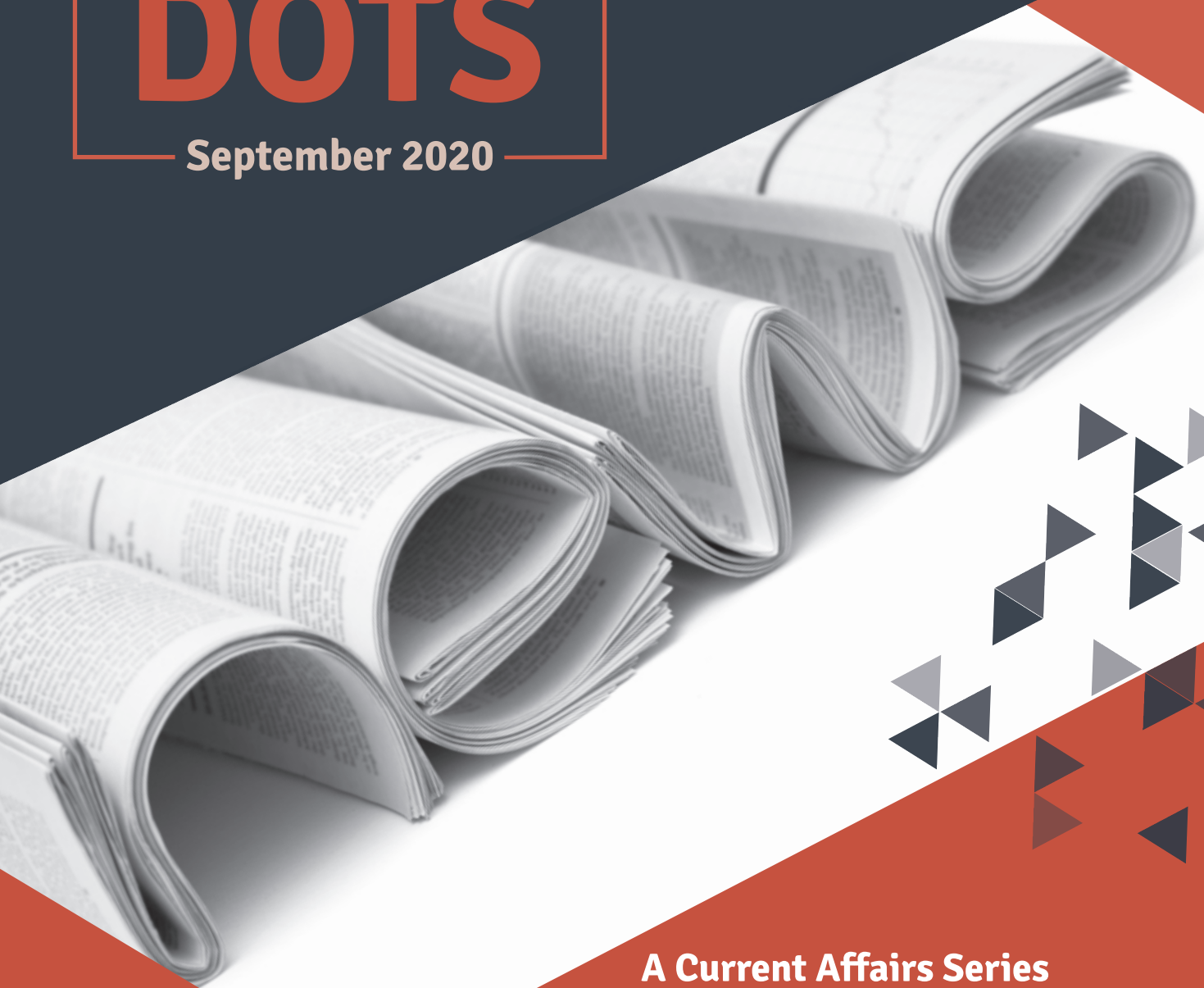


# JOIN THE DOTS

September 2020



## A Current Affairs Series for UPSC Examination

- Chandrayaan-1 Spots Rusting on the Moon
- Project Dolphin
- Djibouti Code of Conduct
- Agreement on Reciprocal Provision of Supplies
- DISC 4 Challenge and iDEX4 Fauji Launched
- Himalayan Chandra Telescope



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## सामान्य अध्ययन – यूपीएससी 2021

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## Compendium – September 2020

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**Dear Students,**

With the present examination pattern of UPSC Civil Services Examination, General Studies papers require a lot of specialization with 'Current Affairs'. Moreover, following the recent trend of UPSC, almost all the questions are based on news as well as issues. CL IAS has now come up with **'JOIN THE DOTS! SEPTEMBER 2020'** series which will help you pick up relevant news items of the day from various national dailies such as The Hindu, Indian Express, Business Standard, LiveMint, PIB and other important sources.

**'JOIN THE DOTS! SEPTEMBER 2020'** series will be helpful for prelims as well as Mains Examination. We are covering every issue in a holistic manner and covered every dimension with detailed facts. This edition covers all important issues that were in news in the month of June 2019. Also, we have introduced Prelim base question for Test Your Knowledge which shall guide you for better revision. In addition, it would benefit all those who are preparing for other competitive examinations.

We have prepared this series of documents after some rigorous deliberations with Toppers and also with aspirants who have wide experience of preparations in the Civil Services Examination.

For more information and more knowledge, you can go to our website

**<https://www.careerlauncher.com/upsc/>**

**"Set your goals high, and don't stop till you get there"**

**All the best!!**

**Team CL**

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# **Prelims Perspicuous Pointers**



# Join the dots!

## A current affairs series for UPSC Examination

### Prelims Factoids: Chanakya (Business Simulation Game) National Management Games 2020



#### *Relevance IN – Prelims (about AIMA Chanakya National Management Games + about AIMA)*

##### What's the NEWS

- Team NTPC emerge as winner at the recently concluded **All India Management Association (AIMA) - Chanakya (Business Simulation Game) National Management Games (NMG) 2020**.
- NTPC won the prestigious National Management Games for the first time in five years.

##### Know! about AIMA Chanakya National Management Games

- AIMA Chanakya National Management Games, an **online Business Simulation Game** conducted every year is aimed at ensuring that **participating executives from various industries** get an introduction to the complexities of running an organisation and gain expertise and skills from this event.
- National Management Games (NMG) is one of its kind platform for **Corporate Managers to face the thrill of Managing Business in a competitive mode**.
- It is one of the most anticipated and reputable annual events based on Business Management Simulation, conducted by **AIMA (All India Management Association)**.
- The participants experience the complexities of running a company by focusing on resource management, market trends, cost analysis, product positioning, production planning, and inventory control.
- NMG is conducted in 2 levels; one at the Regional round (includes two sub-levels: Preliminary and Regional Final), and the second is the Final round.

##### Know! about AIMA

- The All India Management Association (AIMA) is the apex body for management in India with over 38000 members and close to 6000 corporate/institutional members through 66 Local Management Associations affiliated to it.
- AIMA was formed over 60 years ago and is **a non-lobbying, not for profit organisation**, working closely with industry, Government, academia and students, to further the cause of the management profession in India.
- The association is represented on a number of policy making bodies of the Government of India and national associations including All India Council for Technical Education (AICTE), which is the apex regulatory body for professional education in the country under the Ministry of Human Resource Development; National Board of Accreditation (NBA).

### Prelims Factoids: EESL to procure 250 Electric Vehicles

#### *Relevance IN – Prelims (about EESL + about ANERT)*

##### What's the NEWS

- Energy Efficiency Services Limited (EESL), a Super Energy Service Company (ESCO) under the administrative control of Ministry of Power, Government of India, will procure 250 electric vehicles from Tata Motors and Hyundai Motor India.

- This procurement will utilize 5 Million USD from the recent grant provided by the Asian Development Bank (ADB).
- EESL has received financing from ADB towards the cost of scaling up and financing high priority areas like.
- EESL has already received an order for 300 Long Range EVs from The **Agency for Non-Conventional Energy and Rural Technology (ANERT)**, Kerala to be supplied in initial phase.

### **The Agency for Non-Conventional Energy and Rural Technology (ANERT)**

- ANERT is an autonomous organisation established during 1986 under Societies Act by the Government of Kerala, **now functioning under power dept**; with its Head Quarters at Thiruvananthapuram.
- The objective of the Agency is to gather and disseminate useful knowledge in various fields of Non-Conventional Energy, Energy Conservation and Rural Technology.
- The Agency is better known by its acronym ANERT and has become a synonym for Renewable Sources of Energy and Energy Conservation in the State.
- ANERT is guided by an Executive Committee chaired by the Chairman, Secretary power dept; and a Governing Body chaired by the Minister of Electricity, Govt. of Kerala to provide guidelines for ANERT's activities in various energy related areas.
- ANERT is the State Nodal Agency (SNA) for the Ministry of New and Renewable Energy (MNRE), Govt. of India, to carry out the Centrally Assisted Programmes in Kerala.
- ANERT is headed by a Director appointed by the Government.

### **Know! about Energy Efficiency Services Limited (EESL)**

- It is an energy service company (ESCO) of the Government of India and is the world's largest public ESCO.
- It is 100% government-owned, a joint venture of state-owned NTPC Limited, Power Finance Corporation, REC Limited and POWERGRID.
- EESL was formed under India's Ministry of Power to facilitate energy efficiency projects.

## **Prelims Factoids: Consulting Engineers Association of India (CEAI)**

### ***Relevance IN – Prelims (about the role of CERI)***

#### **What's the NEWS**

- In order to further improve the ease of doing business, NHAI has agreed to most of the suggestions made by industry body, the Consulting Engineers Association of India (CEAI).

#### **Know! about CEAI**

- Consulting Engineers Association of India (CEAI) is the apex body of Consulting Engineers in India.
- CEAI represents the Indian Engineering Consultancy professional at the International Federation of Consulting Engineers (FIDIC).
- Two erstwhile professional bodies of consulting engineers, Association of Consulting Engineers (ACE) and National Association of Consulting Engineers (NACE) amalgamated in to CEAI in the year 1996
- CEAI Membership comprises of practicing consultants, private and public sector firms engaged in the entire range of engineering consultancy services.
- CEAI looks after the interests and enhances the status of consulting engineering profession in India and is equally concerned with quality development, productivity enhancement and promotion of ethical practices.

#### **Consulting engineering**

- It is a professional service that provides basic, detailed engineering and construction monitoring/ supervision services for all types of project to diverse nature of clients – **governments, lenders, private companies/ owners, industries, developers or contracting companies.**
- Pure consulting engineers are independent of any association with suppliers/ vendors, fabricators/ erectors and contractors so as to ensure that their services are unbiased.

## Defence: Indra Navy – 20

**Relevance IN – Prelims (about the biennial bilateral maritime exercise -INDRA) + Mains (GS II bilateral relations)**



### What's the NEWS

- The 11<sup>th</sup> edition of exercise INDRA NAVY, a **biennial bilateral maritime exercise** between Indian Navy and Russian Navy is scheduled in the Bay of Bengal from 04 to 05 September 2020.

### Know! about INDRA NAVY

- Initiated in 2003, Ex INDRA NAVY epitomises the **long-term strategic relationship** between the two Navies.
- This exercise has matured over the years with increase in scope, complexity of operations, and level of participation.
- The primary aim of exercise INDRA NAVY-20 is to further consolidate **inter-operability** built up by the two Navies over the years and also to enhance understanding and procedures for multi-faceted maritime operations.
- The scope of this edition includes wide-ranging and diverse activities across the spectrum of maritime operations.
- INDRA NAVY-20 would be undertaken in a 'non-contact, at sea only' format due to COVID-19 restrictions.
- The Indian Navy will be represented by guided missile destroyer *Ranvijay*, indigenous frigate *Sahyadri* and fleet tanker *Shakti*, along with their integral helicopters.
- *Sahyadri* has been presently redeployed to provide assistance to MT New Diamond, which has caught fire off the coast of Sri Lanka.
- The last edition of the exercise was conducted off Visakhapatnam in December 2018.

## Health: Nutraceutical-immunity boosting products under PMBJP for sale through Janaushadhi Kendras

**Relevance IN – Prelims (about PMBJP + about Janaushadhi Kendras)**

### What's the NEWS

- Union Minister of Chemicals & Fertilizers launched immunity boosting products under Pradhan Mantri Bhartiya Janaushadhi Priyojana (PMBJP) for sale through Janaushadhi Kendras across country.

### Know! about PMBJP

- Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is a campaign launched by the **Department of Pharmaceuticals** to provide quality medicines at affordable prices to the masses.
- PMBJP stores have been set up **to provide generic drugs**, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- It was launched by the Department of Pharmaceuticals in November 2008 under the name **Jan Aushadi Campaign**.
- **Bureau of Pharma PSUs of India (BPPI) is the implementation agency** for PMBJP.

## About Jan Aushadhi Store (JAS)

- In addition to medicines and surgical items supplied by BPPI, Jan Aushadhi stores **also sell allied medical products** commonly sold in chemist shops so as to improve the viability of running the Jan Aushadhi store.
- BPPI (Bureau of Pharma Public Sector Undertakings of India) has been established under the Department of Pharmaceuticals, Govt. of India, with the support of all the CPSUs for co-coordinating procurement, supply and marketing of generic drugs through the Jan Aushadhi Stores.
- **Janaushadhi Sugam Mobile App** provides citizens the assistance to locate nearby Janaushadhi kendra.

## Who can open a Jan Aushadhi store?

- State Governments or any organization / reputed NGOs / Trusts / Private hospitals / Charitable institutions / Doctors / Unemployed pharmacist/ individual entrepreneurs are eligible to apply for new Jan Aushadhi stores.
- The applicants shall have to employ one B Pharma / D Pharma degree holder as Pharmacist in their proposed store.

## Know! about Bureau of Pharma PSUs of India (BPPI)

- It has been established on the 1<sup>st</sup> of December 2008 comprising all the Pharma CPSUs under the Department of Pharmaceuticals.
- The Bureau will bring about effective collaboration and cooperation in furthering the working and resources of these organizations.
- It co-ordinate marketing of the generic drugs through the Jan Aushadhi stores.
- It co-ordinate supply of medicines in the State from their own plants, other Pharma PSUs of Central & State Governments and Private Sector.

## Prelims Factoids: The World University Ranking 2021



The Top 10 Universities in the world		
1	Massachusetts Institute of Technology (MIT)	United States
2	Stanford University	United States
3	Harvard University	United States
4	California Institute of Technology (Caltech)	United States
5	University of Oxford	United Kingdom
6	ETH Zurich (Swiss Federal Institute of Technology)	Switzerland
7	University of Cambridge	United Kingdom
8	Imperial College London	United Kingdom
9	University of Chicago	United States
10	UCL (University College London)	United Kingdom

**QS WORLD UNIVERSITY RANKINGS 2021**

## Relevance IN – Prelims (about Times Higher Education (THE) World University Ranking (WUR) 2021 highlights)

### What's the NEWS

- India records its highest ever number of universities to qualify for the Times Higher Education (THE) World University Ranking (WUR) 2021.
- A total of **63 universities from India** qualified for the ranking, however, none could make it to the top 300.

### The World University Ranking (WUR) 2021- Highlights

- Among Indian institutions, the Indian Institute of Science (IISc in Bengaluru) and Indian Institute of Technology (IIT), Ropar, **are the two in the world's top 400**.
- In the last edition of the World University Rankings, India had three.
- IIT Indore was the other institute, which finds itself in the 401-500 bracket this year. After these three, India has 15 universities in the 600-800 bracket.



- This year's rankings are interesting as, for the first time, India's top seven IITs have boycotted THE voicing concerns about its transparency.
- THE has assessed performance of 1527 higher education institutes from 93 countries or regions on several parameters including teaching, research, knowledge transfer, and international outlook.
- UK's University of Oxford retains top spot for the fifth consecutive year.
- In Asia, China's Tsinghua University was adjudged best in the continent with an overall rank of 20.

### Reason for India's poor performance

- The institutes were assessed on several parameters such as research, knowledge, international outlook, transfer and teaching.
- Out of these parameters of the World University Rankings, Indian university are generally placed **low in terms of international outlook and citation impact of research papers.**

## Government Schemes: Start-Up Village Entrepreneurship Programme (SVEP)

**DAY-NRLM Empowering Rural Women**  
**Start Up Village Entrepreneurship Programme (SVEP)**

Launched in **2015-16** to promote rural start-ups in non farm sector

Aims to support about **2.00** lakh entrepreneurs in **140** blocks in **4** years

**30,352** enterprises supported under SVEP thus far

For more information, visit: [rural.nic.in](http://rural.nic.in) | Follow us: [f IndiaRuralDev](https://www.facebook.com/IndiaRuralDev) [@MoRD\\_Gov](https://twitter.com/MoRD_Gov) [@indiaruraldev](https://www.instagram.com/indiaruraldev) [bit.ly/MoRDyoutub](https://www.youtube.com/channel/UCMoRDyoutub)

### Relevance IN – Prelims (about SVEP + DAY-NRLM)

#### What's the NEWS

- Start-Up Village Entrepreneurship Programme (SVEP) is implemented by Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development, as a sub-scheme since 2016.

#### Start-Up Village Entrepreneurship Programme (SVEP)

- Its objective is to support the rural poor come out of poverty, supporting them setup enterprises and provide support till the enterprises stabilize.
- SVEP **focusses on providing self-employment opportunities** with financial assistance and training in business management and soft skills while creating local community cadres for promotion of enterprises.
- SVEP addresses three major pillars of rural start-ups namely - **finances, incubation and skill ecosystems.**
- Activities under SVEP are strategically designed to promote rural enterprises.
- One of the key areas is to develop pool of community resource persons – enterprise promotion (CRP-EP) who are local and support entrepreneurs setting-up rural enterprises.
- The CRP-EPs are certified and provides business support services to the entrepreneurs.
- Another key area is to promote the block resource center (BRC) in SVEP blocks, to monitor and manage the community resource persons, appraise SVEP loan application and acts as the repository of enterprise related information in the concern block.
- BRCs play the role to support sustainable revenue model to operate effectively and independently.
- Entrepreneurship Development Institute of India (EDII), Ahmedabad is the technical support partner of SVEP.
- SVEP promotes both individual and group enterprises, set-up and promote enterprises majorly on manufacturing,



trading and service sectors.

### **Dayal Antyodaya Yojana - National Livelihoods Mission (NRLM)**

- It was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011 as a restructured version of Swarna Jayanti Gram Swarozgar Yojna (SGSY).
- The Mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services.
- In November 2015, the program was renamed Deendayal Antayodaya Yojana (DAY-NRLM).

## **Prelims Factoids: Real Mango**

**Relevance IN – Prelims (about real mango and other illegal software)**

### **What's the NEWS**

- In a nation wide investigation, RPF has disrupted the **operation of illegal software called “Real Mango”** used for cornering confirmed Railway reservation.
- A drive against touts was intensified by Railway Protection Force (RPF) of Indian Railways.

### **Know! more about the operation**

- Operation of an **illegal software called “Rare Mango”** (later changed its name to “Real Mango”) was intensified by Railway Protection Force (RPF) of Indian Railways.
- RPF units apprehended some suspects and initiated the process of understanding and unravelling the operation of RareMango/Real Mango Software.
- It may be noted a coordinated nation-wide action by RPF between December 2019 to March 2020 led to arrest of 104 criminals involved and disruption of many illegal softwares **like ANMS/ Red Mirchi/Black TS, TikTok, I-Ball, Red Bull, MAC, N-GET, Cycle, Star-V2 etc.**

## **Prelims Factoids: Hunar Haat**

**Relevance IN – Prelims (about Hunar Haat)**

### **What's the NEWS**

- After a gap of about 6 months due to the Corona pandemic, “Hunar Haat” will restart from 09<sup>th</sup> October 2020 with the **theme of “Local to Global”** and focus on indigenous exquisite Indian toys.
- That “Hunar Haat”, which will restart from 09<sup>th</sup> October 2020, will be organised with the theme of “Local to Global”.
- The next “Hunar Haat” will be organised at Prayagraj from 9 to 18 October, 2020.
- More than 30 per cent stalls will be for artisans who prepare indigenous toys, they will also be extended help through various institutions for attractive packaging of “Swadeshi Toys”.

### **Know! about Hunar Haat**

- It has provided employment and employment opportunities to more than 5 lakh Indian artisans, craftsmen, culinary experts and other people associated with them in the last 5 years,
- It provides market and opportunity to master artisans and craftsmen from remote areas of the country.
- **The Minority Affairs Ministry** has organised more than 2 dozen “Hunar Haat” so far across the country where lakhs of artisans, craftsmen have been provided employment and employment opportunities through these “Hunar Haat”

## **Human Resource Development: 54<sup>th</sup> International Literacy Day**

**Relevance IN – Prelims (about International Literacy Day)**

### **What's the NEWS**

- The National level function to celebrate 54<sup>th</sup> International Literacy Day was organized by Ministry of Education.
- This year's International Literacy Day 2020 focuses on **‘Literacy teaching and Learning in the COVID-19 crisis and beyond’** especially on the role of educators and changing pedagogies.

- The theme highlights literacy learning in a lifelong learning perspective, and therefore, it mainly focuses on youths and adults.
- ILD, 2020 provides an opportunity to reflect on and discuss how innovative and effective pedagogies and teaching methodologies can be used in youth and adult literacy programmes to face the pandemic and beyond.

### Know! more about ILD

- International Literacy Day (ILD) is celebrated on 8<sup>th</sup> September every year all over the world.
- The celebration of ILD started following a recommendation of the **World Conference of Ministers of Education on the Eradication of Illiteracy** which met in Tehran in September 1965.
- UNESCO in 14<sup>th</sup> Session of its General Conference held in Paris in November 1966, formally proclaimed 8<sup>th</sup> September as International Literacy Day.
- Since then, UNESCO has celebrated International Literacy Day with the **aim to sensitize and mobilize international public opinion** and to elicit their interest and active support for literacy activities – one of UNESCO's major pre-occupations.
- In India, literacy and particularly Adult literacy has been a national priority since independence.
- With a view to eradicate illiteracy and impart functional literacy and lifelong education to adult education, **National Literacy Mission** was launched by Government of India in 1988.
- Since then, India has been celebrating International Literacy Day on 8<sup>th</sup> September to reaffirm its national commitment to achieve goal and objectives of literacy.

## Prelims Factoids: Svanidhi Samvaad

### Relevance IN – Prelims (about PM Svanidhi scheme)

#### What's the NEWS

- The Prime Minister held 'Svanidhi Samvaad' with street vendors from Madhya Pradesh.

#### PM Svanidhi scheme

- The Government of India had launched PM Svanidhi scheme on 1<sup>st</sup> June, 2020 to help poor street vendors, impacted by COVID-19, resume livelihood activities.
- The aim of the Svanidhi yojana is to provide Swarozgar, Svavlamban and Swabhimaan (Self Employment, Self-Sustenance and Self-Confidence) to the Street Vendors.
- The PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) was launched by the Ministry of Housing and Urban Affairs on June 01, 2020 for providing affordable Working Capital loan to street vendors to resume their livelihoods that have been adversely affected due to Covid-19 lockdown.
- The duration of the scheme is until March 2022.

#### Scheme Benefits

- Vendors can avail a working capital loan of up to Rs. 10,000, which is repayable in monthly instalments in the tenure of one year.
- On timely/ early repayment of the loan, an interest subsidy @ 7% per annum will be credited to the bank accounts of beneficiaries through Direct Benefit Transfer on quarterly basis.
- There will be no penalty on early repayment of loan.
- The scheme promotes digital transactions through cash back incentives up to an amount of Rs. 100 per month.
- The vendors can avail the facility of escalation of the credit limit on timely/ early repayment of loan.

#### Implementation agency

- Small Industries Development Bank of India (SIDBI)

## Defence: Project 17A

**Relevance IN – Prelims (about Project 17A + Stealth features + Radar MFSTAR)**

### What's the NEWS

- Vice Admiral of the Indian Navy laid the keel of the **third ship (Yard- 12653) of the prestigious P17A class stealth frigates**
- The keel laying ceremony was conducted through an e-platform.
- ***In all, seven ships of P-17 A with advanced stealth capability has been ordered by the Indian Navy, with the ship, construction to take place at MDL (for four) and GRSE, Kolkata (for three).***

### Know! about Project 17A

- The Nilgiri-class frigate or Project 17A is a follow-on of the Project 17 Shivalik-class frigate for the Indian Navy.
- The P17A class frigates are being built using indigenously developed steel and fitted with weapons and sensors along with Integrated Platform Management System. These ships are having stealth features.
- Construction of P17A ships differ in the very concept of warship building by way of adoption of the modern technology '**Integrated Construction (IC)**' where the blocks are pre-outfitted before joining to reduce the build period of warships.
- When commissioned the platforms will enhance the combat capability of the Indian Naval fleet.
- With the latest technology fitted onboard, these multi-role P-17A ships are expected to play a critical role in the ever-evolving international maritime scenario, especially with Chinese naval power projection rapidly growing as an influence within Indian Ocean Region.
- The P17A is the follow-on of earlier P-17 Shivalik class 'first indigenously' constructed stealth warships which are already in operations with Indian Navy.

