEP inter-governmental engagement now spreads across **five pillars of cooperation** – Power and Energy Efficiency, Responsible Oil and Gas, Renewable Energy, Sustainable Growth and Emerging Fuels.

### Revamped Clean Energy partnership

- The **revamped clean energy partnership** will intensify the efforts from both sides to take advantage of the complementarities that exist between the U.S. and India.
- The **advanced U.S. technologies** and rapidly growing **India's energy market** will create a win-win situation through a cleaner energy route with low carbon pathways.
- After the revamp, there would be considerable emphasis on **upscaling cooperation under the renewable energy pillar** by working on several projects and system-friendly practices in India's renewable energy sector.
- US has offered to closely collaborate in realisation of **renewable energy target of 450 GW** by 2030 target by India.

### Gas-based economy

- Gas Task Force to India-U.S. Low Emissions **Gas Task Force** was announced to forge collaboration between the U.S. and Indian companies on innovative projects to support India's vision of a **gas-based economy**.

### India energy modelling forum

- Both sides have initiated institutionalisation of **India Energy Modelling Forum** with the constitution of **Six Task Forces** for carrying out research and modelling in different areas.

### PACE-R initiative

- Both sides agreed to expand the scope of the work to include smart grid and grid storage as part of the second phase of the **Partnership to Advance Clean Energy (PACE)-R** initiative.

## USA-India Defense Technology & Trade Initiative

### Context

- Recently, India and the United States had signed a Project Agreement (PA) for Air-Launched Unmanned Aerial Vehicle (ALUAV) under the ambit of the Defence Technology and Trade Initiative (DTTI).
- The Project Agreement (PA) was signed between the Ministry of Defence (MoD) and U.S. Department of Defence (DoD).
- The PA for the ALUAV fell under the Research, Development, Testing and Evaluation Memorandum of Agreement between MoD and U.S. DoD, which was first signed in January 2006 and renewed in January 2015.



## Key Points

- **Origin of Defense Technology & Trade Initiative:** The DTTI was announced in 2012 as an ambitious initiative for co-production and co-development of military systems.
- **About Defense Technology & Trade Initiative:** It is not a treaty or a law. It is basically a defense strategy to facilitate the development of defense technology by reducing bureaucratic processes and legal requirements in all possible ways.
  - it is a flexible mechanism to make sure that senior leaders from both countries are engaged consistently to strengthen the opportunities in the field of defence.
- **Key Aim of Defense Technology & Trade Initiative:** to bring sustained leadership focus to promote collaborative technology exchange and create opportunities for co-production and co-development of future technologies for Indian and U.S. military forces.
- **Progress so far:** Under the DTTI, Joint Working Groups on land, naval, air, and aircraft carrier technologies have been established for focus on mutually agreed projects in respective domains.

## Potential of Defense Technology & Trade Initiative (DTTI)

- It has potential to help US and India transform the bilateral defence relationship.
- Collaborative Approach (**instead of just a buyer-seller relationship**) under the **Defense Technology & Trade Initiative** can strengthen India's **defense industrial base**.
- Focus on advanced technologies the Defense Technology & Trade Initiative can lead to cooperation and collaboration in the field of Science and Technology.
- Collaboration under Defense Technology & Trade Initiative have potential to expand business ties between India and the USA.

## Reciprocal Exchange of Logistics Agreement (RELOS)

### Context

- India is expected to conclude the bilateral logistics agreement named the **Reciprocal Exchange of Logistics Agreement (RELOS)** with Russia soon.

### About Logistics Agreements

- The Logistic agreements are administrative arrangements facilitating access to military facilities for exchange of fuel and provisions on mutual agreement simplifying logistical support and

increasing operational turnaround of the military when operating away from India.

- India has signed several logistics agreements with all Quad countries, France, Singapore and South Korea beginning with the Logistics Exchange Memorandum of Agreement (LEMOA) with the U.S. in 2016.

### Potential Benefits

- The Indian Navy will be the biggest beneficiary of these administrative arrangements, improving operational turnaround and increasing interoperability on the high seas.
  - The air force too will benefit by finding it easier to deploy aircraft for the same purpose.
- **Reciprocal Exchange of Logistics Agreement** will provide India access to Russian facilities in the Arctic region which is seeing increased global activity as new shipping routes open up and India's own investments in the Russian Far East.
- **It will also boost already flourishing defense cooperation. Recent engagements include-**
  - **INDRA-NAVY 2021** in July and **INDRA-ARMY 2021** in August,
  - A contingent of 200 troops from the Army's 3 Naga Regiment are currently in Russia for **ZAPAD multinational exercise**.
  - 200 soldiers from the Sikh LI Regiment will be in Russia for another multinational **exercise Peace Mission**.
- Russia will also be able to access Indian ports and air bases.
- Both India and Russia are in talk for expanding cooperation in Central Asia and the "possibility of supplementing bilateral exercises with trilateral and multilateral ones".

## United Nations General Assembly (UNGA)- About, Composition and Key Functions

### Context

- The 76th session of the UN General Assembly opened on 14 September 2021. On that day, Abdulla Shahid of the Maldives, was sworn in as the General Assembly President.
  - The General Debate will take place between 21-27 September 2021.
- Prime Minister of India launched a defence of the state of democracy in India at the United Nations General Assembly while terming India the "mother of all democracies".

### Key Points

- **About:** Established in 1945 under the Charter of the United Nations, the UN General Assembly occupies a central position as the chief deliberative, policymaking and representative organ of the United Nations.
  - The UNGA is headed by its President, who is elected for a term of one year.
- **Composition:** It comprises of all 193 Members of the United Nations.
- **Mandate:** provides a unique forum for multilateral discussion of the full spectrum of international issues covered by the Charter.
  - It also plays a significant role in the process of standard-setting and the codification of international law.

### Decision making

- Each of the 193 Member States of the United Nations has an equal vote. It makes following key decisions for the UN –
  - Appointing the Secretary-General on the recommendation of the Security Council
  - Electing the non-permanent members of the Security Council
  - Approving the UN budget
- The Assembly meets in regular sessions from September to December each year, and thereafter as required. It discusses specific issues through dedicated agenda items or sub-items, which lead to the adoption of resolutions.
- **Decisions by voting:** Generally, a simple majority is considered but in case of important decisions, a two-thirds majority is considered. Each member has one vote.
  - **Unlike UN Security Council (UNSC), no member state enjoys veto in the UNGA.**

### Key Functions

- According to the Charter of the United Nations, the General Assembly may:
  - Consider and approve the United Nations budget and establish the financial assessments of Member States
  - Elect the non-permanent members of the Security Council and the members of other United Nations councils and organs and, on the recommendation of the Security Council, appoint the Secretary-General

- Consider and make recommendations on the general principles of cooperation for maintaining international peace and security, including disarmament
- Discuss any question relating to international peace and security and, except where a dispute or situation is currently being discussed by the Security Council, make recommendations on it
- Discuss, with the same exception, and make recommendations on any questions within the scope of the Charter or affecting the powers and functions of any organ of the United Nations
- Initiate studies and make recommendations to promote international political cooperation, the development and codification of international law, the realization of human rights and fundamental freedoms, and international collaboration in the economic, social, humanitarian, cultural, educational and health fields
- Make recommendations for the peaceful settlement of any situation that might impair friendly relations among countries
- Consider reports from the Security Council and other United Nations organs.
- It may also take action in cases of a threat to the peace, breach of peace or act of aggression, when the Security Council has failed to act owing to the negative vote of a permanent member.
  - In such instances, the Assembly may consider the matter immediately and recommend to its Members collective measures to maintain or restore international peace and security.



# Economy

## NSO 77th Round Report: Situation of Agricultural households in India

### Context

- Recently, NSO (National Statistical Organisation) has released its 77<sup>th</sup> round of survey on “**Land and Livestock Holdings of Households** and **Situation Assessment of Agricultural Households**” in the rural areas of India.

### Objectives

- The survey had an objective of generating different indicators like
  - ownership and operational holdings** of rural households
  - ownership of livestock
  - income, productive assets and **indebtedness of agricultural households**
  - farming practices** of agricultural households
  - awareness and access to **various technological developments** in the field of agriculture
  - receipts and expenditure** of the agricultural households’ farm and non-farm businesses and receipts from all other economic activities pursued by the members of the agricultural households.

### Who is an agriculture household?

- A household receiving **more than Rs. 4000** as value of produce from agricultural activities like cultivation of food crops, pisciculture, animal husbandry, among others.
- and having **at least one member** self-employed in agriculture either in the principal status or in subsidiary status during last 365 days.

### Key results

#### Loans

- 50.2% of agricultural households** in the country were in debt in 2019.
- The average outstanding loan per household stands at **Rs 74,121**.
- Only 69.6% of the outstanding loans** were taken from institutional sources like banks, cooperative societies and government agencies, while 20.5% of loans were taken from professional money lenders.
  - Of the total loan, **only 57.5% was taken for agricultural purposes**.

### Monthly income

- The average **monthly income** per agricultural household during agricultural year 2018-19 was at **Rs 10,218**.
- Of this, the average income per household from
  - wages was Rs 4,063,
  - crop production Rs 3,798,
  - animal husbandry Rs 1,582,
  - non-farm business Rs 641 and
  - leasing of land Rs 134.

### Section-wise agricultural households

- The number of agricultural households in the country was estimated at **9.3 crore** with
  - OBCs = 45.8%,
  - SC = 15.9%,
  - ST = 14.2% and
  - Others= 24.1%.

### Marginal farmers

- 83.5% of rural households** had less than 1 hectare of land, while only 0.2% possessed land in excess of 10 hectare.

Farmers	Land size
Marginal	< 1 ha
Small	>1 and <2 ha
Semi-medium	>2 and <4 ha
Medium	>4 and <10 ha
Large	>10 ha

### Incidence of indebtedness

- The incidence of indebtedness was about **35% in rural India** as compared to **22.4% in urban India**.
- 17.8% households were indebted to institutional credit** agencies only against 14.5% households in urban India.
- About **10.2% of the households were indebted** to non-institutional credit agencies only in rural India compared to 4.9% households in urban India.

## Global Bond Index India

### Context

- India is likely to be included in the global bond indices early next year, which could attract \$170 billion to \$250 billion in bond inflows over the next decade.

### Key points

- Since 2019, India has been working toward getting included in global bond indices as rising government borrowing has necessitated opening the largely domestic bond market to a broader investor base.
- Even after getting included in a global bond index by October, India will not be able to raise funds in the coming financial year as the actual listing could take around 12 months after its inclusion.

### Benefits

- The inclusion in the global bond index could push the government to open its bond market further by removing foreign portfolio limits for all bonds in a bullish scenario.
  - The foreign brokerage expects the rupee to appreciate by 2% every year in REER (real effective exchange rate) terms.
- With increased foreign inflows, it is expected that central government deficit would reduce to 2.5% of GDP and consolidated deficit to reach 5% of GDP by FY29 from 14.4% in FY21.
- It will push India's balance of payments into a structural surplus zone, create an environment for a lower cost of capital and ultimately lead to a positive growth.
- Opening up of the sovereign bond market and resultant inflows will have multiple implications for the banking sector, whereby large private banks are expected to benefit the most.
- Also, apart from banks, non-bank lenders are also seen as beneficiaries over the longer run. The opening up of the sovereign bond market and the resultant potential implications like lower longer-term G-Sec yields could result in favourable structural implications for NBFCs.

### Why the global investors were hesitant before?

- Global investors suggested not to include India's government bonds in global bond index due to capital controls, custody and settlement and other operational snags.

### What has changed now?

- However, recent macroeconomic stability could change this in early 2022. India's inclusion in the global bond index could have a to have profound implications for the economy, foreign exchange, bond yields, and equity markets
- India has shown a significant improvement in macro stability and the government has indicated its desire

to push for capex-driven growth which is expected to result in an inclusion in the global bond index, making it the last emerging market to join the group.

### What are the concerns?

- There have been concerns that if the bond market is fully opened to foreign investors, it could lead to outflows similar to hot money situation.
  - Hot money: These are foreign investments that flood in to chase high yields but can exit just as quickly during times of distress.

## 1000 Day Plan for 1 trillion Digital Economy

### Context

- Recently, Ministry of Electronics and IT (MeitY) has framed a 1,000-day agenda, to make India a \$1 trillion digital economy over the next few years.

### Key focus areas

- The plan focuses on how to expand the digital economy piece.
- As per the new agenda, the aim is to make laws governing the tech, social media and cyberspace "simple and world-class."
- High-tech areas and developing skills: The areas identified include AI, Cyber Security, Super Computing, Semiconductors, Blockchain and Quantum Computing.
- Skills and talent development: There has been a surge in the need for talent post-Covid-19 since the digitalisation efforts of companies have gone up.
- Employment: The plan aims to create 1 crore skilled IT manpower in 3 years.
- Semiconductors manufacturers and high value-added products: The current global shortage of chips has built a strong case for India to fast-track its own semiconductor manufacturing plans.

### What is a digital economy?

- The digital economy refers to a broad range of economic activities that use digitized information and knowledge as key factors of production.
- The internet, cloud computing, big data, fintech, and other new digital technologies are used to collect, store, analyze, and share information digitally and transform social interactions.
- The digital economy has the potential to radically change the social environment and economic activities of the world.
- It is already experiencing high growth, rapid innovation, and broad application to other economic sectors.

## Benefits

- The digitization of the economy creates benefits and efficiencies as digital technologies drive innovation and fuel job opportunities and economic growth.
- The digital economy also permeates all aspects of society, influencing the way people interact and bringing about broad sociological changes.
- Financial technologies have also given rise to new ways of delivering financial services thus promoting financial inclusion in many developing countries.
- Digitized, networked, and intelligent information and communications technologies (ICTs) enable modern economic activities to be more flexible, agile, and smart.

## Challenges

- Despite the vast opportunities presented by the digital economy, the developing countries have not yet fully realized the potential of harnessing digital technology for sustainable development, due to factors like
  - poor ICT infrastructure,
  - inadequate skills development,
  - and socioeconomic barriers

## Account Aggregator System

### Context

- **Eight major banks** – State Bank of India, ICICI Bank, Axis Bank, IDFC First Bank, Kotak Mahindra Bank, HDFC Bank, IndusInd Bank, and Federal Bank— has recently **joined the Account Aggregator network**.

### What is Account Aggregator System?

- AAs (Account Aggregators) are **licensed entities by the RBI** to enable the flow of data **between Financial Information Providers (FIPs) and Financial Information Users (FIUs)**.
- The AA platform will allow the data of individuals to be **collected, with their consent, and shared** among financial institutions.

### The stakeholders

- The AA network will feature **financial institutions** such as banks, NBFCs, NBFC-AAs, third-party services, and others.
- **Banks will act as financial data providers,**
- **Lenders as financial data seekers,**
- **NBFC-AAs act as mediums** of communication between banks and lenders,
- Third-party service providers work with AAs

### How the Account Aggregator network will work?

- **First**, an individual or business opens an account with an account aggregator.
- **Second**, the customer can provide consent to a lender to access their financial data through the NBFC-AA.
- **Third**, after consent is provided, the account aggregator seeks permission from the financial data providers to access the customer's data.
- **Finally**, the data is sent to the account aggregator, which, in turn, empowers lenders to better evaluate the customer's financial profile and risk associated with providing a loan.

### Why needed?

- **No uniformity** across entities while collecting screen data and translating it to display on another application.
  - Due to this, there were inefficiencies and problems whenever a bank would bring changes to their applications.
- **Sensitive information** was being viewed by the financial institutions without any regulation.

### Benefits of Account Aggregator

#### For consumers

- It enables data scattered across financial institutions to be **brought to one place** with customer consent and in a data-blind manner where the **AA cannot view or process the data**.
- Consumers can search for **queries from their respective bank accounts in milliseconds** which was previously limited to only transactions done on their Fi account.
- The power of emerging tech combined with account aggregators would enable **combined transaction statement from all our bank accounts** and not 5 different bank statements every month.

#### For SMEs

- A large number of SMEs can be reached out **without physical branches** and it will transform the credit penetration.
- A large push will come from awareness and ecosystem-level adoption.

#### For banks

- AA would enable the ecosystem to **create new models and benefit all parties involved**.
- AAs will allow the institutions build a **better understanding** of potential customers and tailor their services accordingly.

- It also enables the **free flow of data** between banks and financial service providers.

### Blue Foods

#### Context

- Recently, a report titled Environmental performance of blue foods was released as a part of the Blue Food Assessment (BFA).
- The BFA is a collaboration between Sweden-based Stockholm Resilience Centre, United States-based Stanford University and the non-profit EAT.

#### Key points

- The authors of the paper analysed reporting data from more than 1,690 fish farms and 1,000 unique fishery records worldwide.
- The paper noted that seaweeds and farmed bivalves (mussels, oysters, among others) are generating very less greenhouse gas and nutrient emissions and used the least land and water.
- Across assessed blue foods, farmed seaweeds and bivalves generate the lowest emissions, followed by small pelagic capture fisheries, while flatfish and crustacean fisheries produce the highest.
- For fed aquaculture, feed production is responsible for more than 70% of emissions for most groups.
- Nitrogen and phosphorus emissions are responsible for marine and freshwater eutrophication and are highly correlated due to natural biomass N:P ratios.

#### Capture fishery

- Capture fisheries refers to all kinds of harvesting of naturally occurring living resources in both marine and freshwater environments.
- According to the research, capture fisheries also led to few nutrient emissions and use limited land and water.
- Capture fisheries has the potential to reduce greenhouse gas emissions through improved management and optimising gear types.

#### Other aquaculture practices

- Many subsectors among blue foods such as carp and milkfish, also has the potential to improve their carbon footprint through improved farm management, reduced feed conversion ratios and innovative technological interventions.
- Most aquaculture systems have not achieved the levels of efficiency seen in terrestrial production systems, thus leaving substantial opportunities for

optimisation and improvements in efficiency and sustainability.

### Community Enterprise Fund (CEF) provided to SHG under SVEP

#### Context

- Ministry of Rural Development has provided Community Enterprise Fund (CEF) loan worth Rs. 8.60 Cr to 2614 SHG entrepreneurs for starting their micro-enterprises in their villages across 19 States under the Start-up Village Entrepreneurship Programme.

#### Key points

- Various activities were organized under Start-up Village Entrepreneurship Programme (SVEP) in the week of 6th to 12th September, 2021.
- These events focused towards creating awareness about the SVEP scheme and how it supports SHG members who want to start the micro-businesses in rural areas.
- States which participated in this initiative are – Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Kerala, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Odisha, Punjab, Rajasthan, Telangana, Uttar Pradesh, Uttarakhand and West Bengal.

#### SVEP

- The Start-up Village Entrepreneurship Programme (SVEP) is a sub – scheme under NRLM (National Rural Livelihood Mission) to promote enterprises in rural areas.
- SVEP aims to set-up an eco-system for enterprise development in a block. This consists of a cadre of Community Resource Persons-Enterprise Promotion (CRP-EP) who will provide business support services to entrepreneurs.
- The scheme encompasses identifying business ideas, preparation of business plans, accessing loans and other supports like marketing, maintaining accounts & taking business decisions.
- Further, the eco-system also includes training and capacity building of entrepreneurs, seed capital for starting enterprises, marketing support for products and services etc.
- Besides, the Block Resource Centre (BRC), the single point solution for enterprise promotion is also developed as part of the eco-system.

## World's longest expressway: Delhi Mumbai Expressway

### Context

- Recently, Union Minister for Road Transport and Highways Nitin Gadkari concluded the two-day review of the work progress on the 1380-km eight-lane Delhi-Mumbai Expressway.

### Key points

#### About the Delhi-Mumbai expressway

- It is being constructed with a total outlay of Rs 98,000 crore, and will cover a total length of 1,380 km.
- The first phase from Delhi-Jaipur (Dausa)-Lalsot and Vadodara-Ankleshwar is expected to be open to traffic by March 2022. The expressway is expected to be completed by March 2023.
- The foundation stone of the project was laid on March 9, 2019.
- Over 15,000 hectares of land has been acquired across states for the construction of the Delhi-Mumbai expressway.
- More than 12 lakh tonnes of steel will be consumed in the construction of the expressway, which is equivalent to building 50 Howrah bridges.

### Benefits

- The expressway will reduce travel time between certain cities to 12-12.5 hours from 24 hours.
- The expressway will feature a spur to Jewar Airport and Jawaharlal Nehru Port to Mumbai through a spur in Mumbai.
- The expressway will improve connectivity to economic hubs like Jaipur, Kishangarh, Ajmer, Kota, Chittorgarh, Udaipur, Bhopal, Ujjain, Indore, Ahmedabad, Vadodara and Surat.
- The expressway will have wayside amenities – resorts, restaurants, food courts, fuel stations, facilities for truckers, logistics parks.
- A helicopter ambulance service for accident victims will be provided and a heliport, which will use drone services for business will also be provided.
- Over two million trees and shrubs are planned to be planted along the highway.
- The expressway is the first in Asia and only the second in the world to feature animal overpasses to facilitate unrestricted movement of wildlife.

- The expressway will result in annual fuel savings of more than 320 million litres and reduce CO2 emissions by 850 million kg which is equivalent to the planting of 40 million trees.
- The project has also created employment for thousands of trained civil engineers and more than 50 lakh man days of work.

## Draft NCR Regional Plan-2041

### Context

- Recently, the National Capital Region Planning Board (NCRPB) deferred its decision on the draft NCR Regional Plan-2041, which proposes high-rise development and five to eight new greenfield townships.
- NCRPB meeting was chaired by Union Housing and Urban Affairs Minister.
- Earlier, the draft had been sent to the NCR constituent States- Delhi, Uttar Pradesh, Haryana and Rajasthan for their comments.

### Key points

- About:** The regional plan is being drafted keeping citizens at the center. Improving the ranking of NCR cities on the ease of living index, boosting economic activity and opportunity, and furthering sustainability of the NCR Region.
- NCR Regional Plan-2041 is expected to **replace the NCR Regional Plan-2021**.
- NCR Regional Plan-2021:** to guide the development of the region from 2001 until 2021. It was notified in 2005. It was first to introduce the concept of a natural conservation zone.
- Nodal Authority:** The National Capital Region Planning Board (NCRPB) has been entrusted with the task of preparation of this regional plan.



### Key proposals

- NCR cities and towns should be “planned with optimum high rise and high-density norms”;
- The Floor Area Ratio (FAR) norms should be similar to international standards;
- Mixed land-use of residential, commercial and institutional should be allowed “both vertically and horizontally” in the older areas of the NCR;
- Private land-owners should have the authority to cut or replace trees planted on their land, and
- The elements under the Natural Conservation Zones in the RP-2021 will remain, but there would be a distinction between “forests and green cover”.
- Areas currently categorized as ‘forests’, will continue to be conserved in RP-2041.

### National Capital Region Planning Board (NCRPB)

- **About:** National Capital Region Planning Board is a statutory body which was constituted by the Act of Parliament in 1985.
- **Nodal Ministry:** It functions under the Ministry of Housing & Urban Affairs, Govt. of India.
- **Mandate:** to evolve policies for the control of land-uses and development of infrastructure in the region so as to avoid any haphazard development.

### GDP Growth Rate India Grew by 20% in First Quarter

#### Context

- Ministry of Statistics and Programme Implementation (MoSPI) released the **GDP data for the first quarter** of the current financial year (2021-22).
- According to the MOSPI data, current GDP of India increased by **20.1% in April-June 2021** compared with the corresponding period last year.

#### Key points

- Each year, MoSPI releases four quarterly GDP data updates, which help observers to **assess the health of the Indian economy**.
- The data showed that in Q1 of 2021-22, India’s **1st quarter GDP 2021 grew by 20.1%** while the **GVA grew by 18.8%**.
  - Notably, **GDP and GVA had contracted by 24.4% and 22.4%**, respectively, in Q1 of the last financial year.

#### GDP (Gross Domestic Product) and GVA (Gross Value Added)

- $GDP = (GVA) + (\text{Taxes earned by the government}) - (\text{Subsidies provided by the government})$

- As a thumb rule, if the government earned more from taxes than what it spent on subsidies, GDP will be higher than GVA.

#### Positives

- Data related to certain high frequency indicators such as **power generation, fuel consumption and railway freight** for April-May indicated that rebound has been faster after Covid 2.0 than Covid 1.0.

#### Various sectors

- **Manufacturing and construction** witnessed a positive trend in April-June, and grew respectively by 49.63% and 68.3% respectively, over April-June 2020.
- The GDP data shows that sectors including **‘agriculture, forestry and fishing’** and **‘electricity, gas, water supply and other utility services’** are above the levels of the pre-Covid year of 2019-20.
  - Agriculture and electricity sectors have grown 8.21% and 3%, respectively, compared with April-June 2019-20.

#### Expenditure

- **Private Final Consumption Expenditure** grew 19.34%.
  - It is a measure of consumer spending.
- **Gross Fixed Capital Formation** jumped 55.26%.
  - It is a measure of private investment.