### Stealth features

- The ships are expected to have a mix of Weapon systems which have been sourced from Russia, Israel and some have been locally manufactured in India.
- The main advanced stealth features of P-17A pertain to smaller Radar cross-section of the ship achieved through the use of special super structure shape which reduces radar wave reflections.
- Another important feature is regarding the ship's low acoustic noise emanating from propellers, operating machinery like Diesel Generators etc., which helps sonars on other ships to detect its presence.
- Such stealth features play an important role in improving ship's survivability in any hostile environment during operations.

### Radar MFSTAR

- The Radar MFSTAR (for Multi-Function Surveillance Track and missile guidance Radar) Frigate version shall bring in long-distance target detection and tracking ability for both, Air and Surface targets.
- The MFSTAR is also capable to undertake Target Designation of hostile targets for timely weapon engagement and achieve optimal utilization of Fleet resources.
- This unique MFSTAR feature makes an anti-missile countermeasure (as part of self-defense tactics) highly effective, especially against the sea-skimming missile threat to the Ship.

**INDIA'S NEW WARSHIP**

The Nilgiri-class frigate will be Indian Navy's most-advanced stealth frigate project till date

**Project 17A**  
Known as the Nilgiri-class frigate will have seven vessels:

- + INS Nilgiri
- + INS Himgiri
- + INS Udaygiri
- + INS Dunagiri
- + INS Taragiri
- + INS Vindhyagiri
- + INS Mahendragiri

**First ship: INS Nilgiri**  
To be launched: **28 Sep, 2019**  
Commissioning expected: **2022**

**What is a Frigate?**  
A multi-role naval warship that serves as a fleet protector and submarine hunter

Estimated cost per vessel  
**₹4,000 cr+**

Source: News Reports

NEWS creative

## Prelims Factoids: South India's 1<sup>st</sup> and country's 2<sup>nd</sup> Kisan Rail between Anantapur and New Delhi flagged off

*Relevance IN – Prelims (about Kisan Rail and its objective)*

### What's the NEWS

- The inaugural run of Anantapur – New Delhi Kisan Rail was flagged off.
- Kisan Rail and Kisan Udaan had been announced in this year's budget so that farm produce is able to be transported all over the country in less time.
- On 7<sup>th</sup> August, the **first Kisan Rail was flagged off between Devlali in Maharashtra and Danapur in Bihar** as a weekly service, which was later made bi-weekly due to increasing demand.
- Now the 2<sup>nd</sup> Kisan Rail will benefit farmers of the states coming en route.
- Kisan Udaan service will also be started soon.

### Know! the benefits of Kisan RAIL

- Introduction of Kisan Rail is conceptualized to provide priority to the farming sector and facilitate transportation of perishable agricultural products to various market places across the country.
- India's second and South India's first Kisan Train commenced its inaugural run from Anantapur in Andhra Pradesh to Adarsh Nagar in New Delhi.
- Starting a Kisan Rail will be particularly helpful in benefitting the small farmers and traders in marketing their product across the country in a safe, economical and speedy manner.

## Miscellaneous: Ranking of States: 2019, on support to Startup Ecosystems

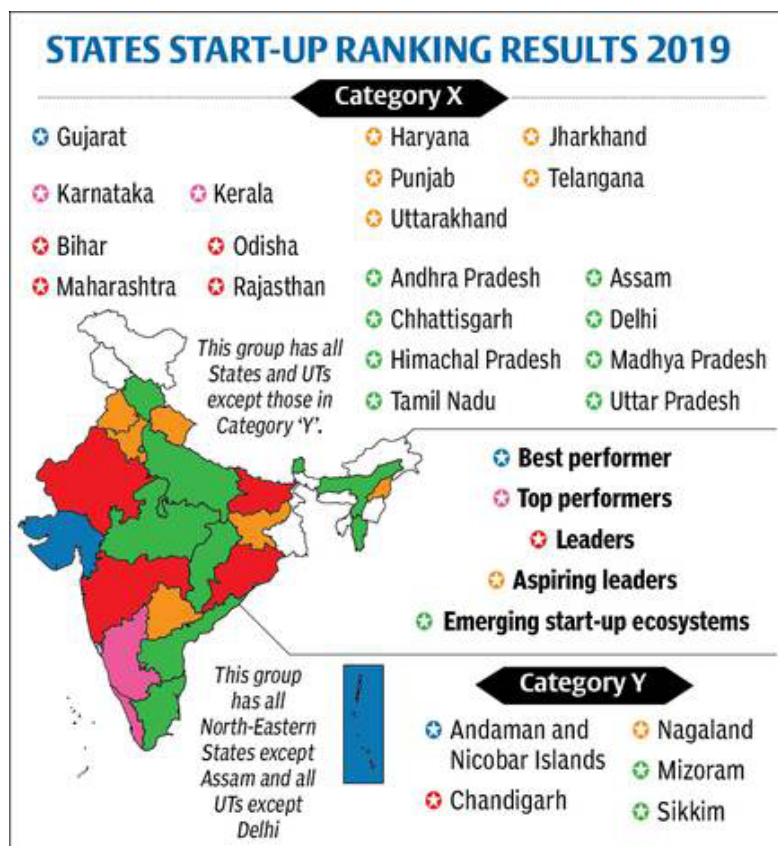
*Relevance IN – Prelims (about the Second edition of Ranking of States on Support to Startup Ecosystems – Highlights) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation + GS III Economic development)*

### What's the NEWS

- **Gujarat has again emerged as the best performer** in developing startup ecosystem for budding entrepreneurs, according to the ranking of states and union territories by the Department for Promotion of Industry and Internal Trade (DPIIT).
- Gujarat was categorised as the best performer among all states and one union territory (UT) Delhi, barring north-eastern states and other UTs.
- Among all the north-eastern states except Assam and all UTs barring Delhi, Andaman and Nicobar Islands has emerged as the best performer.

### Know! about the States' Startup Ranking Exercise

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** conducted the second edition of the States' Startup Ranking Exercise, with the key objective to foster competitiveness and propel States and Union Territories to work proactively towards uplifting the startup ecosystem.





- It has been implemented as a capacity development exercise to encourage mutual learning among all states and to provide support in policy formulation and implementation.
- The States' Startup Ranking Framework 2019 has **7 broad reform area, consisting of 30 action points** ranging from Institutional Support, Easing Compliances, Relaxation in Public Procurement norms, Incubation support, Seed Funding Support, Venture Funding Support, and Awareness & Outreach.
- To establish uniformity and ensure standardization in the ranking process, States and UTs have been divided into **two groups**.
- While UTs except Delhi and all States in North East India except Assam are placed in **Category 'Y'**. All other States and UT of Delhi are in **Category 'X'**.
- A total of **22 States and 3 Union Territories participated** in the exercise.
- Evaluation Committees comprising independent experts carried out a detailed assessment of responses across various parameters.

***For the purposes of Ranking, States are classified into 5 Categories:***

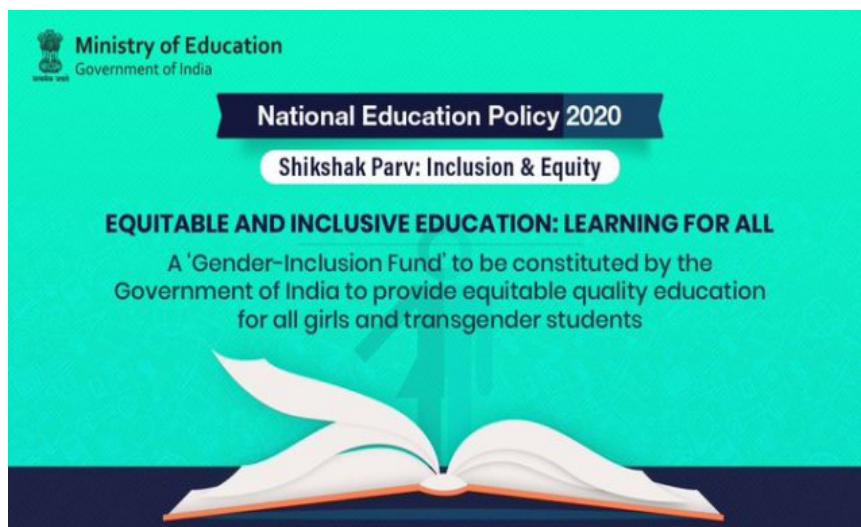
- Best Performers
- Top Performers
- Leaders
- Aspiring Leaders and
- Emerging Startup Ecosystems.

### **Leaders across 7 Reform Areas**

The top scoring States across each reform area have been recognised as a leader.

S.No.	Pillar	Leader Names
1.	Institutional Leaders	• Karnataka • Kerala • Odisha
2.	Regulatory Change Champions	• Karnataka • Kerala • Odisha • Uttarakhand
3.	Procurement Leaders	• Karnataka • Kerala • Telangana
4.	Incubation Hubs	• Gujarat • Karnataka • Kerala
5.	Seeding Innovation Leaders	• Bihar • Kerala • Maharashtra
6.	Scaling Innovations Leaders	• Gujarat • Kerala • Maharashtra • Rajasthan
7.	Awareness and Outreach Champions	• Gujarat • Maharashtra • Rajasthan

## **Human Resource Development: Shikshak Parv**





## Relevance IN – Prelims (about Shikshak Parv)

### What's the NEWS

- Ministry of Education has been organising a **two-day conclave on School Education** in 21<sup>st</sup> Century under Shikshak Parv on 10<sup>th</sup> and 11<sup>th</sup> September, 2020 through online medium.

### Know! about Shikshak Parv

- In the two days conclave discussions by Expert Practitioners will be held to demystify some of the important themes of NEP for school education.
- Some of the suggestions from teachers received on MyGov will also be shared.
- Shikshak Parv is being celebrated from 8<sup>th</sup> September- 25<sup>th</sup> September, 2020 to felicitate the Teachers and to take New Education Policy 2020 forward.
- The Ministry will be organizing a **series of webinars on NEP and its implementation**. In these webinars, various important themes of NEP will be discussed by experts.
- Each theme will target different sets of stakeholders of the education system; however, it will be useful for all schools, teachers, parents, students as well.

## Defence: Raksha Mantri launches Aero India 21 website



## Relevance IN – Prelims (about Aero India 2021)

### What's the NEWS

- The 13<sup>th</sup> edition of Aero India-21 will be held at Air Force Station, Yelahanka, Bengaluru, Karnataka from 3<sup>rd</sup> to 07<sup>th</sup> February 2021.
- Raksha Mantri, Shri Rajnath Singh launched the Aero India 2021 website giving the go ahead for space-booking.
- Aero India 2021 website will be a contactless online interface for Asia's largest Aeroshow and host all online services related to the event for both the exhibitors and visitors.

### Know! more about Aero India Exhibition

- Aero India exhibition is organized every alternate year.
- It is one of the major exhibition for aerospace and defence industries with a public air show.
- It enables industry professional to gain market insights, announce new developments and gain media coverage.
- Aero India offers a unique platform to international aviation sector to bolster business.
- Aero India 2021 is the 13<sup>th</sup> edition of Aero India being organised at Bengaluru, Karnataka from 03-07 February 2021.
- Aero India 2021 provides opportunity to demonstrate products to the potential customer and investors.
- In Aero India 2021 Exhibitors are likely to showcase their products using latest technologies to the potential customers.

- This is an important international event likely to be attended by thousands of business visitors and lakh general visitors.

## Prelims Factoids: IPFT develops new Disinfectant Sprays

**Relevance IN – Prelims (about Institute of Pesticide Formulation Technology- IPFT)**

### What's the NEWS

- Institute of Pesticide Formulation Technology- **IPFT an autonomous Institution under the Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers** has successfully developed two new technologies namely “Disinfectant spray for surface application” and “Disinfectant spray for Vegetables & fruits.”

### Know! about IPFT

- Gurugram, Haryana, based IPFT was Established in May 1991 under the Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers as an Autonomous Institution.
- Institute has been working towards the development of safer, efficient and environment friendly pesticide formulations.
- IPFT has four administrative divisions namely, Formulation Technology Division, Bioscience Division, Analytical Science Division and a Process Development Division.

## Energy Security: Krishna-Godavari(KG)basin,an excellent source of fuel methane

**Relevance IN – Prelims (about KG basin + Methane hydrate)**

### What's the NEWS

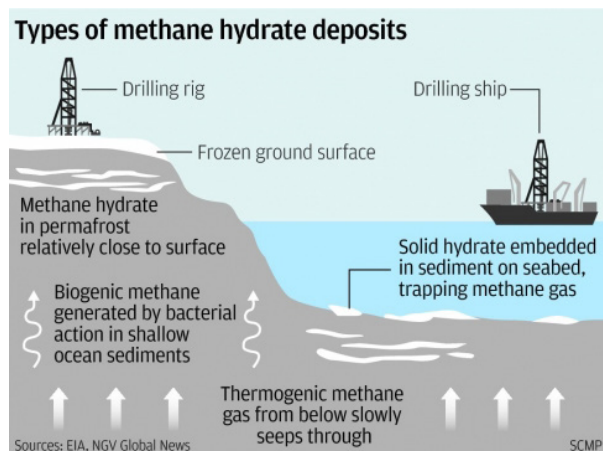
- In a recent study conducted by researchers at the **Agharkar Research Institute (ARI)**, an autonomous institute of the Department of Science and Technology, Govt. of India have found that the methane hydrate deposits are located in the Krishna-Godavari (KG) basin are of biogenic origin.
- The study was conducted as a part of the DST-SERB young scientist project titled '**Elucidating the community structure of methanogenic archaea in methane hydrate**'.

### Know! about Methane hydrate

- It is formed when hydrogen-bonded water and methane gas come into contact at high pressures and low temperatures in oceans.
- The methane hydrate deposit in Krishna-Godavari (KG) basin is a rich source that will ensure adequate supplies of methane, a natural gas.
- Methane is a clean and economical fuel. It is estimated that one cubic meter of methane hydrate contains 160-180 cubic meters of methane.
- Even the lowest estimate of methane present in the methane hydrates in KG Basin is twice that of all fossil fuel reserves available worldwide.

### Know! more about Methane Hydrate

- Methane hydrate is a crystalline solid that consists of a methane molecule surrounded by a cage of interlocking water molecules.
- Methane hydrate is an “ice” that only occurs naturally in subsurface deposits where temperature and pressure conditions are favorable for its formation.
- If the ice is removed from this temperature/pressure environment, it becomes unstable.
- For this reason methane hydrate deposits are difficult to study.
- Several other names are commonly used for methane hydrate. These include: methane clathrate, hydromethane, methane ice, fire ice, natural gas hydrate, and gas hydrate.
- Methane is the primary component of natural gas, and the development of methane hydrate follows almost the same procedure as that for natural gas.



## Know! about Krishna Godavari Basin

- It is a peri-cratonic passive margin basin in India.
- It is spread across more than 50,000 square kilometres in the **Krishna River and Godavari River basins in Andhra Pradesh.**
- The site is known for the D-6 block where Reliance Industries discovered the biggest natural gas reserves in India in 2003

## e-governance: iRAD App

**Relevance IN – Prelims (about iRAD app and its objective)**

### What's the NEWS

- The 2-days Orientation and Training programme on iRAD App was conducted by the Ministry of Road Transport & Highways for the selected districts of Karnataka and Uttar Pradesh.
- Based on the feedback and other suggestions received, the App will be customised for the State.
- The basic iRAD app has been developed and will be customized/integrated as per the requirements of concerned States/UTs.

### Integrated Road Accident Database Project (iRAD)

- The Ministry of Road Transport & Highways is in the process of implementing '**Integrated Road Accident Database Project (iRAD)**' which will be applicable across the country.
- In the first instance, it has been decided to implement the proposal in six States, viz. Maharashtra, Karnataka, Madhya Pradesh, Rajasthan, Uttar Pradesh and Tamil Nadu.
- The development and implementation of iRAD has been entrusted to IIT Madras and National Informatics Centre Services Inc.
- The App when developed and functional, **will enable the stakeholders such as the Police, Transport, Health, etc to use their mobile phones to collect accident data on the spot.**
- This project is proposed on IT based system for capturing the spot accident data using mobile app configured for this purpose.
- This data can then be utilized for various purposes like finding the causes of the accidents and remedial measures to improve the road infrastructure, to record the accidents data for the use of police, health services and other concerned departments.

## Infrastructure Development: Grih Pravesham event

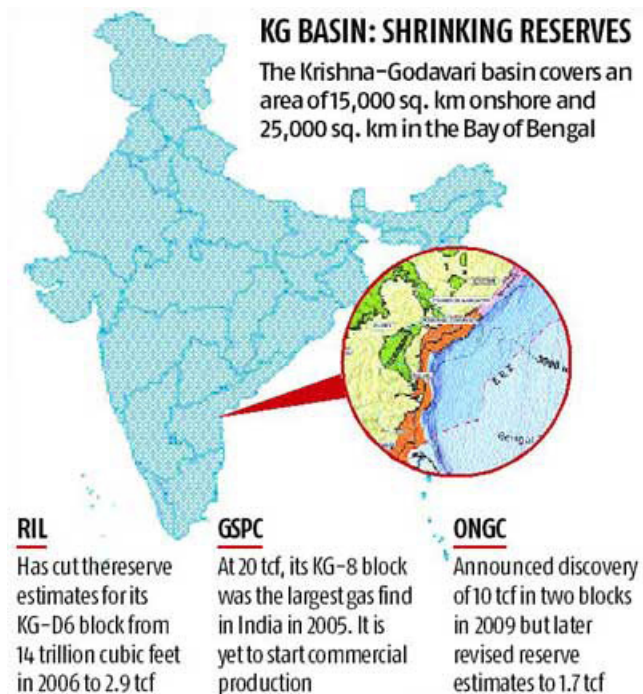
**Relevance IN – Prelims (about Pradhan Mantri Awas Yojana- Grameen (PMAY-G))**

### What's the NEWS

- Prime Minister addressed the 'Grih Pravesham' event in Madhya Pradesh through where 1.75 Lakh Families were delivered pucca houses under the Pradhan Mantri Awas Yojana- Grameen (PMAY-G)

### Pradhan Mantri Awas Yojana – Gramin (PMAYG)

- Earlier known as Indira Awaas Yojana (IAY), is a scheme for rural housing by the Indian Government.
- This social welfare program was initiated to meet the objectives of the "Housing for All" **scheme by the year 2022.**
- It aims to provide a 25-square meter pucca house including basic amenities to beneficiaries of the scheme.
- The houses provided will have certain special features such as it would be disaster-resilient, low cost, and will be built keeping in mind the socio-cultural and geo-climatic factors.





## Key features of the PMAYG scheme

- The construction cost of the houses will be shared in a 60:40 ratio between the Central and State governments in plain areas, i.e. **Rs.1.20 lakh of assistance for each unit.**
- For rural areas located in the Himalayan states, northeastern states, and the Union Territory (UT) of Jammu & Kashmir, the ratio is 90:10, i.e. the central government will bear 90% of the cost and the state government will finance 10% amounting up to Rs.1.30 lakh of assistance for each unit.
- 100% financing will be offered by the Central government for the construction of houses in Union Territories including the newly-formed union territory of Ladakh.
- Beneficiaries are selected using parameters from the Socio-Economic and Caste Census (SECC) and verified by Gram Sabhas.
- The PMAY Gramin scheme is associated with other central government schemes such as Swachh Bharat Mission Gramin (SBMG) through which, the assistance of up to Rs.12,000 for the construction of toilets will be provided in collaboration with MGNREGS or other schemes.

## International Organisations: India beats China to become member of UN's Commission on Status of Women



### *Relevance IN - Prelims (about Commission on Status of Women (CSW) + about ECOSOC)*

#### What's the NEWS

- India has been elected as the member of the Commission on Status of Women (CSW), a body of the Economic and Social Council (ECOSOC).
- India will be a member of the prestigious body **for four years from 2021 to 2025.**

#### Know! more about it

- India, Afghanistan and China had contested the elections to the Commission on Status of Women. While India and Afghanistan won the ballot among the 54 members, China failed to cross the half-way mark.
- The CSW is the principal global intergovernmental body exclusively dedicated to the **promotion of gender equality and the empowerment of women.**
- A functional commission of the ECOSOC, it was established by ECOSOC resolution 11(II) of 21 June 1946.
- It promotes women's rights, highlights the reality of women's lives throughout the world and helps in shaping global standards on gender equality and the empowerment of women.
- 45 member states of the United Nations serve as members of the Commission at any one time.

#### The United Nations Economic and Social Council (ECOSOC)

- It is one of the six principal organs of the United Nations, responsible for coordinating the economic and social fields of the organization.
- ECOSOC serves as the central forum for discussing international economic and social issues and formulating policy recommendations addressed to member states and the United Nations system.
- In addition to a rotating membership of 54 UN member states, over 1,600 nongovernmental organizations have consultative status with the Council to participate in the work of the United Nations.

## Prelims Factoids: Committee for conducting a study on the origin and evolution of Indian culture

**Relevance IN – Prelims (about the committee and its role)**

### What's the NEWS

- The government has formed an expert committee for conducting a study on the **origin and evolution of Indian culture** dating back to around 12,000 years ago.
- The 16-member committee will include **K.N. Dikshit, Chairman, Indian Archaeological Society**, New Delhi and former Joint Director General, Archaeological Survey of India, among others.
- A committee has been set up for conducting a holistic study of origin and evolution of Indian culture since 12,000 years before present and its interface with other cultures of the world.

## Prelims Factoids: National Highway Excellence Awards

**Relevance IN – Prelims (about National Highways Excellence Awards).**

### What's the NEWS

- Ministry of Road Transport and Highways has invited proposals for the National Highways Excellence Awards for the year 2020.

### Know! more about the award

*The awards are given every year in seven categories –*

1. Excellence in Project Management
  2. Excellence in Operation and Maintenance
  3. Green Highway
  4. Innovation
  5. Excellence in Highway Safety
  6. Excellence in Toll Management, and
  7. Outstanding Work in Challenging Conditions.
- The awards were instituted in the year 2018.
  - The first cycle of awards in 2018 received wide participation from around the country.
  - The aim is to recognise companies which are performing exceptionally well in the construction, operations, maintenance and tolling stages of highway development as well as in the arena of road safety.



## Education: AICTE - Visvesvaraya Best Teachers Award 2020

**Relevance IN – Prelims (about AICTE Visvesvaraya Best Teacher Awards + about M Visvesvaraya + SPICES)**

### What's the NEWS

- The first ever AICTE Visvesvaraya Best Teacher Awards 2020 were presented by Union Minister of Education to 12 faculty members of AICTE approved institutes on the occasion of Engineers Day.





## Know! more about the award

- *The AICTE Visvesvaraya Best Teachers Award has been introduced to recognise the excellence of faculty members in AICTE-approved institutes.*
- The Awards has been introduced for the first time to identify extraordinary teachers and recognize their excellence, best practice and innovativeness **in field of higher technical education at national level for Degree and Diploma institutions.**
- This scheme is aimed to recognize the meritorious faculties on the Engineer's Day every year at National level.

## Know! about Sir Mokshagundam Visvesvaraya

- M Visvesvaraya, popularly known as Sir MV, was an engineer, statesman, and a scholar.
- Sir MV served as the Diwan of Mysore during the period of 1912-1918.
- In 1955, he was honoured with Bharat Ratna.
- For his contributions to the public goodness, he was bestowed as Knight Commander, by King George V, during the British Indian Empire.
- **September 15 is celebrated as Engineers day**, in his loving memory.
- Sir MV was recognized for engineering the **Krishna Raja Sagara Dam located in Mysore.**
- Also, he was one of the Chief designing engineers for bringing up a system for flood protection in Hyderabad.

## SPICES (Scheme for Promoting Interests, Creativity and Ethics among Students)

- The event also saw the launch of SPICES (Scheme for Promoting Interests, Creativity and Ethics among Students) by Union Education Minister Shri Ramesh Pokhriyal 'Nishank' **to promote healthy co-curricular activity amongst the students for their all-round development.**

## Health: Parliament passes the Institute of Teaching and Research in Ayurveda Bill 2020

*Relevance IN – Prelims (about Institute of Teaching and Research in Ayurveda (ITRA) + about Institution of National Importance (INI)*

### What's the NEWS

- The Institute of Teaching and Research in Ayurveda Bill 2020 has been passed by Rajya Sabha The Bill was earlier passed in Lok Sabha.
- This paves the way to establish a state-of-the-art Ayurvedic institution called the **Institute of Teaching and Research in Ayurveda (ITRA) at Jamnagar, Gujarat**, and to confer the status of Institution of National Importance (INI) to it.