#### Concerns

- The sharp increases were largely due to the **low base of the first quarter** of 2020-21. Manufacturing and construction sectors, besides the consumer spending and private investment, have still **some distance to cover** before reaching the levels of the latest pre-Covid year of 2019-20.
- Though the government is claiming that the economy is witnessing a V-Shaped recovery, economic **experts are sceptical** about it and advocates that the current statistics is largely due to the low base effect.
  - **Base effect:** It refers to the impact of comparing current price levels in a given month against price levels in the same month a year ago
- Moreover, **services sectors continue to lag**, especially the **contact intensive sectors like hospitality, travel, beauty and wellness, car repair services**, among others.

- The GDP in absolute terms at Rs 32.38 lakh crore (constant prices) in the first quarter is still **9.2% lower** than the GDP in the same period during the pre-Covid year 2019-20.
- This quarter witnessed a **sharp fall of about 4 percentage points** in the share of consumption in GDP, which is led by the government consumption.

### Way forward

In view of the economic outcomes in the first quarter this year being impacted by the second wave of the Covid pandemic, it is the **second quarter numbers** that would be the **real test of the shape of the recovery**.

## India Export Initiative and India Xports 2021 Portal

### Context

- Recently, Ministry of Micro, Small & Medium Enterprises has inaugurated the India Export Initiative and IndiaXports 2021 Portal of India SME Forum in New Delhi.

### Key points

#### India Export Initiative

- This initiative features an information portal, which serves as a knowledge base for exports by Indian MSMEs, along with the potential markets as well as trends in exports.
- The initiative targets more than 1 lakh MSMEs desirous of knowing more about exports and hand holding 30,000+ MSMEs to start exporting, doubling the base of active exporters.

#### IndiaXports

- IndiaXports aims to orient MSMEs free of cost, to focus on the untapped export potential in existing tariff lines and support MSMEs in order to increase MSME exports by 50% in 2022.

### Expected benefits

- The above initiatives are aimed at achieving the export target of 400 Billion USD by this fiscal and achieving the challenging target of 1 trillion in exports by 2027.
- The initiatives would augment the competitiveness of MSMEs and make India a preferred destination for manufacturing for the world.
- The initiatives adopt a holistic approach and will help reduce the trade balance.

### MSME Contribution to Indian economy

- MSMEs have been contributing nearly 40% of overall India's exports.
- They are also contributing to approx. 6.11% of the country's manufacturing GDP & 24.63% of the GDP from services sector.
- Share of MSME Gross Value Added (GVA) in All India Gross Domestic Product at current prices (2011-12) for the year 2018-19 and 2019-20 were 30.5% and 30.0% respectively.

### India's Agricultural Export- Changing the Agri Exports Basket

#### Background

- India has the potential to become a global leader in the food processing sector. The Indian government has been encouraging agricultural exports to meet an ambitious target of \$60bn by 2022.
- **Present status:** From 2015-16 to 2019-20, the value of agricultural and processed food increased significantly from \$17.8bn to \$20.65bn.

#### Changing Agri Exports Basket

- **Shift from primary to secondary agriculture:** where focus is on developing various processed foods.
  - The Indian food processing industry promises high economic growth and makes good profits.
- **Change in India's Agri-export basket:** There has been many changes for example:
  - **From basmati rice to the export of non-basmati rice:** In 2020-21, India exported 13.09 million tonnes of non-basmati rice (\$4.8bn), up from an average 6.9 million tonnes (\$2.7bn) in the previous five years.
  - **Strong demand for Indian Buffalo meat in recent years:** especially in countries like Vietnam, Hong Kong and Indonesia.
  - In 2020-21, the export of poultry, sheep and goat meat, cashew kernels, groundnuts, guar gum, and cocoa products went down in terms of value and total quantity.

#### Challenges faced by Agri-Exporters

- **Low contribution in India's total exports:** Ministry of Food Processing Industries shows that the contribution of agricultural and processed food products in India's total exports is 11%.
  - India's Agri-export is majorly dominated by the Primary processed agricultural commodities.

- **Difficulty faced by Indian processed food exporters:** some of them are listed below-
  - Non-tariff measures imposed by other countries on Indian exports.
  - Mandatory pre-shipment examination by the Export Inspection Agency being lengthy and costly;
  - Compulsory spice board certification being needed even for ready-to-eat products which contain spices in small quantities;
  - Lack of strategic planning of exports by most State;
  - Lack of a predictable and consistent agricultural policy discouraging investments by the private sector;
  - Prohibition of import of meat- and dairy based-products in most of the developed countries;
  - Withdrawal of the Generalized System of Preference by the U.S. for import of processed food from India;
  - Export shipments to the U.S. requiring an additional health certificate; and
  - The absence of an equivalency agreement with developed countries for organic produce.

#### Way Forwards

- **Increasing share of Agricultural export in total exports:** This can be done by focusing more on value-added processed food products rather than primary processed agricultural commodities.
- **Redefine the Agriculture Export Policy:** The main objective of the policy is to diversify and expand the export basket so that instead of primary products, the export of higher value items, including perishables and processed food, be increased. **The Centre government should-**
  - Nurture food processing companies,
  - Ensure low cost of production and global food quality standards, and
  - Create a supportive environment to promote export of processed food.
- **Promoting Processed food:** Reputed Indian brands should be encouraged to export processed foods globally as they can comply with the global standard of codex.
  - Indian companies should focus on cost competitiveness, global food quality standards, technology, and tap the global processed food export market.
  - India has competitive advantages in various agricultural commodities which can be passed onto processed foods.

### International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

#### Context

- Recently, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) was awarded **the Africa Food Prize 2021** for improving food security in sub-Saharan Africa.
- US \$1,00,000 prize was given to ICRISAT under **the Africa Food Prize 2021**.
- ICRISAT got the award for the **Tropical Legumes Project** that has improved food security across 13 countries in sub-Saharan Africa.

#### Tropical Legume Project of ICRISAT- Key Points

- **Tropical Legume Project** was taken by ICRISAT led a collaboration of partners between 2007 and 2019 in Africa for improving the food security among the deprived section of population.
- As a part of the Tropical Legumes Project, **in India**, the national program on developing improved varieties of chickpea resulted in area enhancement up to 68%.
- The project **developed 266 improved legume varieties** and almost half a million tons of seed for a range of legume crops, like cowpeas, pigeon peas, chickpea, groundnut, soybean, etc.
- **Importance:** These improved varieties of legumes have helped smallholder farmers in both Africa and Asia become more resilient to climate change, as well as pest and disease outbreaks.
- Many scientists trained under the project are already working in national research institutes across the African continent.

#### International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)- Key Points

- **Background:** It was founded in 1972 by a consortium of organizations convened by the Ford and the Rockefeller Foundations.
- Its charter was signed by the Food and Agriculture Organization (FAO) and United Nations Development Programme (UNDP)
- **About:** ICRISAT is a non-profit, non-political organization that conducts agricultural research for development in the drylands of Asia and sub-Saharan Africa.
- **Headquarter:** Hyderabad, Telangana in India.
- **Key role:** ICRISAT and its partners help empower these poor people to overcome poverty, hunger and a degraded environment through better agriculture.

- **Key Mission:** ICRISAT envisions a prosperous, food-secure and resilient dryland tropics. To achieve this, its mission is to reduce poverty, hunger, malnutrition and environmental degradation in the dryland tropics.
- **Research Activity:** ICRISAT conducts research on five highly nutritious drought-tolerant crops: chickpea, pigeonpea, pearl millet, sorghum, and groundnut.
- It conducts partnership-based international agricultural research for development that embodies Science with a Human Face.
- **India and ICRISAT:** Since its inception, India has granted special status to ICRISAT as a UN Organization operating in the Indian Territory.
- This makes ICRISAT eligible for special immunities and tax privileges.

### Major Reforms in Telecom Sector Approved

#### Context

- The Union Cabinet, has recently approved Nine structural reforms and Five procedural reforms plus relief measures for the Telecom Service Providers.

#### Key points

##### Structural reforms

- **Rationalization of Adjusted Gross Revenue (AGR):** Non-telecom revenue will be excluded from the definition of AGR.
- **Bank Guarantees (BGs) rationalized:** 80% reduction in BG requirements against License Fee (LF) and other similar Levies. No requirements for multiple BGs in different Licenced Service Areas (LSAs) regions in the country. Instead, One BG will be enough.
- For Auctions held henceforth, **no BGs will be required** to secure instalment payments. Industry has matured and the past practice of BG is no longer required.
- **Interest rates rationalized/ Penalties removed:** From 1st October, 2021, Delayed payments of License Fee (LF)/Spectrum Usage Charge (SUC) will attract interest rate of SBI's MCLR plus 2% instead of MCLR plus 4%; interest compounded annually instead of monthly; penalty and interest on penalty removed.
- **Spectrum Tenure:** In future auctions, tenure of spectrum increased from 20 to 30 years.
- **Surrender of spectrum** will be permitted after 10 years for spectrum acquired in the future auctions.

- **No Spectrum Usage Charge (SUC)** for spectrum acquired in future spectrum auctions.
- **Spectrum sharing encouraged-** additional SUC of 0.5% for spectrum sharing removed.
- To encourage investment, **100% Foreign Direct Investment (FDI)** under automatic route permitted in Telecom Sector. All safeguards will apply.

#### Procedural Reforms

- **Auction calendar fixed** - Spectrum auctions to be normally held in the last quarter of every financial year.
- **Ease of doing business promoted** - cumbersome requirement of licenses under 1953 Customs Notification for wireless equipment removed. Replaced with self-declaration.
- **Know Your Customers (KYC) reforms:** Self-KYC (App based) permitted. E-KYC rate revised to only One Rupee. Shifting from Prepaid to Post-paid and vice-versa will not require fresh KYC.
- **Paper Customer Acquisition Forms (CAF)** will be replaced by digital storage of data. Nearly 300-400 crore paper CAFs lying in various warehouses of TSPs will not be required. Warehouse audit of CAF will not be required.
- **SACFA (Standing Advisory Committee on Radio Frequency Allocation) clearance for telecom towers eased.** DOT (Dept. of Telecommunication) will accept data on a portal based on self-declaration basis. Portals of other Agencies (such as Civil Aviation) will be linked with DOT Portal.

#### Addressing Liquidity requirements of Telecom Service Providers

- **Moratorium/Deferment of upto four years** in annual payments of dues arising out of the AGR judgement, with however, by protecting the Net Present Value (NPV) of the due amounts being protected.
- **Moratorium/Deferment on due payments** of spectrum purchased in past auctions (excluding the auction of 2021) for upto four years with NPV protected at the interest rate stipulated in the respective auctions.
- **Option to the TSPs to pay the interest** amount arising due to the said deferment of payment by way of equity.

### Expected benefits

- The reforms are expected to
  - protect and generate employment opportunities,
  - promote healthy competition,
  - protect interests of consumers,
  - infuse liquidity,
  - encourage investment
  - and reduce regulatory burden on Telecom Service Providers (TSPs).
- Also, the Reform measures will further boost the proliferation and penetration of broadband and telecom connectivity.
- It will bring 'Antyodaya' under inclusive development and bring the marginalized areas into the mainstream and universal broadband.
- The package is also expected to boost 4G proliferation, infuse liquidity and create an enabling environment for investment in 5G networks.

### Medical Devices Park Scheme

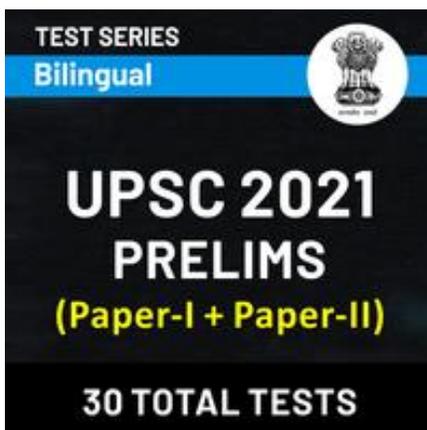
#### Context

- Recently, Ministry of Chemicals and Fertilizers has notified a Scheme for Promotion of Medical Device Parks to support the medical devices sector in our country.

#### Key points

##### Objectives

- Easy access to standard testing and infrastructure facilities through creation of world class common infrastructure facilities.
  - It will lead to increased competitiveness, which will further result into significant reduction of the cost of production of medical devices.
- Reaping the benefits arising due to optimization of resources and economies of scale.



### Benefits

- The Medical Devices Parks to be developed under the scheme will provide common infrastructure facilities at one place.
- It will create a robust ecosystem for the medical device manufacturing in the country and also reducing the manufacturing cost significantly.

### Financial outlay

- The total financial outlay of the scheme is Rs. 400 crores.
- The tenure of the scheme is from FY 2020-2021 to FY 2024-2025.
- The financial assistance to a selected Medical Device Park would be 70% of the project cost of common infrastructure facilities.
- In case of North Eastern States and Hilly States, financial assistance would be 90% of the project cost.
- Maximum assistance under the scheme for one Medical Device Park would be limited to Rs. 100 crores.

### Implementation

- In total, proposal from 16 States/UTs were received under the scheme.
- The selection of the States/UTs is based on the challenge method, which is reflected in the evaluation criteria of the scheme.
- The ranking methodology for States/UTs is based on the parameters prescribed in the scheme guidelines such as utility charges, State policy incentives, total area of the park, land lease rate, connectivity of the park, ease of doing business ranking, availability of technical manpower etc.
- Based on the evaluation, the proposals of State Government of Himachal Pradesh, Tamil Nadu, Madhya Pradesh and Uttar Pradesh have been given "in-principle" approval under the scheme.
- The scheme reflects the spirit of co-operative federalism where the Central Government and State Governments will partner to develop the Medical Device parks for better performance of the sector.

### MSP for All Rabi Crops Increased

#### Context

- Cabinet Committee on Economic Affairs (CCEA) has approved the increase in the Minimum Support Prices (MSP) for **all mandated Rabi crops** for Rabi Marketing Season (RMS) 2022-23.

### Key points

- Government has increased the MSP of Rabi crops for RMS 2022-23, to **ensure remunerative prices to the growers** for their produce.
- The highest absolute increase in MSP has been recommended for **Lentil (Masur) and Rapeseeds & Mustard followed by gram**.
- In case of safflower, there has been an increase of Rs.114 per quintal, in comparison to last year.
- The **differential remuneration** is aimed at encouraging crop diversification.
- The increase in MSP for Rabi crops for RMS 2022-23 is in line with the **Union Budget 2018-19** announcement of fixing the MSPs at a level of **at least 1.5 times** of the all-India weighted average cost of production, aiming a **reasonably fair remuneration** for the farmers.
- The expected returns to farmers over their cost of production are estimated to be **highest in case of wheat and rapeseed & mustard** (100% each), followed by lentil (79%); gram (74%); barley (60%); safflower (50%).

### Recent related steps by government

- National Mission on Edible Oils-Oil Palm (NMEOP), Centrally Sponsored Scheme recently announced by the government, will help in **increasing the domestic production** of edible oils and reduce imports dependency.
- 'Pradhan Mantri Annadata Aay Sanrakshana Abhiyan' (PM-AASHA) announced by the government in 2018 will aid in providing remunerative return to farmers for their produce.
- The Umbrella Scheme consists of three sub-schemes **Price Support Scheme (PSS)**, **Price Deficiency Payment Scheme (PDPS)** and **Private Procurement & Stockist Scheme (PPSS)** on a pilot basis.

## National Council of Applied Economic Research (NCAER)

### National Council of Applied Economic Research

- National Council of Applied Economic Research suggests that the Indian economy is expected to grow around 10% during the current financial year.
- This is based on the likelihood of fewer COVID-linked supply disruptions and buoyancy in the global economy.

### Key Points

- **About NCAER:** It was established in 1956 during the former Prime Minister Jawaharlal Nehru.
  - NCAER is India's oldest and largest independent, non-profit, economic policy research institute.
  - NCAER was started in 1956 as a public-private partnership, both catering to and funded by the government and private industry.
- **Mandate of NCAER:** The focus of NCAER's work in these areas is on generating and analysing empirical evidence to support and inform policy choices.
  - It is also one of a handful of think tanks globally that combine rigorous analysis and policy outreach with deep data collection capabilities, especially for household surveys.

### Key Functions

- It undertakes grant-funded research and commissioned studies for governments and industry, and is one of the few think tanks globally that also collects primary data.
  - NCAER has set up a National Data Innovation Centre (NDIC) to serve as a laboratory for experiments in data collection, interfacing with partners in think tanks, Indian and international universities, and government.
- **NCAER's work falls into four thematic areas.** They are-
  1. Growth, Macro, Trade, and Economic Policy
  2. Investment Climate, Industry, Infrastructure, Labour, and Urban
  3. Agriculture and Rural Development, Natural Resources, and Environment
  4. Poverty, Equity, Human Development, and Consumers

### Recent Initiatives

- IT launched the N-SIPI series in 2016 and the second N-SIPI was released in 2017.
- The National Council of Applied Economic Research (NCAER) released **NCAER Land Records and Services Index (N-LRSI 2020)**.
  - The index assesses the digitization of land records and their quality in 33 states and Union Territories (UTs).
- NCAER also conducts a **quarterly Business Expectations Survey** since 1991 with an aim of tracking the business confidence of Indian firms.

## National Financial Reporting Authority

### Context

- Recently, the National Financial Reporting Authority (NFRA) has rapped 'EY group firm' SRBC & Co. LLP for failing to detect several problems in the IL&FS group's transport venture while undertaking its statutory audit in 2017-18.

### Key Points

- Background:** Various corporate scams in the Indian financial system (for exa. Punjab National Bank) put the scanner on the role of the auditors and the Institute of Chartered Accountants of India.
  - This led to formation of National Financial Reporting Authority by the government as an independent audit regulator.
- Formation:** NFRA (the audit regulator of India) was constituted in 2018 by the Government of India under section 132 (1) of the Companies Act, 2013.
- Composition National Financial Reporting Authority:** It is composed of one Chairperson, three full-time Members and one Secretary.
  - The chairperson shall be a person of eminence and having expertise in accountancy, auditing, finance or law to be appointed by the Central Government.
- Key Jurisdiction:** Jurisdiction of NFRA would extend to large public companies that are not listed (threshold prescribed in the rules) and listed companies.
  - Central government has discretion to refer such other entities to NFRA for investigation, involving public interest.

### Key Functions

- Recommendatory Role:** NFRA Recommends accounting and auditing policies and standards to be adopted by companies for approval by the Central Government.
- Monitoring and Compliance:** NFRA is responsible for monitoring and enforcing compliance with accounting standards and auditing standards.
- Ensure Quality and Professionalism:** NFRA is entrusted with overseeing the quality of service of the professions associated with ensuring compliance with such standards and suggest measures for improvement in the quality of service.
- Ensuring Prevalence of Public Interest:** One of the key duty and responsibility is to protect the public interest.

## Nipah Virus in India

### Context

- Recently, after a gap of over three years, a case of the zoonotic Nipah virus infection was reported in Kozhikode district of Kerala.
- A team from the National Centre for Disease Control reached the State to provide support. Kozhikode is reporting the deadly infection for the second time in three years.

### Key Points

- Origin:** Nipah Virus first appeared in Malaysia and Singapore in 1998 and 1999.
  - It first appeared in domestic pigs and has been found among several species of domestic animals including dogs, cats, goats, horses and sheep.
- About Nipah Virus:**
  - Zoonotic Disease:** it is transmitted from animals to humans.
  - Nipah Virus is **caused by an RNA (Ribonucleic acid) virus of the family Paramyxoviridae, genus Henipavirus.**
  - Closely related to Hendra virus:** Hendra Virus is a rare emerging zoonosis that causes severe and often fatal disease in both infected horses and humans).
- Mode of Transmission:** It spreads through fruit bats or 'flying foxes,' of the genus Pteropus (natural hosts of the virus). Infected bats shed the virus through excreta and secretions.
  - Nipah Virus is generally transmitted from animals to human beings, mainly from bats and pigs.
  - Human-to-human transmission and transmission through contaminated food is also possible.
- Symptoms of Nipah Virus:**
  - Common symptoms include-** drowsiness, dizziness, nausea, fever, headache and mental issues such as confusion.
  - Severe Fever for several days:** leads to inflammation of the brain causing a state of confusion, disorientation and even persistent drowsiness.
  - Neurological, respiratory and pulmonary signs also emerge in an infected individual.
- Treatment:** No vaccine has been developed yet for curing the infection in both humans and animals.
  - The primary treatment for human cases is intensive supportive care and supportive medicines.

## Nipah Virus in India

- India till now has witnessed five (including the present one) Nipah Virus outbreak with Case Fatality Rate (CFR) ranging from 65-100%.
  - 2001:** It was the first outbreak of Nipah Virus in Siliguri, India
  - 2007:** This outbreak happened in Nadia of West Bengal.
  - 2018:** The 2018 outbreak of Kerala was declared over soon after it was localized in Kozhikode and Malappuram districts of Kerala.
  - 2019:** This outbreak again happened in Kozhikode, Kerala.
  - 2021:** Again, it is spreading in Kozhikode, Kerala.

## PLFS Quarterly Bulletin

### Context

- Recently, National Statistical Office (NSO) has released the quarterly bulletin of Periodic Labour Force Survey (PLFS) for October-December 2020.

### Key points

- The Unemployment rate for persons of age 15 years and above in urban areas rose to 10.3% in October-December 2020, increased from 7.8% in the corresponding period a year ago.
- The labour force participation rate for persons of age 15 years and above in urban areas was 47.3% in October-December quarter of 2020, down from 47.8% in the same period a year ago.
- The Worker Population Ratio for persons of age 15 years and above in urban areas was 42.4% in October-December quarter of 2020, down from 44.1% in the same period a year ago.

### About PLFS

- Considering the importance of availability of labour force data at more frequent time intervals, National Statistical Office (NSO) launched Periodic Labour Force Survey (PLFS) in April 2017.

### Some basic terms

#### Labour Force Participation Rate (LFPR)

- LFPR is defined as the percentage of persons in labour force (i.e. working or seeking or available for work) in the population.

#### Worker Population Ratio (WPR)

- WPR is defined as the percentage of employed persons in the population.

#### Unemployment Rate (UR)

- UR is defined as the percentage of persons unemployed among the persons in the labour force.
- Activity Status- Current Weekly Status (CWS)
- The activity status determined on the basis of a reference period of last 7 days preceding the date of survey is known as the current weekly status (CWS) of the person.

## PLI Scheme for Drones and Drone Components

### Context

- The Union Government, has approved the Production-Linked Incentive (PLI) scheme for drones and drone components to catalyse super-normal growth in the upcoming drone sector.

### Features of PLI scheme for drones

- The proposed tenure of the PLI scheme is three years starting in FY 2021-22.
- The total amount allocated for the PLI scheme for drones and drone components is Rs. 120 crores spread over three financial years, which is nearly double the combined turnover of all domestic drone manufacturers in FY 2020-21.
- 20% incentive for a manufacturer of drones and drone components for any value addition.
  - Value addition = (annual sales revenue from drones and drone components) – (purchase cost of drone and drone components).
- The Government has kept the PLI rate constant at 20% for all three years, an exceptional treatment given only to the drone industry. In PLI schemes for other sectors, the PLI rate reduces every year.
- The Government has fixed the minimum value addition norm at 40% of net sales for drones and drone components instead of 50%, which will allow widening the number of beneficiaries.
- The Government has kept the eligibility norm for MSME and start-ups in terms of annual sales turnover at a nominal level
  - Rs 2 crores (for drones) and
  - Rs 50 lakhs (for drone components)
- Eligibility norm for non-MSME companies in terms of annual sales turnover has been kept at
  - Rs. 4 crore (for drones) and
  - Rs. 1 crore (for drone components)
- PLI for a manufacturer shall be capped at 25% of total annual outlay
- In case a manufacturer fails to meet the threshold for the eligible value addition for a particular financial year, she will be allowed to claim the lost incentive in the subsequent year if she makes up the shortfall in the subsequent year.

### Benefits of drones for Indian economy

- Drones offer tremendous benefits to almost all sectors of the economy. These include– agriculture, mining, infrastructure, surveillance, emergency response, transportation, geo-spatial mapping, defence, and law enforcement, among others.
- Drones can be significant creators of employment and economic growth due to their reach, versatility, and ease of use, especially in India's remote and inaccessible areas.

### Potential of sector in India

- India has the potential of becoming a global drone hub by 2030 due to its traditional strengths in innovation, information technology, frugal engineering and its huge domestic demand.
- The drones and drone components manufacturing industry may see an investment of over Rs. 5,000 crores over the next three years. The annual sales turnover of the drone manufacturing industry may grow from Rs. 60 crores in FY (Fiscal Year) 2020-21 to over Rs. 900 crores in FY 2023-24.
- The drone manufacturing industry is expected to generate over 10,000 direct jobs over the next three years.
- The drone sector is expected to grow to over INR 30,000 crore in next three years.

## PLI scheme for textiles

### Context

- Recently, PLI Scheme for Textiles with a budgetary outlay of Rs. 10,683 crores, was approved by the Union cabinet.

### Key points

- PLI scheme for Textiles is **part of the overall announcement of PLI Schemes** for 13 sectors made earlier during the Union Budget 2021-22, with an outlay of Rs. 1.97 lakh crore.
- With the announcement of PLI Schemes for 13 sectors, minimum production in India is expected to be around **Rs. 37.5 lakh crore over 5 years** and minimum expected employment over 5 years is nearly 1 crore.