### Institute of Teaching and Research in Ayurveda (ITRA)

- The ITRA is sought to be established by conglomerating the presently existing Ayurveda institutes at Gujarat Ayurved University campus Jamnagar. This is a cluster of highly reputed institutions.
- ITRA will be the **first institution with INI status in the AYUSH Sector**, and this will enable the institution to be independent and innovative in the matter deciding course content and pedagogy.
- The proposed institute at Jamnagar would have a **LLL** including the Minister of Ayush, Secretary of Ayush and Secretary of Health & Family Welfare of the Gujarat Government, along with three MPs in which two would be from the Lok Sabha and one from the Rajya Sabha.

### Institute of National Importance (INI)

- Institute of National Importance (INI) is a status that may be conferred on a premier public higher education institution in India by **an act of Parliament of India**, an institution which "serves as a pivotal player in developing highly skilled personnel within the specified region of the country/state".
- Institutes of National Importance receive special recognition and funding from the Government of India.

# Defence: Postage Stamp released on A-SAT: India's First Anti Satellite Missile

## Relevance IN – Prelims (about A-SAT)

### What's the NEWS

- A Customized My Stamp on India's First Anti Satellite Missile (A-SAT) launch was released by Department of Posts on the occasion of Engineers Day.

### Anti-Satellite (A-SAT) missile test 'Mission Shakti'

- Defence Research and Development Organisation (DRDO) successfully conducted an Anti-Satellite (A-SAT) missile test 'Mission Shakti' from Dr APJ Abdul Kalam Island in Odisha on 27<sup>th</sup> March 2019.
- A DRDO developed A-SAT Missile successfully engaged an Indian orbiting target satellite in **Low Earth Orbit (LEO) in a 'Hit to Kill' mode**.
- The interceptor missile was a three-stage missile with two solid rocket boosters.
- Tracking data from range sensors had confirmed that the mission met all its objectives.
- The entire effort was indigenous which demonstrated the Nation's capability to develop such complex and critical missions.
- With this success, India became fourth nation in the world to possess such capability.

# Health: Pradhan Mantri Garib Kalyan Package Insurance Scheme

## Relevance IN – Prelims (about Pradhan Mantri Garib Kalyan Package Insurance Scheme)

### What's the NEWS

- The 'Pradhan Mantri Garib Kalyan Package Insurance Scheme for Health Workers Fighting COVID-19' was announced on 30 March 2020 for a period of 90 days.
- This was extended for a further period of 90 days i.e. up to 25<sup>th</sup> Sept, 2020.
- The scheme has now been extended for another 180 days i.e. 6 months.

### Know! all about the Scheme

- This **Central Sector Scheme** provides an insurance cover of Rs. 50 lakh to healthcare providers, including community health workers, who may have to be in direct contact and care of COVID-19 patients and therefore at risk of being infected.
- It also includes accidental loss of life on account of contracting COVID-19.
- The scheme **also covers private hospital staff/ retired/volunteer/ local urban bodies/contract/daily wage/ ad-hoc/outsourced staff** requisitioned by States/ Central hospitals/autonomous hospitals of Central/ States/UTs, AIIMS & INIs/ hospitals of Central Ministries drafted for COVID-19 related responsibilities.
- The insurance provided under this scheme is over and above any other insurance cover being availed of by the beneficiary.
- There is **no age limit** for this scheme and individual enrolment is not required.
- The entire amount of premium for this scheme is being borne by the Ministry of Health and Family Welfare, Government of India.
- The benefit/claim under this policy is in addition to the amount payable under any other policies.
- Ministry of Health and Family welfare has collaborated with the **New India Assurance (NIA) Company** Limited for providing the insurance amount based on the guidelines prepared for the scheme.

# Prelims Factoids: Project DigniTEA

## Relevance IN – Prelims (about Project DigniTEA)

### What's the NEWS

- To celebrate **Sewa Diwas**, which marks the birthday of the Prime Minister **Khadi and Village Industries Commission (KVIC)** distributed 6 innovative cycle-mounted Tea/Coffee Selling units under Project DigniTEA in New Delhi.

## Know! about it

- The cycle-mounted tea/coffee selling units have been distributed to 6 unemployed local youths.
- These units will enable tea-sellers to earn a respectable livelihood while selling the beverages hygienically.
- KVIC also distributed 17 such units in different cities like Varanasi, Jaipur and Chandigarh.

## The Khadi and Village Industries Commission (KVIC)

- It is a **statutory body** formed in April 1957 by the Government of India, under the Act of Parliament, 'Khadi and Village Industries Commission Act of 1956'.
- It is **an apex organisation under the Ministry of Micro, Small and Medium Enterprises**, with regard to khadi and village industries which seeks to - "plan, promote, facilitate, organise and assist in the establishment and development of khadi and village industries in the rural areas.
- In April 1957, it took over the work of former **All India Khadi and Village Industries Board**.
- Its head office is in Mumbai, whereas it has six zonal offices in Delhi, Bhopal, Bangalore, Kolkata, Mumbai and Guwahati.



## Prelims Factoids: IBSA grouping

### Relevance IN – Prelims (about IBSA grouping)

#### What's the NEWS

- In a first, the IBSA grouping - India, Brazil and South Africa issued a joint statement calling for “**accelerated and comprehensive reforms**” of the **United Nations Security Council (UNSC)**.
- The joint statement was issued after virtual IBSA foreign ministers meet.

## Know! all about IBSA

- IBSA is a unique Forum which brings together India, Brazil and South Africa, three large democracies and major economies from three different continents, facing similar challenges.
- All three partners are developing, pluralistic, multi-cultural, multi-ethnic, multi-lingual and multi-religious nations.
- IBSA, formalized at Foreign Ministers meeting in Brasilia in June 2003
- IBSA is a purely South-South grouping of like-minded countries, committed to inclusive sustainable development, in pursuit of the well-being for their peoples and those of the developing world.

## Intergovernmental Negotiations framework

- 10 years after inter-governmental negotiations began, the negotiations remain in the informal stage.
- Intergovernmental Negotiations framework is a group within the United Nations that is looking into UNSC reforms but its conversation is considered “informal” in nature and United Nations General Assembly UNGA rule of procedure doesn't apply.

## Ezulwini Consensus and the Sirte Declaration.

- IBSA also support for the representation of Africa in the Council in both the permanent and non-permanent categories as stated in the **Ezulwini Consensus and the Sirte Declaration**.
- Ezulwini Consensus and Sirte declaration called for at least 2 permanent and 5 to 2 non-permanent UNSC seats to be given to African countries at UNSC.

## Prelims Factoids: India has Air Bubble Agreements with 10 Countries

### Relevance IN – Prelims (about air bubble agreement)

#### What's the NEWS

- India has entered into Air Bubble agreements with 10 countries viz. USA, Canada, France, Germany, UK, Maldives, UAE, Qatar, Afghanistan and Bahrain.



## Air Bubbles agreements

- These are **temporary agreements between two countries** aimed at restarting commercial passenger services when regular international flights are suspended as a result of the COVID-19 pandemic.
- They are reciprocal in nature i.e. airlines from both countries enjoy similar benefits.
- Tickets for the flights are sold through the airlines' website, travel agents and Global Distribution Systems.

## Defence: Successful Flight Test of ABHYAS



### Relevance IN – Prelims (about ABHYAS)

#### What's the NEWS

- Successful flight test of ABHYAS - High-speed Expendable Aerial Target (HEAT) was today conducted by Defence Research and Development Organisation (DRDO) from the Interim Test Range, Balasore in Odisha.
- During the trials, two demonstrator vehicles were successfully test flown. The vehicle can be used as target for evaluation of various missile systems.

#### Know! about Abhyas

- Abhyas is designed & developed by Aeronautical Development Establishment (ADE), DRDO. The air vehicle is launched using twin underslung booster.
- It is powered by a small gas turbine engine and has MEMS based Inertial Navigation System (INS) for navigation along with the Flight Control Computer (FCC) for guidance and control.
- The vehicle is programmed for fully autonomous flight. The check out of air vehicle is done using laptop based Ground Control Station (GCS).

## Space Awareness: Rocket Launching Port

### Relevance IN – Prelims (about Rocket launching port – objective and geographical location)

#### What's the NEWS

- The Tamil Nadu government has identified over 961 hectares in **Thoothukudi district** for the country's proposed second rocket launch port.
- At present, rockets are launched from the Indian Space Research Organisation **spaceport at Sriharikota**, near Chennai.

#### Know! more about it

- The government has decided to set up a second facility in the backdrop of an increase in the number of launches by ISRO for domestic and international customers.

- At present, the **Indian Space Research Organization (ISRO)** has **two launch pads** at Sriharikota in Andhra Pradesh.
- The demand for additional launch pads has arisen as a result of the increase in the number of satellite launches from India, both for domestic and international customers.
- Center's policy decision of opening up of space sector for private players enables them to develop various space qualified subsystems and systems along with building of satellites and launch vehicles.
- They are also permitted to establish facilities and provide launch services and other space based services.
- Many of these services and products will definitely find global customers, which will increase India's share in the global space sector market.

## Science and Technology: Neutrino Observatory

**Relevance IN – Prelims (about Neutrino and Neutrino Observatory location)**

### Neutrino Observatory

- Government has a proposal to set up Neutrino Observatory in the country.
- India based Neutrino observatory (INO) will observe neutrinos produced in the atmosphere of the Earth.
- This observation will tell us more about the properties of neutrino particles, whose main source is the Sun and the Earth's atmosphere.
- The neutrino detector will be a magnetized iron calorimeter, which will be the heaviest one made by any country.
- The site identified is in Bodi West Hills, in Theni district, Tamil Nadu.

## Prelims Factoids: ISO Tank Containers

**Relevance IN – Prelims (about ISO Tank – ministry involved in approving its oprtation) + about Petroleum and Explosives Safety Organization (PESO)**

### What's the NEWS

- Department for Promotion of Industry and Internal Trade (DPIIT), M/o Commerce and Industry, has given permission to the Petroleum and Explosives Safety Organisation (PESO) to introduce ISO Tank Containers for movement of **Liquid Oxygen for domestic transport**.

### Know! about the developments

- The proposal to introduce ISO Tank Containers for domestic movement was **initiated by DPIIT after a consultation meeting with cryogenic oxygen manufacturers**.
- In this context, **Petroleum and Explosives Safety Organization (PESO)** has devised the module for receipt of online applications from the stake holders to expeditiously grant the permissions for ISO Tank Containers for oxygen.

### Know! about ISO Tanks

- **ISO Tank** is a **tank container** built to the **ISO** standard (International Organisation for Standardisation).
- **ISO** tanks are designed to carry liquids in bulk.
- The **tank** is made of stainless steel and is surrounded by various types of protective layers.
- ISO tanker can carry 20 MT of liquid oxygen.
- Since they can carry huge amount of Oxygen at one go, ISO containers will help to translocate sufficient Oxygen to areas where required.

### Know! about Liquid oxygen

- Liquid oxygen is a cryogenic liquid. Cryogenic liquids are liquefied gases that have a normal boiling point below  $-130^{\circ}\text{F}$  ( $-90^{\circ}\text{C}$ ). Liquid oxygen has a boiling point of  $-297^{\circ}\text{F}$  ( $-183^{\circ}\text{C}$ ).
- Because the temperature difference between the product and the surrounding environment is substantial—even in the winter—keeping liquid oxygen insulated from the surrounding heat is essential. The product also requires special equipment for handling and storage.
- Oxygen is often stored as a liquid, although it is used primarily as a gas. Liquid storage is less bulky and less costly than the equivalent capacity of high-pressure gaseous storage.



## Petroleum And Explosives Safety Organisation (PESO)

- It is a department formed by Government of India **under Department for the Promotion of Industry and Internal Trade under Ministry of Commerce and Industry**
- Its objective is to administer **Explosives Act 1884, Explosive Substance Act, Petroleum (Production) Act 1934, Inflammable substance Act 1952 and Environment Protection Act 1986** to control import, export, transport, storage and usage of explosive materials, flammable materials, pressure vessels, cryogenic vessels, design and installation of all necessary and relevant infrastructure etc.
- PESO is a regulatory authority with autonomous status.
- The authority framed various rules like **Petroleum Rules 2002, Explosive Rules 2008, Gas Cylinder Rules 2002, Static & Mobile Pressure Vessels (Unfired) 2016, Ammonium Nitrate Rules, Calcium Carbide Rules 1987, Cinematographic Films Rules, 1948 etc.**

## Defence: Laser Guided ATGM Successfully Test-fired



### *Relevance IN – Prelims (about Laser Guided Anti Tank Guided Missile (ATGM))*

#### What's the NEWS

- Laser Guided Anti Tank Guided Missile (ATGM) was successfully test fired from MBT Arjun Tank at KK Ranges, Armoured Corps Centre and School (ACC&S) Ahmednagar.
- In these tests, the ATGM successfully defeated a target located at 3 km.

#### Anti Tank Guided Missile (ATGM)

- Laser guided ATGMs **lock and track the targets with the help of laser designation to ensure precision hit accuracy.**
- The missile employs a tandem HEAT warhead to defeat Explosive Reactive Armour (ERA) protected armoured vehicles.
- It has been developed with multiple-platform launch capability and is currently undergoing technical evaluation trials from gun of **MBT Arjun.**
- Armament Research & Development Establishment (ARDE) Pune in association with High Energy Materials Research Laboratory (HEMRL) Pune, and Instruments Research & Development Establishment (IRDE) Dehradun have developed the missile.

## NITI Aayog: IEA and NITI Aayog launch Special Report on Sustainable Recovery Post Covid-19

### *Relevance IN – Prelims (about Special Report on Sustainable Recovery-highlights + about IEA)*

#### What's the NEWS

- International Energy Agency (IEA), in collaboration with NITI Aayog, presented a '**Special Report on Sustainable Recovery**'
- Part of IEA's flagship World Energy Outlook series, the report proposes a number of actions that could be taken over the next three years to revitalize economies and boost employment while making **energy systems cleaner and more resilient.**

## Know! the report highlights

- The IEA's report, prepared in cooperation with IMF, details energy-focused policies and investments that could help boost economic growth, create jobs and put emissions into structural decline while making energy systems lower-cost, secure and resilient.
- IEA's Sustainable Recovery Plan has a very useful role in guiding governments, businesses, technologists and other key decision-makers.
- The report mentions key sectors for creating jobs: electricity, transportation, buildings, industry and sustainable biofuels and innovations.
- A combination of policy actions and targeted investments will offer huge benefits to the economy and generate jobs.
- The measures highlighted in the report remains the sovereign choice of the country.

## The International Energy Agency

- IEA is a Paris-based **autonomous intergovernmental organisation** established in the framework of the Organisation for Economic Co-operation and Development (OECD) in 1974 in the wake of the 1973 oil crisis.
- The IEA acts as a policy adviser to its member states, but also works with **non-member countries, especially China, India, and Russia**.
- The Agency's mandate has broadened to focus on the "3Es" of effectual energy policy: energy security, economic development, and environmental protection.
- The latter has focused on mitigating climate change.
- The IEA has a broad role in promoting alternate energy sources (including renewable energy), rational energy policies, and multinational energy technology co-operation.
- IEA member countries are required to maintain total oil stock levels equivalent to at least 90 days of the previous year's net imports.

## Miscellaneous: International Convention of Road Traffic

### *Relevance IN – Prelims (about Geneva Convention on Road Traffic)*

#### What's the NEWS

- The Ministry of Road Transport and Highways has advised the States and Union Territory administrations to stamp International Convention of Road Traffic of 19<sup>th</sup> September 1949 on the first page of International Driving Permit, IDP issued by them.

#### Why this advisory?

- Many countries are not accepting the International Driving Permit issued to Indian citizens and that officials there ask for the validation of IDP in accordance with International Convention of Road Traffic of 19<sup>th</sup> September 1949.

#### The Geneva Convention on Road Traffic (signed and ratified by India)

- The **Convention on Road Traffic**, commonly known as the **Geneva Convention on Road Traffic**, is an international treaty promoting the development and safety of international road traffic by establishing certain uniform rules among the contracting parties.
- The convention addresses minimum mechanical and safety equipment needed to be on board and defines an identification mark to identify the origin of the vehicle.
- The Convention was prepared and opened for signature by the United Nations Conference on Road and Motor Transport held at Geneva from 23 August to 19 September 1949.
- It came into force on 26 March 1952.
- The Geneva Convention on Road Traffic was concluded in Geneva on 19 September 1949.
- The convention has been ratified by 101 countries. Since its entry into force on 26 March 1952, in signatory countries ("Contracting Parties") it replaces previous road traffic conventions.

#### Vienna Convention on Road Traffic of 1968. (neither signed nor ratified by India)

- Many of the contracting parties have also ratified the newer convention the Vienna Convention on Road Traffic of 1968.

- In signatory countries of the 1968 Vienna Convention, this replaces previous road traffic conventions including the Geneva Convention on Road Traffic, in accordance with Article 48 of the Vienna Convention.

### International Driving Permit

- One of the main benefits of the convention for motorists is the obligation on signatory countries to recognize the legality of vehicles from other signatory countries.
- The Geneva Convention on Road Traffic is one of three conventions that governs International Driving Permits.
- The other two are the 1926 Paris International Convention relative to Motor Traffic and the 1968 Vienna Convention on Road Traffic.
- The 1949 Geneva Convention states that an IDP remains valid for one year from the date of issue.

## Miscellaneous: Ayush for Immunity Campaign

### *Relevance IN – Prelims (about Ayush for Immunity and e-marathon)*

#### What's the NEWS

- The Ministry of AYUSH has joined hands with Rajagiri College of Social Sciences and Rajagiri Business School, Kochi to organise **a novel e-marathon, as a part of the Ministry's three-month campaign called "Ayush for Immunity"**, focussing on desirable health-promotive and disease preventive steps.

#### Know! all about the e-marathon

- The theme of the e-marathon is "Recharge Mental Health: During and beyond the Covid-19 Pandemic".
- The Rajagiri e-marathon is designed to promote physical and mental well-being of the people of all age-groups, across geographies.
- The participants of e-marathon can take part in the event in timings of their choice and at safer places.
- They also have a long duration of 10 days at their disposal to complete the running challenges.
- A wellness app will integrate the individual running reading of the participants to a central server (computer) so that all participants will be connected via the centralised software application.

#### Vihara

- The conclusion of the event will coincide with the "Vihara" focus of the "Ayush for Immunity" campaign, which will be spread over the month of October, 2020.
- This event aims to enhance the social nearness of people while observing physical distance.
- The event incorporates an entire wellness campaign with yoga, meditation, webinars and entertainment.

## Prelims Factoids: Indian Navy, Royal Australian Navy Passage Exercise (PASSEX)

### *Relevance IN – Prelims (about PASSEX Exercise)*

#### What's the NEWS

- PASSEX underway between Royal Australian Navy and Indian Navy in Eastern Indian Ocean Region.
- The exercise involves participation of HMAS Hobart from the Australian side and Indian Naval Ships Sahyadri and Karmuk.

#### Know! more about PASSEX

- The exercise, aimed at **enhancing interoperability, improving understanding and imbibing best practices** from each other, would involve advanced surface and anti-air exercises including weapon firings, seamanship exercises, naval manoeuvres and Cross Deck Flying Operations.
- PASSEXs are regularly conducted by **Indian Navy with units of friendly foreign navies**, whilst visiting each other's ports or during a rendezvous at sea.



- This exercise being conducted in the **East Indian Ocean Region**, reflects the growing strength of Indo-Australian bilateral relations as comprehensive strategic partners, particularly in defence cooperation in the maritime domain.
- The two navies have built a robust relationship through regular exercises such as **AUSINDEX** conducted biennially.

## Infrastructure Development: India's First RRTS Train Unveiled

**Relevance IN – Prelims (about NCRTC + RRTS corridor)**

### What's the NEWS

- MoHUA and National Capital Region Transport Corporation (NCRTC) unveiled India's first RRTS train.

### Know! all about RRTS

- The state-of-the-art RRTS rolling stock will be first of its kind in India with a design speed of 180 kmph.
- With radiating stainless steel outer body, these aerodynamic RRTS trains will be lightweight and fully air-conditioned.
- Each car will have six automatic plug-in type wide doors, three on each side (Business Class will have four such doors, two on each side) for ease of access and exit.
- RRTS rolling stock will have lighting and temperature control systems to enhance the passenger experience with less energy consumption.
- The prototype is scheduled to roll off the production line in 2022 and will be put into public use after extensive trials.
- NCRTC will procure 30 train sets of 6 cars each for operating regional rail services on the entire corridor and 10 train sets of 3 cars each for operating local transit services in Meerut.



### RRTS corridor

- The entire rolling stock for Delhi-Ghaziabad-Meerut RRTS corridor will be manufactured at **Bombardier's Savli plant** in Gujarat.
- The Delhi-Ghaziabad-Meerut RRTS corridor is one of the three prioritised RRTS corridor being implemented in phase-1.
- The 82 km long Delhi-Ghaziabad-Meerut Corridor is the first RRTS corridor being implemented in India.
- The corridor will bring down the travel time between Delhi to Meerut by around 1/3<sup>rd</sup>.
- The entire corridor will be commissioned in 2025.
- The other two Phase-I RRTS corridors are Delhi-Gurugram-SNB and Delhi-Panipat.

### Know! about NCRTC

- The National Capital Region Transport Corporation (NCRTC) is mandated for implementing the **Regional Rapid Transit System (RRTS)** project across the National Capital Region (NCR), ensuring a balanced and sustainable urban development through better connectivity and access.
- NCRTC is a joint venture of the Government of India (50%) and State Governments of Haryana (12.5%), NCT Delhi (12.5%), Uttar Pradesh (12.5%) and Rajasthan (12.5%).
- It is mandated to **design, construct, finance, operate and maintain RRTS in NCR** and works under the administrative control of **Ministry of Housing & Urban Affairs, GOI**.
- NCRTC is mandated to implement India's first RRTS in NCR.



# Science & Technology: Schemes of the Ministry of Science & Technology

*Relevance IN – Prelims (about these schemes)*

## What's the NEWS

- The Ministry of Science & Technology has formulated following schemes to provide **attractive avenues and opportunities to Indian researchers who are residing in foreign countries to work in Indian Institutes and Universities.**

## Visiting Advanced Joint Research (VAJRA) Faculty Scheme

- This Scheme is to bring overseas scientists and academicians including Non-resident Indians (NRI) and Overseas Citizen of India (OCI) to India to work in public funded Institutions and Universities for a specific period of time.

## Ramanujan Fellowship

- This Fellowship provides attractive avenues and opportunities to Indian researchers of high calibre, who are residing abroad, to work in Indian Institutes/Universities in all areas of Science, Engineering and Medicine.
- It is directed to scientists and engineers below the age of 40 years, who want to return to India from abroad.

## Ramalingaswami Re-entry Fellowship

- The programme is to encourage scientists (Indian Nationals) working outside the country, who would like to return to the home country to pursue their research interests in Life Sciences, Modern Biology, Biotechnology, and other related areas.

## Biomedical Research Career Programme (BRCP)

- This program provides opportunity to early, intermediate and senior level researchers to establish their research & academic career in Basic biomedical or Clinical & Public Health in India.
- These fellowships are open to all eligible researchers who wish to relocate or continue to work in India.

## Scientists/ Technologists of Indian Origin (STIO) in Indian research Laboratory

- There is a provision to appoint Scientists/ Technologists of Indian Origin (STIO) on a contractual basis at Council of Scientific and Industrial Research (CSIR) laboratories to nurture a research field in their area of expertise.

## Senior Research Associateship (SRA) (Scientist's Pool Scheme)

- This scheme is primarily meant to provide temporary placement to highly qualified Indian scientists, engineers, technologists, and medical personnel returning from abroad, who are not holding any employment in India.

## Other Schemes by the Ministry of S&T

- Ministry of Science and technology **does not keep track or estimates the number of Indian scientists**, who leave India to work in other countries.
- However, to avoid brain drain Ministry of Science and Technology is promoting global level of research through implementation of various competitive schemes / programmes such as **Core Research Grant, Research fellowships such as JC Bose and Swarnajayanti fellowship etc.**
- There are some special schemes for young scientists e.g. **Start-up Research Grant, National Postdoctoral Fellowship etc.** for making them independent and motivate them to remain in the country.

# Prelims Factoids: World Risk Index (WRI) 2020

*Relevance IN – Prelims (about WRI 2020 and WPI report highlights)*

## What's the NEWS

- India was 'poorly prepared' to deal with 'climate reality', due to which it was more vulnerable to extreme natural disasters, according to the World Risk Index (WRI) 2020.

## Know! WRI 2020 (report highlights -India Specific)

- India ranked **89<sup>th</sup> among 181 countries** on the WRI 2020.
- The country was fourth-most-at-risk in south Asia on the index, after Bangladesh, Afghanistan and Pakistan.
- Sri Lanka, Bhutan and the Maldives fared better than India in their abilities to cope with extreme disasters.