### Objective

- PLI scheme for Textiles will **promote production of high value MMF** (Man-Made Fibre) Fabric, Garments and Technical Textiles in country.
- The incentive structure has been so formulated that industry will be **encouraged to invest in fresh capacities** in these segments.

- This will give a major push to growing high value MMF segment which will **complement the efforts of cotton** and other natural fibre-based textiles industry in generating new opportunities for employment and trade, resultantly helping India regain its historical dominant status in global textiles trade.
- The Technical Textiles segment is a new age textile, whose application in several sectors of economy, including infrastructure, water, health and hygiene, defence, security, automobiles, aviation, etc. will **improve the efficiencies** in those sectors of economy.
- Government has also launched a **National Technical Textiles Mission** in the past for promoting R&D efforts in that sector. PLI will help further, in attracting investment in this segment.

### Benefits

- It is estimated that over the period of five years, the PLI Scheme for Textiles will lead to fresh investment of **more than Rs.19,000 crore**.
- It will create additional employment opportunities of **more than 7.5 lakh jobs** in this sector and several lakhs more for supporting activities.
- The textiles industry predominantly employs women; therefore, the scheme will **empower women and increase their participation in formal economy**.

### Way forward

- PLI for Textiles along with RoSCTL (**Rebate of State and Central Taxes and Levies**), RoDTEP and other measures of Government in sector e.g., providing raw material at competitive prices, skill development etc will herald a new age in textiles manufacturing.

## Revitalising PM-KUSUM

### Context

- The Union Minister of Power, New and Renewable Energy recently reviewed the progress of the PM-KUSUM scheme and reaffirmed the government's commitment to accelerating solar pump adoption.

### Revitalizing PM-KUSUM

- **About:** PM-KUSUM Scheme was in 2019, PM-KUSUM and aims to help farmers access reliable daytime solar power for irrigation, reduce power subsidies, and decarbonize agriculture.
  - PM-KUSUM provides farmers with incentives to install solar power pumps
  - and plants in their fields.

- **Various Models:** The farmers can use one of three deployment models:
  1. Off-grid solar pumps,
  2. Solarised agricultural feeders
  3. Grid-connected pumps

#### Associated Challenges

- The effective and efficient roll-out of the PM-KUSUM Scheme was hindered by following factors-
  - Pandemic-induced disruptions,
  - Limited buy-in from States, and
  - Implementation challenges
- **Unmet targets:** Off-grid pumps have been the most popular, but the nearly 2,80,000 systems deployed fall far short of the scheme's target of two million by 2022.
  - Barriers to adoption include limited awareness about solar pumps and farmers' inability to pay their upfront contribution.
- **Issue with the grid-connected pumps model:** obstacles to their adoption include concerns about
  - Their economic viability in the presence of high farm subsidies and
  - Farmers' potential unwillingness to feed in surplus power when selling water or irrigating extra land are more attractive prospects.

#### Way Forward

- **Promote Solarised agricultural feeders & Grid-connected pumps Model:** They allow farmers to earn additional income by selling solar power to discoms, and discoms to procure cheap power close to centres of consumption.
- **Extend scheme's timeline beyond 2022:** this would allow discoms to align the scheme with their power purchase planning.
  - Presently, most Indian discoms have a surplus of contracted generation capacity and are wary of procuring more power in the short term.
- **Create a level playing field for distributed solar plants:** discoms often find utility-scale solar cheaper than distributed solar (under the scheme) due to the latter's higher costs and the loss of locational advantage due to waived inter-State transmission system (ISTS) charges.
  - We need to address counter-party risks and grid unavailability risks at distribution substations, standardise tariff determination to reflect the higher costs of distributed power plants, and do away with the waiver of ISTS charges for solar plants.

- **Streamline land regulations through inter-departmental coordination:** Doing so will help reduce delays in leasing or converting agricultural lands for non-agricultural purposes such as solar power generation.
- **Support innovative solutions for financing farmers' contributions:** As many farmers struggle to pay 30-40% of upfront costs in compliance with scheme requirements.
  - Out-of-the-box solutions like Karnataka's pilot of a farmer-developer special-purpose vehicle to help farmers install solar power plants on their farms.
  - This type of out-of-the-box thinking can be replicated by other states as well.
- **Extensively pilot grid-connected solar pumps:** Adopting solutions like smart meters and smart transformers and engaging with farmers can build trust. But piloting the model under different Agro-economic contexts will be critical to developing a strategy to scale it up.

**Conclusion:** Successful implementation of this scheme can generate thousands of jobs, reduce the carbon footprint of agriculture, and result in oil import savings.

### Social Stock Exchange Framework

#### Context

- Recently, Securities and Exchange Board of India (SEBI) board has approved the creation of the Social Stock Exchange under its regulatory ambit for fundraising by social enterprises (SE).

#### Key points

- The proposal to create a Social Stock Exchange was put forth by Finance Minister Nirmala Sitharaman in her Budget speech in July 2019.
- SEBI is also planning to engage with NABARD, SIDBI and stock exchanges to create a capacity-building fund of Rs 100 crore.



### About SSE

- Social Stock Exchange will be a new segment of existing stock exchanges.
- Non-profit enterprises and for-profit social enterprises with an explicit social intent and impact will be allowed to list on the Social Stock Exchange.
- These entities will be allowed to raise funds from investors through equity, Zero Coupon Zero Principal bonds, Mutual funds, social impact funds and development impact bonds.

### SSE framework

- Under the new framework, social venture funds will be renamed to social impact funds under SEBI AIF (Alternate Investment Funds) regulations with a minimum corpus requirement reduced to Rs 5 crore from Rs 20 crore earlier.
- In terms of auditing of social enterprise, initially only reputed auditing firms having expertise in the area of social audit will be allowed to carry out audits employing social auditors who have certification courses with the National Institute of Securities Management.
- SEBI said that it will amend its regulations towards initial and continuous disclosures for social enterprises that will cover aspects of social and financial impact and governance.

## Special Economic Zones in India

### Context

- The union government is considering a proposal to allow producers in Special Economic Zones (SEZs) to sell their output to the domestic market without treating them as imports.
- The government is also reviewing the exclusion of export-oriented units (EOUs) and SEZs from the recently notified tax refund scheme for exports.

### Key Points

- **About Special Economic Zone (SEZ):** It is an area within a country's national borders in which the business and trade laws are different from the rest of the country.
- **Key Purpose:** SEZs are established for different purposes like increasing trade balance (by promoting export), employment, increased investment, job creation and effective administration.
  - The SEZs are expected to be engines for economic growth.

- **Relaxation offered by government in SEZs:** government formulates various financial policies to encourage businesses to set up in the SEZs. These policies are typically related to investing, taxation, trading, quotas, customs and labour regulations.
  - In the initial period, government often offers tax holidays (a period of lower taxation).
  - Government also ensures the ease of doing business in these areas.

### Special Economic Zones in India

- **Origin:**
  - Asia's first EPZ (Export Processing Zones) was established in 1965 at Kandla, Gujarat.
  - SEZs are similar in structure to EPZs.
  - Indian SEZs are modelled on the success of Chinese SEZs.
  - The government began to establish SEZs in 2000 under the Foreign Trade Policy to redress the infrastructural and bureaucratic challenges that were seen to have limited the success of EPZs.
- **Legislative backing:** The Special Economic Zones Act was passed in 2005 to provide a legislative support to SEZs. The Act came into force along with the SEZ Rules in 2006.
  - **SEZs Act 2005:** "It is defined as an Act to provide for the establishment, development and management of the Special Economic Zones for the promotion of exports and for matters connected therewith or incidental thereto."
  - Between 2000-2006, SEZs were operational under the Foreign Trade Policy.
- **Present status:** 379 SEZs are notified by the government, out of which 265 are operational.
  - **Regional Distribution of SEZs in India:** about 64% of the SEZs are located in five states- Tamil Nadu, Telangana, Karnataka, Andhra Pradesh and Maharashtra.
- **Baba Kalyani Committee:** It was constituted by the Ministry of Commerce and Industry to study the existing SEZ policy of India and had submitted its recommendations in November 2018.

### Special Economic Zones in India- Key Objectives

- To create additional economic activity.
- To boost the export of goods and services.
- To generate employment.
- To boost domestic and foreign investments.
- To develop infrastructure facilities.

## SPIN scheme

### Context

- Recently, Khadi and Village Industries Commission (KVIC) has launched a unique scheme called SPIN (Strengthening the Potential of India) to empower over 1100 people of the marginalized potters' community in Varanasi.

### Key points

- The SPIN scheme aims at infusing self-sustainability in the Indian pottery sector.
- KVIC also set up a pottery cluster under SFURTI Scheme in Varanasi.
- 80 potters from Uttar Pradesh, Bihar, Rajasthan and Jharkhand have registered for financial assistance from the bank to begin their own business.
- Out of these, 110 artisans are from Varanasi.
- A total of 780 electric potter wheels were sanctioned to the participants of SPIN Scheme.
- Moreover, in Gujarat, KVIC distributed 50 charkhas to women artisans to engage them with self-employment and sustainable livelihood.

### About SPIN scheme

- Unlike Kumhar Sashaktikaran Yojana, which is a subsidy-based program, SPIN Scheme enables the registered potters to get a direct loan from the banks under Pradhan Mantri Shishu Mudra Yojana.
- Under the SPIN Scheme, KVIC is acting as a facilitator for financial aid to potters through RBL bank and also providing training to the artisans, opting for this scheme.
- Under this scheme, there will be no financial burden on the exchequer and the loan will be repaid by the potter in easy instalments.
- Kashi Pottery Cluster was inaugurated in Varanasi. This is the first pottery cluster in Varanasi district set up by KVIC under the SFURTI (Scheme of Fund for Regeneration of Traditional Industries) Scheme.
- KVIC will facilitate potters to get easy loans from banks that will help the potters to diversify their activities and enhance their income. This will reduce their dependence on government subsidy and thus make our potters self-reliant.

## Stablecoins

### Context

- The Treasury Department of US and other agencies are moving towards tighter regulation for a fast-growing cryptocurrency called stablecoins.

### Key points

#### What are stablecoins?

- Stablecoins are cryptocurrencies without the volatility. They have the same characters as other cryptocurrencies.
- To promise holders that every \$1 they put in will remain worth \$1, stablecoins hold a bundle of assets in reserve, usually short-term securities such as cash, government debt or commercial paper.
- So, unlike Cryptocurrencies like Bitcoin, whose prices tend to vary a huge amount in a short span of time, value of stablecoins are steady, more like a traditional currency, like Indian Rupee or US Dollar.
- With stablecoins, a person can maximise his/her chances of protection from market fluctuations. So, stablecoins form a bridge between old-world money and new-world crypto.
- Tether is the third largest cryptocurrency by market value, and until now, the most famous stablecoin.

#### Why the prices of stablecoins are stable?

- There are two types of stablecoins depending on the collateral: national currency backed, and cryptocurrency backed.
- Collateralised stablecoins are attached to another asset, like the US dollar. Their issuers back up the value of their coin by holding on to that asset.
- Some stablecoins also employ algorithms to manage supply and demand of the coin so that circulation matches reserves.
- Why to use stablecoins when US dollar serves the purpose?
- While trading cryptos for dollars, there are longer processing lags for dollar withdrawals, on some exchanges.
- Additional fees are also often imposed when dollar withdrawals are frequent or large.
- Stablecoins are used across a greater cross-section of crypto exchanges unlike, traditional currencies like USD.

#### Can stablecoins replace US Dollar?

- Stablecoins turnover has boomed since 2019, rising from a few bn dollars a day to an average of US\$100 bn in April 2021.
- Big companies like PayPal and Visa have recently announced that they would allow payments with stablecoins.
- International money transfers in stablecoins involves less friction than via a bank.



- The settlement time is also faster and it is 24/7 available.
- To replace dollar with stablecoins, however, will require some kind of regulation.
- First of all, it is important to ensure that the issuer actually has the assets to back up its coins can be a start.
- The way stablecoins are growing, its regulation has become more important than ever.

### The All-India Quarterly Establishment-based Employment Survey

#### Context

- Recently released the Quarterly Employment Survey (QES) report shows that India has seen a growth of 29% in employment across nine sectors in April-June 2021 over 2013-14.

#### Key Findings

- **Releasing Ministry:** It is released by compiled and published by the Ministry of Labour and Employment.
- **Coverage:** the report covered 10,593 firms that employed more than 10 workers and were spread over nine sectors that account for 85% of the total employment in such establishments.
- **Key Findings:**
  - Establishments in the first quarter (Apr-June 2021) reported 27% pandemic-related retrenchment.
  - Overall, employment stood at 3.08 crore in the first quarter, up from 2.37 crore as reported in the Sixth Economic Census (2013-2014).
  - All but two sectors — trade and accommodation & restaurants — saw an increase in employment over the period.
  - The IT/BPO sector had the most impressive growth (152%), followed by health (77%), transport (68%), financial services (48%), construction (42%), education (39%) and manufacturing (22%).
  - Manufacturing was found to account for 41% of the establishments, followed by education (22%) and health (8%).
  - There was a decline in employment in trade (25%) and accommodation and restaurants (13%), which could be attributed to the second wave of the pandemic that was at its peak during the survey.

#### Key Significance:

- The contemporary data on the status of employment is useful for policy-makers and this survey would help other government departments and Ministries as well.
- The survey would also help the public as they could focus on learning skills that are found lacking in the workforce.

#### Background

- In April 2021, Ministry of Labour and Employment was entrusted with five major All India Surveys by the Government of India. They are-
  1. All-India Survey of Migrant Workers,
  2. All-India Survey on Domestic Workers,
  3. All-India Survey on Employment generated in Transport Sector,
  4. All-India Survey of Employment Generated by Professionals and
  5. All-India Quarterly Establishment based Employment Survey (AQEES)
- **Design and development:** Above five surveys have been developed and designed by Labour Bureau under the technical guidance of an expert group chaired by Prof S. P. Mukherjee and co-chaired by Dr Amitabh Kundu.
- **Expected benefits:**
  - Promote paperless collection of data as these surveys will use tablet PCs in the field work.
  - Use of latest technology is likely to reduce the survey completion time by at least 30 - 40%.
  - For the first time, these surveys will be conducted in major regional languages.
  - These surveys will plug-in the data gap on various aspects of labour and employment.
  - These surveys will aide evidence-based policy making processes.

### The Jharkhand State Employment of Local Candidates Bill, 2021

#### Context

- Recently, the Jharkhand Assembly has passed a Bill, which provides **75% reservation for local people in the private sector.**

#### Key points

- The benefit would be provided to the people earning **up to ₹40,000 salary a month.**
- Once notified, Jharkhand will become the third State in the country, after Andhra Pradesh and Haryana, to pass such law.

### Supervision Committee

- The Bill provides for the constitution of a committee headed by a designated officer to **supervise the employment procedure and issue directions** to the employer concerned as it may deem fit.
- The committee will include Deputy Development Commissioner (DDC), Circle Officer (CO) and the **local MLA**.

### Why it is a good measure?

- When the economic growth is unevenly distributed, the locals perceive that **outsiders garner more shares of the gains from such growth**.
- Moreover, there is a need to **preserve local languages and cultures** and not fall prey to the temptation to impose a single or a common language on all.
- Many experts often stress on the **need to assimilate into the local conditions** which means outsiders and migrants needs to learn the local language and observe the local customs.
- Also, there might be **fewer mishaps and accidents** on the shop floor of manufacturing firms since there are lesser chances of communication gaps leading to such incidents.
- Hiring locals who are **familiar with the terrain and language** is critical in customer facing roles.

### Drawbacks of such measure

- There are chances that some of such jobs would be done by people who might be **less qualified** than those who could have got the job in normal circumstances.
- Reserving jobs for locals **narrows the supply of eligible candidates** that can result in poor and shoddy work.
- **Regional chauvinism** affects the industries and leads to deterioration in industrial growth.
- There are many jobs that **require specialised skills** and innovative abilities that can go waste if the talent pool is narrowed.
- Such measures can also result in the vitiation of the workplace culture since the workforce would be **polarised and split into various groups**.

## Trade and Development Report 2021

### Context

- Recently, UNCTAD (United Nations Conference on Trade and Development) has released a new report titled, **Trade and Development Report 2021**.

### Key points

- The report says that global growth will hit **5.3%, its fastest rate** in nearly five decades.
- In 2022, UNCTAD expects **global growth to slow to 3.6%**, leaving world income still 3.7% below where its pre-pandemic trend would have put it.
- According to the report, this year will see the **global economy bounce back** due to the continuation of radical policy interventions that begun in 2020 and a successful vaccine roll-out in advanced economies.

### Uneven growth

- The **recovery would be uneven** across geographical, income and sectoral lines.
- Within advanced economies, the rentier class has experienced an explosion in wealth, while low-earners struggled.
- **Lack of monetary autonomy** and access to vaccines are holding many developing economies back, widening the gulf with advanced economies and threatening to usher in another lost decade.
- Many **developing countries have been hit much harder** than during the global financial crisis, while their now-heavier debt burden reduces their room for fiscal policy.
- The pandemic response in developed countries has activated a **resurgent state** and suspended fiscal constraints, but international rules and practices lock developing countries into pre-pandemic responses and a semi-permanent state of economic stress.
- These **widening gaps**, both domestic and international, are a reminder that underlying conditions, if left in place, will make resilience and growth luxuries enjoyed by fewer and fewer privileged people.
- Across the world, but particularly in developing regions, the **damage from the COVID-19 crisis has been greater than that from the global financial crisis (GFC)**, most notably in Africa and South Asia
- Even barring significant setbacks, global output will **only resume its 2016-19 trend by 2030**.

### Four lessons from the pandemic

- **Any talk of financial resilience in developing countries** would be premature since in many cases investment flows remain volatile and the burden of indebtedness intolerable.

- The pandemic has seen an emergent consensus around the **need for significant public sector intervention**, but there is less agreement on what this will involve beyond countercyclical measures.
  - There is a risk that expansionary fiscal measures will be regarded only as fire-fighting tools, while, in fact, they are critical instruments of long-term development.
- Delivering the necessary **support to build back better** will require much greater policy coordination across systemically important economies.
- The **vaccine reluctance is not only dangerous for the economy**, but also for the whole society. On one recent estimate, the cumulative cost of delayed vaccination will, by 2025, amount to \$2.3 trillion with the developing world shouldering the bulk of that cost.

### Transport and Marketing Assistance Revised

#### Context

- The union government has revised "Transport and Marketing Assistance" (TMA) scheme for Specified Agriculture Products.

#### Key points

- Dairy products, which were not covered under the earlier scheme, will be eligible for assistance under the revised scheme.
- Rates of assistance have been increased, by 50% for exports by sea and by 100% for exports by air.
- Enhanced assistance under the revised scheme is expected to help Indian exporters of agricultural products to meet rising freight and logistics costs.

#### Transport and Marketing Assistance scheme About

- In 2019, the Department of Commerce had introduced 'Transport and Marketing Assistance (TMA) for Specified Agriculture Products Scheme'.
- The objective was to provide assistance for the international component of freight,
- Also, it aimed to mitigate disadvantage of higher freight costs faced by the Indian exporters of agriculture products.
- The scheme was initially applicable for exports effected during the period from 01.03.2019 to 31.03.2020 and was later extended for exports effected up to 31.03.2021.
- The scheme was suitably included in the Foreign Trade Policy (2015-20).

#### Coverage

- All exporters, registered with relevant Export Promotion Council as per Foreign Trade Policy, of eligible agriculture products.
- The assistance, at notified rates, will be available for export of eligible agriculture products to the permissible countries, as specified from time to time.

#### Pattern of Assistance

- Assistance under TMA would be provided in cash through direct bank transfer as part reimbursement of freight paid.
- The level of assistance would be different for different regions as notified from time to time for export of eligible products.
- The level of assistance would be different for different regions as notified from time to time for export of eligible products.
- The scheme shall be admissible for the exports made through EDI (Electronic Data Interchange) ports only.
- The scheme covers freight and marketing assistance for export by air as well as by sea

### Wholesale Price Index (WPI)

#### Context

- Recently released Wholesale Price Index (WPI) data shows an increased Inflation in wholesale prices to 11.39% in August, staying in the double digits for the fifth month in a row.
  - Inflation in manufactured products escalated for the fourth month in a row to 11.4% as the second order effects of high fuel prices kicked in.

#### Key Points

- **About WPI:** The Wholesale Price Index represents the price of a basket of goods which are sold at wholesale rates. WPI focuses on the price of goods that are traded between corporations.
- It basically measures inflation at the factory level and not at the consumption point.
- WPI amounts to the average change in prices of commodities at the wholesale level.
- **Key Objective of WPI:** to monitor the price drifts that reflect demand and supply in manufacturing, construction and industry.
  - Also helps in assessing macroeconomic as well as microeconomic conditions of an economy.

- **Compiling (Publishing) Authority:** It is published by the Office of Economic Advisor (Ministry of Commerce & Industry).
- **Base Year for WPI:** The base year of All-India WPI has been revised from 2004-05 to 2011-12 in 2017.

**Key Differences between Consumer Price Index (CPI) and Wholesale Price Index (WPI)**

Parameter	WPI	CPI
Publishing Authority	Office of Economic Advisor, Ministry of Commerce & Industry	- CPI (Combined) is compiled by Central Statistics Office, Ministry of Statistics and Programme Implementation.  - CPI (Industrial Worker), CPI (Rural Labourer) and CPI (Agricultural Labourer) are compiled by Labour Bureau

Base Year	2011-12	2012
Commodities Covered	Captures price changes in Goods only	Capture Price changes in both Goods and Services
Relevance	Tracks inflation at the producer level Relevant for Producers	Tracks changes in prices levels at the consumer level Relevant for Consumers



## Social Issues

### Arsenic Found in Wheat, Potato in Rural Bihar

**Context**

- Recently, scientists-led research has confirmed the presence of arsenic in food chain in Bihar through irrigation water.
- It was found that three common eatables — rice, wheat and potato — had elevated levels of arsenic that consequently increases the disease burden in exposed persons.

**Key points**

- This is the first study where a detailed dietary assessment was conducted on arsenic exposed populations of Bihar to estimate the arsenic exposure from the three major staple foods, cooked rice, wheat flour and potato
- Arsenic contamination in groundwater was a growing concern in several parts of the country. Now, the chemical has found its way into the food chain through rice, wheat and potato.

- Arsenic contamination in drinking water is not new in Bihar.
- This time, however, it was observed that in several samples, arsenic content in food items was higher than that in drinking water.
- Moreover, the concentration was higher in cooked rice compared to raw rice.
- The results emphasise the importance of food-related exposure in arsenic-endemic areas, particularly the areas with high arsenic concentrations in drinking water.

**Key findings**

- At least 77% of households had an arsenic concentration in drinking water below the WHO guideline value of 10 µg / L.
- At least 37% used some form of improved water for drinking, indicating that a significant proportion of drinking water in the studied population may have had arsenic levels lower than 10 µg / L.

- The median contribution of food to overall arsenic exposure was 36 per cent when drinking water exposure was below 10 µg / L.
- Contrary to previous studies, food was found to contribute more to arsenic poisoning than drinking water when the arsenic concentration in drinking water was above 10 µg / L.
- Out of the total districts in Bihar, 22 were reported to have arsenic in drinking water above the WHO provisional guide value of 10 µg / L.
- More than 9 million people were estimated to be drinking water with arsenic above 10 µg / L and 33% of the tested hand tube wells samples normally used for drinking water had arsenic above the WHO provisional guide value.

### Fed to Fail? The crisis of children's diets in early life

#### Context

- Recently, UNICEF has released a new report titled, 'Fed to Fail? The crisis of children's diets in early life' where it has drawn attention to how health emergencies like Covid, along with rising poverty, conflict, inequality and climate-related disasters are contributing to the ongoing nutrition crisis in young children.

#### Key points

##### Child undernutrition

- The report has found that children under the <2 years of age are not getting the food and nutrients necessary for growth, leading to irreversible developmental harm.
- Poor nutritional intake in the first two years of life can irreversibly harm children's rapidly growing bodies and brains, impacting their schooling, job prospects and futures.
- The report studied 91 countries and found that only half of the children between 6-23 months are being fed the minimum recommended number of meals every day.
- Moreover, only a third of the children consume the minimum number of food groups they need to thrive.
- Inadequate intake of nutrients at an early age put children at risk of poor brain development, weak learning, low immunity, increased infections and potentially, death.

#### Covid situation

- Covid has also impacted how families feed infants. For example, a survey conducted among urban households in Jakarta found that half of families have been forced to reduce nutritious food purchases.
- Due to this reason, the percentage of children consuming the minimum recommended number of food groups fell by a third in 2020, compared to 2018.

#### Rural-Urban divide

- Children aged between 6-23 months, who are living in rural areas or are from poorer households, are significantly more likely to be fed poor diets compared to their urban or wealthier peers
- In 2020, the proportion of children fed the minimum number of recommended food groups was twice as high in urban areas (39%) than in rural areas (23%).

### Global Roadmap to Defeat Meningitis

#### Context

- Recently, World Health Organization (WHO) launched the first ever global strategy to defeat meningitis—a debilitating disease that kills hundreds of thousands of people each year.

#### Key points

- The Global Roadmap to Defeat Meningitis by 2030 was launched by a broad coalition of partners involved in meningitis prevention and control.
- Its focus is on preventing infections and improving care and diagnosis for those affected.

#### Meningitis

- Meningitis is usually caused by a viral infection but can also be bacterial or fungal. Vaccines can prevent some forms of meningitis.
- It is leading to around 250,000 deaths a year, and can cause fast-spreading epidemics.
- It kills 1 in 10 of those infected –mostly children and young people—and leaves 1 in 5 with long-lasting disability.
- Symptoms: Symptoms include headache, fever and stiff neck.
- Depending on the cause, meningitis may get better on its own or it can be life-threatening, requiring urgent antibiotic treatment.

### Steps need to be taken

- Expand access to existing tools like vaccines.
- Spearhead new research and innovation to prevent, detecting and treating the various causes of the disease.
- Improve rehabilitation for those affected by this disease.

### Meningitis prevalence

- Over the last ten years, meningitis epidemics have occurred in all regions of the world, though most commonly in the 'Meningitis Belt'.
  - Meningitis Belt: It spans 26 countries across Sub-Saharan Africa.
- These epidemics are unpredictable, can severely disrupt health systems, and create poverty - generating catastrophic expenditures for households and communities.

### Meningitis vaccine

- Several vaccines protect against meningitis, including meningococcal, Haemophilus influenzae type b and pneumococcal vaccines.
- However, not all communities have access to these lifesaving vaccines, and many countries are yet to introduce them into their national programmes.

### Priorities of the global roadmap

- Achievement of high immunization coverage, development of new affordable vaccines, and improved prevention strategies and outbreak response;
- Speedy diagnosis and optimal treatment for patients;
- Good data to guide prevention and control efforts;
- Care and support for those affected, focusing on early recognition and improved access to care and support for after-effects, and
- Advocacy and engagement, to ensure high awareness of meningitis, accountability for national plans, and affirmation of the right to prevention, care and after-care services.

### Goals

- To eliminate epidemics of bacterial meningitis by 2030.
- To reduce deaths by 70% and halve the number of cases by 2030.
- The strategy could save more than 200,000 lives annually and significantly reduce disability caused by the disease.

## Juvenile Justice (Care and Protection of Children) Act, 2015

### Context

- The Women and Child Development Ministry plans to bridge the legislative gap between the **Hindu Adoptions and Maintenance Act (HAMA)** and the **Juvenile Justice (Care and Protection of Children) Act, 2015** that has forced adoptive parents under HAMA to move court to take their child abroad.
  - It will issue a notification to set up a mechanism for NoCs for adoptions under HAMA.
- This will also be in compliance with the **Hague Convention on Inter-Country Adoptions to prevent child trafficking** and is governed through the **JJ Act 2015**.

### Key Features

- **Definition of Juvenile in India:** Juvenile Justice (Care and Protection of Children) Act, 2015 defines "Juvenile" or "Child" as a person who has **not completed 18 years of age**.
  - The JJ Act changed the nomenclature from 'juvenile' to 'child' or 'child in conflict with law'.
- **Categorization of crime:** The JJ Act categorizes the crimes committed by children into three categories- **Petty, Serious and Heinous Offences**.
- **Provides an Exception for Heinous crimes:** In the case of heinous crimes, Children in the age group of 16 – 18 years can be treated as adults provided that the Juvenile Justice Boards (JJB) has assessed the child's physical and mental capacities and certify the child.
- **Institutional Machinery:** The JJ Act provides for mandatory setting of following JJBs and Child Welfare Committees (CWCs) in each district having at least a woman member in each JJB/CWC.
  - **Juvenile Justice Boards (JJB):** This is a judiciary body which acts as a separate court for children detained or accused of a crime under the JJ Act.
  - **Child Welfare Committee:** Set up by state governments as per The JJ Act.
    - CWCs have the power to dispose of cases for the care, protection, treatment, development and rehabilitation of the children in need of care and protection, as well as to provide for their basic needs and protection.
    - The committee also certifies the Child as legally free for the adoption process.

- All Child Care Institutions (CCIs) across India were to get themselves registered under the Act within six months from the date of commencement of the Act.
  - This will facilitate better monitoring and quality standards in these CCIs.
- **Central Adoption Resource Authority (CARA):** The JJ Act provided CARA a statutory body status under the Act. This will facilitate better performance and functioning of CARA.

### MusQan Initiative

#### Context

- Recently, Ministry of Health and Family Welfare has launched MusQan initiative to ensure child friendly services in public health facilities.

#### Key points

- MusQan is a new quality improvement initiative for the paediatric age group (0-12 years), within the existing National Quality Assurance Standards (NQAS) framework.
- MusQan is designed to ensure provision of quality child-friendly facility based services from birth to children upto 12 years of age.

#### Goal

- MusQan aims to ensure provision of quality child-friendly services in public health facilities to reduce preventable newborn and child morbidity and mortality.

#### Objectives

- To reduce preventable mortality and morbidity among children below 12 years of age.
- To enhance Quality of Care (QoC) as per National Quality Assurance Standards (NQAS).
- To promote adherence to evidence-based practices and standard treatment guidelines & protocols.
- To provide child-friendly services to newborn and children in humane and supportive environment.
- To enhance satisfaction of mother and family, seeking healthcare for their child.

#### Strategies

- A framework has been developed to highlight four key strategies for rollout of 'MusQan' along with proposed actions for implementation.
  - Strengthen clinical protocols and management processes

- Children & parent-attendant friendly ambience and infrastructure
- Strengthen referral and follow up service
- Provision of respectful and dignified care

#### Institutional Framework

##### National level

- The primary role of the Central Quality Supervisory Committee (CQSC) is to provide overall guidance, monitoring and mentoring of quality assurance efforts under various programmes/initiatives.

##### State level

- State Quality Assurance Committees (SQACs) are functional in all states/UTs
- The committee's main responsibility is to oversee quality assurance activities in the state in accordance with National & State guidelines.

##### District level

- District Quality Assurance Units (DQAUs) are the functional arm of District Quality Assurance Committees in the States/UTs.
- The DQAU's main responsibility is to oversee quality assurance activities across the district in accordance with National & State guidelines.

##### Facility level

- The facility-level team comprises of Medical Superintendent or facility in-charge, Hospital Manager (wherever available), nursing in-charge and representative from other functional and related departments.
- The primary responsibility of the quality team is to oversee quality assurance activities across the facility.

### National Action Plan for Dog Mediated Rabies Elimination

#### Context

- Recently, Ministry of Fisheries, Animal Husbandry & Dairying and Ministry of Health and Family Welfare have jointly unveiled the **National Action Plan for dog Mediated Rabies Elimination by 2030** (NAPRE).

#### Key points

- All the states and Union Territories have been urged to make rabies a **notifiable disease**.

- A 'Joint Inter-Ministerial Declaration Support Statement' was also launched for elimination of dog mediated rabies from India by 2030 through **One Health Approach**.

### About Rabies

- Rabies is a **vaccine-preventable viral disease** which occurs in more than 150 countries and territories.
- **Dogs are the main source of human rabies deaths**, contributing up to 99% of all rabies transmissions to humans.
- Infection causes **tens of thousands of deaths** every year, mainly in Asia and Africa.
- Globally rabies causes an estimated **cost of US\$ 8.6 billion** per year
- **40% of people bitten** by suspect rabid animals are children under 15 years of age.
- Immediate, thorough wound washing with soap and water after contact with a suspect rabid animal is crucial and can save lives.
- Engagement of multiple sectors and **One Health collaboration** including community education, awareness programmes and vaccination campaigns are critical.
- WHO leads the collective "**United Against Rabies**" to drive progress towards "Zero human deaths from dog-mediated rabies by 2030".

### Rabies in India

- Zoonotic diseases like Rabies claims the lives of people in their prime **denying the family of their earning member**.
- People in rural areas refer to the disease as '**Hadakwa**' and was unfamiliar with the English name.
- The menace of rabies is such that the mere mention of 'Hadakwa' induces terror in rural areas.
- Rabies is **100% fatal but 100% vaccine preventable**.
- **33% of global rabies deaths** are recorded in India.

### Prevention of rabies

- **Eliminating rabies in dogs:** Vaccinating dogs is the most cost-effective strategy for preventing rabies in people.
- **Awareness on rabies and preventing dog bites:** Education on dog behaviour and bite prevention for both children and adults is an essential extension of a rabies vaccination programme.

- **Immunizing people:** Pre-exposure immunization is recommended for
  - people in certain high-risk occupations such as laboratory workers handling live rabies and rabies-related viruses; and
  - people (such as animal disease control staff and wildlife rangers) whose professional or personal activities might bring them into direct contact with bats, carnivores, or other mammals that may be infected.

## NUTRI GARDEN

### Context

- Woman and Child Development minister inaugurated **NUTRI GARDEN at All India Institute of Ayurveda** to mark the beginning of **Poshan Maah - 2021**.

### Key points

- It will provide knowledge about how the **ancient wisdom of Ayurveda** intervention can be effectively utilized to **address the nutrition requirement** of the nation.
- The Minister of State had highlighted the nutritional and medicinal importance of few Ayurvedic herbs like **Shigru, Shatavari, Ashwagandha, Amala, Tulasi, Haldi**.
- He also emphasised on importance of promoting **evidence-based Ayurveda nutrition** practices for holistic wellbeing of mother and child.

### What are nutri-gardens?

- A nutri-garden project is a **cost-effective model** to grow **nutrient-rich crops** for personal or community consumption to promote good health and well-being.
- It helps tackle **both under-nutrition and over-nutrition** by adopting a sustainable life cycle approach.
- Nutri Garden Odisha is one such successful model.



### Process of making a nutri-garden

- A nutri-garden project must have **children as the primary participants**, and should be executed in a phased manner.

#### Phase 1

- **Nutri Garden in Anganwadi:** The project should be undertaken in a **few government schools and Anganwadi Centres (AWCs)** across a district.
- It will encourage **local availability of diversified vegetables** for mid-day meals.
- Its successful implementation would require **convergence among the different departments** namely, agriculture, horticulture and other related functionaries.
- It will enhance **nutritional literacy among students**, and make them understand the basis of choice of crops (based on season and topography) and their nutritional content.
- Based on the outcomes and learning from the pilot, the project should further be scaled-up to include **all government schools** in the district.

#### Phase 2

- Under this phase, the project could be **extended to private schools**, which could adopt the culture of nutri-gardens.
- **Learning by doing approach:** Schools should create nutri-clubs as part of extra-curricular activities and promote organic farming as part of the curriculum.

### Benefits of nutri-gardens

- It promotes **safe and healthy eating** habits among students.
- It provides nutritious food that can address **micro & macro nutrient deficiencies** in children.
- It provides better **use of vacant land lying idle** at the schools and AWCs (Aangan Waadi Centres).
- It also ensures an **inexpensive, regular and handy supply** of fresh vegetables, which are basic to nutrition.
- It brings **diversification in the menu** of mid-day meals at government schools and AWCs.
- It turns **children into catalysts** who promote awareness and behavioural changes in society.

### Challenges

- **Lack of availability of vacant land**, water and other necessary infrastructure to create a nutri-garden.
- **Insufficient funds** from the administration.

- **Unmotivated staff at AWCs** and schools due to their existing workload and no absence of incentives
- **Difficulty in bringing government functionaries** on a single platform to effectively implement the concept.

## POSHAN 2.0

### Context

- Recently, the Ministry of Women and Child Development (MWCD) has launched POSHAN 2.0 and has urged all the states to ensure that **all aspirational districts in India have a POSHAN vatika (nutrition garden)** at anganwadi centres during the Nutrition Month or the **POSHAN Maah**, which is starting from 1 September.

### About POSHAN 2.0 scheme

- Mission POSHAN 2.0 (Saksham Anganwadi and POSHAN 2.0) has been announced in the **Budget 2021-2022**.
- It is an **integrated nutrition support programme**, to strengthen nutritional content, delivery, outreach and outcomes with **focus on developing practices that nurture health**, wellness and immunity to disease and malnutrition.

### POSHAN Vatikas

- Know everything about Poshan Vatikas or Nutri Garden from **here**. ##add link##

### POSHAN Maah

- Every year, **September month** is celebrated as Rashtriya POSHAN Maah to give momentum to **convergence and behaviour change** efforts as envisioned under the POSHAN Abhiyaan.
- This year, to celebrate the Azadi Ka Amrit Mahotsav, the entire month has been subdivided into **weekly themes** to improve nutrition.
- The MWCD has planned a **series of activities** throughout the month in collaboration with the States/UTs.
- The month-long celebrations of the POSHAN Abhiyan mission places special attention on **Severe Acute Malnourished (SAM)** children.

### POSHAN Abhiyan or the National Nutrition Mission

- POSHAN (**Prime Minister's Overarching Scheme for Holistic Nutrition**) Abhiyaan is MWCD's flagship programme to improve nutritional outcomes for **children, adolescent Girls, pregnant women and lactating mothers**.

- It was launched on the occasion of **International Women's Day** on 8 March, 2018 from Jhunjhunu in Rajasthan.
- It directs the attention of the country towards the **problem of malnutrition** and address it in a mission-mode.
- It aims to ensure attainment of **malnutrition free India by 2022**.
- It also ensures **convergence of multiple programs** and schemes like **ICDS** (Integrated Child Development Scheme), **PMMVY** (PM Matru Vandana Yojana), **NHM** (National Health Mission), among others.

#### Implementation and Targets

- Implementation strategy would be based on intense monitoring and Convergence Action Plan right up to the **grass root level**.
- POSHAN Abhiyaan will be rolled out in **three phases from 2017-18 to 2019-20**.
- POSHAN Abhiyaan targets
  - **Reduce stunting by 2% per annum**
  - **Reduce under-nutrition by 2% per annum**
  - **Reduce anaemia** (among young children, women and adolescent girls) **by 3% per annum**
  - **Reduce low birth weight by 2% per annum**.
- The Mission objective would be to strive to achieve reduction in **Stunting from 38.4% (as reported by 4<sup>th</sup> National Family Health Survey) to 25% by 2022**.

#### 4-Pillar strategy of POSHAN Abhiyaan

- **Inter-sectoral convergence** for better service delivery
- **Use of technology (ICT)** for real time growth monitoring and tracking of women and children
- Intensified health and nutrition services for the **first 1000 days**.
- **Jan Andolan** or "People's Movement".

### World Social Protection Report 2020-22

#### Context

- Recently, World Social Protection Report was launched by the International Labour Organization (ILO).
- World Social Protection Report provides a global overview of progress made around the world over the past decade in extending social protection and

building rights-based social protection systems, in the context of COVID-19.

- **Social protection:** includes access to health care and income security measures related especially to old age, unemployment, sickness, disability, work injury, maternity or the loss of the main breadwinner in a family, as well as extra support for families with children.

#### Key Points about World Social Protection Report

- **"The World Social Protection Report: Social protection at the crossroads - in pursuit of a better future"**- a flagship of the ILO, is an essential contribution to the monitoring framework of the 2030 Agenda for Sustainable Development.
- Based on new data, it offers a broad range of global, regional and country data on social protection coverage, benefits and public expenditures.

#### World Social Protection Report- Key Findings

- **COVID-19 Impact:** It is estimated that the pandemic has increased the number of children living in income-poor households by more than 142 million, bringing the total to almost 725 million.
- **Global Scenario:** 4.1 billion people were living without any social safety net of any kind.
  - In 2020, only 46.9% of the global population benefitted from at least one social protection.
- **Social Protection for Children:** only 26.4 per cent of children globally receive social protection benefits.
  - **Effective social protection is particularly low in some regions:** 18% in Asia and the Pacific, 15.4% in the Arab States and 12.6 per cent in Africa.
  - **National expenditure**, on average, for **social protection for children** is only 1.1% of GDP, compared to 7% of GDP spent on pensions.

#### Key recommendations for enhancing social protection for children

- **Avoid fiscal austerity and use recovery as a policy opportunity** to further strengthen child-sensitive and inclusive social protection systems in order to ensure children's well-being and achieve the SDGs.
- **Ensure adequacy within social protection systems** in terms of **inclusion and gender sensitivity**, and that they address climate-related and conflict-related risks.

## Environment & Biodiversity

### World's First 5-Country Biosphere Reserve

#### Context

- Recently, UNESCO has designated **Mura-Drava-Danube (MDD)**, in Europe as the world's first 'five-country biosphere reserve'.

#### Key points

- The biosphere reserve covers 700 kilometres of the Mura, Drava and Danube rivers and stretches across **Austria, Slovenia, Croatia, Hungary and Serbia**.
- The total area of the reserve — a million hectares — in the often called '**Amazon of Europe**', makes it the largest riverine protected area on the continent.
- The new reserve represents an important contribution to the European Green Deal and contributes to the implementation of the **EU Biodiversity Strategy** in the Mura-Drava-Danube region.
  - The EU Biodiversity Strategy's aim is to **revitalise 25,000 km of rivers** and **protect 30% of the European Union's land** area by 2030.

#### About the Mura-Drava-Danube (MDD) reserve

- The reserve is home to **floodplain forests**, gravel and sand banks, river islands, oxbows and meadows.
- It is also a home to continental **Europe's highest density of breeding white-tailed eagle**, as well as endangered species such as the little tern, black stork, otters, beavers and sturgeons.
- It is also an important annual **resting and feeding place** for more than 250,000 migratory birds, according to WWF.
  - Moreover, almost 900,000 people live in the biosphere reserve.
- Additional **projects for nature** and people are already being implemented in the area. They have a combined funding of around 20 million Euros and are co-financed by the European Union.
  - These projects put river **revitalisation, sustainable business** practices enhancing cross-border cooperation into focus.
  - One such project is the **Interreg Danube Transnational Programme**-funded Amazon of Europe Bike Trail, a long-distance cycling trail following the Mura, Drava and Danube River landscapes for over 1,250 km.

### Behler Turtle Conservation Award

#### Context

- Recently, Indian biologist **Shailendra Singh** has been awarded the **Behler Turtle Conservation Award** for bringing three critically endangered turtle conservation species back from the brink of extinction.
- Shailendra Singh's work has been recognized for 'being the last hope for the wild survival' of some species of turtles in India like-
  - Red-crowned Roofed Turtle (Batagur kachuga),
  - Northern River Terrapin (Batagur baska), and
  - Black Softshell Turtle (Nilssonina nigricans)

#### Key Points

- **About:** The Behler Turtle Conservation Award is a major annual international award honoring excellence in the field of tortoise and freshwater turtle conservation and biology, and leadership in the chelonian conservation and biology community.
  - The award was established by Anders Rhodin and Rick Hudson in 2006 to honor the legacy of turtle conservationist John Behler (1943-2006).
  - It is considered as the "Nobel Prize" of Turtle Conservation.
- **Presenters of the Award:** The Behler Turtle Conservation award is co-presented by
  - the Turtle Survival Alliance (TSA),
  - the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group (TFTSG),
  - the Turtle Conservancy (TC), and
  - the Turtle Conservation Fund (TCF)
- **The Behler Turtle Conservation Award** includes a \$5000 which reflect its increasing prestige and profile.

#### About three Critically Endangered Turtle Species

- **Red-crowned Roofed Turtle (Batagur kachuga):** It is also called as the Bengal roof turtle. It is a freshwater turtle endemic to South Asia.
- **Northern River Terrapin (Batagur baska):** It is a species of riverine turtle native to Southeast Asia and considered extinct in much of its former range.
- **Black Softshell Turtle (Nilssonina nigricans):** It is a species of freshwater turtle found in India (Assam) and Bangladesh. It shares some degree of similarity with the **Indian peacock softshell turtle**.

## Blue Flag Certification

### Context

- Recently, two more beaches from India were awarded 'Blue Flag Certification' tag by Foundation for Environment Education (FEE), Denmark.

### Blue Flag Certification in India

- Kovalam beach in Tamil Nadu and Eden beach in Puducherry** are the two new beaches to receive the **Blue Flag International** Certification.
  - Now a total 10 beaches from India have received 'Blue Flag Certification' tag.
  - 2018: Chandrabhaga beach on the Konark coast of Odisha became the 1<sup>st</sup> Indian as well as 1<sup>st</sup> Asian beach to get Blue Flag Certification.
- Other Eight Blue Flag Certified Beaches in India:**
  - Shivarajpur in Gujarat,
  - Ghoghla in Diu,
  - Kasaragod in Kerala
  - Kappad in Kerala,
  - Padubidri in Karnataka,
  - Rushikonda in Andhra Pradesh,
  - Golden in Odisha, and
  - Radhanagar in Andaman and Nicobar

### Key points

- Background:**
  - 1985:** Blue flag program started in France.
  - 1987:** It was presented to FEE and became the European Blue Flag.
  - 2001:** South Africa became the first country outside of Europe to join the program and this led to its changed name- International Blue Flag.
- About:** Blue Flag Certification is an internationally recognized eco-label awarded by a non-profit organization called the Foundation for Environment Education (FEE), Denmark.
  - The Blue Flag recognition is awarded by a jury comprising members from the IUCN, UNWTO, UNEP, and UNESCO after considering 33 parameters.
- Parameters used:** The certification is based on 33 parameters which are then divided into 4 major categories. They are-
  - Environmental education and information
  - Bathing water quality
  - Environmental management
  - Conservation and safety services in the beaches
- Global scenario:** There are more than 4000 blue flag beaches worldwide with Spain leading the number of beaches per country with this certification.

### Significance:

- Promote clean and sustainable tourism: blue flag beaches should provide clean and hygienic bathing water, along with basic infrastructure for tourists.
- It also advocates against inequality, disparity, unemployment, depletion of natural resources, health and environmental threats, pollution as well as general environmental degradation.

## Climate crisis in North East India

### Context

- North East India is showing various vagaries of climate change such as disruptive weather pattern that has stimulated the calamities, which has affected the geography of the region.

### Key points

- The North East India, which normally receives heavy rainfall during the monsoon months (June-September), has changed character for the worse.
- The flood-drought cycle now has begun to happen within a year, especially during the monsoon.
- Even in the monsoon, the rains come in quick bursts and flood the region, followed by dry periods that leads to drought.
- Between 1989 and 2018, the region has showed a significant decreasing trend in monsoon rainfall.

### Assam

- Recently, a new scenario was presented in the state where the dry drought-like districts were intermixed with floods due to rainfall in other districts.
- The change in geography from the mountains to the plains is abrupt and steep, which makes the region naturally prone to flooding.
- The number of rainy days decreased in most districts to the north of the Brahmaputra. This means that increased rainfall now happens over fewer days, increasing chances of river flooding.

### Arunachal Pradesh

- The increased flooding observed in Upper Siang and Upper Subansiri rivers may be due to an increase in rainfall.
- Upper Siang shows a significant decreasing trend in the number of rainy days, which translates to more rainfall over fewer days.

- Districts like West Kameng and East Kameng in the western part of the state showed a decrease in the flow of mountain springs and streams in recent decades, which could be due to the decrease in rainfall.

### Nagaland

- Here, the gradient of the rivers is not as steep as it is in Arunachal Pradesh, hence the rivers are not as prone to flooding.
- Recent instance of heavy rainfall events, however, have brought floods to places that had not witnessed such calamities in decades.

### Sikkim

- North Sikkim showed an increasing trend in monsoon rainfall, which may be causing an increase in flooding in the Teesta River, a tributary of Brahmaputra River.
- This may have led to landslides downstream in South Sikkim, especially around Gangtok, a phenomenon that has been observed since 1997.

### Manipur

- Around 67% of the population of the region is dependent on agriculture, which puts extreme pressure on a small region to feed its entire population.
- Therefore, changing rainfall patterns in the state will impact agriculture, which in turn will affect the state's food security.

### Meghalaya

- The state receives 71% of its annual rainfall during the monsoon months.
- The district has flat-topped hills and several rivers, and has seen significant decrease in the number of rainy days.
- The unpredictability of the region can be gauged from the fact that the rainfall in July, the wettest month in the state, had a variability of 40%.

### Mizoram

- While the overall rainfall in the 30 years has remained constant, the region has seen a substantial drop in the number of rainy days.
- This has been accompanied with a substantial increase in heavy rainfall days. The region receives 67% of its annual rainfall during the monsoon months.

### Tripura

- The state has seen a decreasing trend over the 30 years, though it is not significant.
- The unique challenge, though, is that all districts now receive fewer overall rains during the monsoon season, which accounts for 60% of its annual rains.

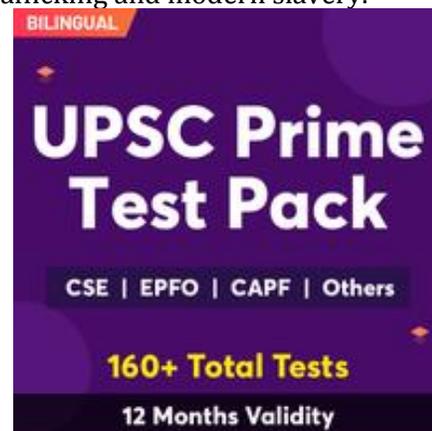
## Climate induced migration and modern slavery

### Context

- Recently, International Institute for Environment and Development (IIED) and Anti-Slavery International has released a new report titled '**Climate-Induced Migration and Modern Slavery**'.
- The report has highlighted that climate change-induced extreme weather phenomenon put women, children and minorities at risk of **modern slavery and human trafficking**.