- India also lagged behind these three neighbours in terms of lack of adaptive capacities or the preparedness to deal with extreme events.
- India and other south Asian nations did improve their ranking marginally in the World Risk Index during the course of a year. Bhutan improved its ranking the most, followed by Pakistan.

Country	Global rank in World Risk Index 2020	Global rank in World Risk Index 2019
Afghanistan	57	53
Bangladesh	13	10
Bhutan	152	143
India	89	85
Maldives	171	169
Nepal	121	116
Pakistan	87	80
Sri Lanka	74	73

### World Risk Report 2020 (World specific findings)

- All south Asian countries had slipped on their ability to adapt to the reality of climate emergency.
- All south Asian countries fared poorly in the 2020 index (as compared to 2019) on strengthening their abilities to prepare and adapt to extreme events.
- The index showed that Oceania was the continent most at risk, followed by Africa and the Americas.
- Vanuatu was the country with the highest disaster risk worldwide. It was followed by Tonga and Dominica.
- Qatar had the lowest risk (0.31) according to the global index.
- The report identified Africa as a hotspot of vulnerability.
- More than two-thirds of the most vulnerable countries in the world were located on the continent.
- The Central African Republic was the most vulnerable country, followed by Chad, the Democratic Republic of Congo, Niger and Guinea-Bissau.

### Know! all about WRI

- WRI is part of the World Risk Report 2020 released by the **United Nations University Institute for Environment and Human Security (UNU-EHS)** and **Bundnis Entwicklung Hilft**, in cooperation with the **University of Stuttgart in Germany**.
- The WRI is calculated on a country-by-country basis, through the multiplication of exposure and vulnerability.
- The WRI, released annually since 2011, indicates which countries are in the greatest need to **strengthen measures for coping with and adapting to extreme natural events**.

## Prelims Factoids: Shanti Swarup Bhatnagar Prize

### Relevance IN – Prelims (about Shanti Swarup Bhatnagar Prize)

#### What's the NEWS

- The names of 12 scientists who received the **country's highest science award Shanti Swarup Bhatnagar Prize for 2020** were announced during the foundation day of the Council for Scientific and Industrial Research (CSIR).

#### Know! about Swarup Bhatnagar Prize

- The Shanti Swarup Bhatnagar Prize for Science and Technology (SSB) is a science award in India given **annually by the Council of Scientific and Industrial Research (CSIR)** for notable and outstanding research, applied or fundamental, in biology, chemistry, environmental science, engineering, mathematics, medicine and Physics.

- The prize recognizes outstanding Indian work (according to the view of CSIR awarding committee) in science and technology.
- It is the most coveted award in multidisciplinary science in India.
- The award is named after the founder Director of the Council of Scientific & Industrial Research, Shanti Swarup Bhatnagar. It was first awarded in 1958.
- Any citizen of India engaged in research in any field of science and technology **up to the age of 45 years** is eligible for the prize.
- The prize comprises a citation, a plaque, and a cash award of ₹5 lakh (US\$7,000). In addition, recipients also receive Rs. 15,000 per month up to the age of 65 years.

## Agriculture: Principal Market Yard

### *Relevance IN – Prelims (about Principal Market Yard)*

#### What's the NEWS

- To nullify the negative impact of the Agricultural Bill on Farmers' Produce Trade and Commerce (Promotion and Facilitation), Punjab government is planning to declare the entire state as a 'Principal Market Yard'.

#### *Principal Market Yard currently*

- According to Punjab Agriculture Produce Market Committee (APMC) Act, there are three types of yards under the Punjab Mandi Board (PMB) — Principal Market Yard, Sub Yard and Purchase centres.
- These yards are notified by the PMB in a specific area in certain acres.
- As per APMC Act, the PMB has 151 principal market yards, 287 sub yards and over 1,400 small mandis or purchase centres.
- Declaring the entire state as Principal Market Yard would mean the purchaser **has to pay the same taxes outside the PMB yards even in a private trade area.**
- Anybody who is purchasing from farmers anywhere, either in PMB yards or outside, has to pay the same taxes as in PMB mandis.

## Prelims Factoids: Cat Que Virus' (CQV)

### *Relevance IN – Prelims (about Cat Que Virus' (CQV)*

#### What's the NEWS

- The scientists at the Indian Council of Medical Research (ICMR) have discovered another virus called 'Cat Que Virus' (CQV) which has the potential to cause disease in the country.
- Falling under the category of **Arthropod-borne viruses** and found in **pigs and culex mosquitoes**, CQV has been largely reported in China and Vietnam.

#### **Know! about Cat Que Virus' (CQV)**

- Scientists at the National Institute of Virology (NIV), ICMR, Pune discovered antibodies for the virus in two out of the 883 human serum samples tested across states.
- ICMR scientists stated that **availability of vector, primary mammalian host (swine) and confirmation of CQV from the jungle myna bird** signifies the potential of this orthobunyavirus as a public health pathogen in India.
- Anti-CQV IgG antibody positivity in human serum samples tested and the **replication capability of CQV in mosquitoes** indicated a possible disease causing potential of CQV in India.
- The ICMR study showed that Indian mosquito breeds- **Ae. aegypti, Cx. quinquefasciatus and Cx. Tritaeniorhynchus** were vulnerable to CQV.
- CQV has been isolated and reported from mosquitoes, which is its natural host.
- The role of birds as a host for CQV transmission and reports of human infection with CQV are not yet documented.
- **Domestic pigs are the primary mammalian host** and antibodies against the virus have been found in swine reared locally in China.

## Arthropod-borne viruses

- Arbovirus is an informal name used to refer to any viruses that are transmitted by arthropod vectors.
- An arthropod is an invertebrate animal having an exoskeleton, a segmented body, and paired jointed appendages.
- Arthropods form the phylum Euarthropoda, which includes insects, arachnids, myriapods, and crustaceans.
- In epidemiology, a disease vector is any agent which carries and transmits an infectious pathogen into another living organism; agents regarded as vectors are organisms, such as intermediate parasites or microbes.

## Orthobunyaviruses

- Orthobunyaviruses are arthropod-transmitted viruses that are characterized by a tripartite, negative-sense RNA genome.
- Orthobunyavirus is a genus of the Peribunyaviridae family in the order Bunyavirales.
- There are currently ~170 viruses recognised in this genus. These have been assembled into 88 species and 20 serogroups.

## Prelims Factoids: Two new species of wetland plant discovered from Western Ghats

**Relevance IN -Prelims**(about *Eriocaulon parvicephalum* and *Eriocaulon karaavalense*)

### What's the NEWS

- Scientists from Agharkar Research Institute (ARI) have discovered two **new species of pipeworts**, a type of wetland plant, from areas along the Western Ghats in Maharashtra and Karnataka.



### Know! about the genus Eriocaulon plant species

- Some of the previously-discovered plant species, belonging to genus Eriocaulon, have proven to have medicinal values and have been in wide use for their anti-inflammatory, anti-bacterial and anti-cancerous properties.
- Some 111 species exist in India, most of which are endemic to the Western Ghats and eastern Himalayas.
- The two newly-discovered species, from Sindhudurg in Maharashtra and Kumta in Karnataka, display different floral characters than previously known species.
- For its distinct minute inflorescence size, researchers have named the species found in Maharashtra as **Eriocaulon parvicephalum**, whereas the Karnataka counterpart has been named **Eriocaulon karaavalense** indicating the Karaavali coastal region in the state.
- Its tiny seeds and flowers make the identification of the species difficult. Besides, **all species of Eriocaulon appear very similar to one another**

## Prelims Factoids: JIMEX-20

**Relevance IN – Prelims** (about JIMEX)

### What's the NEWS

- India and Japan will kick off three-day maritime drills in the northern Arabia Sea days after India conducted an exercise with Australia in the Indian Ocean.

### Know! about JIMEX

- The India-Japan maritime bilateral exercise (JIMEX) is conducted biennially.
- Its last edition was conducted off the coast of Visakhapatnam in October 2018.
- JIMEX-20 will showcase a high degree of inter-operability and joint operational skills through conduct of a multitude of advanced exercises, across the spectrum of maritime operations.

- The drills come after Indian and Australian navies conducted a passage exercise in the eastern Indian Ocean Region (IOR) from September 23-24.
- A passage exercise is normally undertaken whenever an opportunity arises, in contrast to pre-planned maritime drills.
- Just like the Indo-Australian drills, JIMEX-20 is being conducted in a “non-contact at-sea-only format”, in view of Covid-19 restrictions.

### **Malabar naval exercise**

- The stage is also set for Australia to be part of the next Malabar naval exercise conducted by India with the US and Japan.
- The next edition of Malabar, already delayed by the Covid-19 pandemic, is set to be held by the end of the year.

## **Prelims Factoids: Sandalwood Spike Disease (SSD)**

**Relevance IN -Prelims (about Sandalwood Spike Disease (SSD)).**

### **What's the NEWS**

- India's sandalwood trees, of Karnataka are facing a serious threat with the return of the destructive Sandalwood Spike Disease (SSD).
- The infection has resurfaced in the aromatic tree's natural habitats in Karnataka and Kerala.

### **Sandalwood Spike Disease (SSD)**

- The natural population of sandalwood in Marayoor of Kerala and various reserve forests in Karnataka, including MM Hills, are heavily infected with SSD for which there is no cure as of now.
- There is no option but to cut down and remove the infected tree to prevent the spread of the disease, caused by **phytoplasma — bacterial parasites of plant tissues** — which are transmitted by insect vectors.
- SSD has been one of the major causes for the decline in sandalwood production in the country for over a century.
- The devastating impact in natural habitats resulted in sandalwood being classified as “vulnerable” by the International Union for Conservation of Nature in 1998.
- The present rapid spread of the infection is largely due to restrictions on green felling in forests, which has allowed vectors to spread the disease to healthy trees.
- It is very difficult to identify the symptoms of SSD. It can be noticed only when the tree gets completely affected.
- India has been the traditional leader of sandalwood oil production for perfumery and pharmaceuticals. As early as 1792, Tipu Sultan had declared it a ‘Royal Tree’ of Mysuru.

## **Prelims Factoids: Bangladesh to make film on revolutionary freedom fighter Pritilata Waddedar**

**Relevance IN – Prelims (about Pritilata Waddedar)**

### **What's the NEWS**

- The government of Bangladesh is financing a film on the life of revolutionary freedom fighter Pritilata Waddedar.
- The film ‘Bhalobasha Pritilata’ will be based on the first woman Bengali revolutionary nationalist of the Indian subcontinent against the British regime.

### **Know! about Pritilata Waddedar**

- Pritilata was born in Dhalghat village of Chittagong in Bangladesh on 5 May 1911.
- She had her education in Chattogram, Dhaka and then at Bethune College, Kolkata for graduation.
- She joined the freedom movement and worked with revolutionaries like Surya Sen and Nirmal Sen.
- She was involved in several revolutionary acts like the famous **Chittagong armoury raid and attack on the Pahartali European club at Chittagong in 1932** where she received bullet injury. However, she consumed cyanide before the British police could capture her.





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# **GENERAL STUDIES II**

**Governance, Constitution,  
Polity, Social Justice and  
International relations**

## Science & Technology: CSIR-CMERI develops World's Largest Solar Tree



### ***Relevance IN – Prelims (about the World's Largest Solar Tree by CSIR-CMERI + about Solar PV Panel)***

#### **What's the NEWS**

- CSIR-CMERI has developed the World's Largest Solar Tree, which is installed at CSIR-CMERI Residential Colony, Durgapur.

#### **Know! some facts about the World's Largest Solar Tree**

- The installed capacity of the Solar Tree is above 11.5 kWp. It has the annual capacity to generate 12,000-14,000 units of Clean and Green Power”.
- The Solar Tree has been designed in a manner to ensure maximum exposure of each **Solar PV Panel** to Sunlight and also creation of the least amount of shadow area beneath.
- The Solar Trees were designed in a manner to ensure minimum Shadow Area, thus potentially making these Solar Trees available for widespread usage in Agricultural activities such as High Capacity Pumps, e-Tractors and e-Power Tillers.
- These Solar Trees can be aligned with Agriculture for substituting price-volatile fossil fuels.
- The surplus generated power can be fed into an Energy Grid.

#### **Know! about CSIR-CMERI**

- The Central Mechanical Engineering Research Institute is a public engineering research and development institution in Durgapur, West Bengal, India.
- It is a constituent laboratory of the Indian Council of Scientific and Industrial Research (CSIR).
- This institute is the only national level research institute in the field of mechanical engineering in India.
- The CMERI was founded in February 1958 under the endorsement of the CSIR.
- It was founded to develop national mechanical engineering technology, particularly in order to help Indian industries.

#### **Know! about Solar PV Panel**

- Photovoltaics (often abbreviated as PV) are simple devices that provide us with an elegant method of harnessing the sun's energy.
- PV devices (solar cells) can directly convert the incident solar radiation into electricity.
- They produce no noise, produce no pollution, and do not include moving parts. Hence, they are robust, reliable and long lasting.
- The primary component of a solar cell is silicon. Silicon is a semiconductor material at its core, and actually a very poor conductor of electricity.
- Electrical energy could be harnessed from the sun during certain electrochemical configurations.

- Silicon is suitably doped with certain impurities to employ a solar photovoltaic (PV) cell to capture energy from the sun and convert it into electricity.
- An array of solar cells converts solar energy into a usable amount of direct current (DC) electricity.
- Solar cells are connected in series increase the output voltage. Series connected cells form what is called as solar PV modules.
- A PV module consists of a number of interconnected solar cells encapsulated into a single, long-lasting, stable unit.
- Encapsulation is done to protect the solar cells from mechanical damage and for the module to sustain in harsh environment.

## Defence: Indian Companies to supply Pinaka Regiments to Indian Army



***Relevance IN – Prelims (about Pinaka Regiments) + Mains (GS II indigenization of technology and developing new technology.)***

### What's the NEWS

- The Defence Sector, **Acquisition Wing of Ministry of Defence (MoD)** has signed contracts with Bharat Earth Movers Ltd. (BEML), Tata Power Company Ltd. (TPCL) and Larsen & Toubro (L&T) for **supply of Six Pinaka Regiments to the Regiment of Artillery of the Indian Army** at an approximate cost of Rs. 2580 Crores.
- These **Six Pinaka Regiments** will be operationalised along the Northern and Eastern Borders of our country further enhancing the operation preparedness of our Armed Forces.
- Induction of Six Pinaka Regiments is planned to be completed by 2024.
- This project under Buy (Indian) categorisation, with 70% Indigenous Content, has been approved by the Defence and Finance Ministers.

### Know! about Pinaka Multiple Launch Rocket System (MLRS)

- The **Pinaka Multiple Launch Rocket System (MLRS)** has been indigenously designed and developed by DRDO and productionised by the above mentioned defence industries.
- This is a flagship project showcasing public private partnership under the aegis of Government of India (DRDO & MoD)

### Know! the Features of Pinaka

- Its weapon system has a state-of-the-art guidance kit bolstered by an advanced navigation and control system.
- Pinaka was designed **to replace the BM-21 Grad multiple rocket launcher** systems of the Indian Army.
- The complete MBRL system of Pinaka is comprised of six launcher vehicles, each having 12 rockets with six loader-replenishment vehicles, two command post vehicles with fire control computer and a DIGICORA MET radar.
- Each Pinaka launcher can work independently, as it is controlled by its own computer.
- The launch system of Pinaka is comprised up of two pods, which are mounted side-by-side to each other on a Tatra launcher vehicle.
- Each launcher has the ability to fire all the rockets in one go or only a few - in a different direction than others with the help of its control computer.



- The Pinaka launcher can operate in different modes — autonomous, standalone, remote and manual.
- The launch system of Pinaka can fire a salvo of 12 rockets within 40 seconds.
- The initial version of weapon system was called Mark I, which had a range of 40 km. The upgraded version or Pinaka Mark II has an extended range of 70 to 80 km.

## Polity: Delimitation panel to visit 4 North East states and J&K

**Relevance IN – Prelims (about constitution of Delimitation Commission and its objective) + Mains (GS II Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies).**

### What's the NEWS

- In exercise of the powers conferred by section 3 of the Delimitation Act, 2002, the Central Government constitutes the Delimitation Commission to redraw the constituencies of Assam, Manipur, Nagaland, Arunachal Pradesh and Jammu and Kashmir **to prepare a broad framework of delimitation exercise.**

### Know! the objective of delimitation panel

- The delimitation panel will redraw the Lok Sabha and assembly constituencies of the four north-eastern states **based on the 2011 census**
- The panel also works on increasing the assembly seats of the Union Territory of Jammu and Kashmir as per the **provisions of the Jammu and Kashmir Reorganisation Act.**
- The Delimitation Commission for the four north-eastern states and Jammu and Kashmir was set up in March.
- It is headed by former Supreme Court judge Justice Ranjana Desai (retd).
- **Election Commissioner** Sushil Chandra is the representative of the Election Commission in the delimitation panel while **state election commissioners** of Jammu and Kashmir and the four states are its ex-officio members.
- In May, the **Lok Sabha Speaker had nominated 15 MPs** from Jammu and Kashmir, Assam, Manipur, Nagaland and Arunachal Pradesh as “**associate members**” of the Delimitation Commission to assist the panel in **redrawing parliamentary and assembly constituencies** of the north-eastern states and the Union Territory.

### Know! about Delimitation

- Delimitation literally means the act or process of fixing limits or boundaries of territorial constituencies in a country or a province having a legislative body.
- The job of delimitation is assigned to a high power body. Such a body is known as Delimitation Commission or a Boundary Commission.

### Know! about Delimitation Commission

- The Delimitation Commission is **appointed by the President of India** in consultation with the Election Commission of India.
- The members of Delimitation Commission are a **Retired Supreme Court Judge, Chief Election Commissioner and the respective State Election Commission.**
- A Delimitation Commission was set up under the Delimitation Act, 2002 to readjust the division of each state and union territory into territorial constituencies for Lok Sabha and state assembly elections **based on census figures of 2001.**
- It is a high power body whose orders have the force of law and **cannot be called in question before any court.**
- The main task of the commission is **redrawing the boundaries** of the various assembly and Lok Sabha constituencies based on a recent census.
- The representation from each State is not changed during this exercise. However, the number of SC and ST seats in a state are changed in accordance with the census.
- The present delimitation of constituencies has been done on the basis of 2001 census under the provisions of Delimitation Act, 2002.
- In 2008, the delimitation was conducted based in 2001 census. However, the parliamentary and seats were decided based on 1971 census.

- In India, Delimitation Commissions have been **constituted four times**— in 1952 under the Delimitation Commission Act, 1952, in 1963 under Delimitation Commission Act, 1962, in 1973 under Delimitation Act, 1972 and 2002 under Delimitation Act, 2002,

### Delamination (Constitutional Provisions)

- Article 82 states that the Parliament shall enact Delimitation Act after every census.
- The Article 170 states that the States shall be divided into territorial constituencies according to the Delimitation Act after every census.
- The Delimitation Act was enacted in 1952. So far, four delimitation commissions have been set up in 1952, 1963, 1973 and 2002.
- There was no delimitation after 1981 and 1991 census.

### Delimitation Commission (past events to connect with present context)

- Up until 1976, after every Indian Census the seats of Lok Sabha, Rajya Sabha and Vidhan Sabha were re-distributed respectively throughout the country so as to have equal population representation from every seat.
- The apportionment was done thrice as per 1951, 1961 and 1971 population census.
- During The Emergency, through Forty-second Amendment the government **froze the total Parliamentary and Assembly seats in each state till 2001 Census**.
- This was done, mainly, due to wide discrepancies in family planning among the states.
- The **boundaries of constituencies were altered in 2001** to equate population among the parliamentary and assembly seats.
- The number of Lok Sabha **seats** that each state has and those of legislative assemblies has remained **unaltered since 1971 census**
- **It can only be changed after 2026** as the constitution was again amended (84<sup>th</sup> amendment to Indian Constitution) in 2002 to continue the freeze on total number of seats in each state till 2026. (*REASON - due to wide discrepancies in family planning among the states*)

## Government Schemes: Ladakh and Lakshadweep integrated in existing national portability cluster of One Nation One Ration Card

**Relevance IN – Prelims (about One Nation One Ration Card” plan) + Mains (GS II government policies and interventions)**

### What’s the NEWS

- The Minister of Consumer Affairs, Food and Public Distribution, reviewed the progress made towards the implementation of “One Nation One Ration Card” plan.
- Another **2 Union Territories of Ladakh and Lakshadweep** have completed the trial and testing of national portability transactions with other States/UTs in national cluster.

### Know! the recent status of the Scheme

- With this, a total of **26 States/UTs** are now seamlessly connected with each other under the One Nation One Ration Card plan and migratory PDS beneficiaries in these 26 States/UTs can access their subsidised foodgrains at the same Scale and Central Issue Prices from any Fair Price Shop (FPS) of their choice w.e.f. **1<sup>st</sup> September 2020**.
- A total of more than 65 Crore beneficiaries (i.e. 80% of total NFSA population) in 26 States/UTs, are now potentially enabled with an option to lift their subsidised foodgrains through One Nation One Ration Card system.
- Remaining States/UTs are targeted to be integrated in national portability by March 2021.

### Know! about the One Nation One Ration Card Plan

- The ‘One Nation One Ration Card’ plan is an ambitious endeavour of the Government to ensure the delivery of food security entitlements to all beneficiaries **covered under the National Food Security Act, 2013 (NFSA)**, irrespective of their physical location anywhere in the country, by implementing nation-wide portability of ration cards under the ongoing central sector scheme on ‘Integrated Management of Public Distribution System (IM-PDS)’ in association with all States/UTs.
- Through this system, the migratory NFSA beneficiaries are now enabled with an option to lift their entitled quota of foodgrains from any Fair Price Shop (FPS) of their choice anywhere in the country by using their same/ existing ration card.

## National Food Security Act, (NFSA) 2013

- The enactment of the National Food Security Act, (NFSA) 2013 on July 5, 2013 marks a paradigm shift in the approach to food security from welfare to rights based approach.
- The Act legally entitles upto 75% of the rural population and 50% of the urban population to receive subsidized foodgrains under Targeted Public Distribution System.
- About two thirds of the population therefore is covered under the Act to receive highly subsidised foodgrains.
- The National Food Security Act, (NFSA) 2013 is being implemented in all the States/UTs, on an all India basis.
- Out of maximum coverage of 81.35 crore, around 80 crore persons have been covered under NFSA at present for receiving highly subsidized foodgrains.
- The eligible persons will be entitled to receive 5 Kgs of foodgrains per person per month at subsidised prices of Rs. 3/2/1 per Kg for rice/wheat/coarse grains.
- The existing Antyodaya Anna Yojana (AAY) households, which constitute the poorest of the poor, will continue to receive 35 Kgs of foodgrains per household per month.
- The Act also has a special focus on the nutritional support to women and children. Besides meal to pregnant women and lactating mothers during pregnancy and six months after the child birth, such women will also be entitled to receive maternity benefit of not less than Rs. 6,000.

## Health and Family Welfare: The Partnership for Maternal, Newborn and Child Health's (PMNCH) 'Accountability Breakfast'

***Relevance IN – Prelims (about PMNCH) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.***

### What's the NEWS

- Union Minister for Health and Family Welfare participated in the Partnership for Maternal, Newborn and Child Health (PMNCH) 'Accountability Breakfast'
- The event was co-hosted by the White Ribbon Alliance (WRA) and Every Woman Every Child (EWEC).
- A recurrent theme this year was the effort to protect hard earned gains in the field of Reproductive, Maternal and Child Health from the COVID pandemic.

### The Partnership for Maternal, Newborn & Child Health (PMNCH)

- It is a multi-constituency partnership hosted by the World Health Organisation.
- PMNCH seeks to achieve universal access to comprehensive, high-quality reproductive, maternal, newborn and child health care.
- PMNCH describes itself as a platform for knowledge, advocacy and accountability to improve women and children's health.
- It is the world's largest alliance for women's, children's and adolescents' health (WCAH), bringing together over 1,000 partner organizations across 192 countries.

#### Members are grouped into one of PMNCH's 10 constituencies:

- |   |                                     |
|---|-------------------------------------|
| 1. Academic, Research and Training Institutes | 6. Inter-Governmental Organizations |
| 2. Adolescents and Youth                      | 7. Non-Governmental Organizations   |
| 3. Donors and Foundations                     | 8. Partner Governments              |
| 4. Global Financing Mechanisms                | 9. Private Sector and               |
| 5. Healthcare Professional Associations       | 10. United Nations Agencies.        |
- PMNCH provides a multistake holder platform allowing these diverse organizations to align objectives, strategies and resources, and to amplify evidence for action to support the attainment of the Sustainable Development Goals (SDGs), including through universal health coverage and primary health care.
  - PMNCH was launched in September 2005, when 50 organizations belonging to the Partnership for Safe Motherhood and Newborn Health, the Healthy Newborn Partnership and the Child Survival Partnership joined forces.
  - The founding organizations agreed that by working together under one partnership they could do more to accelerate action by partners and countries to achieve Millennium Development Goals (MDGs) 4 (reduce child mortality) and 5 (improve maternal health).