### Key points

- According to the report, modern slavery — including **debt bondage, bonded labour, early or forced marriage and human trafficking** — converge with climate change, particularly climate-related forced displacement and migration.
- The report believed that climate change acts as a "**stress multiplier**" on existing factors such as poverty, inequality and conflict that drive modern slavery, with those uprooted from their homes especially at risk.
- The report describes situations where **women and girls** affected by climate change impacts find themselves **prey to trafficking agents**.
- The research includes case studies from West Africa and the coastal Sundarbans region of India and Bangladesh.
  - It shows that more extreme weather and rising seas, which push people to move, are putting vulnerable groups at greater risk of human trafficking and modern slavery.



### A case of Sunderban

- The Sunderban delta region witness intense, recurrent and **sudden onset disasters**, as well as **slow onset ecological degradation** that makes large areas uninhabitable.
- Coupled with above, **rising sea levels, erratic rainfall, increased frequency of cyclones, tidal surges and floods**, mean that millions of people across the Sundarbans are unable to work for most of the year.
- The disasters take a heavy toll on lives and livelihoods of the people living in the region.

### Economic damage

- In 2009, **Cyclone Aila** caused widespread damage to lives and livelihoods.
- Similarly, in 2020, during **Cyclone Amphan**, embankment was breached and seawater entered the flood plains resulting in widespread displacement from homes and loss of livelihoods for more than two million people.
- Severe cyclone and flooding in Sundarbans delta had also **reduced the land for agriculture**, a major source of livelihood.

### Social damage

- Such events made locals vulnerable to traffickers and drove them into forced labour. According to a report, **human trafficking had increased following the tsunami** in Indonesia in 2004.
- The annual **flooding in Assam north-east India** has forced women and girls into child slavery or forced marriage to make ends meet

### Recommendations to address the connection between climate change, migration and modern slavery

- **Slavery as a mainstream policy issue** should be incorporated into climate and development planning. Priority should be to recognise and the connection between climate-induced migration and modern slavery.
- **Clear targets and actions need to be considered to end forced labour**, modern slavery, human trafficking, and child labour in all its forms., in line with Sustainable Development Goal 8.7.
- **Include affected communities in decision making** while shaping policy interventions.
- Convergence between existing development and climate finance should be explored, to address the connection between climate-induced migration and slavery risks.

- There is a need to **consider vulnerability to slavery in the framing of social protection initiatives** and climate risk management, and create a rights-based approach for providing access to basic services and social safety nets to all vulnerable households.
- There is a need to **identify hotspots based on layering climate risks** with socio-economic, political and institutional risks, and to identify the migration pathways pursued by vulnerable communities during climate crises.
- Anticipatory action needs to be taken to **move people to safety before disasters strike**, including plans to relocate and resettle displaced communities.

### Cyclone Gulab- Key Features and Naming of Cyclones

#### Context

- The India Meteorological Department (IMD) said that Cyclone Gulab, which has turned into a deep depression after crossing the coast of Andhra Pradesh, could give birth to a fresh cyclone in the Arabian Sea.
  - IMD has issued 'red' and 'orange' alerts for meteorological subdivisions covering coastal Andhra Pradesh, Telangana, Vidarbha, Marathwada, Madhya Maharashtra, Konkan, Goa and Gujarat till 30 September.
- Earlier, the **India Meteorological Department (IMD)** in Odisha and Andhra Pradesh, as the depression in the Bay of Bengal has intensified in **cyclone Gulab**.
  - Odisha evacuated about 40,000 people in six southern districts ahead of the storm.

#### Key Points

- **About:** Cyclonic Storm 'Gulab' (pronounced as Gul-Aab) originated over Northwest & adjoining west-central Bay of Bengal.
- **Naming of cyclone Gulab:** The name 'Gulab' was proposed by Pakistan from the list of names approved by the World Meteorological Organization (WMO).

#### Naming of Cyclones

- **Origin:** In 2000, WMO agreed to start assigning names for cyclones over the North Indian Ocean basin using a list of names suggested by the countries surrounding the ocean basin.
  - Initially, India expressed reservations about naming cyclones.

- After four years of continuous deliberations, the **India Meteorological Department (IMD)** initiated the naming of the North Indian Ocean storm with '**Cyclone Onil**' in September 2004.
- **Process of Naming Cyclones:**
  - There are **six regional specialised meteorological centres (RSMCs)** and **five regional Tropical Cyclone Warning Centres (TCWCs)** across the globe.
  - **IMD's RSMC in New Delhi** is one among them that **provide advisories to 13 countries** in the north Indian Ocean basin: Bangladesh, India, Iran, Maldives, Myanmar, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Thailand, United Arab Emirates and Yemen.
  - RSMC, New Delhi is, therefore, **responsible for naming cyclones over the Bay of Bengal and the Arabian Sea based on the suggested names from all these countries.**

#### What if Cyclone Gulab give birth to a fresh cyclone in the Arabian Sea?

- **Change of Name:** the present system will be given a new name if the wind speed touches 68km/hr.
- It will only be the third such instance since 1996 when a cyclone after making landfall would further strengthen and re-emerge as a fresh system of 'cyclone' category in the North Indian Ocean region.
  - For Instances, very-severe cyclone Gaja- formed in the Bay of Bengal- had crossed the Tamil Nadu coast and later re-emerged in the Arabian Sea from central Kerala.
  - Gaja brewed in the Bay of Bengal for nearly 10 days before making landfall and had one of the longest cyclone tracks covering 3,418 kms.

### Dibru Saikhowa National Park

#### Context

- Recently, the Supreme Court formed an expert committee led by former Justice B.P. Katakey to assess the damage and the cost of reparation of the Dibru-Saikhowa National Park and surrounding ecologically fragile areas of Assam, which were damaged in the Baghjan oil well fire in May 2020.
- Justice Katakey's committee substitutes the National Green Tribunal's 10-member committee led by the Assam Chief Secretary.

#### Background

- Environmental clearances for the seven proposed drilling sites in the Dibru- Saikhowa National Park were given by the Ministry of Environment to Oil India Corporation (OIL).

- Then the Baghjan pipe oil well had caught fire and caused extensive damage to flora and fauna in the area.
- NGT ordered a probe into the damage and the cost of reparation of the Dibru-Saikhowa National Park and surrounding ecologically fragile areas of Assam.

#### Key Points

- **About:** Dibru Saikhowa National Park is located in Dibrugarh and Tinsukia districts of Assam.
- It is a National Park as well as a Biosphere Reserve situated in the south bank of the river Brahmaputra.
- **Dibru Saikhowa National Park** is bounded by the Brahmaputra and Lohit Rivers in the north and Dibru river in the south.

#### Ecological Significance

- **Protection status:** It is a National Park as well as a Biosphere Reserve situated in the south bank of the river Brahmaputra.
  - Dibru Saikhowa National Park was designated a Biosphere Reserve in July 1997 with an area of 765 sq.km.
  - Dibru Saikhowa National Park is identified as **Important Bird Area (IBA)** by the Birdlife International. It is most famous for the **rare white-winged wood ducks and feral horses.**
- **Forest Type:** Dibru-Saikhowa comprises semi-evergreen forests, deciduous forests, littoral and swamp forests and patches of wet evergreen forests.
  - The Park is renowned for natural regeneration of **Salix trees.**
  - **Maguri Motapung wetland** is a part of the Reserve.
- **Key wildlife:** Dibru Saikhowa National Park is known to provide habitat to 36 species of mammals like Tiger, Elephant, Leopard, Jungle Cat, Bears, Small Indian Civet, Squirrels, Gangetic Dolphin, Hoolock Gibbon, etc.

### First Dugong Centre of India

#### Context

- Recently, the **Tamil Nadu government** announced that a 500-sqkm dugong conservation reserve will soon be set up in the **Palk Bay.**
- It would be **India's first dugong reserve.**

#### Key points

- The proposed conservation area has the **highest concentration of dugongs** in the country.
- The local communities have been allowed to continue their fishing activities in the traditional way. However, there is a **ban on trawling and gill nets.**

- **Awareness programmes** are being conducted for fishing communities and appreciation awards are given to fishermen who release dugongs that are accidentally caught.
- Though dugongs used to be previously poached for meat, now with awareness, it has **completely stopped**.

### What are Dugongs?

- Dugongs (Dugong dugon) is a **herbivorous mammal**.
- They are also called the **sea cow**.
- They can grow upto **three meters long, weigh about 300 kilograms**, and live for about 65 to 70 years, grazing on seagrass and coming to the surface to breathe.
- They are found in **more than 30 countries**.
- In India, they are seen in the **Gulf of Mannar, Gulf of Kutch, Palk Bay, and the Andaman and Nicobar Islands**.

### Why the need for conservation?

- The **loss of seagrass habitats, water pollution and degradation** of the coastal ecosystem due to developmental activities have made life tough for these slow-moving animals.
- Dugongs are also victims of **accidental entanglement** in fishing nets and collision with boats and trawlers.
- Due to these reasons, dugongs are listed as **Vulnerable on the IUCN Red List** of Threatened Species.
- Globally, dugongs are listed in **Appendix I** of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
  - CITES is a treaty that prohibits the trade of the species and its parts.

## UN Glasgow Climate Change Conference- UNFCCC COP 26

### Context

- Recently, United Nations Secretary-General warned that “unless we collectively change course, there is a high risk of failure” at the much-anticipated U.N. Climate Change Conference of 2021.
- Due to COVID-19, the 26th session of the Conference of the Parties (COP 26) to the UNFCCC was postponed in 2020 and will take place in Glasgow, Scotland in November 2021.

### UN Glasgow Climate Change Conference- Key Points

- **About:** The COP 26 UN Climate Change Conference will be hosted by the UK in partnership with Italy from 31 October to 12 November 2021 in the Scottish Event Campus (SEC) in Glasgow, UK.
- **Participation:** More than 190 world leaders will participate, along with tens of thousands of negotiators, government representatives, businesses and citizens for twelve days of talks.
- **Key Objective:** The summit will bring parties together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change.

### United Nations Framework Convention on Climate Change (UNFCCC)

- **Background:** UNFCCC was signed in 1992 as a result of the United Nations Conference on Environment and Development.
  - **United Nations Conference on Environment and Development** is also known by other names like the Earth Summit, the Rio Summit or the Rio Conference.
  - Two other outcomes of Rio Conference were- **Convention on Biological Diversity** and **United Nations Convention to Combat Desertification**.
- **About UNFCCC:** it is a multilateral treaty governing actions to **combat** climate change through adaptation and mitigation efforts directed at control of emission of Green House Gases (GHGs) that cause global warming.
  - It is considered the parent treaty of both Kyoto Protocol (1997) and Paris Agreement (2015).
  - UNFCCC **entered into force on 21st March 1994**, and has been ratified by 197 countries.
  - **India ratified the UNFCCC in 1993**.
- **Nodal Agency in India:** Ministry of Environment, Forests and Climate Change (MoEFCC) acts as the nodal agency for UNFCCC in India.

## Leaded Petrol Eradicated Says UNEP

### Context

- In a press event, UNEP (United Nations Environment Programme) has announced that globally, **automotive fuel is completely lead-free now**.
- It means not a single fuel outlet sells leaded petrol anymore anywhere.

### Key points

- It is a landmark global success as it has been one of the most consistent, persuasive and aggressive global campaigns to **fight the poison to protect public health**, especially the brain health of children.
- The campaign was led and supported by the **UNEP and its Partnership for Clean Fuels and Vehicles (PCFV)** in accomplishing the global objective.

### Leaded Petrol Meaning

Petrol containing tetraethyl lead in order to improve combustion.

### Journey of leaded petrol eradication

- Soon after the anti-knock and octane-boosting properties were discovered, the practice of adding **tetraethyl lead to petrol** had spread widely to all the countries.
- This deadly neurotoxin has contributed immensely to the **damage of public health**, especially to the children since then.
- It has **taken 100 years to stop the use** of leaded fuel finally.
- While all countries have followed different timelines for the lead phaseout, developing countries, especially those in Africa and a few in Asia have taken the longest time.
- **Algeria was the last country** to eradicate leaded petrol.
- When PCFV was created in 2002, a global target for elimination of leaded petrol was set. At that time, **117 countries were still using leaded petrol**.
- A sub-regional agreement was reached to phase out leaded gasoline by **January 1, 2006**.
- There were several barriers including misinformation around the use of unleaded petrol to challenges of addressing refinery processes and the associated costs.

### Why leaded petrol eradication was so necessary?

- **Health at stake:** According to the World Health Organization (WHO), lead is toxic and affects multiple body systems, particularly to young children.
- **Harms vehicle technology:** Lead has damaging impact on the emissions control systems of vehicles.
  - Evidence has mounted to show that lead in petrol damages the catalytic converters.

### Leaded petrol eradication in India

- India was among the **pioneering countries** that took early action to phase out leaded petrol.
  - The process of phase down **started in 1994 and got completed in 2000**.

- **Supreme Court also directed** introduction of unleaded petrol to enable adoption of catalytic converters in petrol cars.
- The entire country got **low-leaded petrol in 1997** while leaded fuel was banned in the National Capital Territory of Delhi.
  - Unleaded and low-leaded petrol were also extended to all other state capitals and major cities by 2000.

### About e10 petrol

E10 petrol is blended with up to 10% renewable ethanol and made up of materials such as low-grade grains, sugars and waste wood, making it greener than existing petrol

## Global Green Hydrogen Hub

### Context

- Union Minister of State (Independent Charge), Ministry of Science & Technology, Dr Jitendra Singh said that **India has the potential to become the global Green Hydrogen hub** in near future.

### Key points

- While speaking at **International Climate Summit 2021: 'Powering India's Hydrogen Eco System'**, the minister stated that the country's **undivided energies** should be invested to attain the aim of minimising emission and that is only possible if we adopt a **proactive approach**.
- The theme "Powering India's Hydrogen ecosystem" is a **precursor to the 26th CoP** to the UN framework convention on climate change (UNFCCC) to be convened in Nov 2021 at Glasgow.

### National Hydrogen Portal

- The minister also launched the National Hydrogen Portal **www.greenhydrogen-India.com**.
- The platform is a **one-stop information source** for research, production, storage, transportation and application of hydrogen across India.

### International Climate Summit

- It is an initiative of the **PHD Chamber of Commerce and Industry's** environment committee.
- The ICS has partnered with **Invest India** for the event.
- **India hosted** the key summit whereby the global hybrid summit built a dialogue for **India's transition to clean energy**.

- The summit brought together policymakers, regulators, industry leaders, experts, and scientists from across the world to reach an agreement on **climate change and sustainability issues**.
- Reliance Chairman Mukesh Ambani, a keynote speaker at the summit, has set an ambitious target of delivering **1 kg of hydrogen for \$1 in 10 years** in his speech.

### Steps taken by the government to promote hydrogen

- The central government has considered using **2000 megawatt solar and wind power** capacity for producing hydrogen.
- **Hydrogen auctions** will be conducted to cut down greenhouse gas emissions as industries will be encouraged to use the technology to store electricity and also prospectively operate vehicles.
- Businesses such as the **fertilizer and petroleum refineries** will be mandated to buy 10% of their requirements of hydrogen from domestic sources of green hydrogen.
- Launch of **National Hydrogen Energy Mission**.
- National Thermal Power Corporation Limited (NTPC) has signed a MoU with Siemens to use the company's **renewable energy plants to produce green hydrogen**.
  - Similarly, the Indian Oil Corporation will establish a plant with a capacity to produce **one tonne of the hydrogen** on a daily basis.

## Global Methane Pledge

### Context

- Recently at the Major Economies Forum on Energy and Climate (MEF), the US President announced the Global Methane Pledge.
- MEF was hosted virtually by US White House and saw participation from many countries including India as well as UN Secretary General António Guterres.

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### Key Points

- **About:** Global Methane Pledge is a U.S.–EU-led effort to cut methane emissions by a third based on 2020 levels, by 2030.
- Global Methane Pledge is expected to be formalized at the COP26 climate conference in Glasgow, Scotland in November 2021.

### Expected Outcomes

- **Reduced Global Warming:** Global Methane Pledge is expected to reduce the global heating by 0.2 Degree Celsius by the 2040s, compared with likely temperature rises by then.
- **Promote Global Cooperation:** Global Methane Pledge will nudge other countries to take similar pledge and cooperate on various global warming related issues in a more cooperative and complimentary manner.
- **Other Benefits:** Global Methane Pledge will also produce a very valuable side benefit, like improving public health and agricultural output.

### Methane- Key Points

- **About:** Methane is a hydrocarbon and consists of one carbon atom and four hydrogen atoms (CH<sub>4</sub>). Methane is the second most abundant human-caused greenhouse gas (GHG).
- **Sources of Methane:**
  - **Natural Source:** Approximately 40% of methane emitted is from natural sources and
  - **Anthropogenic Sources:** About 60% of Methane comes from human-influenced sources, including livestock farming, rice agriculture, biomass burning and so forth.
- **Global Warming Potential of Methane:** Methane is a greenhouse gas and is 80-85 times more potent than carbon dioxide in terms of its global warming capacity.

## Global Warming and Permafrost

### Context

- Recently, IPCC has released a report in which it has warned that increasing global warming will result in reductions in Arctic permafrost and the thawing of the ground is expected to release greenhouse gases like methane and carbon dioxide.

### Permafrost: What is it?

- It is defined as ground—soil, rock and any included ice or organic material—that remains at or below zero degree Celsius for at least two consecutive years.

- Permafrost is spread across an area of over 23 million square km, covering about 15% of the land area of the globe.

#### Immediate effects of melting of permafrost

- The very first and immediate impact will be on the cities where roads and buildings are constructed on permafrost. For example, Russian railways.
  - In the northwest of Canada, a short section of the road is there where it has been necessary to chill the ground to make the foundation of the road colder than it is, so as to preserve the permafrost.
- Permafrost is the reservoir of organic material. Upon thawing, this material will become available for microbiota to break down.
  - The biota will release carbon dioxide, and in others release methane which is about 25 to 30 times more potent as a greenhouse gas than carbon dioxide.
- The total quantity of carbon that is now buried in the permafrost is estimated at about 1500 billion tonnes and the top three meters of the ground has about 1000 billion tonnes.
- The world currently emits around 10 billion tonnes of carbon a year into the atmosphere.
- In this scenario, if the permafrost thaws and releases even 1% of the frozen carbon in any one year, it could nullify anything that we do about industrial emissions.

#### Forest fires

- This year Russia witnessed a forest fire whose total area was of the size of Portugal.
- Usually, after a fire, it is expected that forest will grow back in the next 50-60 years.
  - This restores the carbon stock in the ecosystem.
- But in the tundra, the peat is where the organic material is and this takes a very long time to accumulate.
- So, when peat is burned and is then released into the atmosphere, then it would take centuries to restore that carbon stock at ground level.

#### Can permafrost lead to pandemic?

- We need more studies to understand emissions caused by permafrost.
- Permafrost has many secrets, which is evident from the fact that we have recently found mammoths in the permafrost in Russia.

- Some of these mammoth carcasses, upon degrading, may reveal bacteria that were frozen thousands of years ago.
- However, it is not possible to say whether these bacteria will be lethal or not.
- Also, the number of diseases that are found in India is much greater than the number of diseases found in Greenland.
- The environment now is so much more suitable than during the Ice Age for not just human life, but also the evolution or development of different viruses and bacteria.

### Groundswell Report

#### Context

- World Bank has recently released the Groundswell report on climate change. The report examines how the impacts of slow-onset climate change, such as water scarcity, decreasing crop productivity and rising sea levels, could lead to millions of “climate migrants” by 2050.

#### Key points

- Hotspots of internal climate migration can emerge as early as 2030 and continue to spread and intensify by 2050.
- Climate change is a powerful driver of internal migration because of its impacts on people’s livelihoods and loss of liveability in highly exposed locations.
- The report is a stark reminder of the human toll of climate change, particularly on the world’s poorest — those who are contributing the least to its causes.

#### Key findings

- In the most pessimistic scenario with a high level of emissions and unequal development, climate change can force around 216 million people in six world regions to move within their own countries by 2050.
  - Those regions are Latin America; North Africa; Sub-Saharan Africa; Eastern Europe and Central Asia; South Asia; and East Asia and the Pacific.
- In the most climate-friendly scenario, with a low level of emissions, the world could still see 44 million people being forced to migrate.

- In the worst-case scenario, Sub-Saharan Africa — the most vulnerable region due to desertification, fragile coastlines and the population's dependence on agriculture — would see the most migrants, with up to 86 million people moving within national borders.
  - Apart from Sub-Saharan Africa, east Asia and the Pacific could force 49 million out of their homes; south Asia, 40 million; north Africa, 19 million; Latin America, 17 million and eastern Europe and Central Asia, 5 million.

### Recommendations of the report

- Immediate and concerted action to reduce global emissions could reduce the scale of climate migration by around 80%.
- Embed internal climate migration in far-sighted green, resilient, and inclusive development planning.
- Reduce global emissions and make efforts to meet the temperature goals of the Paris Agreement.
- Prepare for each phase of migration, so that internal climate migration as an adaptation strategy can result in positive development outcomes.
- Invest in better understanding of the drivers of internal climate migration to inform well-targeted policies.

## IMD and Weather Forecast in India

### Context

- Recently, India Meteorological Department (IMD) said that while rain in September would be “above normal”, the overall June-September rainfall would be at the “lower end” of normal.
- The factors that caused the August deficit were a “negative” Indian Ocean Dipole.
  - **“Negative” Indian Ocean Dipole:** it is characterized by warmer eastern Indian Ocean and colder closer to the Indian coast, which is considered unhelpful for the monsoon.

### Key Points

- **About:** IMD, also referred to as MET department was established in 1875.
- **Headquarter:** situated at Pune with regional offices at Mumbai, Kolkata, Nagpur and Delhi.
- **Parent Ministry:** IMD is an agency of the Ministry of Earth Sciences of the Government of India.
- **Mandate:** It is the principal government agency responsible for meteorological observations, weather forecasting and seismology.

### Categorization of Rainfall distribution

- IMD uses Long Period Average (LPA) as a base to predict the expected amount of Monsoon rainfall in a particular year.
  - **Long Period Average (LPA):** It is the average rainfall recorded during the months from June to September which calculated during the 50-year period.
  - **Role of LPA:** LPA acts as a benchmark in forecasting quantitative rainfall for the monsoon season every year.
- **Categorization of Monsoon Rainfall:** Based on LPA, IMD categorizes yearly monsoon rainfall on an all-India basis in below five categories-
  1. **Normal or Near Normal:** percentage departure of actual rainfall is +/-10% of LPA (rainfall between 96-104% of LPA).
  2. **Below Normal:** When departure of actual rainfall is less than 10% of LPA, that is 90-96% of LPA.
  3. **Above Normal:** When actual rainfall is 104-110% of LPA.
  4. **Deficient:** When departure of actual rainfall is less than 90% of LPA.
  5. **Excess:** When departure of actual rainfall is more than 110% of LPA.

### Dynamical Monsoon Forecasting Model

- **Dynamical Monsoon Forecast Model:** It was recently adopted by IMD which uses the evolving weather patterns to predict monsoon.
  - **In the Dynamical Monsoon Forecast Model,** weather conditions are simulated and projected into the future by supercomputer.
  - Unlike IMD's previous statistical forecasting method, this model is useful for predicting rainfall over smaller spatial and temporal scales.
- **Performance of the Dynamic Model:** It is more accurate at forecasting impending changes in weather a week or two in advance, it has not proved reliable at long-range forecasting in the past three years.
  - For instance, in 2019, the IMD forecast reduced monsoon rainfall at 96% of the LPA but India got record-breaking rainfall at 110% of the average.
  - In 2020, it first forecast 100% of the LPA and updated it to 102%, but India again got a torrential 109% which was outside the 5% error window.

## India's First Ever Euro Green Bond

### Context

- Recently, Power Finance Corporation Ltd (PFC), the leading NBFC in power sector, has successfully issued its maiden Euro 300 million 7-year Euro Bond.

### Key points

- It is the first ever Euro denominated Green Bond issuance from India. Moreover, it is the first ever Euro issuance by an Indian NBFC and the first Euro bond issuance from India since 2017.
- The issuance saw a strong participation from institutional investors across Asia and Europe with a participation from across 82 accounts and was oversubscribed 2.65 times.

### Significance

- It demonstrates India's commitment to achieving the renewable energy goals.
- Moreover, this bond issuance would help PFC in diversifying its currency book as well as the investor base.

### What is a Green Bond?

- A green bond is a type of fixed-income instrument that is specifically earmarked to raise money for climate and environmental projects.
- These bonds are typically asset-linked and backed by the issuing entity's balance sheet, so they usually carry the same credit rating as their issuers' other debt obligations.
- Dating back to the first decade of the 21st century, green bonds are sometimes referred to as climate bonds, but the two terms are not always synonymous.