- In 2015, the Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) was launched as the MDGs were replaced by the SDGs.
- The Vice Chairs of PMNCH's Board are the Government of India (who acted as interim Chair of the Board in 2018 and 2019) and the Government of the UK.

## Good Governance: MissionKarmayogi National Programme for Civil Services Capacity Building (NPCSCB)



**Relevance IN – Prelims (about NPCSCB – factual points+role of iGOT-Karmayogi platform) + Mains (GS II Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.**

### What's the NEWS

The Union Cabinet has approved launching of a **National Programme for Civil Services Capacity Building (NPCSCB)** with the following institutional framework:-

1. Prime Minister's Public Human Resources (HR) Council,
2. Capacity Building Commission.
3. Special Purpose Vehicle for owning and operating the digital assets and the technological platform for online training,
4. Coordination Unit headed by the Cabinet Secretary.

### Salient Features of NPCSCB

- Mission Karmayogi aims to **prepare the Indian Civil Servant for the future** by making him more creative, constructive, imaginative, innovative, proactive, professional, progressive, energetic, enabling, transparent and technology-enabled.
- Empowered with **specific role-competencies**, the civil servant will be able to ensure efficient service delivery of the highest quality standards.

### Know! about Integrated Government Online Training-iGOTKarmayogi Platform.

- The Programme will be delivered by setting up an **Integrated Government Online Training-iGOTKarmayogi** Platform.
- **iGOT-Karmayogi** platform brings the scale and state-of-the-art infrastructure to augment the capacities of over two crore officials in India.
- The platform is expected to evolve into a vibrant and world-class market place for content where **carefully curated and vetted digital e-learning material** will be made available.



- Besides capacity building, service matters like confirmation after probation period, deployment, work assignment and notification of vacancies etc. would eventually be integrated with the proposed competency framework.



The **core guiding principles** of the Programme will be:



- Supporting Transition from 'Rules based' to 'Roles based'.
- Work allocation of civil servants by matching their competencies to the requirements of the post.
- To emphasize on 'on-site learning' to complement the 'off-site' learning,
- To calibrate all Civil Service positions to a **Framework of Roles, Activities and Competencies (FRACs)** approach and to create and deliver learning content relevant to the identified FRACs in every Government entity,
- To make available to all civil servants, an opportunity to continuously build and strengthen their **Behavioral, Functional and Domain Competencies**

### Know! about Capacity Building Commission

- It is also proposed to set up a **Capacity Building Commission**, with a view to ensure a uniform approach in managing and regulating the capacity building ecosystem on collaborative and co-sharing basis.

The role of Commission will be as under-

- To assist the **PM Public Human Resources Council** in approving the Annual Capacity Building Plans.
- To exercise **functional supervision over all Central Training Institutions** dealing with civil services capacity building.

- To make recommendations on standardization of training and capacity building, pedagogy and methodology.
- To suggest policy interventions required in the areas of HR Management and Capacity Building to the Government.

### Know! about Public Human Resources Council

- A Public Human Resources Council comprising of select **Union Ministers, Chief Ministers, eminent public HR practitioners, thinkers, global thought leaders and Public Service functionaries under the Chairmanship of Prime Minister**
- It will serve as the apex body for providing strategic direction to the task of Civil Services Reform and capacity building.

### Financial implications

- To cover around 46 lakh Central employees, a sum of Rs.510.86 crore will be spent over a period of 5 years from 2020-21 to 2024-25.
- The expenditure is partly funded by multilateral assistance to the tune of USD 50 million.
- A wholly owned **Special Purpose Vehicle (SPV)** for NPCSCB will be set up under Section 8 of the Companies Act, 2013.
- The SPV will be a “**not-for-profit**” company and will own and manage **iGOT-Karmayogi** platform.



### Why it is needed to change the training methodology and approach





## Know! the benefits

**MISSION KARMAYOGI: BENEFITS FOR COMMON MAN**  
Making Civil Servants Responsive to Citizen Needs

- Bringing paradigm shift in the HR management of civil services
- Ensuring that the right person with right competencies is at the right position
- To make a civil servant more efficient, effective, accountable and responsive to the needs of the citizen
- The programme will usher in marked enhancement in quality of governance

## Bilateral Relations: USISPF-3<sup>rd</sup> annual leadership summit

USISPF IS HONORED TO ANNOUNCE

Special Keynote Address

**HONORABLE SHRI NARENDRA MODI**  
PRIME MINISTER OF INDIA

SEPTEMBER 3  
9 PM IST | 11:30 AM EST

US - India  
Navigating New Challenges

August 31 - September 4, 2020

## Relevance IN – Prelims (about USISPF) + Mains (GS II Bilateral relations)

### What's the NEWS

- Prime Minister shall deliver the Special Key Note Address at the USISPF 3 Annual Leadership Summit.

### Know! about the Summit

- The Theme of the 5 day Summit that began on the 31 of August is “US-India Navigating New Challenges”
- The theme covers various subjects such as India’s potential in becoming a Global Manufacturing Hub, Opportunities in India’s Gas Market, Ease of Doing Business to attract FDI in India, Common Opportunities & Challenges in Tech Space, Indo-Pacific Economic issues, Innovation in Public Health and others.

### Know! about the US-India Strategic Partnership Forum (USISPF)

- The US-India Strategic Partnership Forum (USISPF) **is a non-profit organization**, with the primary objective of strengthening the U.S.-India bilateral and strategic partnership.
- The Executive Board came together in 2017 to establish USISPF with the purpose of enabling business and governments to collaborate and create meaningful opportunities.
- Dedicated to strengthening economic and commercial ties, USISPF plays a significant role in fostering a robust and dynamic relationship between the two countries **through policy advocacy** that will lead to driving economic growth, entrepreneurship, employment-creation, and innovation to create a more inclusive society.

# Rural Development: National Academy of RUDSETI (NAR)

**Relevance IN – Prelims (about RUDSETI model and how the government replicated it in the form of RSETIs model + facts about these initiatives) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation. Development processes and the development industry- the role of NGOs, SHGs, various groups**



## What's the NEWS

- E-Foundation stone laying ceremony of the new training Institute building of National Academy of RUDSETI (NAR)
- The NAR undertakes monitoring, mentoring and capacity building of the **Rural Self Employment Training Institutes staff** (585 RSETIs are spread across 566 districts of the country), **State/UT Rural Livelihood Mission staff** and the concerned Bank officials on behalf of the Ministry of Rural Development.

## Rural Self Employment Training Institutes staff (RSETIs)

- RSETIs are unique initiative where State Governments, the Union Govt. and the commercial Banks are working together to address the issue of rural poverty.
- NAR helps in standardizing the activities of RSETIs, and a new campus of NAR helps in accelerating the effort.
- Various international platforms appreciated the adoption of successful **RUDSETI model** and recalled how this fine replication in the form of **RSETIs** is shaping the lives of the millions of rural unemployed youth.
- The great role of the Ministry of Rural Development in ensuring all the Banks in the country accept the RSETI model.
- This has resulted in establishment of one of the largest network of entrepreneurship development training in the country.

## Rural Development & Self Employment Training Institute (RUDSETI)

- A unique initiative was taken way back in 1982, in a humble manner, for converting unemployed youth into prolific assets.
- The experiment was found successful and **resulted in the establishment of Rural Development & Self Employment Training Institute (RUDSETI)**
- RUDSETI has established its centers across the country. (**through NAR**)
- Realizing the result oriented and cost efficient approach of RUDSETI in mitigating the unemployment problem, Government of India, State Governments, SIDBI & NABARD **supported establishing of RUDSET Institutes across the country and nurtured the concept.**

## National Academy of RUDSETI (NAR)

- National Academy of RUDSETI (NAR) is a resource organization committed to Entrepreneurship Development through motivation, training and facilitation.
- It is an exceptional joint venture promoted by **two public sector Banks(Syndicate and Canara Bank) and SDME trust**
- **NAR has been established to spread RUDSETI model of Entrepreneurship Development**, which has been found effective in motivating the un-employed youth to take up self-employment as a career option.
- **National Academy of RUDSETI (NAR), an offshoot of RUDSETI movement** is spearheading the concept by Training the Trainers/facilitators and mentoring the **Rural Self Employment Training Institutes (RSETIs)** established across the country.



## Know! all about the RSETIs Model

- The concept of RSETIs has been **inspired by the very successful RUDSETI** model promoted by SDME Trust, SyndicateBank and Canara Bank way back in 1982
- The RUDSETI has trained over 3.91 lakh unemployed youth in various activities across the country through its 27 Institutes.
- RUDSETI's philosophy is to motivate the unemployed rural youth to take up self-employment through short term training intervention with long term hand-holding.
- Inspired by the unique approach of RUDSETI in addressing the unemployment problem, the **Ministry of Rural Development decided to establish one Rural Self-Employment Training Institute (RSETI) replicating the RUDSETI model in each district of the country.**
- **Lead Bank** operating in the District has been assigned with the responsibility of opening a RSETI in the district.
- The State Governments concerned have been advised to provide land free of cost to the RSETIs.
- The sponsoring banks of the RSETIs in each District have been advised to meet the cost of running these Institutes, deputing an officer to work as Director of RSETI, providing requisite supporting staff at each RSETI and most importantly to ensure credit linkage of the RSETI trained candidates.

## Social Justice: National Tribal Research Conclave



***Relevance IN – Prelims (about National Tribal Research Conclave + about the role of NITR + about TRIs + steps taken by tribal ministry) + Mains (GS II Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.***

### What's the NEWS

- Ministry of Tribal affairs inaugurated the session of “**National Tribal Research Conclave**” organized by Centre of Excellence (CoE) for Tribal Affairs, (M/o Tribal Affairs), Indian Institute of Public Administration (IIPA)

## Know! about National Institute for Tribal Research (NITR)

- National Institute for Tribal research is being set up in partnership with IIPA at the IIPA premises in Delhi.
- These partner organizations are designated as Centres of Excellence.
- Ministry along with such partner organisations design workable models which provide end to end solution, like problem identification, finding solution and execution of the project as part of Action research which can be implemented by policy initiatives.

## Know! about Tribal Research Institutes (TRIs)

- It was started in 1953.
- To fill up the data gaps and make available other related inputs regarding nature and magnitude of problems faced by different Tribal Groups.
- The first such Institute was setup at Bhubaneswar, Odisha in 1953 followed by other two institutes at Ranchi (Bihar) and Chhindwara (MP) in 1954.
- Currently, 25 such Institutes are functioning across the Country, under the administrative control of the respective State Governments.
- These institutes activity cost and infrastructure including buildings are fully funded by the Central Government through Ministry of Tribal Affairs.
- Expenditure on salary of staff is met by the State Governments.
- Tribal Research Institutes have a very important role to play and their Research should help to draw road map for future development.
- Research by TRIs should help to achieve the goal “Mera Van Mera Dhan, Mera Udhyam” since forests are not only important for environment but play a major role in tribal livelihoods.
- Ministry of Tribal Affairs is funding to 26 TRIs for research under Grant to TRIs and is engaged in quality research in collaboration with reputed Government and Non-Government Organizations for the welfare of tribal in areas of Livelihood, Education, Health, Water Conservation, Organic Farming, Skill Development, Tribal Culture & Festivals.

## Know! some of the recent initiatives taken by the ministry in collaboration

- **Centre for Excellence for Data Analytics (CEDA)** is analysing tribal data for various schemes and has developed “Performance and Monitoring Dashboard” ([dashboard.tribal.gov.in](http://dashboard.tribal.gov.in)) which was recently launched by NITI Aayog.
- **Bharat Rural Livelihood Foundation**, an autonomous organisation under RD Ministry is working on gradation of NGOs and improve monitoring for NGO projects.
- **Piramal Foundation** is working for creation of a consolidated health and nutrition data repository for tribal population and for providing data analytics support to facilitate evidence-based policy making and implementation strategies, and has launched Swasthya portal ([swasthya.tribal.gov.in](http://swasthya.tribal.gov.in)).
- TERI is engaged with MoTA on developing an economical model for Community Rights under Forest Rights Act.
- IIT Delhi has been given a project for development of a **Data driven framework** by using Data analytics to identify the villages that are having maximum socio-economic gaps, so that data drive planning can be made.
- **GOAL (Going Online as Leaders)** is also one such initiative of Facebook, which is funded by Facebook and various organizations working with Ministry of Tribal Affairs are the Institutional partners in this project.



## Bilateral Relations: Defence Minister addresses Combined Meeting of Defence Ministers of SCO, CSTO & CIS Member States in Moscow

*Relevance In – Prelims (about SCO + about CSTO + about CIS) + Mains (GS II - India and its neighbourhood- relations. Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests*

### What's the NEWS

- The Defence Minister of India addresses the Combined Meeting of Defence Ministers of **Shanghai Cooperation Organisation (SCO)**, **Collective Security Treaty Organisation (CSTO)** and **Commonwealth of Independent States (CIS)** Member States in Moscow.
- Defence Minister is on an official visit to Moscow from September 3-5 at the invitation of Defence Minister of Russian Federation General Sergei Shoigu.

### The Collective Security Treaty Organization (CSTO)

- It is a **Russia-led military alliance** of seven former Soviet states that was created in 2002.
- The CSTO's purpose is to ensure the collective defence of any member that faces external aggression.
- It has been described by political scientists as the Eurasian counterpart of NATO, which has 29 member states, while the CSTO has just six.
- Current CSTO members are **Armenia, Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation and Tajikistan**.
- Afghanistan and Serbia hold observer status in the CSTO.
- The organization uses a rotating presidency system in which the state leading the CSTO changes every year.
- CSTO is an observer organization at the United Nations General Assembly.

A joint meeting of the heads of the military departments of the SCO, CIS and CSTO countries was held in the Moscow region under the leadership of the Russian Minister of Defence



A joint meeting of the heads of defence departments of the Shanghai Cooperation Organization (SCO), the Commonwealth of Independent States (CIS) and the Collective Security Treaty Organization (CSTO) countries was held today in the Patriot Park near Moscow under the leadership of the Minister of Defence of the Russian Federation, General of the Army Sergei Shoigu.

"Today's meeting is the first meeting of this level in the history of our international contacts," said the Head of the Russian Military Department, opening the meeting.

Sergei Shoigu expressed confidence that international military cooperation will intensify after this meeting, and the results of the meeting will become a solid basis for deepening interaction between defence departments.

Russian Defence Minister also thanked his colleagues from the SCO, CIS and CSTO for the participation of the units in the Victory Parade, which took place on June 24 in Moscow, and also noted the high level of their preparation.

The head of the Russian military department emphasized that the place where the meeting is being held - the Patriot park in Kubinka - was also not chosen by chance. Here, according to Sergei Shoigu, history and modernity are closely intertwined.

"The line of defense of Moscow passed here, where the Soviet troops stopped the enemy and achieved the first of major successes at the front. From here began the movement of our troops to the west and the liberation of peoples from fascism. In commemoration of the 75th anniversary of Victory, practically by the whole world, by all the people, we have built the Main Cathedral of the Armed Forces of the Russian Federation and the Museum complex "Memory Road", - the Minister of Defence of the Russian Federation told his colleagues.

## Commonwealth of Independent States (CIS)

- The Commonwealth of Independent States (CIS) is a regional intergovernmental organisation formed in 1991
- The Soviet Union was dissolved in 1991 leading to the foundation of the Commonwealth of Independent States (CIS).
- The founding states of the CIS include **Belarus, Russia and Ukraine.**
- The remaining republics of the Soviet Union joined the Commonwealth of Independent States after signing the Alma-Ata Protocol.
- It composed of (12 states) - Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine.
- The aim of the organisation is to facilitate and strengthen cooperation among its member states in the political, economic, ecological, humanitarian, cultural, and other fields.

## International Organisations: India to host summit of SCO council of heads of government

*Relevance In – Prelims (about SCO + RATS) + Mains (GS II - India and its neighbourhood- relations. Bilateral, regional and global groupings and agreements involving India and /or affecting India's interests*

### What's the NEWS

- India will host a summit of the **council of heads of government** of the SCO on November 30 with a focus on contributing to the trade and economic agenda of the influential grouping.
- India's chairmanship of the SCO council of heads of government during 2020 culminating in the summit in India on November 30

### Know! what would be India's Focus

- India has been focusing on expanding its cooperation with the Shanghai Cooperation Organisation (SCO), an eight-nation regional grouping that represents around 42 per cent of the world's population and 20 per cent of the global GDP.
- India, which was an observer at the SCO since 2005 and became its full member in 2017, has been strongly pushing for connectivity projects like the **International North-South Transport Corridor** to gain access to resource-rich **central Asian countries.**
- The Shanghai Cooperation Organization (SCO) provides a springboard for India to reconnect to the **extended neighbourhood of Eurasian countries.**

### Know! about Extended Neighbourhood and the role of Central Asia

- 'Extended Neighbourhood' has been variously defined in geographical terms.
- It includes countries sharing land and maritime borders whose list goes beyond the geographical description of South Asia.
- Apart from Pakistan, Nepal, Bhutan and Bangladesh, countries sharing land and maritime borders with India are China, Myanmar, Indonesia, Thailand, Sri Lanka and Maldives.
- One could include in this category countries in the **Indian Ocean Region, on the East African seaboard, in the Gulf Region, Afghanistan, in the Central Asian Region as well as countries in south-east Asia.**
- At present, the Central Asian region is considered to be the part of India's "extended neighborhood." Modern Central Asia consists of five nations: **Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.** All five nations became independent after the collapse of the USSR in 1991.
- The primary goal behind the **Connect Central Asia policy** is to re-connect with the region which has a long shared history with India.
- The "Connect Central Asia Policy" (CCAP) was unveiled at the first meeting of the India-Central Asia Dialogue, a Track II initiative, held from June 12-13, 2012 in Bishkek, Kyrgyzstan to fast-track India's relations with the Central Asian states,



### Know! about SCO

- **SCO is a eight-member economic and security bloc and India and Pakistan were admitted as full members back in 2017.**
- It is a **permanent intergovernmental international** organisation founded in 2001 with its secretariat based in Beijing, China.
- The founding members of this grouping include **China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan.**
- The grouping has been having multilateral drills and has **developed Regional Anti-Terrorist Structure (RATS).**

### Know! about Regional Anti Terror Structure (RATS)

- RATS, established in 2004, is a permanent organ of the SCO which serves to promote cooperation of member states against the three evils of terrorism, separatism and extremism. **It is headquartered in Tashkent.**
- India has been a permanent SCO member for two years now (from 2017)
- The SCO members hold joint anti-terrorism exercise “**Sary-Arka-Antiterror 2019.**”
- SCO Members - India, Kazakhstan, China, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan.

## Business Reform Action Plan (BRAP)

*Relevance IN – Prelims (about Business Reform Action Plan (BRAP) ranking of states.) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation.*

### What's the NEWS

- Union Minister of Finance and Corporate Affairs, announced the 4<sup>th</sup> edition of Business Reform Action Plan (BRAP) ranking of states.
- Andhra Pradesh retained its top position in ease of doing business ranking 2019, followed by Uttar Pradesh and Telangana.
- Ranking of States based on the implementation of Business Reform Action Plan started in the year 2015.
- Till date, State Rankings have been released for the years 2015, 2016 and 2017-18.

### QUICK PROGRESS FOR UP

State Business Reform Action Plan (BRAP) ranking comparison

State/UT	Rank 2019	Rank 2018	Change (+/-)
Andhra Pradesh	1	1	0
<b>Uttar Pradesh</b>	<b>2</b>	<b>12</b>	<b>10</b>
Telangana	3	2	-1
Madhya Pradesh	4	7	3
Jharkhand	5	4	-1
Chhattisgarh	6	6	0
Himachal Pradesh	7	16	9
Rajasthan	8	9	1

### Business Reform Action Plan 2018-19

- The Business Reform Action Plan 2018-19 includes 180 reform points covering **12 business regulatory areas** such as Access to Information, Single Window System, Labour, Environment, etc.
- The larger objective of **attracting investments and increasing Ease of Doing Business** in each State was sought to be achieved by introducing an element of healthy competition through a system of ranking states based on their performance in the implementation of Business Reform Action Plan.
- The ranking this time gives full weightage to the feedback from over thirty thousand respondents at the ground level,
- State rankings will help attract investments, foster healthy competition and increase Ease of Doing Business in each State.

### The top ten states under State Reform Action Plan 2019 are:

1. Andhra Pradesh
2. Uttar Pradesh
3. Telangana
4. Madhya Pradesh
5. Jharkhand
6. Chhattisgarh
7. Himachal Pradesh
8. Rajasthan
9. West Bengal
10. Gujarat

## Social Issues: 24x7 Toll-Free Mental Health Rehabilitation Helpline 'KIRAN' launched

Department of Empowerment of Persons with Disabilities (Divyangjan)  
Ministry of Social Justice & Empowerment, Government of India  
www.disabilityaffairs.gov.in

**KIRAN**

**24x7 Mental Health Rehabilitation Helpline**

**Asking for help is not a sign of weakness**

**With Covid-19 Distress Management Services**

**Toll Free 1800 599 0019**

**Objectives**

- Early screening;
- First-aid;
- Psychological support;
- Distress management;
- Mental well-being;
- Preventing deviant behaviours;
- Psychological crisis management;
- Referral to mental health experts.

**24x7**

**Dr. Thaawarchand Gehlot**  
Hon'ble Cabinet Minister  
Ministry of Social Justice & Empowerment  
Govt. of India

**Shri Krishan Pal Gurjar**  
Hon'ble State Minister  
Ministry of Social Justice & Empowerment  
Govt. of India

**Smt. Shakuntala D. Gamlin**  
Secretary, DEPwD  
Govt. of India

Helpline Services for		
<b>Obsessive-Compulsive Disorder (OCD)</b>	<b>Panic Attack</b>	<b>Post-Traumatic Stress Disorder</b>
<b>Suicide Prevention</b>	<b>Anxiety</b>	<b>Substance Abuse</b>
<b>Depression</b>	<b>Adjustment Disorders</b>	<b>Mental Health Emergency</b>

**Relevance IN – Prelims (about the Mental Health Rehabilitation Helpline “KIRAN”) + Mains (GS II Social issues)**

### What's the NEWS

- Union Minister for Social Justice and Empowerment will launch the “24x7 Toll-Free Mental Health Rehabilitation Helpline “KIRAN” (1800-500-0019)”

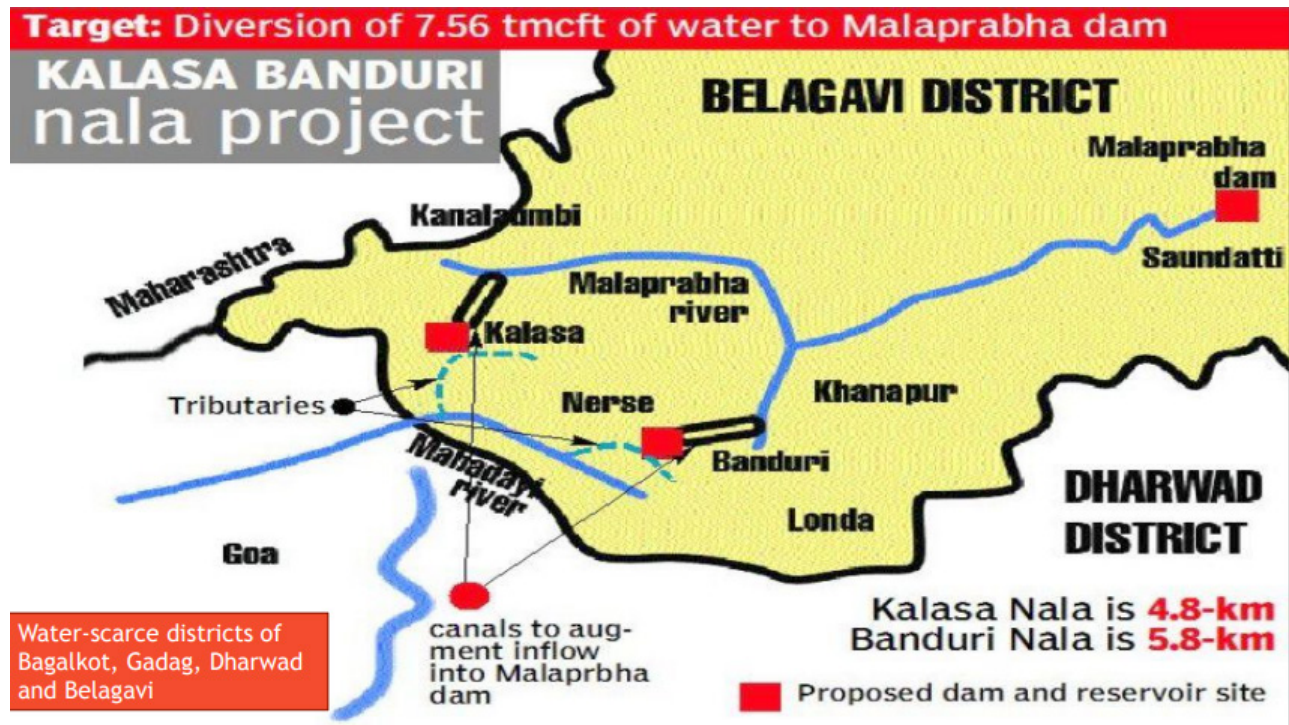
### Know! more about the Mental Health Rehabilitation Helpline “KIRAN”

- This Helpline has been developed by the **Department of Empowerment of Persons with Disabilities (DEPwD)**, Ministry of Social Justice & Empowerment to provide relief and support to persons with Mental Illness.