### What are Euro Green Bonds?

- Since these Green Bonds are regulated by European Union Commission, they are referred to as Euro Green Bonds.

### Green Bonds vs Climate Bonds

- The term 'labelled' green bonds refers to bonds marketed by the issuer as 'green', where the proceeds are for climate / green assets or projects.
- 'Climate-themed bonds' are represented by a broader category of bonds whose proceeds are for climate projects but that are not (yet) labelled as green. It is much wider than the 'labelled green bonds market'.

## India Plastic Pact

### Context

India has become the **first country in Asia** to develop a plastic pact collaboration with **Confederation of Indian Industries (CII)** and **World-Wide Fund for Nature (WWF)**.

### Key points

- India Plastic Pact will be a platform to **promote a circular system for plastics**.
- The platform was launched by **British High Commissioner** to India, Alexander Ellis.
- The India Plastics Pact is an ambitious, collaborative initiative that aims to **bring together businesses, governments and NGOs** to reduce, reuse, and recycle plastics in their value chain.
- The Pact focusses on addressing the **barriers to circularity** in the plastic packaging sector.

### Targets

- The Pact defines a list of unnecessary or problematic plastic packaging and items and take measures to address them through **redesign and innovation**.
- 100%** of plastic packaging to be **reusable or recyclable**.
- 50%** of plastic packaging to be **effectively recycled**.
- 25% average recycled content** across all plastic packaging.

### Objectives

- The Pact aims to **transform the current linear plastics system** into a circular plastics economy that will help achieve the following objectives
- Reduce the use of problematic plastics** in India.
- Retain valuable materials** in the economy for use in other products.
- Generate jobs, investment and opportunities** in the plastics system in India.
- The India Plastics Pact aims to **promote public-private collaborations** that enable solutions to eliminate the plastic waste problem in India and bring innovation to the way plastic is designed, used and reused.

### Plastic waste in India

- India generates **9.46 million tonnes** of plastic waste annually.
- Out of the total waste generated, **40% is not collected**.
- About **half of all plastics** produced in the country are used in packaging, most of it is single use in nature.

### What is circular economy?

The circular economy is a model of production and consumption, which involves **sharing, leasing, reusing, repairing, refurbishing and recycling** existing materials and products as long as possible.

### India's Zombie Threat

#### Context

- EMBER, an independent British energy think-tank, and Bangalore-based Climate Risk Horizons has recently released a report titled, "India's Zombie Threat" which states that India does not require additional new coal capacity to meet expected demand growth by financial year 2030.

#### What are "zombie" projects?

- The ember climate report says that 27 GW of pre-permit and permitted new coal power plant proposals are now superfluous to requirements and will likely end up as "zombie" plants— assets that will exist, but not be operational.
- These surplus plants, if built, will suck in scarce resources and impede India's renewable energy (RE) ambitions.
- But they can be cancelled without needing to sacrifice the power system's ability to meet future demand.

#### Key points

- According to the ember research report, India's peak demand would reach 301 GW by 2030, if it grows at an annual growth rate of 5 per cent.
- The report states that even if India's power demand grows 5 per cent annually, coal-fired generation in the financial year 2030 will be lower than in the financial year 2020, as long as India achieves its renewable energy targets.
- India can free up more than Rs 247,000 crore by "killing" the zombie coal projects.
- By avoiding these unnecessary 'zombie' coal plants, India can not only save lakhs of crores of rupees, but also lower power costs and reiterate its commitment to the success of its clean energy transition goals
- Once these plants are invested, it will lock DISCOMS and consumers into expensive contracts and jeopardise India's RE goals by adding to the system's overcapacity.

### International Day of Clean Air For Blue Skies

#### Context

- Recently, while speaking at a public function to mark '**the International Day of Clean Air For Blue Skies**', the Union Environment Minister has said that the number of cities with "improved air quality" had increased to 104 in 2020 from 86 in 2018.
- He attributed this to policies of the government.
- On the occasion of **the 'International Day of Clean Air for Blue Sky'**, Madhya Pradesh Pollution Control Board directed all the regional officers of the state to organize a public awareness program.

#### Key Points

- **About: International Day of Clean Air For Blue Skies** was established by UN resolution in 2019 at the 74th session of the United Nations General Assembly.
  - International Day of Clear Air for blue skies raises awareness and facilitates actions to improve air quality.
- **First 'International Day of Clean Air For Blue Skies'**: The first event, with the theme "Clean Air for All," was held on September 7, 2020.
- **Second 'International Day of Clean Air For Blue Skies'**: The 2021 theme for the International Day of Clean Air for blue skies is "**Healthy Air, Healthy Planet**" which emphasizes the health aspects of air pollution, especially considering the **COVID-19 pandemic**.
- **Focus:** on prioritizing the need for healthy air for all, while keeping the conversation broad enough to encompass other critical issues such as climate change, human and planetary health as well as the Sustainable Development Goals.

#### Steps taken by UN

- **United Nations Conference on Sustainable Development:** countries committed to promoting sustainable development policies that support healthy air quality in the context of sustainable cities and human settlements.
- **2030 Agenda for Sustainable Development:** outlines a road map to achieving sustainable development, environmental protection and prosperity for all.
  - It recognizes that air pollution abatement is important to the attainment of the Sustainable Development Goals.

## IUCN World Conservation Congress

### Context

- The International Union for Conservation of Nature (IUCN) and the **French government** have agreed to hold the IUCN World Conservation Congress 2020 from 3 to 11 September 2021 in Marseille.

### About the Congress

- The IUCN World Conservation Congress is where the world comes together to **set priorities and drive conservation and sustainable development action**.
- IUCN's 1400+ government, civil society and indigenous peoples' member organisations vote on major issues, action which **guides humanity's relationship with our planet** for the decades ahead.
- IUCN's unique and inclusive membership gives the Congress a powerful mandate as it **is not solely government or non-government**, but both together.

### IUCN Red List

- The IUCN Red List is a critical indicator of the **health of the world's biodiversity**.
- In the recently released data given by IUCN in the World Conservation Congress, it was flagged that around **900 species have officially become extinct**.
- Moreover, 30% of the total species that it assessed face the threat of extinction.
- Around **80 species are extinct in the wild**, and more than **8,400 are critically endangered**.
- It also showed that **37 per cent of the world's shark** and ray species were threatened with extinction.

### Positive news from fisheries

- Four of the seven most commercially fished tuna species have shown signs of recovery. Those are:
  - The **Atlantic bluefin tuna** (*Thunnus thynnus*)—moved from endangered to least concern.
  - The **Southern bluefin tuna** (*Thunnus maccoyii*)—moved from critically endangered to endangered.
  - The **albacore** (*Thunnus alalunga*)—moved from near threatened to least concern.
  - The **yellowfin tunas** (*Thunnus albacares*)—moved from near threatened to least concern.

### Komodo Dragon

- The **world's largest living lizard**, the Komodo dragon (*Varanus komodoensis*), has been moved from vulnerable to endangered.
- It is **endemic to Indonesia** and occurs only in the World Heritage-listed Komodo National Park and neighbouring Flores.
- Rising global temperature and subsequent sea levels are expected to reduce the Komodo dragon's suitable habitat by **30% in the next 45 years**.
- Also, Komodo dragons living outside protected areas in Flores are threatened by significant habitat loss due to ongoing human activities.

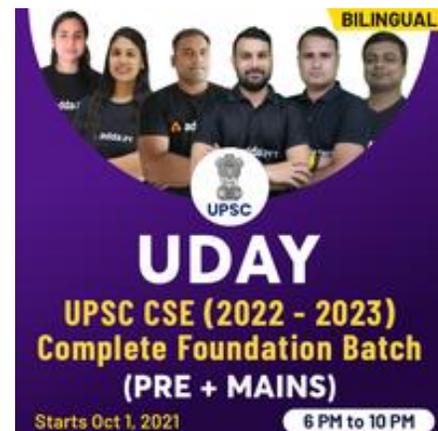
## Jatayu Conservation and Breeding Centre (JCBC)

### Context

- Last year, eight **Oriental white-backed vultures** were released into the wild for the first time in India from the Jatayu Conservation and Breeding Centre (JCBC).
- A year later, they have blended well into the untamed habitat outside the aviary, offering hope to conservationists.

### Key Points

- About Jatayu Conservation and Breeding Centre:** It is the first Vulture breeding facility in Asia, established in the year 2001.
  - Location:** It is situated within BirShikargah Wildlife in the town of Pinjore of Panchkula district, Haryana.
- Purpose:** It was established for the breeding and conservation of Indian vultures and House sparrow.
- Implementing Organizations:** JCBC is run by the Forests Department, Haryana and Bombay Natural History Society (BNHS) with the help of British charity Royal Society for the Protection of Birds (RSPB).



- **Jatayu Conservation and Breeding Centre** hosts and work towards breeding four environmentally threatened species. Their respective threatened status in the IUCN Red data book is as follows-
  - **Indian vulture (also known as long-billed Vultures)**- Critically Endangered
  - **Slender-billed vultures**- Critically Endangered
  - **Himalayan Vultures (also known as Himalayan griffon vultures)** - Near Threatened
  - **Oriental white-backed vultures**- Critically Endangered

### Status of Vultures in India

- **Habitation:** India is home to nine species of vultures (including above four) and most of them face the threat of extinction. Other five species of vultures and their IUCN threatened status-
  - **Egyptian Vultures**- Endangered
  - **Red-Headed Vultures**- Critically Endangered
  - **Indian Griffon Vultures**- Least Concerned
  - **Cinereous Vultures**- Near Threatened
  - **Bearded Vultures or Lammergeier**- Near Threatened
- **Drastic decline:** Populations of three species of vultures (Indian, Slender-billed and White-backed vultures) have declined by over 97% since the 1990s.
  - In the same period, the population of the Oriental white-backed vultures declined by a drastic 99.9%.
- **Main Cause for drastic decline:** It has been established by various studies that the vulture population was decimated by the veterinary usage of Diclofenac in India.

### National Environmental Engineering Research Institute (NEERI)

#### Context

- Recently, the **National Environmental Engineering Research Institute (NEERI)** has transferred the know-how of indigenously developed **Saline Gargle RT-PCR technique** to the Ministry of Micro, Small & Medium Enterprises (MSME) for commercializing it.
  - This would enable the innovation to be commercialized and licensed to all capable parties, including private, government and various rural development schemes and departments.

### Saline Gargle RT-PCR technology

- **About:** Saline Gargle RT-PCR technology is simple, fast, cost-effective, patient-friendly and comfortable.
  - It also provides instant test results and is well-suited for rural and tribal areas, given minimal infrastructure requirements.
  - It was developed by National Environmental Engineering Research Institute (NEERI).

#### Key Points

- **About NEERI:** It is a research organization under Council of Scientific & Industrial Research (CSIR). It was established by the government in 1958 in Nagpur as Central Public Health Engineering Research Institute (CPHERI).
  - Later, Indira Gandhi government rechristened the Institute as National Environmental Engineering Research Institute (NEERI) in the year 1974.
  - CSIR has 38 national laboratories working in various areas of science and technology. CSIR-NEERI is one of those laboratories.
- **Funding:** CSIR-NEERI receives its funding from the government.
- **Parent ministry:** CSIR-NEERI functions under the Ministry of Science & Technology.
- **Vision:** Its mission is to develop knowledgebase, provide interdisciplinary support, ensure sustainable environment and economic goals
- **Mandate:** **CSIR-NEERI** is devoted to research and innovations in environmental science and engineering besides solving a range of problems posed by industry, government and public.

### Renewable Energy & Land Use in India

#### Context

- Recently, **Institute for Energy Economics and Financial Analysis (IEEFA)** has released a report named Renewable Energy and Land Use in India by Mid-Century.

#### About the report

- This report considers the **land-use implications of India's** unfolding energy transition and the important choices about where these resources should be located.
- It reviews current land-use studies and then outlines likely **future requirements** based on the mid-century scenarios

### Key points of the report

- India will **use significant stretches of land** by 2050 to install renewable energy generation capacities and the land-use increase may have an impact on the environment.
- Around 50,000-75,000 square kilometres of land will be used in 2050 for **solar energy** generation and for an additional 15,000-20,000 square km for **wind energy** projects.
- The resulting land cover changes, including indirect effects, will likely cause a **net release of carbon** up to 50 grams of carbon dioxide per kilowatt-hour.
- Unlike coal-based power, **renewable energy generation does not fundamentally change** the character of land.
- Electricity generation has to **compete with alternative uses** for land such as agriculture, urbanisation, human habitation and nature conservation, unlike Europe or the United States of America.

### Recommendations

- **Minimising total land use requirements for renewable energy:**
  - Promotion of offshore wind
  - Rooftop solar, and solar on water bodies where net environmental benefits can be assured.
- **Optimising the identification and assessment of land for renewable generation:**
  - Developing clear environmental and social criteria for rating potential sites.
  - Incentivising the selection of the highest ranked locations in tenders.
  - limiting undue regional concentration and supporting widely distributed renewable generation at a range of scales.
- **Increasing the stock of potentially suitable land for renewable generation:**
  - Supporting a major expansion of agrivoltaics research
  - Incentivising agrivoltaics uptake where crops, soils and conditions are suitable and yields can be maintained or improved.

## Sand and Dust Storms Risk Assessment in Asia and the Pacific

### Context

- Recently, Asian and Pacific Centre for the Development of Disaster Information Management (APDIM) has released a report called **Sand and Dust Storms Risk Assessment in Asia and the Pacific** that highlighted the global exposure of medium and high levels of **poor air quality due to sand and dust storms**.

- APDIM is a **regional institution** of the United Nations Economic and Social Commission for Asia and the Pacific (**UN-ESCAP**).

### Key points

- More than **500 million people in India** and more than **80 per cent of the populations of Turkmenistan, Pakistan, Uzbekistan, Tajikistan** and Iran are exposed to medium and high levels of poor air quality due to sand and dust storms.
- Sand and dust storms contribute significantly to poor air quality in Karachi, Lahore and Delhi in 'southwest Asia'.
  - **Nearly 60 million people in these places** experienced more than 170 dusty days a year in 2019.

### What are sand and dust storms?

- Sand and dust storms are a **transboundary meteorological hazard** that are common in **arid and semi-arid regions** and are spread across large parts of the study region.
- Major events can transport dust over **great distances** so that their impacts occur not only in the areas where they originate but also in communities far from the source areas, frequently across **international boundaries**.

### Main sources of sand and dust storms

- **Four major sand and dust storm corridors** of Asia and the Pacific:
  - East and northeast Asia
  - South and southwest Asia,
  - Central Asia
  - The Pacific
- The region is the **second-largest emitter** of mineral dust.

### Negative impacts

- **On food security**
  - Sand and dust storms intensify the damages to the livelihood and food security of millions of small farmers and pastoralists, as well as damage agricultural infrastructure, directly impacting production.
- **On public health**
  - Sand and dust storms represent a risk factor for chronic diseases such as lung cancer and acute lower respiratory infections, cardiovascular and respiratory diseases which result in premature death.

- **On freshwater**
  - An increase in the level of sand and dust in the environment and water resources will adversely affect water quality.
  - In the long term, this will lead to difficulties in providing safe and affordable drinking water for all.
- **On infrastructure**
  - Power, water, road and other important infrastructure failures might occur as a result of sand and dust storms which can interrupt the provision of vital and critical services for the community.
- **On melting of ice**
  - of dust on glaciers induces a warming effect, increasing the melting of ice.

#### Positive impacts

- Dust storms are particularly beneficial for the **areas of deposition** as they can increase the nutrient content that could help **vegetation** in that area.
- Dust particles that **carry iron can enrich parts of the oceans**, changing the phytoplankton balance, with implications for marine food webs.
- Dust deposited on water bodies **alters their chemical characteristics**, which can trigger positive impact.

#### Climate change and dust storms

- Due to changes in climate conditions, **many drylands are becoming drier** and consequently more prone to wind erosion and sand and dust storms.

#### Recommendations

- **Understanding the risk** of sand and dust storms to various sectors in the region is the foundation for strengthening disaster risk governance to manage disaster risk.
- It also helps to **identify the sectors** and geographical areas with the highest priority for investment in order to increase resilience and enhance disaster preparedness.
- The transboundary nature of sand and dust storms requires **regional action and inter-regional collaboration**.
- **Coordinated actions** for data sharing among source and impact regions, as well as coordination among countries that share risks in various sectors.
- The **risk of disasters in infrastructure development** plans should be considered as it helps the region as a whole to avoid unnecessary disaster costs.

## Shoonya Campaign

### Context

- NITI Aayog, with RMI and RMI India's support, has launched Shoonya campaign to promote zero-pollution delivery vehicles by working with consumers and industry.

### Key points

- The campaign aims to accelerate adoption of electric vehicles (EVs) in the urban deliveries segment and create consumer awareness about the benefits of zero-pollution delivery.
- As part of the campaign, a corporate branding and certification programme was launched to recognise and promote industry's efforts towards transitioning to EVs for last-mile deliveries.
- The campaign will promote awareness about health, environmental and economic benefits of electric vehicles.

### Significance

- Transitioning to clean transportation is critical as India continues to move forward towards a sustainable and resilient future.
- Competitive economics and available technology support the full electrification of India's urban deliver fleets on an accelerated timeline.
- Freight electrification will create tailwinds for other market segments to follow.

### Why important?

- Urban freight vehicles account for 10% of freight transportation-related CO2 emissions in India, and these emissions are expected to grow by 114 percent by 2030.
- EVs emit no tailpipe emissions, which can contribute immensely to an improved air quality.
- Even when accounting for their manufacture, they emit 15-40 percent less CO2 compared to their internal combustion engine counterparts, besides having lower operational cost.

### Steps to promote EVs

- For the promotion of electric mobility in the country, the Government had launched Phase-I of the FAME India Scheme (Faster Adoption of Electric (& Hybrid) Vehicles in India)
  - All electric & hybrid vehicles, including public transport, registered under the scheme are being incentivized under the Demand Creation focus area of this scheme.

- The Indian Space Research Organisation (ISRO) has commercialized indigenously developed lithium-ion battery technology and has selected 14 companies for transfer of technology.
- Ministry of Power has issued a policy on charging infrastructure and has issued a notification clarifying that charging electric vehicles will be a service, not a sale of electricity.
- In 2018, the Government had granted exemption to Battery Operated Transport Vehicles and Transport Vehicles running on Ethanol and Methanol fuels from requirement of permit.
- Ministry of Housing and Urban Affairs has made amendment in the Urban and Regional Development Plans Formulation and Implementation (URDPFI) guidelines to provide for electric vehicle charging stations in private and commercial buildings.
- The Union and the state Governments have introduced policies to provide upfront incentives for EVs, which will lower the capital cost by a high margin.
- E-commerce companies, fleet aggregators, original equipment manufacturers (OEMs) and logistics companies have been scaling up their efforts towards final-mile delivery electrification.

### State Animal and State Bird of Ladakh

#### Context

- Recently, the Union Territory (UT) of Ladakh adopted two endangered species, snow leopard and black-necked crane, as State animal and State bird.
- Black-necked crane, only found in Ladakh region, was the State bird of J&K before August 5, 2019 (foundation day of UT of Ladakh).

#### Snow Leopard

- **About:** Snow leopards is the top predator in the food web and act as an indicator of the health of the mountain ecosystem.
- **Scientific Name:** Panthera uncia
- **Habitat of Snow leopard:**
- **In India:** inhabits the higher Himalayan and trans-Himalayan landscape in the five states of Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh.
  - Hemis, Ladakh is known as the Snow Leopard capital of the world.
- **In the World:** Mountainous regions of central and southern Asia.

- **Protection Status: It is included in-**
  - 'Vulnerable' on the IUCN-World Conservation Union's Red List of the Threatened Species.
  - 'Appendix I' of the Convention on International Trade of Endangered Species (CITES).
  - 'Schedule I' of the Indian Wildlife (Protection) Act 1972.
  - The Convention on Migratory Species (CMS),

#### Black-necked Crane

- **About:** Black-necked Cranes are medium-sized alpine cranes, weighing about 5 kg each and standing about 115 cm tall.
  - The upper long neck, head, primary and secondary flight feathers and tail are completely black and a conspicuous red crown adorns the head.
  - Both the sexes of Black Necked Crane are almost of the same size, but the male is slightly bigger than the female.
  - The juveniles have a brownish head and neck and plumage is slightly paler than that of an adult.
  - Scientific name: Grus nigricollis
- **Habitat of the bird:**
  - **Breeding Ground:** The high-altitude wetlands of the Tibetan plateau, Sichuan (China), and eastern Ladakh (India) are the main breeding ground of the species.
    - The birds spend winter at lower altitudes
    - In Ladakh, Black-necked cranes is only found in Changthang region.
  - In Bhutan and Arunachal Pradesh, it only comes during the winters. In Arunachal Pradesh, it is often sighted in-
    - Sangti Valley in West Kameng district,
    - Chug valleys and Zemithang provinces in the Tawang district.
- **Protection Status:**
  - **IUCN Red List:** Near Threatened
  - **CITES:** Appendix I
  - **Indian Wildlife (Protection) Act, 1972:** Schedule I

### State of the World Trees Report

#### Context

- Recently, Botanic Gardens Conservation International released a report on State of the World Trees and warned about the **extinction of trees in the world.**

### Key points of the report

- Almost a **third of the world's tree species** are at risk of extinction, while hundreds are on the brink of being wiped out.
- 17,500 tree species – some 30% of the total – are a risk of extinction, while **440 species have fewer than 50 individuals left in the wild.**
- Overall, the number of threatened tree species is **double the number** of threatened mammals, birds, amphibians and reptiles combined.
- Among the most at-risk trees are species including magnolias and dipterocarps – which are commonly found in Southeast Asian rainforests. Oak trees, maple trees and ebonies also face threats.
- Thousands of varieties of trees in the world's top six countries—Brazil, Indonesia, Malaysia, China, Colombia and Venezuela—for tree-species diversity are at risk of extinction.
- The greatest single number is in Brazil, where 1,788 species are at risk.

### Main threats for trees according to IUCN

- **Agriculture crops**, logging, livestock farming, residential and commercial development, fire and fire suppression, energy production and mining, wood and pulp plantations, invasive and other problematic species, and climate change.
- At least **180 tree species are directly threatened by rising seas and severe weather.**

### Most common uses of trees according to IUCN

- **Construction**, medicine, horticulture, fuels, human food, household goods.

### Recommendations for policy makers

- **Extend protected area coverage** for threatened tree species.
- Ensure that threatened tree species are conserved in **botanic garden and seed banks.**
- Increase **government and corporate funding** for protection of threatened species.
- Increase **inter-regional collaboration** for a comprehensive solution.

## Status of Coral Reefs of the World 2020

### Context

- Recently, Global Coral Reef Monitoring Network, along with the Australian government released the Status of Coral Reefs of the World 2020 report where it has described about the **condition of coral reef in present-day world.**

### Key points

- Coral reefs have suffered a lot in the **past three decades.** Yet, **they are resilient and would be able to withstand challenges** posed by a warming world.

### Coral accidents

- The **1998 coral bleaching event killed 8%** of the world's coral.
- Subsequent events between **2009 and 2018 killed 14%** of the world's coral.
- Since 2010, almost **all regions had exhibited a decline** in average coral cover.
- According to estimates, coral reefs would **experience further declines** in the coming decades as sea temperatures arose.

### Reasons of coral distress

- Most declines in global coral cover were either due to **rapid increase in sea surface temperature (SST) anomaly or sustained high SST anomaly.**
- There were 20% algae on the world's coral reefs in 2019 than in 2010. This **increase in the number of algae, was associated with declines in the amount of hard coral.**

### Resilience of coral reefs

- On the other hand, the increases in global coral cover between 2002 and 2009 and in 2019 showed that **coral reefs globally remained resilient** and could recover if conditions permitted.
- For instance, coral reefs in east Asia, which has 30% of the world's coral reefs, had **more coral on average in 2019 than they did in 1983.**
- It happened despite the area being affected by large-scale coral bleaching events during the last decade.
- This showed that **high coral cover and diversity might confer a degree of natural resistance** to elevated sea surface temperatures.

### What need to be done?

- **Local pressures on coral reefs** should be reduced to maintain their resilience in the years to come.
- **Data collected in the field** should also be monitored to understand the status of the trends in coral reef condition.

## Thar desert- Rajasthan

### Context

- Recently, in a major discovery, **footprints of three species of dinosaurs** have been found in the **Thar desert in Rajasthan's** Jaisalmer district.

- The discovery proves the presence of the giant reptiles in the western part of the State (Thar Desert), which formed the seashore to the **Tethys Ocean** during the **Mesozoic era**.
- The footprints belong to three species of dinosaurs-
  1. Eubrontes cf. giganteus,
  2. Eubrontes glenrosensis and
  3. Grallator tenuis.

### About Dinosaurs

- The dinosaur species are considered to be of the theropod type, with the distinguishing features of hollow bones and feet with three digits.
- All the three species found in Thar Desert, belonging to the early Jurassic period, were carnivorous.

### Key Points

- **Location of Thar Desert:** located partly in India (in western Rajasthan) and partly in Pakistan (in Punjab and Sindh provinces).
  - It derives its name from 'thul', (general term for the region's sand ridges).
  - It forms a natural boundary along the border between India and Pakistan.
- Thar desert is **bordered by**
  - Indus River plain to the **west**,
  - Punjab Plain to the **north and northeast**,
  - Aravalli Range to the **southeast**, and
  - Rann of Kachchh to the **south**.

### Key Features

- **Arid Region:** it is also the Marusthali (dead land) as this region has an arid climate with low vegetation cover.
  - Eastern part of the Marusthali is rocky, while its western part is covered by shifting sand dunes.
- **Soil:** The surface of Thar Desert **consists of aeolian (wind-deposited) sand** that has accumulated over the past 1.8 million years.
- **Climate of Thar Desert:** It has subtropical desert climate (due to continuous high pressure and subsidence at that latitude).
- **Saline Lakes:** Several '**Playas**' (saline lakes), also locally known as '**dhands**', are scattered throughout the region.
- **Species diversity- Flora and Fauna**
  - **Flora:** herbaceous plants like cactus, neem, khejri, acacia nilotica are found in the Thar Region.
  - **Fauna:** Leopard, the Asiatic wild cat, the chousingha, the chinkara, the Bengal desert fox, the Blackbuck, and several species of reptiles are commonly found in this region.

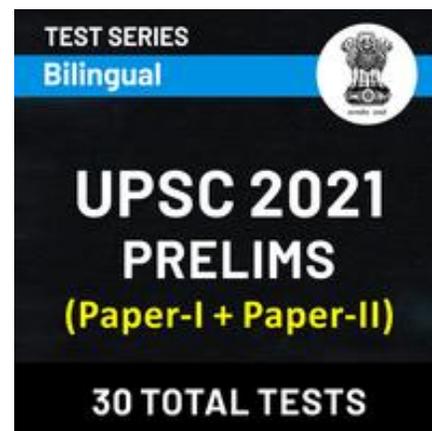
## WHO Global Air Quality Guidelines 2021- Impact on health and key changes

### Context

- Recently, the World Health Organization (WHO) in its first-ever update since 2005 has tightened global air pollution standards.
- WHO updated these standards in a recognition of the emerging science in the last decade that suggests the impact of air pollution on health is much more serious than previously envisaged.

### Key Points

- **WHO Global Air Quality Guidelines** provide clear evidence of the damage air pollution inflicts on human health, at even lower concentrations than previously understood. Key findings are-
  - In 2019, **99% of the world population** was living in **places** where the **WHO air quality guidelines levels were not met**.
  - **Ambient (outdoor air pollution) in both cities and rural areas** was estimated to cause 4.2 million **premature deaths** worldwide in 2016.
  - **Some 91% of those premature deaths** occurred in low- and middle-income countries, and the greatest number in the WHO South-East Asia and Western Pacific regions.
  - **Indoor smoke** is a serious **health risk for some 3 billion people** who cook and heat their homes with biomass, kerosene fuels and coal.
- **WHO recommend new air quality levels to protect the health of populations:** This is to be done by reducing levels of key air pollutants from the environment, many of them are also responsible for the Global Climate Change.
- **Key Changes:** WHO announces limits for **six pollutant categories**- particulate matter (PM) 2.5 and 10, ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>) Sulphur dioxide (SO<sub>2</sub>) and carbon monoxide (CO).



Pollutant	Averaging Time	2005 (AGQs)	2021 (AGQs)
PM 2.5	Annual and 24 Hour mean	10 and 25 Respectively	5 and 15 Resp.
PM 10	Annual and 24 Hour mean	20 and 50 Resp.	15 and 45 Resp.
Ozone (O <sub>3</sub> )	Peak Season and 8 hours	Undefined for peak season and 100 for 8 hours	60 and 100 resp.
NO <sub>2</sub>	Annual and 24 Hour mean	40 and undefined resp.	10 and 25 resp.
SO <sub>2</sub>	24 hours	20	40
CO	24 hours	Undefined	4

**Impact on India**

- **India’s National Ambient Air Quality Standards (NAAQS)** don’t meet the WHO’s existing standards, hence, the updated global air pollution standards won’t affect India immediately.
  - Experts say that the WHO move sets the stage for eventual shifts in policy in the government towards evolving newer stricter standards.
- **National Clean Air Program:** It aims for a 20% to 30% reduction in particulate matter concentrations by 2024 in 122 cities, keeping 2017 as the base year for the comparison of concentration.
  - These are cities that don’t meet the NAAQS when calculated from 2011-2015.

**Science & Technology**

**CRISPR to control growth of mosquitoes**

**Context**

Recently, researchers have created a system that restrains populations of mosquitoes by using CRISPR-based genetic engineering.

**Key points**

**Sterile Insect Technique**

- The sterile insect technique is an environmentally-friendly insect pest control method involving the mass-rearing and sterilization.
- SIT uses radiation of a target pest, which is followed by the systematic area-wide release of the sterile males over defined areas, where they mate with wild females.
- It results in no offspring and a declining pest population, which helps in decreasing the instances of diseases such as dengue and malaria.

**What is pgSIT?**

- The “precision-guided sterile insect technique” (pgSIT) is a SIT that alters genes linked to male fertility—creating sterile offspring—and female flight in *Aedes aegypti*, the mosquito species responsible for spreading diseases including dengue fever, chikungunya and Zika.

- The pgSIT uses CRISPR to sterilise male mosquitoes and render female mosquitoes (which spread disease) flightless.

**Two enabling features of pgSIT**

- It is self-limiting that means it tends to go away on its own, without any external treatment.
- It is not predicted to persist or spread in the environment.

**pgSIT to contain mosquito**

- pgSIT eggs can be shipped to a location threatened by mosquito-borne disease or developed at an on-site facility that could produce the eggs for nearby deployment.
- Once the pgSIT eggs are released in the wild, sterile pgSIT males will emerge and eventually mate with females, driving down the wild population as needed.

**About CRISPR**

- Clusters of Regularly Interspaced Short Palindromic Repeats (CRISPR) is a family of DNA sequences found in the genomes of prokaryotic organisms such as bacteria and archaea.

- CRISPR technology is a simple yet powerful tool for editing genomes. It allows researchers to easily alter DNA sequences and modify gene function.
- Its many potential applications include correcting genetic defects, treating and preventing the spread of diseases and improving crops.
- CRISPR is a shorthand for "CRISPR-Cas9." Where Cas9 is an enzyme that acts like a pair of molecular scissors, capable of cutting strands of DNA.
- CRISPR-Cas9 is a unique technology that enables geneticists and medical researchers to edit parts of the genome by removing, adding or altering sections of the DNA sequence.

## Fragile X Syndrome

### Background

- In 2017, a man in Delhi, affected by autism, underwent his first DNA blood test at the age of 40. He tested positive for Fragile X Syndrome (FXS).
- Fragile X Syndrome (FXS) is caused by changes in a gene called FMR1 which make an important protein (FMRP). This protein is required for brain development.

### Key Points

- **About:** Fragile X syndrome is a genetic condition that causes a range of developmental problems including learning disabilities and cognitive impairment.
  - Usually, males are more severely affected by this disorder than females.
- **Symptoms:** Affected individuals usually have delayed development of speech and language by age 2.
  - Most males with fragile X syndrome have mild to moderate intellectual disability, while about one-third of affected females are intellectually disabled.
  - Children with fragile X syndrome may also have anxiety and hyperactive behavior such as fidgeting or impulsive actions.
  - It can also cause Attention-Deficit-Disorder (ADD) which includes an impaired ability to maintain attention and difficulty focusing on specific tasks.
  - Most males and about half of females with fragile X syndrome have characteristic physical features that become more apparent with age. These features include-
    - A long and narrow face, large ears, a prominent jaw and forehead, unusually flexible fingers, flat feet, and in males, enlarged testicles after puberty.

- **Spread of the disease:** A mother who is a carrier has a 50% chance of passing the mutated gene to her children, who will either be carriers or have FXS.
  - Men who are carriers do not pass the pre-mutation to their sons, but only daughters, who become carriers.

### Autism and Fragile X Syndrome

- It was discovered and named FRAXA by three American geneticists- Ben Oostra, David Nelson and Stephen Warren.
  - They found that it was the **leading inherited cause of autism worldwide.**
- **Prevalence of the disease:** According to Centers for Disease Control and Prevention (CDC), one in 7,000 males and one in 11,000 females are affected with FXS. FXS is the leading inherited cause of autism in 4% of the population worldwide.
  - The CDC estimates that one in 259 women and one in 800 men carry Fragile X.
- **Prevalence in India:** It is estimated there are 4,00,000 individuals who have been identified with mutated FMRI in India and 40 lakh undiagnosed carriers of the gene.
- **Autism triggered by FXS is a behavioural condition:** The symptoms are learning difficulty, speech delay, aggressive behaviour, hyperactivity, attention deficit, fear of the unfamiliar, sensory processing disorders and problems in motor skills.
  - These cannot be cured, but **early therapy can improve the individual's quality of life.**

## Global Innovation Index 2021

### Context

- Recently, the World Intellectual Property Organization released its annual Global Innovation Index 2021 rankings.
- While tracking the most recent global innovation trends in the new Global Innovation Tracker, this edition also focuses on the impact of the COVID-19 pandemic on innovation.

### Key Findings

- The 2021 edition of the Global Innovation Index (GII) presents the latest global innovation ranking of 132 economies, relying on 81 different indicators.
- **Top Performers:** The world's most-innovative economy in 2021 is **Switzerland** followed by Sweden, the United States of America (U.S.), the United Kingdom (U.K.) and Republic of Korea.

- **Introduced the 'Global Innovation Tracker':** It is a new feature of the Global Innovation Index 2021 that captures key innovation trends.
  - It uses a set of indicators identified in the three stages of the innovation journey-
    1. Science and innovations investments
    2. Technological Progress
    3. Socio-economic Impact
- **India's Performance:** India has climbed two spots and has been ranked 46<sup>th</sup> in the **Global Innovation Index (GII) 2021 rankings**.
  - India has shot up from a rank of 81 in 2015 to 46 in 2021.
  - **Positives:** India performed better in innovation outputs (45<sup>th</sup>) than innovation inputs (47<sup>th</sup>) in 2021.
  - **Among Middle-Income Peers:** India ranks 2<sup>nd</sup> among the 34 lower middle-income group economies.
  - **Among Central and Southern Asia:** India ranks 1<sup>st</sup> among the 10 economies in Central and Southern Asia.

### Key Points

- **About:** The Global Innovation Index (GII) is an annual ranking of countries as per their capacity and success in the domain of innovation.
  - It was started in 2007 by INSEAD in collaboration with World Business, a British magazine.
- **Publishing Organizations:** It is published by Cornell University, INSEAD, and the World Intellectual Property Organization, in partnership with other organizations and institutions.
- **Indicators used to measure performance:** It uses around 80 indicators grouped into innovation inputs and outputs. For example-
  - **Innovation inputs:** Institutions; Human capital and research; Infrastructure; Market sophistication; Business sophistication.
  - **Innovation outputs:** Knowledge and technology outputs; Creative outputs

## Inspiration4

### Context

- Elon Musk's has recently announced that 'Inspiration4', a first all-civilian, non-governmental spaceflight, is on track for launch on September 15.

### About Inspiration4

- The spacecraft will take a group of four private citizens into space for three days.

- All four seats on the spacecraft have been purchased by US billionaire Jared Isaacman, founder of the fintech company Shift4 Payments.
  - He is raising millions for a paediatric treatment and research facility that focuses on children's catastrophic diseases, particularly leukaemia and other cancers.
- The mission involves circling the Earth for three days, and then splashing down into the Atlantic Ocean.
- It will orbit Earth at 575km, which is higher than the International Space Station (408km) and the Hubble space telescope (547km).
- It will be the farthest distance travelled by a crewed mission since 2009, when astronauts last went to repair the Hubble telescope.

### About the spacecraft

- The Crew Dragon spacecraft will be launched from NASA's Kennedy Space Centre in Florida in the US.
- Usually, the SpaceX module is used for travelling to the ISS, where it has to dock or join the floating laboratory.
- Since Inspiration4 is not going to the ISS, the Dragon module has to be modified for the mission.
- The docking port has been removed and has been replaced with a dome window.
  - This dome window will offer breath-taking views of the Earth for the four travellers. The window has been inspired by the Cupola, a module on the ISS used to make observations about our planet.

### Why is it significant?

- The journey will provide an opportunity for collecting large amounts of health data that will aid in planning future crewed space missions.
- They will collect data on ECG (electrocardiograph) activity, movement, sleep, heart rate and rhythm, blood oxygen saturation, cabin noise and light intensity, which will help in assessing behavioural and cognitive changes over the journey.
- The travellers will undergo balance and prescription tests just before and after their journey to assess their response to the change in gravity. Immune system function will also be monitored by collecting blood. Their organ systems will also be monitored by an AI-powered ultrasound device.
- Along with the recent space journeys by billionaires Jeff Bezos and Richard Branson, Inspiration4 is seen as part of an effort to open up space travel to non-professionals.

## INSPIRE Awards – MANAK

### Context

- Recently, the **8th National Level Exhibition and Project Competition (NLEPC)** for the INSPIRE Awards – MANAK (Million Minds Augmenting National Aspiration and Knowledge) has commenced, which showcased the **innovative ideas from 581 students** representing various States and UT's of the country.

### Key points

- The INSPIRE Awards - MANAK scheme is aligned with the **'Start-up India' initiative**.
- It is implemented by **DST** (Department of Science and Technology) with **National Innovation Foundation – India (NIF)**, an autonomous body of DST.
- It disburses **Rs. 10,000 into the bank account** of the winning students through Direct Benefit Transfer scheme.
- It **does not believe in conducting competitive exams** for identification of talent at any level, rather, it believes in efficacy of the existing educational structure for identification of talent.
- It aims to motivate students in the age group of **10-15 years and studying in classes 6 to 10** to become future innovators and critical thinkers.
- It believes that once the original ideas and innovations rooted in Science and Technology by students get incubated, it will **foster a culture of creativity and innovative** thinking among school children.
- It will help address the societal needs through science and technology and nurture them to become **sensitive and responsible citizens** and innovation leaders of tomorrow.



### Objectives of INSPIRE awards-MANAK

- The objective of the scheme is to target **one million original ideas/innovations** rooted in science and societal applications to foster a culture of creativity and innovative thinking among school children.

### INSPIRE scheme

- Innovation of Science Pursuit for Inspire Research (INSPIRE) was **announced in 2008** in the **11th Five Year Plans**.
- The basic objective of INSPIRE would be to communicate to the youth population of the country the excitements of creative pursuit of science and attract talent to the study of science at an early stage and build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base.
- INSPIRE Scheme has included **three programs and five components**. They are i) Scheme for Early Attraction of Talents for Science (SEATS), b) Scholarship for Higher Education (SHE) and c) Assured Opportunity for Research Careers (AORC).

## International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

### Context

- Recently, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) was awarded the **Africa Food Prize 2021** for improving food security in sub-Saharan Africa.
- US \$1,00,000 prize was given to ICRISAT under the **Africa Food Prize 2021**.
- ICRISAT got the award for the **Tropical Legumes Project** that has improved food security across 13 countries in sub-Saharan Africa.

### Key Points

- Tropical Legume Project** was taken by ICRISAT led a collaboration of partners between 2007 and 2019 in Africa for improving the food security among the deprived section of population.
- As a part of the Tropical Legumes Project, **in India**, the national program on developing improved varieties of chickpea resulted in area enhancement up to 68%.
- The project **developed 266 improved legume varieties** and almost half a million tons of seed for a range of legume crops, like cowpeas, pigeon peas, chickpea, groundnut, soybean, etc.

- **Importance:** These improved varieties of legumes have helped smallholder farmers in both Africa and Asia become more resilient to climate change, as well as pest and disease outbreaks.
  - Many scientists trained under the project are already working in national research institutes across the African continent.

### Key Points

- **Background:** It was founded in 1972 by a consortium of organizations convened by the Ford and the Rockefeller Foundations.
  - Its charter was signed by the Food and Agriculture Organization (FAO) and United Nations Development Programme (UNDP)
- **About:** ICRISAT is a non-profit, non-political organization that conducts agricultural research for development in the drylands of Asia and sub-Saharan Africa.
- **Headquarter:** Hyderabad, Telangana in India.
- **Key role:** ICRISAT and its partners help empower these poor people to overcome poverty, hunger and a degraded environment through better agriculture.
- **Key Mission:** ICRISAT envisions a prosperous, food-secure and resilient dryland tropics. To achieve this, its mission is to reduce poverty, hunger, malnutrition and environmental degradation in the dryland tropics.
- **Research Activity:** ICRISAT conducts research on five highly nutritious drought-tolerant crops: chickpea, pigeonpea, pearl millet, sorghum, and groundnut.
  - It conducts partnership-based international agricultural research for development that embodies Science with a Human Face.
- **India and ICRISAT:** Since its inception, India has granted special status to ICRISAT as a UN Organization operating in the Indian Territory.
  - This makes ICRISAT eligible for special immunities and tax privileges.

## National Centre for Disease Control (NCDC)

### Context

- Amid recent outbreak of the Nipah virus Kerala State, the Union government has rushed a team of the National Centre for Disease Control to the state.
- Earlier, a 12-year-old boy died due to Nipah virus infection in Kozhikode, Kerala.

### Key Points

- **Background:** NCDC which formerly known as National Institute of Communicable Diseases (NICD), had its origin as Central Malaria Bureau, established at Kasauli (Himachal Pradesh) in 1909.

- It was renamed as the Malaria Survey of India in 1927.
- In 1938, Institute shifted to Delhi and renamed as Malaria Institute of India (MII).
- Due to success in containing malaria disease, Government of India decided to reorganize and expand the activities of the institute to cover other communicable diseases in 1963 and renamed it as NICD.
- **Administrative Structure:** NCDC is under administrative control of the Director General of Health Services, Ministry of Health and Family Welfare, Govt. of India.
  - The Director, an officer of the Public Health sub-cadre of Central Health Service, is the administrative and technical head of the Institute.
- **Mandate of the NCDC:** It acts as the nodal agency in the country for disease surveillance facilitating prevention and control of communicable diseases.

### Key Functions

- It functions as a national centre of excellence for control of communicable diseases.
- NCDC is responsible for undertaking investigations of disease outbreaks all over the country.
- NCDC is also engaged in generation and dissemination of knowledge in various areas like Epidemiology, Surveillance, and Laboratories etc.
- It provides referral diagnostic services to individuals, community, medical colleges, research institutions and state health directorates.
- It is also responsible for conducting applied integrated research in various aspects of communicable as well as some aspects of non-communicable diseases.

## Patents (Amendment) Rules, 2021

### Context

- Recently, Ministry of Commerce & Industry has notified the Patents (Amendment) Rules, 2021 whereby it has reduced the patent fees for educational institutions.

### Key points

- Government has reduced patent filing and processing fees charged on educational institutions by 80%, which is at par with similar concession provided to start-ups under the Start-up India initiative.

- The step will nurture innovation and creativity in a knowledge economy.
- It will help in promoting greater collaboration between industry and academia.
- By amending the Rules, the procedures are made more compact, time-bound, user-friendly and compatible for e-transactions.

#### Steps taken by the Government to facilitate patent filing

- Augmentation of manpower by recruiting new examiners.
- Making process of applying and granting patents completely online.
- Hearing of cases in Patents through Video-Conferencing for speedy and contact-less proceedings.
- Dynamic redesigning of website and real-time based hassle-free dissemination of IP information to stakeholders.
- Encouraging the digital process for applying & granting Patents.
- Scheme for Facilitating Start-ups Intellectual Property Protection (SIPP) has been launched to provide facilitators to Start-ups for filing and processing of their applications. Professional charges of such facilitators are reimbursed as per provisions under the SIPP scheme.

#### Benefits of such steps

- The time taken for examination of patents have come down from average 72 months in 2015 to 12-30 months at present.
- Further, it is expected that the time for final disposal of patent applications, which has reduced to average 48 months at present from few years earlier, will be reduced to average 24-30 months from filing by end of 2021.
- Further, an Expedited Examination System has been introduced wherein an application for grant of patent is being decided within one year of filing such request under Expedited Examination as compared to the period of few years required in case of normal examination route.
- The fastest granted patent is the one which was granted in 41 days after filing of such request. This facility of Expedited Examination system was initially provided for patent applications filed by Start-ups.

### Space Challenge 2021

#### Context

- Recently, Space Challenge 2021 was launched jointly by Atal Innovation Mission (AIM), NITI Aayog, Indian Space Research Organisation (ISRO) and Central Board of Secondary Education (CBSE) for all school students across the country.

#### Key points

- The challenge has been designed for all the school students, mentors and teachers across the country who not only are associated with schools having ATLS (Atal Tinkering labs) but for all the non ATL schools as well.
- The ATL Space Challenge 2021 aligns with the World Space Week 2021 which is being observed from 4 to 10 October each year at the global level in order to celebrate the contributions of space science and technology.

#### Objective of the Space Challenge 2021

- It is to ensure that students of classes 6 to 12 are given an open platform where they can innovate and enable themselves to solve digital age space technology problems.
- It provides one-of-a-kind challenge for school students across India and aligns with the objective of the nation-wide "Azadi Ka Amrit Mahotsav", and support the young innovators and introduce them to newer technologies and skills.
- ATL space challenge 2021 allows the children to come up with ideas and have an environment where they can see their ideas turning into a reality.

#### Space Challenge 2021 themes

- Students can create a solution that can be implemented and adopted for leveraging technologies such as
  - Explore Space
  - Reach Space
  - Inhabit Space
  - Leverage Space
- Each team based on their interest and understanding, must select one problem which falls under any one of the Space Challenge themes.

## United in Science 2021

### Context

- Recently, World Meteorological Organization (WMO) under the direction of the United Nations Secretary-General compiled a report titled United in Science 2021 to bring together the latest climate science related updates from a group of key global partner organizations.

### Key points

- The United in Science 2020 report, the second in a series, presents the very latest scientific data and findings related to climate change to inform global policy and action.
- It is coordinated by the World Meteorological Organization (WMO), with input from the Global Carbon Project, the Intergovernmental Panel on Climate Change, the Intergovernmental Oceanographic Commission of UNESCO, the UN Environment Programme and the UK Met Office.

### Key findings

#### World Meteorological Organization

- Atmospheric CO<sub>2</sub> concentrations showed no signs of peaking in 2020 and have continued to increase to new records.
- Reductions in emissions due to COVID-19 will only slightly impact the rate of increase in the atmospheric concentrations so, sustained reductions in emissions to net zero are necessary to stabilize climate change.

#### Global Carbon Project

- CO<sub>2</sub> emissions in 2020 will fall by an estimated 4% to 7% in 2020 due to COVID-19 confinement policies.
- During peak lockdown in early April 2020, the daily global fossil CO<sub>2</sub> emissions dropped by an unprecedented 17% compared to 2019.

### UN Emission Gap report

- The report showed that the cuts in global emissions required per year from 2020 to 2030 are close to 3% for a 2 °C target and more than 7% per year on average for the 1.5 °C goal of the Paris Agreement.

### State of Global Climate

- The average global temperature for 2016–2020 is expected to be the warmest on record, about 1.1 °C above 1850-1900, and 0.24°C warmer than the global average temperature for 2011-2015.

### Intergovernmental Panel on Climate Change

- The global ocean has warmed unabated since 1970 and has taken up more than 90% of the excess heat in the climate system.
- Global mean sea-level is rising, with acceleration in recent decades due to increasing rates of ice loss from the Greenland and Antarctic ice sheets, as well as continued glacier mass loss and ocean thermal expansion.

### Climate and Water Resources

- By 2050, the number of people at risk of floods will increase from its current level of 1.2 billion to 1.6 billion.
- In the early to mid-2010s, 27% of the global population lived in potential severely water-scarce areas.
- In 2050, this number will increase to 2.7 to 3.2 billion people.



## Security

### Akash Prime Missile

#### Context

- Recently, the Defence Research and Development Organisation (DRDO) successfully tested a new version of Akash Surface to Air missile 'Akash Prime' from the Integrated Test Range at Chandipur, Odisha.

#### Key Points

- About:** Like recently tested Akash-NG, Akash Prime Missile is also a variant of the Akash Missile.
  - Akash Missile is India's first indigenously produced medium-range Surface to Air missile.
  - Akash Missile was developed to replace the Russian 2K12 Kub (SA-6 Gainful) missile system, currently in service.
- Akash Prime is a medium-range mobile surface-to-air missile (SAM) system developed by the DRDO and produced by Bharat Dynamics Limited (BDL).

#### Akash Prime Missile- Improvements over existing Akash Missile

- Akash Prime is equipped with an indigenous active Radio Frequency (RF) seeker for improved accuracy.
- Other improvements also ensure more reliable performance under low temperature environment at higher altitudes.
- It can intercept aerial targets mimicking enemy aircraft.