- This assumes great significance in view of the growing incidence of Mental Illness, particularly in the wake of COVID-19 Pandemic.
- This helpline will offer mental health rehabilitation services with the objective of early screening, first-aid, psychological support, distress management, mental well-being, promoting positive behaviors, psychological crisis management etc.
- It will function as a lifeline to provide 1<sup>st</sup> stage advice, counseling and reference to individuals, families, NGOs, Parent Associations, Professional Associations, Rehabilitation Institutes, Hospitals or anyone in need of support across the country.

## Environment: Understanding Kalasa-Banduri dam project



### Relevance IN – Prelims (about Kalasa-Banduri Project + Mandovi / Mahadayi river)

#### What's the NEWS

- The conflict on the Mandovi / Mahadayi river — flowing through **Goa, Karnataka and Maharashtra**
- The Kalasa-Banduri Project undertaken by the Karnataka government proposes to **divert Mandovi river water from Kalasa and Banduri canals into the Malaprabha river** in the state to facilitate drinking water to 13 towns of Karnataka.

#### Know! about the dispute - the Kalasa-Banduri canal

- The diversion of water from Kalasa and Banduri *nullahs*, however, has been the point of contention between Karnataka and Goa.
- **The Kalasa-Banduri canal** — part of the 11-dam project on the river Mandovi.— aims to improve drinking water supply to the districts of Belagavi, Bagalkot, Dharwad and Gadag.
- It involves building across Kalasa and Banduri, two tributaries of the Mahadayi river, to initially divert 7.56 thousand million cubic feet (TMC) of water to the Malaprabha river, which supplies drinking water needs of the said four districts.

#### Know! about Mandovi river

- The Mandovi originates from Karnataka's Belagaum district. The Mandovi river basin falls into the states of Goa, Karnataka and Maharashtra.
- The river is 81 kilometres (km) in length; 35 km of which flows in Karnataka, 1 km in Maharashtra and 45 km in Goa.

## Index/Report: India debuts in the list of top 50 Global Innovation Index



### *Relevance IN – Prelims (about Global Innovation Index (GII) 2020 highlights)*

#### What's the NEWS

- India has joined the group of top 50 countries in the Global Innovation Index for the first time in history.
- India moves up four places **to the 48<sup>th</sup> rank**.

#### GII (World Highlights)

- The Global Innovation Index (GII) 2020, released jointly by the World Intellectual Property Organization (WIPO), Cornell University and INSEAD Business School, ranks 131 economies.
- The index reveals that Asian economies like China, India, Philippines and Vietnam have advanced considerably in the innovation ranking over the years.
- Leading the innovation ranking Switzerland stands first followed by Sweden, US, UK and Netherlands.
- The top 10 positions in the Global Innovation Index (GII) 2020 are dominated by the high-income countries in the world.

#### GII (India highlights)

- It has become the third most innovative lower-middle-income economy in the world.
- India ranks in the top 15 in indicators such as ICT (Information and Communication Technology) services exports, government online services, graduates in science and engineering, and R&D-intensive global companies.
- India increased the most in three segments that are: Institutions, business sophistication and creative outputs.
- India owes its consistent improvement in the global innovation index rankings to the immense knowledge capital and the **vibrant startup ecosystem it has**.
- The **India Innovation Index**, which was released last year by NITI Aayog, has been widely accepted as a major step in the direction of decentralisation of innovation across all states of the country.

#### World Intellectual Property Organization

- WIPO is one of the 15 specialized agencies of the United Nations (UN)
- WIPO was created to promote and protect intellectual property (IP) across the world by cooperating with countries as well as international organizations.
- It began operations on 26 April 1970 when the convention entered into force.
- WIPO's activities including hosting forums to discuss and shape international IP rules and policies, providing global services that register and protect IP in different countries and resolving transboundary IP disputes.



## NITI Aayog: Global Multidimensional Poverty Index and India

**Relevance IN – Prelims (about the Global Multidimensional Poverty Index (MPI) + MPICC) + Mains (GS II Social Issues)**

### What's the NEWS

- NITI Aayog as the nodal agency has been assigned the responsibility of leveraging the monitoring mechanism of the Global Multidimensional Poverty Index (MPI) to drive reforms.
- Global MPI is part of Government of India's decision to monitor the performance of the country in 29 select Global Indices.
- The objective of the “**Global Indices to Drive Reforms and Growth (GIRG)**” exercise is to fulfil the need to measure and monitor India's performance on various important social and economic parameters.

### Know! about Global MPI

- Global MPI is an international measure of multidimensional poverty covering 107 developing countries and was first developed in 2010 by **Oxford Poverty and Human Development Initiative (OPHI) and United Nations Development Programme (UNDP)** for UNDP's Human Development Reports.
- The Global MPI is released at the High-Level Political Forum (HLPF) on Sustainable Development of the United Nations in July, every year.
- Global MPI is computed by scoring each surveyed household on 10 parameters based on -nutrition, child mortality, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing and household assets.
- It utilises the **National Family Health Survey (NFHS)** which is conducted under the aegis of Ministry of Health and Family Welfare (MoHFW) and International Institute for Population Sciences (IIPS).
- According to Global MPI 2020, **India is 62<sup>nd</sup> among 107 countries** with an MPI score of 0.123 and 27.91% headcount ratio, based on the NFHS 4 (2015/16) data.

### Multidimensional Poverty Index Coordination Committee (MPICC).

- As the Nodal agency for the MPI, NITI Aayog has constituted a Multidimensional Poverty Index Coordination Committee (MPICC).
- The MPICC, has members from relevant Line Ministries and Departments, namely *Ministry/ Department of Power, WCD, Telecommunication, MoSPI, Rural Development, Petroleum & Natural Gas, Food & Public Distribution, Drinking Water & Sanitation, Education, Housing & Urban Affairs, Health & Family Welfare, and Financial Services.*
- These Ministries/ Departments have been mapped to the ten parameters of the index.
- Experts from OPHI and UNDP, as the publishing agency, have also been onboarded for their technical expertise.
- The inaugural meeting of the MPICC was held on 2 September 2020.
- Preparation of a MPI Parameter Dashboard to rank States and UTs, and a **State Reform Action Plan (SRAP)** are at an advanced stage of development.
- The MPICC will next be organising a workshop with representatives of States and UTs for taking the SRAP forward.

## NITI Aayog: Atal Innovation Mission Launches Aatmanirbhar Bharat ARISE-ANIC Initiative

**Relevance IN – Prelims (about ARISE-ANIC programme + other initiatives of NITI Aayog) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation).**

### What's the NEWS

- Atal Innovation Mission (AIM), NITI Aayog, launched the Aatmanirbhar Bharat ARISE-Atal New India Challenges, to spur applied research and innovation in **Indian MSMEs and startups.**
- The Indian government has launched 15 challenges for Indian MSMEs and Indian startups to solve for a grant of Rs. 50 lakh each.

***The programme will be driven by Indian Space Research Organization (ISRO), four ministries—***

- Ministry of Defence;
- Ministry of Food Processing Industries;
- Ministry of Health and Family Welfare; and
- Ministry of Housing and Urban Affairs—and associated industries to facilitate innovative solutions to sectoral problems.

### **Know! about the Aatmanirbhar Bharat ARISE-ANIC programme**

- This initiative will help identify and promote innovations necessary for boosting the MSME sector.
- The initiative will help promote technopreneurs who deserve to be supported because of their immense potential of taking India forward.
- The Aatmanirbhar Bharat ARISE-ANIC programme will support deserving applied research-based innovations by providing funding support of up to Rs 50 lakh for speedy development of the proposed technology solution and/or product.
- The Niti Aayog's Atal Innovation Mission (AIM), in collaboration with ISRO and four ministries, will focus on challenges in 15 sectors through the programme.
- The fifteen Aatmanirbhar Bharat ARISE challenges are a pioneering initiative to stimulate Make-in-India innovations in the associated MSME startups' sector and a unique opportunity to make advanced research and development ideas market viable, and field deployable MSME products that can be procured by the government.

### **Other Highlights**

- ISRO to adopt 100 Atal Tinkering Labs from Atal Innovation Mission.
- Officials stressed on attracting innovators using the Mahatma Gandhi Challenge method.
- Minister of Road Transport and Highways laid emphasis on developing the MSME sector with the help of the ARISE-ANIC initiative under Atal Innovation Mission.

### **Know! about AIM**

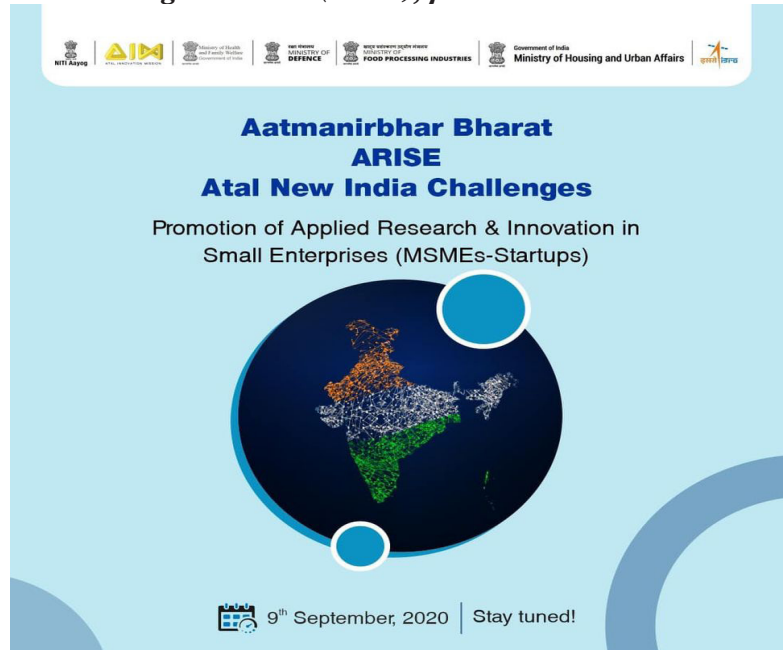
- The AIM is a flagship initiative of the Niti Aayog to promote innovation and entrepreneurship in the country, based on detailed study and deliberations on innovation and entrepreneurial needs of India in the years ahead.

### **Atal Innovative Mission**

- AIM is the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.
- AIM's objective is to develop new programmes and policies for fostering innovation in different sectors of the economy, provide platform and collaboration opportunities for different stakeholders, create awareness and create an umbrella structure to oversee innovation ecosystem of the country.

### **Six major initiatives of AIM:**

- Atal Tinkering Labs-Creating problem-solving mindset across schools in India.
- Atal Incubation Centers-Fostering world class start-ups and adding a new dimension to the incubator model.
- Atal New India Challenges-Fostering product innovations and aligning them to the needs of various sectors/ministries.
- Mentor India Campaign- A national Mentor network in collaboration with public sector, corporates and institutions, to support all the initiatives of the mission.
- Atal Community Innovation Centre- To stimulate community centric innovation and ideas in the unserved / underserved regions of the country including Tier 2 and Tier 3 cities.
- ARISE-To stimulate innovation and research in the MSME industry.



## The Gandhian Challenge

- On the 150<sup>th</sup> birth Anniversary of Mahatma Gandhi, AIM, NITI Aayog's Atal Tinkering Labs (ATL) and UNICEF India, including Generation Unlimited, have launched 'The Gandhian Challenge'.
- This innovation challenge provides a platform for every child across India to ideate innovative solutions for a sustainable India of their dreams, using Gandhi's principles.

### Know! about ATL

- In ATLs, students of class 6<sup>th</sup> to 12<sup>th</sup> acquire a problem-solving attitude, develop innovative solutions leveraging technologies like 3D printers, robotics, miniaturised electronics, IOT and programming and DIY kits, with support from teachers and mentors.

### Know! about UNICEF India and Generation Unlimited:

- UNICEF, an integral part of the United Nations, works with governments, communities, civil society organizations, the private sector, and other partners worldwide to advance children's rights, and is guided by the Convention on the Rights of the Child.
- Generation Unlimited is a new UNICEF-led global partnership that aims to ensure that every young person age 10-24 is in some form of school, learning, training, self-employment, or age-appropriate employment by 2030.
- It aims to co-create and scale up proven solutions related to secondary age-education, skills for learning, employability and decent work, and empowerment, with a focus on girls.

## Culture: 17<sup>th</sup> Shanghai Cooperation Organization (SCO) Culture Ministers' Meeting

**Relevance IN – Prelims (about SCO Culture Ministers' Meeting – India's announcements) + Mains (GS II international organisations)**

### What's the NEWS

- The Union Minister for Culture and Tourism participated in the 17<sup>th</sup> Shanghai Cooperation Organization (SCO) Culture Ministers' Meeting.

### SCO Culture Ministers' Meeting takeaways

- One of the important aspects that unites and connects Shanghai Cooperation Organization countries to each other is shared **heritage of Buddhist philosophy and art**.
- To promote the mutual bonding, the **National Museum of India is in process of organizing the first SCO Exhibition on Shared Buddhist Heritage this year**.
- The Exhibition marks **India's Chairpersonship of Council of Heads of Government this year**.
- The exhibition will be held in digital format due to prevailing pandemic situation.
- Sahitya Akademi is translating ten Indian literary works into the SCO languages Russian and Chinese with the objective of sharing Indian literature with our fellow nations of SCO.
- These translations would be released during the upcoming Council of Heads of Government Meeting to be hosted by India in 2020.
- The year 2021 is the 20<sup>th</sup> Anniversary year of the founding of this Organization and India supports the proposal of **declaring 2021 the Year of Culture of the SCO to celebrate the occasion**.
- The ICCR is willing to be part of 2021 Year of SCO culture through organizing festivals/ performance of Indian culture, Conference & Seminars and sponsor Indian speakers as part of the celebration in the Member states of SCO.

## Bills/Acts/Policies: LS passes Homoeopathy and Indian systems of medicine bills

**Relevance IN – Prelims (about the provisions of National Commission for Indian System of Medicine Bill 2019 and The National Commission for Homoeopathy Bill + about National Medical Commission Bill) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation.)**

## What's the NEWS

- The National Commission for Indian System of Medicine Bill 2019 and The National Commission for Homoeopathy Bill, 2019, were passed in Lok Sabha.
- The bills were passed in Rajya Sabha in January, 2019, **to regulate alternative systems of medicine on the lines of the National Medical Commission Bill**, and create a new regulatory body for homoeopathy in the country.

## Know! the features of these bill

### *Indian System of Medicine bill*

- The **Indian System of Medicine bill** proposes a common entrance exam and an exit exam for all graduates to obtain their license to practice Indian medicine.
- The bill will replace the **Central Council for Indian Medicine** that regulates alternative systems of medicine.
- There is a provision for constituting **four autonomous boards** dedicated to providing Ayurveda education under **Board of Ayurveda, and training in Unani, Siddha and Sowa Rigpa under Board of Unani, Siddha and Sowa Rigpa**.
- Two common boards, which are, the **board of assessment** and rating to grant permission to educational institutions of Indian systems of medicine, and the **board of ethics** and registration of practitioners of Indian systems to maintain a national register and address ethical issues, will relate to practice under the National Commission for Indian Medicine.

### *The National Commission for Homoeopathy, Bill, 2018*

- The National Commission for Homoeopathy, Bill, 2018, aims to **replace the Central Council for Homoeopathy**, which is the current regulatory body for homoeopathy.
- It proposes a teacher's eligibility test to assess the standard of teachers before appointment and promotions.
- The National Commission will have three autonomous boards entrusted with conducting overall education of homoeopathy by homoeopathy education board.
- The **board of assessment and rating** will grant permission to educational institutions, while the **board of ethics and registration of homoeopathy practitioners** will maintain the national register and address ethical issues.

## Assisted reproductive technology (ART)

- The health minister also introduced the much-awaited assisted reproductive technology (ART) Bill in the Lok Sabha.
- The bill aims to lay down guidelines for dos and don'ts of running ART clinics and conducting procedures in the country.
- It proposes constitution of a national board that will set the minimum standards of physical infrastructure, laboratory and diagnostic equipment and expert manpower to be employed by clinics and banks.
- There will be a **National Registry and Registration Authority** to maintain a central database and assist the National Board in its functioning.
- The bill also proposes for a stringent punishment for those found practising sex selection, or involved in sale of human embryos or gametes, running agencies, rackets, and also organisations found violating the law.



## Numbers say it all

- ESTIMATES SUGGEST INDIA HAS A SHORTAGE OF FIVE LAKH DOCTORS
- WHO STUDY SAYS 12 LAKH HEALTHCARE WORKERS IN URBAN AREAS
- NEARLY 8 LAKH HEALTHCARE WORKERS IN RURAL AREAS
- 59% OF INDIAN HEALTH WORKFORCE LIVE IN URBAN CENTRES

### WHAT DOCTORS OPPOSE IN NMC BILL

- Non-doctors having limited rights to prescribe medicine
- Proposal to create cadre of Community Health Providers (CHP)
- CHPs to be allowed to practise in rural areas
- Creation of Nurse Practitioners as separate cadre
- Concerns on how CHPs and Nurse Practitioners will be regulated
- AIIMS, JIPMER, AFMC under NEET

**Single exit test after completion of MBBS**

### WHAT NMC PROPOSES

- Uniform exit test for all MBBS students for uniform education standards
- Replacement of Medical Council of India
- Promotion of middle level health practitioners to fill gap at primary health centres
- Creation of separate Boards to regulate medical education
- One single NEET for all medical entrance tests in the country
- Quick approval of medical colleges and no need for yearly renewal

## International Organisations: United Nations Day for South-South Cooperation

**Relevance IN – Prelims (about the objective of South-South Cooperation) + Mains (GS II Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)**

### What's the NEWS

- Originally observed on December 19, the date for the United Nations Day for South-South Cooperation was moved to September 12 in 2011.



- It commemorates the date when the United Nations (UN) General Assembly adopted a plan of action in 1978 to promote and implement technical cooperation among developing countries.
- The United Nations Day for South-South Cooperation celebrates economic, social and political developments in many developing countries.

### South-South Cooperation

- South-South Cooperation is a general term often used to describe the **exchange of resources, technology and knowledge between developing countries** (who are sometimes referred to as the global south).
- It also refers to the exchange of expertise between actors (governments, organizations and individuals) in developing countries.
- So South-South Cooperation is a general term to describe political, economic, social, cultural, environmental or technical cooperation or collaboration between countries of the global south.
- Through this model of cooperation, developing countries help each other with knowledge, technical assistance, and/or investments.
- Developing countries are the agents of action in South-South cooperation – not just as partners, but as leaders of the development process.
- This process moves away from the paradigm of cooperation as a one-way assistance from donor to recipient – towards a model where emphasis is firmly placed on capacity building, self-reliance, and the sustainable development of countries from the global South.

## Bilateral Relations: India, Japan ink mutual military logistics agreement

**Relevance IN – Prelims (about the objective of MLSA and its benefits) + Mains (GS II bilateral relations)**

### What's the NEWS

- The signing of the “**Agreement on Reciprocal Provision of Supplies and Services**” between the Indian Armed Forces and the Self-Defense Forces of Japan.
- After years of negotiations, India and Japan have inked a landmark agreement that will allow their militaries to access each other's bases for logistics support, a key development that comes in the backdrop of growing concerns over China's military muscle flexing in the region.

### Know! all about the Mutual Logistics Support Agreement (MLSA) and its benefits

- The agreement provides for creation of an enabling framework for closer cooperation and interoperability, besides allowing militaries of the two countries to use each other's bases and facilities for repair and replenishment of supplies.
- The pact will further enhance the depth of defence cooperation between the two countries and contribute to peace and security in the Indo-Pacific region.
- The agreement will promote closer cooperation between the militaries of the two countries, and enable them to actively contribute to international peace and security.
- The agreement will facilitate the smooth and prompt provision of supplies and services between the **Self-Defense Forces of Japan and the Indian Armed Forces**

- The pact will enhance the interoperability between the armed forces, resulting in further expansion of bilateral defence engagement under the Indo-Japan special strategic and global partnership.
- The agreement establishes the enabling framework for closer cooperation between the armed forces of India and Japan in reciprocal provision of supplies and services.
- India and Australia sealed a similar Mutual Logistics Support Agreement (MLSA) while resolving to scale up their overall defence cooperation.
- India has already signed similar agreements with the US, France and Singapore.
- India has been signing MLSAs with countries primarily eyeing deeper maritime cooperation which is important considering China's rapid military expansionism in the Indo-Pacific, Indian Ocean and South China Sea.
- The pacts signed with the US and France provide for accessing various crucial bases by Indian military in Djibouti, Guam and the Reunion Islands among others.

## Polity: Breach of privilege

**Relevance IN – Prelims (about the breach of privilege) + Mains (GS II Parliament and State Legislatures – structure, functioning, conduct of business, powers & privileges and issues arising out of these).**

### What's the NEWS

- A motion for breach of privilege was moved in the Maharashtra Assembly against Republic TV's Managing Director.
- A similar motion was moved in the Maharashtra Legislative Council against actor Kangana Ranaut.

### Know! about Privileges

- The powers, privileges and immunities of either **House of the Indian Parliament** and of its Members and committees are laid down in Article 105 of the Constitution.
- Article 194 deals with the powers, privileges and immunities of the **State Legislatures**, their Members and their committees.
- Parliamentary privilege refers to the right and immunity enjoyed by legislatures, in which legislators are granted protection against civil or criminal liability for actions done or statements made in the course of their legislative duties.

### What constitutes a breach of this privilege

- These powers and privileges are not codified.
- There are no clear, notified rules to decide what constitutes a breach of privilege, and the punishment it attracts.
- Any act that obstructs or impedes either House of the state legislature in performing its functions, or which obstructs or impedes any Member or officer of such House in the discharge of his duty, or has a tendency, directly or indirectly, to produce such results is treated as breach of privilege.
- It is a breach of privilege and contempt of the House to make speeches or to print or publish libel reflecting on the character or proceedings of the House, or its Committees, or on any member of the House for or relating to his character or conduct as a legislator.

### Know! the procedure (the role of Privileges Committee)

- The Legislative Assembly Speaker or Legislative Council Chairman constitutes a Privileges Committee consisting of **15 members in the Assembly and 11 members in the Council**.
- The Speaker or Chairman first decides on the motions.
- If the privilege and contempt are found prima facie, then the Speaker or Chairman will forward it to the **Privileges Committee**
- The Committee will examine whether statements made by the accused had insulted the state legislature and its Members.
- The Committee, which has **quasi-judicial powers**, will seek an explanation from all the concerned, will conduct an inquiry and will make a recommendation based on the findings to the state legislature for its consideration.
- If the Committee finds the offender guilty of breach of privilege and contempt, it can recommend the punishment.



- The punishment can include communicating the displeasure of the state legislature to the offender, summoning the offender before the House and giving a warning, and even sending the offender to jail.
- In the case of the media, press facilities of the state legislature may be withdrawn, and a public apology may be sought.

## Human Resource Development: NISHTHA



**Relevance IN – Prelims (about NISHTHA) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources).**

### What's the NEWS

- A total of 23,137 **Key Resource Persons (KRPs)** and **State Resource Persons (SRPs)** and 16,99,931 **School Heads and Teachers** have been trained under NISTHA in 2019-20.
- In 2020-21, it has been decided to launch NISHTHA – Phase II at the secondary level. Due to COVID – 19 situations, **NISHTHA Online** has been created by customizing Modules for Online delivery.

### Know! about NISHTHA

- The Department of School Education and Literacy launched a National Mission **to improve learning outcomes at the Elementary level** through an Integrated Teacher Training Programme called NISHTHA – National Initiative for School Heads' and Teachers' Holistic Advancement on 21<sup>st</sup> August, 2019.
- The aim of this **integrated teacher training programme** was to build the capacities of around 42 lakh teachers and Heads of Schools, faculty members of SCERTs and DIETs and Block Resource Coordinators and Cluster Resource Coordinators.

### Key Resource Persons

- Central Board of Secondary Education also keeps organizing Prospective Resource Persons training programmes for the key resource persons.
- These Key Resource Persons, in turn, train other teachers of the schools affiliated to CBSE in various subjects through online as well as in-person training programmes organized by CBSE.

### Other initiatives taken by the HRD Ministry

- A comprehensive initiative called **PM eVIDYA** has been initiated which unifies all efforts related to digital/online/on-air education to enable multi-mode access to education.
- This will benefit nearly 25 crore school going children across the country. The initiative includes:
- DIKSHA the nation's digital infrastructure for providing quality e-content for school education in states/UTs: and QR coded Energized Textbooks for all grades (**one nation, one digital platform**)
- One earmarked TV channel per class from 1 to 12 (**one class, one channel**)
- Extensive use of **Radio, Community radio and CBSE Podcast- ShikshaVani**
- Special **e-content for visually and hearing impaired** developed on Digitally Accessible Information System (DAISY) and in sign language on NIOS website/YouTube.



## Social Issues: MSP for MFP Scheme



**Relevance IN – Prelims (about the MSP for MFP Scheme + about Van Dhan Scheme) + Mains (GS II Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes)**

### What's the NEWS

- Record procurement of MFPs under the MSP for MFP Scheme in 16 states.
- This is the **highest-ever in terms of the number of MFPs**, the total value of procurement and the number of states involved, since the implementation of the scheme.
- With this, the total procurement for the year (both Government and private trade) crossed more than Rs3000 crores.

### **Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain for MFP' (Progress so far)**

- The Guidelines for the Scheme for 'Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain for MFP' initiated to provide MSP to gatherers of forest produce and introducing value addition and marketing through tribal groups and clusters has taken firm roots across the country and found widespread acceptance.
- Among the States, Chhattisgarh has taken the lead by procuring 46,857 Metric tonnes of Minor Forest Produces.
- Odisha and Gujarat follow with a procurement of 14391.23 MTs of MFPs.
- The successful implementation of the Van DhanYojana across the 22 States involving 3.6 lakh tribal beneficiaries and continuous engagement & on-boarding of the States by TRIFED has invariably acted as a catalyst for putting theMSP for MFP Scheme on the right track.
- A revised set of MSP for MFP guidelines were issued on May 1 2020, which increased the MSP prices of the MFPs by up to 90% and thus helped in ensuring higher incomes for the tribal gatherers.
- On May 26, 2020, the Ministry also recommended the addition of 23 new items under the MSP for MFP list.
- These items include agricultural and horticultural produce collected by tribal gatherers.
- TRIFED, as the nodal agency working to empower the tribal population, has been supporting and assisting the State in all their efforts during this crisis.

### **Know! about MSP for MFP Scheme**

- It was launched by the Centre in August 2013
- Minor Forest Produce (MFP) comprises all non-timber forest produce of plant origin such as bamboo, brush wood, stumps, cane, tussar, cocoons, honey, wax, lac, tendu or kendu leaves, medicinal plants and herbs, roots, tubers, etc, according to the Forest Rights Act, 2006.

- Under the scheme “Mechanism for Marketing of Minor Forest Produce through Minimum Support Price and development of Value chain for MFP” Minimum Support Price (MSP) for Minor Forest Produce (MFP) has been fixed for select MFP.
- The scheme is designed as a social safety net for improvement of livelihood of MFP gatherers by providing them fair price for the MFPs they collect.
- The Scheme has been implemented in eight States having Schedule areas as listed in the Fifth Schedule of the constitution of India. From November 2016, the scheme is applicable in all States.
- It was launched on 14<sup>th</sup> April, 2018 by the Prime Minister.
- The Ministry of Tribal Affairs is the nodal department at central level and TRIFED is the nodal agency at national level.
- Initiative targeting livelihood generation for tribal gatherers and transforming them into entrepreneurs.
- Idea is to set-up tribal community owned Van Dhan Vikas Kendras (VDVKs) in predominantly forested tribal districts.
- A Kendra shall constitute of 15 tribal SHGs, each comprising of up to 20 tribal NTFP gatherers or artisans i.e. about 300 beneficiaries per Van Dhan Kendra.
- 100% Central Government Funded with TRIFED providing Rs. 15 lakhs for each 300 member Van Dhan Kendra.



## International Organisations: India joins Djibouti Code of Conduct as Observer

**Relevance IN – Prelims (about Djibouti Code of Conduct) + Mains (GS II International Organisations)**

### What's the NEWS

- India has joined the Djibouti Code of Conduct as an observer which is expected to provide it a strategic heft in the Indian Ocean region.

### Know! more about it

- The Djibouti Code of Conduct/Jeddah Amendment (DCOC/JA) is a grouping on maritime issues comprising 18 member states adjoining the Red Sea, the Gulf of Aden and the East coast of Africa.





- The DCOC, established in January 2009, is aimed at the repression of piracy and armed robbery against ships in the **Western Indian Ocean Region, the Gulf of Aden and the Red Sea**
- India joined the DCOC/JA as an observer following a virtual meeting of the grouping.
- India joins Japan, Norway, the UK and the US as observers of the grouping.
- India's joining of the grouping comes at a time China has been making concerted efforts to expand its military influence in the Indian Ocean Region.
- As an Observer at the DCOC/JA, India looks forward to working together with DCOC/JA member states towards coordinating and contributing to enhanced maritime security in India Ocean Region.

## International Organisations: 6<sup>th</sup> BRICS Communication Ministers Meeting

**Relevance IN – Prelims (about the BRICS Communication Ministers Meeting + about ITU) + Mains (GS II international organisations)**

### What's the NEWS

- The Minister of State for Communications, participated in the meeting on behalf of India during the sixth BRICS Communication Ministers Meeting.

### Know! the meeting highlights

- In the meeting a broad consensus was built **to continue cooperation among BRICS Countries on important areas such as, the role of Information and Communication Technologies** in the fight against COVID-19, building trust and security in the use of ICTs, and the role of the digital economy in achieving Sustainable Development Goals.
- BRICS countries continue to cooperate in Telecom/ ICT activities on **International Telecommunication Union (ITU) Forum”**
- The BRICS Communications Ministers' Meetings are held annually under the rotating Chair of member countries, i.e. Brazil, Russia, India, China and South Africa. India will take over the Chairship of the next **BRICS Communications Ministers' Meeting to be hosted in 2021 by India.**

### The International Telecommunication Union

- It is a **specialized agency of the United Nations** responsible for all matters related to information and communication technologies.
- Established in 1865 as the International Telegraph Union, it is one of the oldest international organizations in operation.

- On 15 November 1947, the ITU entered into an agreement with the newly created United Nations to become a specialized agency within the UN system, which formally entered into force on 1 January 1949.
- The ITU promotes the shared global use of the radio spectrum, facilitates international cooperation in assigning satellite orbits, assists in developing and coordinating worldwide technical standards, and works to improve telecommunication infrastructure in the developing world.
- It is also active in the areas of broadband Internet, wireless technologies, aeronautical and maritime navigation, radio astronomy, satellite-based meteorology, TV broadcasting, and next-generation networks.
- **Based in Geneva**, Switzerland, the ITU's global membership includes 193 countries and around 900 business, academic institutions, and international and regional organizations.

## Social Justice: Pradhan Mantri Jan Vikas Karyakram

**Development with Dignity**

**Pradhan Mantri Jan Vikas Karyakram (PMJVK)**

Creating infrastructures in Minorities concentration areas (109 District Headquarters, 870 Blocks, 321 Towns and Villages) falling in 308 Districts across the country.

**Under PMJVK in Maharashtra & Goa**

District	Block	Town Area / Village / Hamlet / Panchayat	District	Block	Town Area / Village / Hamlet / Panchayat	District	Block	Town Area / Village / Hamlet / Panchayat
Mumbai Suburban	—	—	Aurangabad	01	02	Jalna	—	01
Mumbai	—	—	Chandrapur	01	02	Ahmadnagar	—	01
Buldhana	06	03	Ratnagiri	01	01	Beed	—	03
Akola	07	03	Nashik	—	01	Latur	—	02
Washim	02	02	Nandurbar	—	01	Omanabad	—	01
Amravati	07	01	Dhule	—	01	Sangli	—	01
Nanded	02	—	Jalgaon	—	01	Goa	—	—
Hingoli	01	02	Nagpur	—	01	South Goa	—	02
Parbhani	—	02	Yavatmal	—	02			

- Schools/Colleges
- Health Centres
- Hostels
- Drinking Water Facilities
- Polytechnics
- ITIs
- Market Sheds for Artisans-Farmers
- Sadbhav Mandaps
- Job-Oriented Skill Development Centres
- Hunar Hubs

Ministry of Minority Affairs  
Government of India

Helpline No.: 1800-11-2001  
Website: [www.minorityaffairs.gov.in](http://www.minorityaffairs.gov.in)

**Saaf Niyat, Sahi Vikas**

**Relevance IN – Prelims (about PMJVK) + Mains (GS II Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes)**

### What's the NEWS

- Out of various schemes being implemented by the Ministry of Minority Affairs, **only one scheme namely Pradhan Mantri Jan Vikas Karyakram (PMJVK) is Centrally Sponsored Scheme**, under which funds are released to the State Governments.

### The Pradhan Mantri Jan Vikas Karyakram (PMJVK) -recent updates

- The Pradhan Mantri Jan Vikas Karyakram (PMJVK) has been restructured in 2018 and is now being implemented in 1300 identified **Minority Concentration Areas (MCAs)**, with an objective of developing socio-economic infrastructure and basic amenities in the said areas.
- For larger coverage of the scheme, the areas under PMJVK have been increased from **90 Districts originally to 308 Districts of the country**, which include 870 Blocks, 321 Towns and 109 District Headquarters.

### Pradhan Mantri Jan Vikas Karyakram (PMJVK)

- It seeks to provide better **socio economic infrastructure facilities to the minority communities** particularly in the field of education, health & skill development which would further lead to lessening of the gap between the national average and the minority communities with regard to backwardness parameters.
- The erstwhile Multi-sectoral Development Programme (MsDP) has been restructured and renamed as Pradhan Mantri Jan Vikas Karyakram for effective implementation since 2018.



## Multi-sectoral Development Programme (MsDP)

- MsDP is a special area development scheme designed to address the 'development deficits' seen in **Minority Concentration Districts**.
- The programme was launched in the year 2008-09 in 90 identified Minority Concentration Districts (MCDs) **having at least 25% minority population and below national average** with respect to one or both of the backwardness parameters with the objective of developing assets for socio-economic and basic amenities.
- The MCDs were identified on the basis of census 2001 data. The programme continued during 11<sup>th</sup> Five Year Plan.
- The MsDP was restructured in June 2013 for implementation during 12<sup>th</sup> Five Year Plan and the area of implementation was replaced by **Minority Concentration Blocks (MCB), Minority Concentration Towns (MCT) and Clusters of Villages**.
- At present 6 (six) communities namely Muslims, Sikhs, Christians, Buddhists, Zoroastrians (Parsis) and Jains have been notified as Minority Communities under Section 2 (c) of the National Commission for Minorities Act, 1992.

## International Organisations: ECI to host International Webinar on 'Issues, Challenges and Protocols for Conducting Elections during COVID-19



***Relevance IN – Prelims (about the Webinar and its objective + about A-WEB + India A-WEB Centre ) + Mains (GS II Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)***

### What's the NEWS

- The Election Commission of India is going to organize an International Webinar on 21<sup>st</sup> September 2020, on the Theme “**Issues, Challenges and Protocols for Conducting Elections during COVID-19 : Sharing Country Experiences**’ on its completion of one year of Chairmanship of the Association of World Election Bodies (A-WEB).

### Know! about Association of World Election Bodies (A-WEB)

- The Association of World Election Bodies (A-WEB) is **largest association of Election Management Bodies (EMBs)** worldwide.
- At present A-WEB has 115 EMBs as Members & 16 Regional Associations/Organisations as Associate Members.
- ECI has been very closely associated with the process of formation of A-WEB since 2011
- ECI hosted the **4<sup>th</sup> General Assembly of A-WEB on 03 Sep 2019 at Bengaluru and took over as Chair of A-WEB for 2019-2021 term**.
- **India A-WEB Centre** has been established at New Delhi, for world class documentation, research and training for sharing the best practices and capacity building of officials of A-WEB members.
- This is the first Webinar being held by the India A-WEB Centre.

- Over 120 delegates from 45 countries across the world and 4 international organizations (viz. International IDEA, International Foundation of Electoral Systems (IFES), Association of World Election Bodies (A-WEB) and European Centre for Elections) are going to participate in the Webinar.

## Social Issues: Three Labour Codes in Lok Sabha introduced

**Relevance IN – Prelims (about the provisions of these three codes- comprehensive view)  
+ Mains (GS II Social Issues - Government policies and interventions for development in various sectors and issues arising out of their design and implementation)**

### What's the NEWS

- The Labour and Employment ministry introduced three Labour Codes in the Lok Sabha after considering 74% of the recommendations of the Parliamentary Standing Committee.
- All these Bills were earlier introduced in the Lok Sabha in 2019, after which it was referred to Parliamentary Standing Committee which submitted its report.

#### These bills are

- (i) Industrial Relations Code, 2020,
- (ii) Code on Occupational Safety, Health & Working Conditions Bill, 2020
- (iii) Social Security Code, 2020.
- Code on Wages has already been approved by Parliament in the month of August, 2019 and has already become the law of the land.
- Along with this, three Bills introduced today will pave way for simplification of labour laws, its implementation and will bring immense labour welfare measures to the 50 crores workers in the country, both in the organised and unorganised sectors.
- On the recommendation of the second National Commission on Labour that the existing Labour Laws to be reduced to just 4 Labour Codes.

## Code on Wages Act, 2019

- It seeks to regulate wage and bonus payments in all employments, where any industry, trade, business, or manufacturing is carried out.

#### It replaces the four laws:

1. The Payment of Wages Act, 1936
  2. The Minimum Wages Act, 1948
  3. The Payment of Bonus Act, 1965
  4. The Equal Remuneration Act, 1976
- The bill provides that the central government will fix minimum wages for certain sectors, including railways and mines, while the states would be free to set minimum wages for other category of employments.
  - The code also provides for setting of a national minimum wage. The central government can set separate minimum wages for different regions or states.
  - A statutory right has been created for minimum wages and timely payment of wages to all workers whether in organized or unorganised sector.
  - It extends entitlement of minimum wages to all the workers in the country as against 30 per cent of the workforce, at present.
  - At present, minimum wages are fixed for employment covering mainly mines sector, plantation, dock workers, building and construction workers, watch and ward, sweeping and cleaning and on manufacturing sector etc.
  - Extension will take place to entire service sector (IT, hospitality, transportation etc.), domestic workers, unorganized workers, teachers.
  - Method of fixation of minimum wage rates simplified. Factors to be taken into account are skills and geographical location.
  - Revision of minimum wages every 5 years.

- A statutory concept of 'Floor Wage' introduced.

### Advisory Board

- The Central and State Governments will constitute advisory boards.  
***The Central Advisory Board consist of***
  - employers
  - employees (in equal number as employers)
  - independent persons and
  - five representatives of State Governments.
- State Advisory Boards will consist of employers, employees, and independent persons.
- One-third of the total members on both the Central and State Boards will be women.
- The Boards will advise the respective governments on various issues including: fixation of minimum wages, and increasing employment opportunities for women

### Labour Code on Industrial Relations 2019

- The Union cabinet approved the Labour Code on Industrial Relations 2019, allowing companies **to hire workers on fixed-term contract of any duration**. it also means that all workers will be treated at par with regular workers for benefits.
- The code has retained the threshold on the worker count at 100 for prior government approval before retrenchment, but it has a provision for changing 'such number of employees' **through notification**.
- The code also provides setting up of a **two-member tribunal** (in place of one member) wherein important cases will be adjudicated jointly and the rest by a single member, resulting speedier disposal of cases.
- Government officers for adjudication of disputes **involving penalty** as fines, thereby lessening the burden on tribunal.
- The **industrial relations code** is the third out of four labour codes that have got approval from the cabinet.
- The code will **combine Industrial Disputes Act, 1947, the Trade Unions Act, 1926, and the Industrial Employment (Standing Orders) Act, 1946**.

### Occupational Safety Health and Working Conditions Code, 2019

- The Code repeals and replaces 13 labour laws relating to safety, health and working conditions.
- It entails duties for employers which include a) providing a workplace that is free from hazards that may cause injury or diseases, and b) providing free annual health examinations to employees, as prescribed.

### Draft social security code, 2019

- It proposes to amalgamate legislations pertaining to provident fund, pension, medical insurance, maternity benefits, gratuity and compensation.
- It has proposed that the Central Government shall formulate and notify social security schemes for unorganised workers.
- It also proposes the Corporatization of Employment provident fund organisation (EPFO) and Employees State Insurance Corporation (ESIC).

### Bilateral Relations: Basic Exchange and Cooperation Agreement for Geo-Spatial cooperation (BECA)

***Relevance IN – Prelims (about BECA + LEMOA + COMCASA + GSOMIA + IFC-IOR + Quad countries) + Mains (GS II Bilateral relations)***

#### What's the NEWS

- The U.S. is keen that India sign the last foundational agreement, Basic Exchange and Cooperation Agreement for Geo-Spatial cooperation (BECA), at the next **India-U.S. 2+2 ministerial dialogue** likely to held in October.
- A maritime information agreement is also under active deliberation between India and the U.S.

- Once concluded, India will have such arrangements with all Quad countries — Australia, Japan and the U.S.
- India has signed three foundational agreements:**
- The Logistics Exchange Memorandum of Agreement (LEMOA)
  - The Communications Compatibility and Security Agreement (COMCASA)
  - The General Security of Military Information Agreement (GSOMIA)
- An extension to the GSOMIA, the Industrial Security Annex (ISA), was signed at the last 2+2 dialogue.*
  - While LEMOA has since been operationalised, COMCASA is at advanced stages of being operationalised.*

FOUNDATIONAL AGREEMENTS		
Logistics Exchange Memorandum of Agreement (LEMOA)	Communication Interoperability & Security Memorandum Agreement (CISMOA)	
<ul style="list-style-type: none"> <li>➤ Provide <b>logistic support, refuelling &amp; berthing facilities</b> for each other's <b>warships &amp; aircraft</b> on barter/equal-value exchange basis</li> <li>➤ <b>Will not involve stationing of US troops on Indian soil. Nor will India extend support if US goes to war with "a friendly country"</b></li> <li>➤ <b>Good for US forces re-balancing to Asia Pacific.</b> Indian forces rarely operate far away from their shores but access to <b>Djibouti &amp; Diego Garcia</b> could be useful</li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Technology enabler to help transfer high-tech avionics, encrypted communication &amp; electronic systems to India</b></li> <li>➤ <b>US says CISMOA will boost 'interoperability' as well as ensure secrecy of its C4ISR</b> (command, control, communications, computer, intelligence, surveillance and reconnaissance) systems</li> <li>➤ <b>But fears that US will be able to track &amp; snoop on Indian warships/aircraft</b> equipped with such systems</li> </ul>	
	<b>Basic Exchange &amp; Cooperation Agreement for Geo-Spatial Cooperation (BECA)</b> <ul style="list-style-type: none"> <li>➤ US says <b>BECA will help India with advanced satellite &amp; topographical data</b> for long-range navigation &amp; missile-targeting</li> <li>➤ <b>But India, which has its own satellite imaging capabilities, unwilling for American digital sensors to be positioned on its soil</b></li> </ul>	

### Know! about some recent activities (Quad countries and MDA)

- There has been a sharp increase in India's maritime interactions with the **Quad countries** (India – Australia – Japan – USA) on a bilateral basis centred around information sharing for improved **Maritime Domain Awareness (MDA)** in the Indian Ocean Region and Indo-Pacific.
- In increasing military to military interactions, the U.S. has posted a **liaison officer at the Navy's Information Fusion Centre for Indian Ocean Region (IFC-IOR)** meant to promote MDA.
- India has recently posted a liaison officer at the **U.S. Navy Central Command in Bahrain** and is also considering a U.S. request for posting liaison officers at the U.S. Indo-Pacific Command (USINDOPACOM) and the U.S. Special Operations Command (USSOCOM).

### Logistics Exchange Memorandum of Agreement

- LEMOA is a facilitating **agreement** that establishes basic terms, conditions, and procedures for reciprocal provision of **Logistic Support, Supplies, and Services** between the armed forces of India and the United States.
- It gives access, to both countries, to designated military facilities on either side for the purpose of refuelling and replenishment.

### Communications Compatibility and Security Agreement:

- COMCASA is an India-specific version of the Communication and Information on Security Memorandum of Agreement (CISMOA).
- The nomenclature was changed to COMCASA to make it India-specific and guarantee New Delhi that the intelligence data shared between the two countries won't be shared with a third party.
- It ensures that the militaries of the US and India can boost their "interoperability" as well as share operational intelligence in real-time in the years ahead.
- COMCASA will allow India to procure transfer specialised equipment for encrypted communications for US origin military platforms like the C-17, C-130 and P-8Is.



## Industrial Security Annex (ISA) and General Security of Military Information Agreement (GSOMIA)

- The ISA is a part of the General Security of Military Information Agreement (GSOMIA) and it will pave the way for **defence majors from the US to partner with Indian private sector companies** for big-ticket defence deals for the Indian Armed Forces.
- ISA to the India-U.S. General Security of Military Information Agreement (GSOMIA) provides a framework for exchange and protection of classified military information between the U.S. and Indian defence industries.
- Previously under GSOMIA, such information is exchanged between the Government authorities of the two countries but not between private parties.

## Information Fusion Centre for Indian Ocean Region (IFC-IOR), Gurugram

- IFC-IOR is established with the vision of strengthening maritime security in the region and beyond, by building a common coherent maritime situation picture and acting as a **maritime information hub for the region**.
- To enable better interconnection, quicker analysis of information and provide timely inputs, the **IFC-IOR would host Liaison Officers from partner countries**.
- **France became the first country** to deploy a Liaison Officer at the **IFC-IOR** followed by the U.S.

## 2+2 dialogue

- It aims to discuss issues of strategic and security interests between the two countries.
- **Defense and foreign ministers or secretaries** meet with their counterparts from another country.
- India holds such talks with Japan and Australia, at the foreign secretary and defense secretary level.
- India holds ministerial-level talks only with the USA. Apart from India, the United States holds such ministerial dialogues with Australia and Japan also.
- The talks were announced in June 2017. The 2+2 dialogue has replaced the Strategic and Commercial Dialogue between the foreign and commerce ministers of the two countries that were held previously.

## Acts/Bills/Draft/Policies: Parliament passes the Essential Commodities (Amendment) Bill, 2020

**Relevance IN – Prelims (about the Essential Commodities (Amendment) Bill 2020 and its provisions) + Mains (GS II government policies and interventions+ GS III issues related to farmers and agriculture)**

### What's the NEWS

- The Essential Commodities (Amendment) Bill 2020 with provisions to remove commodities like cereals, pulses, oilseeds, edible oils, onion and potatoes from the list of essential commodities was passed by the Parliament.

### Essential Commodities (Amendment) Bill 2020

- The EC (Amendment) Bill 2020 aims to remove fears of private investors of **excessive regulatory interference** in their business operations.
- The freedom to produce, hold, move, distribute and supply will lead to harnessing of economies of scale and attract private sector/foreign direct investment into agriculture sector.
- It will help drive up investment in cold storages and modernization of food supply chain.
- It has been provided in the Amendment, that in situations such as war, famine, extraordinary price rise and natural calamity, such agricultural foodstuff can be regulated.



### Historic Decisions to Transform Agriculture Sector

## Parliament Passes the Essential Commodities (Amendment) Bill, 2020



- To liberalise regulatory environment to attract private sector/foreign direct investment
- Cereals, pulses, oilseeds, edible oils, onion & potatoes removed from list of essential commodities
- Will safeguard the interest of consumers in situation like war, famine, extraordinary price rise and natural calamity
- Will help drive up investment in cold storages & modernization of the food supply chain
- To bring in price stability and prevent wastage of agri-produce that happens due to lack of storage facilities

- However, the **installed capacity of a value chain participant** and the export demand of an exporter will remain exempted from such stock limit imposition so as to ensure that investments in agriculture are not discouraged.

### Join the dots

- While India has become surplus in most Agri-commodities, farmers have been unable to get better prices due to lack of investment in cold storage, warehouses, processing and export as the entrepreneurial spirit gets dampened due to Essential Commodities Act.
- Farmers suffer huge losses when there are bumper harvests, especially of perishable commodities.
- The legislation will help drive up investment in cold storages and modernization of food supply chain.
- It will help both farmers and consumers while bringing in price stability.
- It will create competitive market environment and also prevent wastage of agri-produce that happens due to lack of storage facilities.