#### Defence Research and Development Organisation (DRDO)- Key Points

- Background:** DRDO was established in 1958 after combining Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).
- Parent Ministry:** DRDO works under the administrative control of the Ministry of Defence.
- Mandate:** To establish a world class science and technology base for India and provides Defence Services decisive edge by equipping them with internationally competitive systems and solutions.
  - DRDO is also responsible for carrying out Integrated Guided Missile Development Programme (IGMDP).

### Arjun Mk-1A Tanks- Key Features and Significance

#### Context

- Recently, the Defence Ministry placed an order with the Heavy Vehicle Factory (HVF), Avadi, for the supply of 118 indigenous Arjun Mk-1A Main Battle Tanks for the Army.
- An Arjun hub has been set up in Jaisalmer where 248 rotables have been deposited to ensure quick support and maintenance for the fleet.

#### Key points

- About:** The state-of-the-art MBT Mk-1A is a new variant of Arjun tank designed to enhance fire power, mobility and survivability.
- Key Features:**
  - Arjun Mk-1A is infused with 72 new features and more indigenous content from the Mk-1 variant,
  - Arjun Mk-1A tank would ensure effortless mobility in all terrains, besides precise target engagement during day and night.
  - Arjun Mk-1A has been customized for missile firing and the advanced GMS has a built-in laser target designator.
- Designing and Developing Agency:** The MBT Arjun Mk-1A was designed and developed by the **Combat Vehicles Research and Development Establishment (CVRDE)** along with the other laboratories of the Defence Research and Development Organization (DRDO).

#### Significance

- Promote Indianization:** This project is expected to catalyze the efforts towards Indianization of defence technology by boosting make in India.
  - It will be a significant step towards an Atmanirbhar Bharat.
- Employment Generation:** this project is expected to generate a large avenue in defence manufacturing for over 200 Indian vendors including MSMEs, with employment opportunities to around 8,000 people.

#### Arjun Main Battle Tank Project

- About:** The Arjun Main Battle Tank project was initiated by DRDO in 1972 with the Combat Vehicles Research and Development Establishment (CVRDE) as its lead laboratory.
  - Mass production began in 1996 at the Indian Ordnance Factory's production facility in Avadi, Tamil Nadu.



- Objective: to create a “state-of-the-art tank with superior fire power, high mobility, and excellent protection”.
- Key Features:
  - Arjun tanks stand out for their ‘Fin Stabilised Armour Piercing Discarding Sabot (FSAPDS)’ ammunition and 120-mm calibre rifled gun.
  - It also has a computer-controlled integrated fire control system with stabilised sighting that works in all lighting conditions.
  - The secondary weapons include a co-axial 7.62-mm machine gun for anti-personnel and a 12.7-mm machine gun for anti-aircraft and ground targets.

### C-295 Aircraft

#### Context

- Recently, the Cabinet Committee on Security approved the procurement of 56 C-295 medium transport aircraft for the Indian Air Force.
- **C-295 Aircraft** will replace India’s ageing Avro planes which were first inducted around 60 years ago.

#### C-295 Aircraft- Key Points

- **About C-295 Aircraft:** It is a Medium Transport Aircraft (MTA) of 20 tonnes which will replace **Avro-748 transport aircraft** procured in the 1960s.
- **Avro-748 Planes:** They are a British-origin twin-engine turboprop, with a 6-tonne freight capacity.
- **Key Features:** C-295 Aircraft has a 5-10 tonne capacity.
- It also has a rear ramp door for quick reaction and para dropping of troops and cargo.
- It is **powered by Pratt & Whitney PW127 engines**, part of the PW100 family.
- All 56 aircraft will be installed with **indigenous Electronic Warfare Suite**.
- **Manufacturing:**
  - 16 C-295 aircraft will be delivered in a flyaway condition by Airbus Defence and Space SA.
  - **Make in India:** remaining 40 C-295 Aircrafts will be manufactured in India by a consortium of the Airbus Defence and Space and Tata Advanced Systems Limited (TASL).

#### Significance of the C-295 Aircraft Deal

- **Promote Atmanirbhar Bharat:** will provide a major boost to the 'Atmanirbhar Bharat Abhiyan' as it offers a unique opportunity for the Indian private sector to enter into technology-intensive and highly competitive aviation Industry.
- **Private Participation:** This is the first project of its kind in which a military aircraft will be manufactured in India by a private company.
- **Boost to aerospace ecosystem in India:** as a large number of detail parts, sub-assemblies and major component assemblies of aero structure were scheduled to be manufactured in India.
- **Boost to MSME Sector in India:** As several Micro, Small and Medium Enterprises spread over the country would be involved in manufacturing of parts of the aircraft.
- **Employment Generation:** The program will act as a catalyst in employment generation in the aerospace ecosystem of the country.
  - It is expected to generate 600 highly skilled jobs directly, over 3000 indirect jobs and an additional 3000 medium skill employment opportunities with more than 42.5 lakh man hours of work within the aerospace and defence sector of India.
- **Infrastructure development:** It will involve development of specialized infrastructure in form of hangars, buildings, aprons and taxiway.

### Central Reserve Police Force (CRPF)

#### Context

- Recently, the Ministry of Home Affairs (MHA) issued orders to the CRPF headquarters to “include the provisions of Security Force Court (SFC) as available in the Acts and Rules of other CAPFs (Central Armed Police Forces).
- This is for initiating disciplinary action against the delinquent officers, so that such cases are finalized within minimum time.”

#### Need for Security Force Court (SFC)

- CRPF rules lay down the procedure for the conduct of departmental enquiries against non-gazetted ranks, and the officers are generally well versed with the procedure.
- As a result, most of the cases that are challenged in the High Courts are upheld.

- In normal circumstances, the departmental enquiries are completed within three to six months. But when gazetted officers are charge-sheeted, the time taken to order the enquiries is longer as other institutions like the Union Public Service Commission, the Central Vigilance Commission, the Department of Personnel and Training, and the MHA are also roped in for their views and legal opinion.
- This results in increasing cases being filed in the High Courts across the country in service matters.

### Setting up of Security Force Court (SFC)

- Rising pendency in the regular courts nudged the government for setting up of tribunals for the CAPFs on the lines of the Armed Forces Tribunal for defence services.
- Retired officers of the rank of Inspectors General and Additional Directors General from the CAPFs could be part of these tribunals along with retired judges of High Courts.
- This would ensure speedy delivery of justice.

### Key Points

- **About:** The Central Reserve Police Force came into existence as Crown Representative's Police in 1939.
  - It became the Central Reserve Police Force on enactment of the CRPF Act on 28th December 1949.
  - CRPF is the largest Central Armed Police Force of India.
- **Parent Ministry:** It functions under the Union Ministry of Home Affairs.
- **Mandate:** To enable the government to maintain Rule of Law, Public Order and Internal Security effectively and efficiently, to Preserve National Integrity and Promote Social Harmony and Development by upholding supremacy of the Constitution.

### Key Duties

- Crowd/ Riot control
- Counter Militancy/Insurgency operations
- Dealing with Left Wing Extremism
- Protection of VIPs and vital installations
- Checking environmental degradation and protection of local Flora and Fauna
- Fighting aggression during War time
- Participating in UN Peacekeeping Mission
- Rescue and Relief operations at the time of Natural Calamities

## 'ZAPAD 2021' Exercise

### Context

- Indian Army has recently informed that a 200 members contingent of Indian Army will participate in Exercise ZAPAD 2021.
- **Exercise 'ZAPAD 2021'** is being held at Nizhniy in Russia from 3-16 September, 2021.

### Key Points

- **About Exercise 'ZAPAD 2021':** It is a Multi Nation exercise led by Russia.
- **Focus Area:** ZAPAD 2021 is one of the theatre-level exercises of Russian Armed Forces and will focus primarily on operations against terrorists along with boosting anti-terror cooperation.
- **Participation of Countries:** 17 countries from Eurasia and South Asia will also participate in the same exercise. Among these-
  - **9 countries** are **Participating countries** which include Mongolia, Armenia, Kazakhstan, Tajikistan, Kyrgyzstan, Serbia, Russia, **India**, and Belarus.
  - **Other eight** countries are **Observers** which include **Pakistan, China**, Vietnam, Malaysia, **Bangladesh, Myanmar, Uzbekistan, and Sri Lanka**.
- **India's Participation:**
  - The NAGA Battalion group participating in the exercise will feature an all arms combined task force.
- **Aim:** The exercise aims to enhance military and strategic ties amongst the participating nations while they plan and execute this exercise.

### Exercise INDRA: India- Russia Joint Military Exercise

- **About:** Since 2003, the INDRA series of exercises was conducted as a **bilateral naval exercise** alternately between the two countries.
  - The **first joint Tri-Services Exercise** was **conducted in 2017**.
  - The last joint, tri-services exercise was conducted in India in December 2019. It was held simultaneously at Babina (near Jhansi), Pune, and Goa.
- **EXERCISE INDRA-21:** 12th Edition of Indo-Russia joint military Exercise INDRA 2021 was held at Volgograd, Russia.
  - The exercise entailed conduct of counter terror operations under the United Nations mandate by a joint force against international terror groups.

## Exercise Peace Mission 2021

### Context

- A team of 200 Army and Air Force personnel of India are in Russia to participate in Exercise Peaceful Mission.
- Prior to their departure, the contingent underwent training and preparation under the aegis of South Western Command.
- Indian contingent was inducted to exercise area by two IL-76 aircrafts.
- Exercise Peace Mission is being held between the member-states of the Shanghai Cooperation Organization (SCO) from September 13 to 25 that also includes Pakistan and China.

### Key Points

- **About:** The 6th edition of Exercise PEACEFUL MISSION is being hosted by Russia in the Orenburg Region of South West Russia from 13 to 25 September 2021.
  - SCO PEACEFUL MISSION is a Multilateral & Joint Counter Terrorism Exercise.
  - PEACEFUL MISSION exercise is conducted biennially under the “military diplomacy” between the Shanghai Cooperation Organization (SCO) member states.
- **Aim:** To foster close relations between SCO member states and to enhance abilities of the military leaders to command multi-national military contingents.
- **Importance of Peace Mission:** The exercise will enable sharing of best practices between the Armed Forces of SCO nations.
  - The exercise will also provide an opportunity to the Armed Forces of SCO Nations to train in Counter-Terrorism Operations in an urban scenario in a multinational and joint environment.
- **Scope of the Peace Mission:** The scope of the exercise includes professional interaction, mutual understanding of drills & procedures, establishment of joint command & control structures and elimination of terrorist threats.

## Karbi-Anglong Agreement

### Context

- The Union Government has signed a **tripartite agreement** with five insurgent groups in the Karbi-Anglong region and the Assam Government in a bid to end violence in the region.

### Key points of the agreement

- Karbi Anglong agreement aims to ensure the following:
  - ensure **greater devolution of autonomy** to the **Karbi Anglong Autonomous Council**;
  - **protection of identity**, language, culture, etc. of Karbi people;
  - focussed **development of the Council** area, without affecting the territorial and administrative integrity of Assam.
- In return, the **armed groups will end violence** and join the democratic process while the government will facilitate the rehabilitation of their cadres.
- A **special development package of Rs 1000 crore** over five years will be provided for projects to supplement the development of the region.
- The Assam government shall set up a **Karbi Welfare Council** for focused development of Karbi people living outside the KAAC area.
- The current accord is a result of negotiations with the five groups since the **surrender of more than 1000 militants** from the region.

### 5 insurgent groups

- The signatories were representatives of the
  - Karbi Longri North Cachar Hills Liberation Front (KLNLFF),
  - People’s Democratic Council of Karbi Longri (PDCK),
  - United People’s Liberation Army (UPLA),
  - Karbi People’s Liberation Tigers (KPLT)
  - the Kuki Liberation Front (KLF).

### Significance

- Karbi and Scheduled Tribes people will **get reservation**. In no Sixth Schedule region, there is provision for reservation to a Scheduled Tribe.
- It will grant **Scheduled Tribe status** to Karbi staying in the plains as well.

### Issues in Karbi Anglong

- **Various ethnicities**
  - Karbi Anglong is the state’s largest district and a conglomeration of various ethnicities and tribal groups — Karbi, Dimasa, Bodo, Kuki, Hmar, Tiwa, Garo, Man (Tai speakers), Rengma Naga.
  - Its diversity created different outfits and fuelled an insurgency that did not allow the region to develop.

- **Demand of separate state**
  - The Karbi have been demanding a separate state since 1946.
  - Later, their movement took the shape of an insurgency which intensified in the 1990s.
  - Union government signed various ceasefire agreements with different groups but there were always breakaway factions that continued armed struggle.

### Karbi Anglong Autonomous Council

In 1995, the Karbi-Anglong Autonomous Council was set up under the **Sixth Schedule** of the Indian Constitution for the **development and protection of tribals** living in area namely Karbi Anglong and West Karbi Anglong district.

## Light Combat Aircraft (LCA) Tejas-Mk2

### Context

- Recently the Aeronautical Development Agency (ADA) informed that the detailed design of the Light Combat Aircraft (LCA) Tejas-Mk2 is complete and Roll-out is planned next year.
- The first flight of the Light Combat Aircraft (LCA) Tejas-Mk2 is expected to take place in early 2023.
- The configuration for the fifth-generation Advanced Medium Combat Aircraft (AMCA) has been frozen and preliminary design completed.

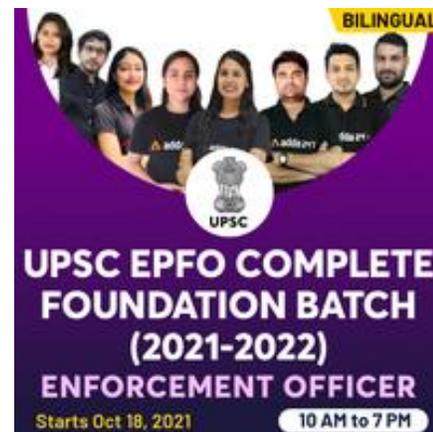
### Key Points

- **About LCA Tejas- Mk2:** This is an improvement over the LCA Tejas-Mk1 with a higher thrust engine.
  - It is being designed by Aeronautical Development Agency under the Department of Defence Research and Development.
  - It is being manufactured by India's state-owned HAL (Hindustan Aeronautics Limited).
- **Capacity of LCA Tejas- Mk2:** The LCA-Mk2 will be a heavier and much more capable aircraft than the current LCA variants.
  - The Mk2 is 1,350 mm longer featuring canards and can carry a payload of 6,500 kg compared to 3,500 kg the LCA can carry.

- Mk2 will be powered by a more powerful GE-414 engine.
- **Features of the LCA Tejas- Mk2:** The LCA Tejas-Mk2 have following key features-
  - Enhanced range and endurance
  - An onboard oxygen generation system (being integrated for the first time)
  - Integrated heavy weapons of the class of Scalp, Crystal Maze and Spice-2000

### Aeronautical Development Agency (ADA)- Key Points

- **About:** Aeronautical Development Agency (ADA) is a Society under the Department of Defence Research and Development, Ministry of Defence, Government of India.
- **Key Objective:** To undertake, aid, promote, guide, manage, co-ordinate and execute research in aeronautical science, design and development of various types of aircraft and rotorcraft.
- **Organizational Structure:** Minister of Defense is the President of the Society and its General Body.
  - The chairman of the DRDO is the Director General of ADA. S/He also holds the post of the Chairman of its Governing Body.
- **Nodal agency for the Tejas Program:** The LCA (Tejas Program) is being designed and developed with ADA as the nodal agency and with the participation of more than 100 work-centres spread all over the country.



## History, Art & Culture

### National Mission on Cultural Mapping (NMCM)

#### Context

- Recently, the government handed over the 'National Mission on Cultural Mapping (NMCM)' to the Indira Gandhi National Centre for the Arts (IGNCA).
  - The Indira Gandhi National Centre for the Arts (IGNCA) is gearing up for a trial run in 75 villages.

#### Key Points

- **About:** National Mission on Cultural Mapping (NMCM) was approved by the Ministry of Culture in 2017. However, the project had been slow to take off.
  - It encompasses data mapping, demography building, formalizing the processes and bringing all cultural activities under one umbrella for better results.
- **Key Objectives:** The mission aims to build a comprehensive database of artists, art forms and other resources from organizations under the Ministry.
  - IGNCA now aims to create a database for folk arts and mapping of heritage of villages over five years period (since 2017).
  - IGNCA aims to ensure complete mapping in 5,000 villages by the end of financial year 2021-2022.
- **Developed NMCM portal:** Ministry informed that around 14.53 lakhs artists/artisans have been registered on NMCM portal through secondary sources State/UT-wise.
  - However, no direct benefits or assistance has been extended through this Mission to the registered artists/institution.
- **Volunteer Participation:** Teams of volunteers from the Nehru Yuva Kendra Sanghathan, the National Service Scheme and students of sociology and social work would be deputed to visit villages and collect data on the art forms and heritage of the areas.

### Indira Gandhi National Centre for the Arts (IGNCA)- Key Points

- **About:** The Indira Gandhi National Centre for the Arts (IGNCA) is an **Autonomous Trust** set up by the Government of India under the Ministry of Culture. It was set up in 1987.

- **Mandate:** IGNCA is visualised as a centre that encompasses the study and experience of all the arts-each form within its own integrity, yet within a dimension of mutual interdependence, interrelated with nature, social structure and cosmology.
- **Scope: The term 'Art' for IGNCA comprise of-**
  - **The fields of creative and critical literature**, written and oral;
  - **The visual arts**, ranging from architecture, sculpture, painting and graphics to general material culture, photography and film;
  - **The performing arts** of music, dance and theatre in their broadest connotation; and
  - **All else in fairs, festivals and lifestyle** that has an artistic dimension.

### Jayaprakash Narayan

#### Context

- The Bihar government took serious note of the removal of chapters on veteran socialist leaders Jayaprakash Narayan and Ram Manohar Lohia from the Post Graduate political science syllabus of the JP University.
- Other eminent figures whose names have been omitted from the syllabus include Dayanand Saraswati, Raja Ram Mohan Rai and Bal Gangadhar Tilak.

#### Key Points

- **About:** Jayaprakash Narayan was born in the early hours of October 11, 1902 in the remote village Sitabdiara, Bihar.
- **Socialist/ Marxist influence: Jayaprakash Narayan** went to US for education, where he was deeply influenced by Marxist ideology.
  - However, he rejected the ultimate solution of "revolution" to bring down the capitalism as being advocated by the Marxists and instead **advocated Socialism.**

#### Contribution to Freedom Struggle

- **Association with Gandhi je:** In 1921 he joined the Non-cooperation movement and was influenced by Gandhian Ideology.
- **Association with Indian National Congress (INC):** In 1929, he joined the Indian National Congress on the invitation of Jawahar Lal Nehru.

- **Participated in Civil Disobedience Movement (CDM):** Jayaprakash Narayan participated in CDM against British rule in India and was also sentenced to a year's imprisonment in 1932.
- **Formation of Congress Socialist Party (CSP):** He played a key role in the formation of the Congress Socialist Party (1934), a left-wing group within the Congress Party.
  - **Other key members of the CSP-** Acharya Narendra Deva, Ram Manohar Lohia. Minoo Masani, Achyut Patvardhan and Ashok Mehta.
- **Second World War:** he was imprisoned in 1939 for his opposition to Indian involvement in World War II on Britain's side, but he managed to flee and attempted to **organize armed resistance against the British government during Quit India Movement.**
  - He was recaptured in 1943 and sent to jail.
  - He was released in 1946 and tried to convince Congress representatives to pursue a more aggressive stance against British rule.

### Jayaprakash Narayan- Role in Post-Independence India

- **Formation of Praja Socialist Party (PSP):** He left the Congress in 1948 and started an anti-congress movement. Later, he formed Praja Socialist Party (PSP) in 1952.
- **Participation in Bhoodan Movement:** In 1954, he devoted his time exclusively for Vinoba Bhave led Bhoodan Movement which demanded land redistribution to the landless.
- **Call for 'Total Revolution' ('Sampoorna Kranti') in 1974:** When Indira Gandhi was found guilty of violating electoral laws by the Allahabad High Court, he called for a **program of social transformation (termed it 'Sampoorna Kranti')** in 1974 against corruption in public life.
- **Awarded the 'Bharat Ratna':** For his "invaluable contribution to the freedom struggle and upliftment of the poor and downtrodden".

## Jallianwala Bagh Massacre

### Context

- Recently, the Prime Minister of India has inaugurated the revamped Jallianwala Bagh Memorial.
- The Jallianwala Bagh Memorial in Amritsar is now a national monument.

### Key Points

- The upgradation project for the Jallianwala Bagh monument was sanctioned in 2019 under the National Implementation Committee to mark 100 years of the massacre.
- The official memorial was only built in 1961, long after India had gained its Independence. Since then, the site has attracted tens of thousands of visitors from all over the world.

### Key Points

- **Incident:** A peaceful protest was carried out by local people against the confinement of Satya Pal and Saifuddin Kitchlew, within the premises of **Jallianwala Bagh when Brigadier-General Reginald Edward Harry Dyer** ordered his soldiers to open fire at the unarmed peaceful protesters.
- Satya Pal and Saifuddin Kitchlew were two leaders fighting for Independence, and against the implementation of the Rowlatt Act 1919.
- On the afternoon April 13, a crowd of at least 10,000 of men, women and children gathered in a park called the Jallianwala Bagh, walled on all sides but for a few small gates, against the orders of the British.
- Many of them had come to the city from the surrounding region to **celebrate Baisakhi**, a spring festival.
- General Dyer ordered his 90 soldiers to open fire on unarmed protestors in order to teach them a lesson.
- Many were shot dead instantly, many tried to climb the wall and flee but in vain. Many jumped into the well located inside the park.

### After Events

- **Proclamation of martial law in the Punjab:** which included public floggings and other humiliations.
- **Renouncement of titles:**
  - The Bengali poet and Nobel laureate **Rabindranath Tagore** renounced the **knighthood** (which he received in 1915).
  - Mahatma Gandhi renounced his 'Kaiser-i-Hind' title, bestowed by the British for his work during the Boer War.
- **Hunter Commission:** Also known as 'disorders Inquiry Committee', was formed to inquire about the massacre.
  - It censured General Dyer for his actions and was directed to resign from his appointment as Brigade Commander.

## Dr Ram Manohar Lohia

### Context

- The Bihar government took serious note of the removal of chapters on veteran socialist leaders Jayaprakash Narayan and Ram Manohar Lohia from the Post Graduate political science syllabus of the JP University.
- Other eminent figures whose names have been omitted from the syllabus include Dayanand Saraswati, Raja Ram Mohan Rai and Bal Gangadhar Tilak.

### Key Points

- **Birth:** Dr Ram Manohar Lohia was born on March 23, 1910 in Akbarpur, Uttar Pradesh.
- He died on 12th October, 1967.
- **Educational Background:** He secured his Bachelor's degree (1929) from the University of Calcutta and a doctorate (1932) from the University of Berlin (in economics and politics).
  - He wrote his Ph.D. thesis paper on the topic of '**Salt Taxation in India**', with a focus on Gandhi's socio-economic theory.

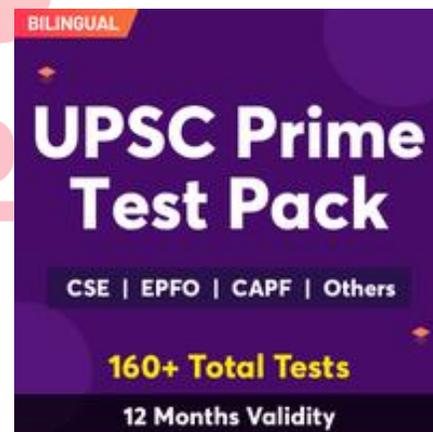
### Contribution during Freedom Struggle Movement

- **Dr Ram Manohar Lohia** is known for his socialist ideology and participation in Indian Freedom Struggle.
- **Association with the Congress Socialist Party (CSP):** In 1934, he became actively involved in the Congress Socialist Party (CSP).
  - CSP was a left-wing group created in 1934 within the Indian National Congress.
  - Dr Ram Manohar Lohia served on the CSP executive committee and edited its weekly journal.
- **Opposed Indian participation from British side in World War II:** He was arrested for his anti-British stance in 1939 and 1940.

- **Participation in the Quit India movement, 1942:** He and other CSP leaders like Jaya Prakash Narayan mobilized support for Gandhi je led '**Quit India movement**' through their underground activities. For such resistance activities, he was jailed again in 1944–46.

### Role in Post-Independence India

- He left congress in 1948 along with other Congress Socialist Party leaders.
- **Association with the Praja Socialist Party:** It was formed in 1952 by Jaya Prakash Narayan. **Dr Ram Manohar Lohia** became member of the party after its formation and served as general secretary for a brief period.
  - He left it in 1955 due to internal conflicts.
- **Found 'New Socialist Party' in 1955:** He became its chairman and also editor of its famous journal named 'Mankind'.
  - The party advocated various socio-political reforms including the abolition of the caste system, stronger protection of civil liberties, etc.
- **Important Literary works of Dr. Ram Manohar Lohia** include-
  - 'Wheel of History',
  - 'Marx, Gandhi and Socialism',
  - 'Guilty Men of India's Partition', etc.



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