## Government Schemes: Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)



***Relevance IN – Prelims (about Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation)***

### What's the NEWS

- 25<sup>th</sup> September, 2014 was declared the 'Antyodaya Diwas' in honour of Pandit Deen Dayal Upadhyaya's 98<sup>th</sup> Birth Anniversary.
- It was the same day when the Ministry of Rural Development (MoRD) revamped its existing skill development program called **Aajeevika Skills as Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)**

### Antyodaya Diwas

- To commemorate Antyodaya Diwas 2020, MoRD is celebrating this day for Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)
- DDU-GKY is now a **demand driven placement-linked skilling initiative** which seeks to enable rural poor youth to benefit from national and international employment opportunities.
- The spirit of Antyodaya Mission lies in 'reaching out to the last person'. Ministry of Rural Development is also working towards this motto through reaching to all eligible rural youths of India.
- Over the period of time, DDU GKY has proven to be an effective rural development initiative for rural youths by providing both market linked skilling and sustainable wage employment opportunities.

### Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)

- The Ministry of Rural Development implements DDU-GKY to drive national agenda for inclusive growth, **by developing skills and productive capacity** of the rural youth from poor families.

- There are several challenges preventing India's rural poor from competing in the modern market, such as the **lack of formal education and marketable skills**.
- DDU-GKY **bridges this gap** by **funding training projects** benchmarked to global standards, with an emphasis on **placement, retention, career progression and foreign placement**.

### Salient Features (DDU-GKY)

- Enable Poor and Marginalized to Access Benefits
- Demand led skill training at no cost to the rural poor
- Mandatory coverage of socially disadvantaged groups (SC/ST 50%; Minority 15%; Women 33%)
- Shifting Emphasis from Training to Career Progression
- Pioneers in providing incentives for job retention, career progression and foreign placements
- Post-placement support, migration support and alumni network
- Guaranteed Placement for at least 75% trained candidates
- Nurturing new training service providers and developing their skills
- Greater emphasis on projects for poor rural youth in Jammu and Kashmir (HIMAYAT),
- The North-East region and 27 Left-Wing Extremist (LWE) districts (ROSHINI)
- All program activities are subject to Standard Operating Procedures that are not open to interpretation by local inspectors.
- All inspections are supported by geo-tagged, time stamped videos/photographs.

### Eligibility

- Rural Youth: 15 - 35 Yrs
- SC/ST/Women/PVTG/PWD: upto 45 Yrs

### Implementation Model

- DDU-GKY follows a 3-tier implementation model.
- The DDU-GKY National Unit at MoRD functions as the policy-making, technical support and facilitation agency.
- The DDU-GKY State Missions provide implementation support; and
- The Project Implementing Agencies (PIAs) implement the programme through skilling and placement projects.
- DDU-GKY is applicable to the entire country.
- The scheme is being implemented currently in 13 States/UTs across 460 districts partnering currently with 82 PIAs covering 18 sectors.

## Health and Family Welfare: National Medical Commission (NMC) constituted

**Relevance IN – Prelims (about NMC and NMC act-provisions) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.**

### What's the NEWS

- National Medical Commission (NMC) has been constituted along with four Autonomous Boards. The Notifications in this regard were issued late last night on the 24<sup>th</sup> September, 2020.
- With this, the decades old institution of the Medical Council of India (MCI) stands abolished.





- Along with NMC, the **four Autonomous Boards** have also been constituted to help the NMC in day to day functioning.
- The basic change that has happened is that the Regulator is now 'selected' on merits, as opposed to an 'elected' Regulator.

### MCI Now

- 99 members, all medical professionals
- 36% nominated, others elected by doctors
- Executive committee of 10 doctors takes final decisions

### Proposed NMC

- 20 members, only 1 is mandated to be a doctor
- All nominated by a 5 member committee, of whom only one will be a nominated doctor
- Means, 14-19 non doctors, selected by 4 non doctors, will regulate the medical profession

### Know! all about the National Medical Commission (NMC)

- Dr S C Sharma (retd. Prof, ENT, AIIMS, Delhi) has been selected as the Chairperson for a period of three years.
- Besides the Chairperson, NMC will have **10 ex-officio members** that include Presidents of the four Autonomous Boards.
- In addition, **NMC will have 10 nominees** from Vice Chancellors of Health Universities from States/UTs, 9 nominees from State Medical Councils, and three expert members from diverse professions.

MCI ACT VS NMC BILL	
<b>MCI</b>   No power to prescribe fees	courses. No annual renewal needed. <b>Automatic increase</b> in seats allowed
<b>NMC</b>   To determine fees for up to 40% of seats in private colleges/deemed universities	<b>MCI</b>   Separate permission for PG courses after UG recognition
<b>MCI</b>   Colleges needed nod for establishment/renewal/recognition/increase of intake for UG courses	<b>NMC</b>   Colleges can start PG courses <b>on their own</b>
<b>NMC</b>   Permission required only for establishment and recognition in case of UG	<b>MCI</b>   Penalty for not meeting requirements includes <b>no renewal nod and no admission</b>
	<b>NMC</b>   <b>Monetary penalty</b> – up to 10 times the annual tuition fee

- In addition to NMC, four Autonomous Boards have also been constituted and come into effect from today. The Commission has **four Autonomous Boards, to oversee UG/ PG education, accreditation and assessment and the matters related to ethics and professional conduct of doctors** namely.
  1. Under-Graduate Medical Education Board
  2. Post-Graduate Medical Education Board
  3. Medical Assessment and Rating Board and
  4. Ethics and Medical Registration Board



- The NMC will carry forward the reforms initiated by the Board of Governors **under Dr V K Paul**.
- The key functions of the NMC will be further streamlining regulations, rating of institutions, HR assessment, focus on research.
- Besides they will work on modalities of the common final year exam after MBBS (**NEXT- National Exit Test**) to serve for both registration and PG entrance; prepare guidelines for fee regulation by private medical colleges; and developing standards for Community Health Providers to serve in primary healthcare with limited practicing licence.
- The National Medical Commission Act, 2019 was passed by the Parliament in August, 2019.
- With the coming into effect of the NMC Act from 25<sup>th</sup> September, 2020, the Indian Medical Council Act, 1956 stands repealed and the Board of Governors appointed in supersession of Medical Council of India has also been dissolved with effect from the said date.

## Education: NRA expected to conduct CET from September,2021 onwards

***Relevance IN – Prelims (about NRA) + Mains (GSII Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.)***

### What's the NEWS

- In a written reply in Lok Sabha the Ministry has informed that NRA is expected to conduct Common Eligibility Test (CET) from September,2021 onwards.

### Know! all about NRA

- Government has set up National Recruitment Agency (NRA) as an independent, professional, specialist organization for conduct of computer based online common eligibility test (CET) to shortlist candidates for vacancies of
  - Group 'B' Non-Gazetted posts
  - Group 'B' Gazetted posts, which are exempted from consultation with the Union Public Service Commission (UPSC)
  - Group 'C' posts in the Government and equivalent posts (where no such classifications exist) in instrumentalities of the Government, for which similar eligibility conditions have been prescribed.
- NRA has been set up to provide the same platform to all candidates at the nearest District HQ and with a view to set a new standard of equity and inclusiveness in recruitment.
- NRA will conduct CET to screen/shortlist candidates for jobs in Government sector for which recruitment is presently carried out through the **Staff Selection Commission (SSC), Railway Recruitment Boards (RRBs) and Institute of Banking Personnel Selection (IBPS)**.
- NRA will conduct **only preliminary screening** of candidates.
- The final recruitment will be done through domain specific examinations/tests to be conducted by respective agencies viz. SSC, RRBs and IBPS.
- Based on the score obtained in CET conducted by NRA, candidates may appear in domain specific exam/tests to be conducted by respective recruitment agencies.
- NRA would identify language experts to translate the question bank/paper in all regional languages included in the 8<sup>th</sup> Schedule of the Constitution, as per requirement and subject to adequate number of candidates opting to take test in the regional language.

## Social Issues: National Child Labour Project (NCLP) Scheme

**Relevance IN – Prelims (about NCLP + about Pencil Portal + Child Labour act) + Mains (GS II Social Issues + government policies and interventions)**

### What's the NEWS

- On the basis of available data and the data uploaded as **on date on Pencil Portal since its launch in 2017**, the total number of children mainstreamed through Special Training Centers set up under National Child Labour Project (NCLP) Scheme, is 13.63 lakh, since the inception of the scheme.

### Know! about NCLP Scheme

- The Ministry of Labour and Employment is implementing the NCLP Scheme since 1988 for rehabilitation of child labourers.
- Under the NCLP, the children in the **age group of 9-14 years are rescued/ withdrawn from work and enrolled in the NCLP Special Training Centres**, where they are provided with bridge education, vocational training, mid-day meal, stipend, health care, etc. before being mainstreamed into formal education system.

**National Child Labour Project objectives are:**

- Mainstreaming of children withdrawn from work-directly in regular schools (5-8yrs); bridge education in NCLP STCs (9-14 yrs)
- Withdrawal of adolescent in hazardous occupations & their skilling and integration in appropriate occupations
- Awareness generation and, tracking of child and adolescent labour

@LabourMinistry /LabourMinistry @MinistryofLabour&Employment @LabourMinistry

श्रम एवं रोजगार मंत्रालय  
Ministry of Labour & Employment  
महान कर्मचारी (Department of India)

- The children in the **age group of 5-8 years are directly linked to the formal education system** through a close coordination with the Samagra Shiksha Abhiyan.

### Child Labour (Prohibition & Regulation) Amendment Act, 2016

- The Child Labour (Prohibition & Regulation) Amendment Act, 2016 which came into force with effect from 1.9.2016, provides for complete prohibition of work or employment of **children below 14 years of age** in any occupation and process and prohibition of adolescents in the age group of 14 to 18 years in hazardous occupations and processes.
- The Amendment Act also provides for stricter punishment for employers for violation of the Act and has made the offence as cognizable.

*However, in exception to the above provision of the Act, certain exceptions have been made where a child:-*

- helps his family or family enterprises, which is other than any hazardous occupations or processes set forth in the Schedule of the amended Act, after his school hours or during vacations;
- where the child works as an artist in an audiovisual entertainment industry, including advertisement, films, television serials or any such other entertainment or sports activities except the circus, subject to certain conditions and safety measures and also that no such work under the clause affects the school education of the child.

## now! about PENCIL Portal



- The Platform for Effective Enforcement for No Child Labour (PENCIL) has been launched by **the Ministry of Labour and Employment, Government of India.**
- PENCIL is an electronic platform that aims at involving Centre, State, District, Governments, civil society and the general public in achieving the target of child labour free society.

**The PENCIL Portal ([pencil.gov.in](http://pencil.gov.in)) has the following components.**

- Child Tracking System
- Complaint Corner
- State Government
- National Child Labour Project and
- Convergence.

### **Implementation**

- The Districts will nominate District Nodal Officers (DNOs) who will receive the complaints and within 48 hours of receiving, they will check the genuineness of the complaint and take the rescue measures in coordination with police, if the complaint is found to be genuine.

### **Some other steps taken by the government**

- India has ratified the two Core Conventions of International Labour Organization (ILO), Convention 138 regarding admission of age to employment and Convention 182 regarding worst forms of Child Labour in June 2017 which shows the country's commitment to a child labour free nation.
- The National Child Labour Project Scheme (NCLPS) started in 1988 has the basic objective of suitably rehabilitating the children withdrawn from employment thereby reducing the incidence of child labour in areas of known concentration of child labour.

## **Health Sector: NPPA caps price of Liquid Medical Oxygen and Medical Oxygen cylinders**

***Relevance IN – Prelims (about NPPA) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources)***

### **What's the NEWS**

- The national drug pricing regulator NPPA has capped the price of medical oxygen cylinders and liquid medical oxygen for six months

### **Know! about the recommendations given by the Empowered Group 2**

- The issue related to availability, including pricing of oxygen, has been under the continued consideration of **Empowered Group 2, Government of India.**

- It recommended the National Pharmaceutical Pricing Authority (NPPA) to consider capping the ex-factory price of liquid medical oxygen in order to ensure its supply to fillers at reasonable prices.
- The Empowered Group 2 also requested NPPA to consider a cap for ex-factory price of oxygen in cylinders in order to ensure supply of oxygen cylinders from fillers at reasonable prices.
- The Ministry of Health & Family Welfare delegated powers under Section 10(2) (1) of **Disaster Management Act, 2005 to NPPA** to take all necessary steps to immediately regulate the availability and pricing of liquid medical oxygen (LMO) and medical oxygen in cylinders.
- NPPA decided to invoke extraordinary powers in public interest, under Para 19 of **Drugs Price Control Order (DPCO)**, 13 and under Section 10(20) (1) of Disaster Management Act, 2005 to deal with the emergent situation arising due to the pandemic.

### **National Pharmaceutical Pricing Authority (NPPA)**

- It is an independent body of experts under the Ministry of Chemicals and Fertilizers, formed in the year 1997 so as to implement and enforce the provisions of the Drugs Prices Control Order (DPCO) for regulating medicine prices in accordance with the powers delegated to it.
- NPPA is delegated with the powers to exercise the functions of the Central Government in respect of various paragraphs of the Drug Price Control Orders (DPCO) - DPCO, 1995 and now DPCO, 2013.
- The functions of NPPA include fixation and revision of prices of scheduled drugs (those medicines included in Schedule I of the DPCO which are subject to price control)
- Monitoring of prices of decontrolled drugs and formulations, Implementation and enforcement of the provisions of DPCO in accordance with the powers delegated, Monitoring the availability of drugs, identify shortages, taking remedial steps, etc.
- The organization is also entrusted with the task of recovering amounts overcharged by manufacturers for the controlled drugs from the consumers.
- All the powers of Government of pricing according to Essential Commodities Act have been delegated to it. Under DPCO, 2013 the powers to Review are vested with the Government.

## **Governance: EPFO services most accessed on UMANG App**

***Relevance IN – Prelims (about Scheme certificate of EPFO + about UMANG) + Mains (GS II Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential***

### **What's the NEWS**

- The Unified Mobile Application for New-age Governance (UMANG) has been a big hit among EPF subscribers enabling them to access services during COVID-19 pandemic from the comfort of their homes in a hassle free manner.
- Adding to the 16 services already on the Umang App, EPFO has now started another facility enabling EPS members to apply for **Scheme Certificate under Employees' Pension Scheme, 1995**.

### **Scheme certificate**

- Scheme certificate is issued to members **who withdraw their EPF contribution** but wish to retain their membership with EPFO, to avail pension benefits on attainment of retirement age.
- A member becomes eligible for pension only if he has been, cumulately, a member of the Employees' Pension Scheme, 1995 for at least 10 years.



### **Know! about UMANG**

- UMANG (Unified Mobile Application for New-age Governance) is developed by Ministry of Electronics and Information Technology (MeitY) and National e-Governance Division (NeGD) to drive Mobile Governance in India.
- UMANG provides a single platform for all Indian Citizens to access pan India e-Gov services ranging from **Central to Local Government bodies** and other citizen centric services.



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# **GENERAL STUDIES III**

**Science & Technology Economic  
Developments, Biodiversity,  
Environment, Internal Security and  
Disaster management**

## Food Processing: Agriota-E Marketplace platform launched to bridge gap between Indian farmers and UAE food industry

**Relevance IN – Prelims (about Agriota-E Marketplace platform) + Mains (GS III Food processing and related industries in India- scope and significance, location, upstream and downstream requirements, supply chain management + GS II bilateral relations)**

### What's the NEWS

- UAE has launched Agriota, a new technology-driven agri-commodity trading and sourcing e-market platform that will bridge the gap between millions of rural farmers in India and the Gulf nation's food industry.

### Know! about the new initiative Agriota-E Marketplace platform.

- Under the initiative, launched by the Dubai Multi Commodities Centre (DMCC) millions of Indian farmers will get an opportunity to connect directly with the entire food industry in the UAE, including food processing companies, traders and wholesalers through **the Agriota-E Marketplace platform**.
- The marketplace allows the farmers to bypass intermediaries, optimising the supply chain and ensuring traceability to create value for all stakeholders.
- The online marketplace also provides end-to-end traceability and transparency through last-mile verification and extension infrastructure in a blockchain environment.
- Additionally, the introduction of a proprietary banking system with a multi-tier escrow structure, will guarantee secure transactions of funds when using the platform.
- This symbiotic relationship even further, benefitting the millions of farmers throughout India whilst simultaneously providing greater food security for the UAE.
- The launch of an innovative model like Agriota will inch the UAE closer to the top of the Global Food Security Index.
- It has the potential to empower local communities, deliver better quality farm-to-shelf products and expand the UAE's long-term food security.
- Initially, the platform will offer cereals, pulses, oil seeds, fruits, vegetables, spices and condiments.

### Know! about the Global Food Security Index

- The Global Food Security Index consists of a set of indices from 113 countries.
- It measures food security across most of the countries of the world.
- It was first published in 2012, and is managed and updated annually by **The Economist's intelligence unit**.
- The Global Food Security Index considers the core issues of affordability, availability, and quality across a set of 113 countries.
- The index is a dynamic quantitative and qualitative benchmarking model, constructed from 34 unique indicators, that measures these drivers of food security across both developing and developed countries.
- India Rank (2019) – 72/113

## Space Awareness: Indian Astronomers discover one of the farthest Star galaxies in the universe.

**Relevance IN – Prelims (about AUFs01 + about AstroSat) + Mains (GS III awareness in the field of space)**

### What's the NEWS

- India's first Multi-Wavelength Space Observatory "AstroSat" has detected extreme-UV light from a galaxy located 9.3 billion light-years away from Earth.





**INDIAN SATELLITE "AstroSat" MARKS A MAJOR BREAKTHROUGH**

**DISCOVERS ONE OF THE FARTHEST & EARLIEST GALAXIES IN EXTREME-ULTRAVIOLET LIGHT**

The discovery has been made by an India led international team at the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune. This team includes scientists from India, Switzerland, France, USA, Japan and The Netherlands.

India's first multi-wavelength satellite, AstroSat, has detected extreme-UV light from a galaxy, called **UDFs01**, 9.3 billion light-years away from Earth.

With UVIT observation, **AUDFs01** became the first example of a galaxy with clumpy morphology and leaking ionizing radiation at 60 nanometers.

Combined four-colour image of the AstroSat Uv Deep Field (AUDF). Red and green colours from HST while cyan and dark blue are from AstroSat. AUDFs01 is in the square box. Highlighted images in the boxes below are from HST and AstroSat. Image Credit: Kanak Saha (IUCAA).

### Know! more about the discovered galaxy

- The galaxy called AUDFs01 was discovered by a team of Astronomers from the Inter-University Centre for Astronomy and Astrophysics (IUCAA) Pune.
- It has been reported in the leading international journal "Nature Astronomy" published from Britain.
- **India's AstroSat/UVIT (Ultra-Violet Imaging Telescope)** was able to achieve this unique feat because the background noise in the UVIT detector is much less than one on the **Hubble Space Telescope of US based NASA**.
- This discovery is a very important clue to how the dark ages of the Universe ended and there was light in the Universe. We need to know when this started, but it has been very hard to **find the earliest sources of light**

### India's first Space Observatory AstroSat

- It was launched by the Indian Space Research Organization (ISRO) on September 28, 2015
- It was developed by a team led by Shyam Tandon, Ex Emeritus Professor, IUCAA with the full support of ISRO.
- AstroSat is the first dedicated Indian astronomy mission aimed at studying celestial sources **in X-ray, optical and UV spectral bands simultaneously**.
- One of the unique features of AstroSat mission is that it enables the **simultaneous multi-wavelength observations of various astronomical objects with a single satellite**.

## Infrastructure Development: Power Ministry launches Green Term Ahead Market (GTAM) in electricity

**Relevance IN – Prelims (about Green Term Ahead Market (GTAM) + Mains (GS III infrastructure development – Energy Sector)**

### What's the NEWS

- As a first step towards Greening the Indian short term power Market, launched pan-India Green Term Ahead Market (GTAM) in electricity.
- The introduction of **GTAM platform would lessen the burden on RE-rich States and incentivize them to develop RE capacity beyond their own RPO**.
- This would promote RE merchant capacity addition and help in achieving RE capacity addition targets of the country.

## Know! about GTAM

- GTAM platform will lead to **increase in number of participants in renewable energy sector**.
- It will benefit buyers of RE through competitive prices and transparent and flexible procurement.
- It will also benefit RE sellers by providing access to pan- India market.
- The Government of India's target of 175 GW RE Capacity by 2022 is driving accelerated renewable penetration pan-India.
- Green Term Ahead Market contracts will allow additional avenues to the RE generators for sale of renewable energy; enable Obligated entities to procure renewable power at competitive prices to meet their **Renewable Purchase Obligations (RPO)**; and provide a platform to environmentally conscious open access consumers and utilities to buy green power.

## Food Processing: Government Approves 27 Cold Chain Projects In 11 States

**Relevance IN – Prelims (about Pradhan Mantri Kisan SAMPADA Yojana (PMKSY) + Mains (GS III food processing)**

### What's the NEWS

- The government has approved 27 cold chain projects in 11 states with a grant-in-aid of Rs 208 crore under the **Scheme for Integrated Cold Chain and Value addition infrastructure** of Pradhan Mantri Kisan SAMPADA Yojana (PMKSY).
- The new integrated cold chain projects are likely to generate direct and indirect employment for 16,200 and are likely to benefit 2,57,904 farmers.

### Know! about the new integrated cold chain projects

- The projects have been approved across the states of Andhra Pradesh (7), Bihar(1), Gujarat(2), Haryana(4), Karnataka(3), Kerala(1), MP(1), Punjab(1), Rajasthan(2), Tamil Nadu(4) and Uttar Pradesh(1).
- These 27 new integrated cold chain projects will leverage a total investment of 743 crores for the creation of modern, innovative infrastructure and effective cold chain facilities for the food processing sector across the nation.
- These projects will help increase efficiency and sustainability in India's food supply chain.

### Integrated Cold Chain projects (benefits)

- It will provide a big boost to the growth of food processing infrastructure.
- Helps in streamlining the agricultural supply chain.
- Generate direct and indirect employment opportunities in rural areas.
- Provide better prices to farmers, end-users, and benefit allied sectors.

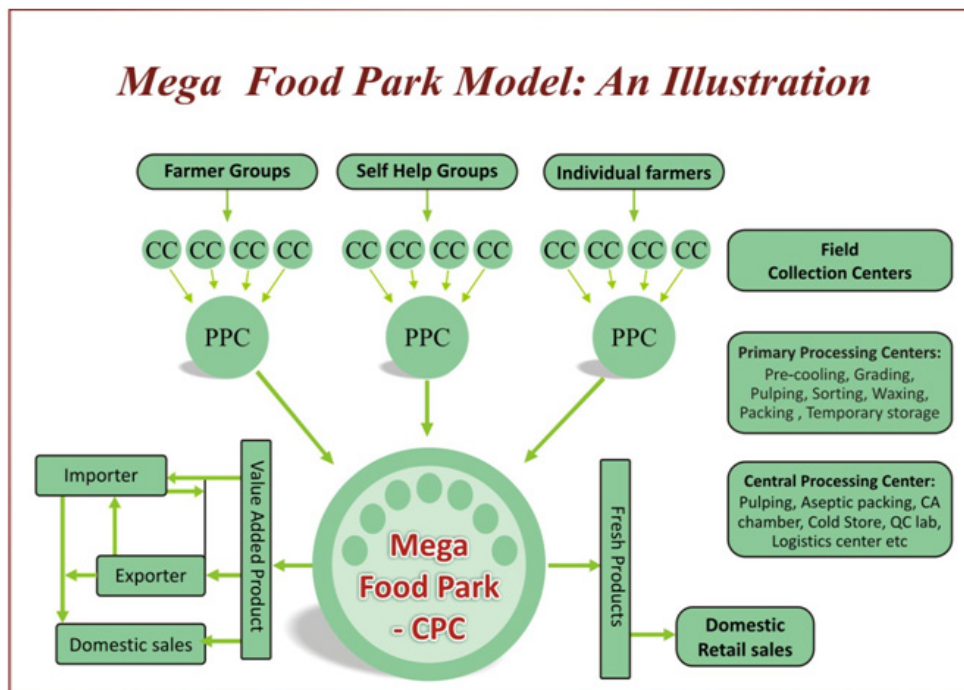
### Scheme of Cold Chain, Value Addition and Preservation Infrastructure

- The objective of the Scheme of Cold Chain, Value Addition and Preservation Infrastructure is to provide integrated cold chain and preservation infrastructure facilities, without any break, from the farm gate to the consumer.
- It covers creation of infrastructure facility along the entire supply.
- The scheme allows flexibility in project planning with special emphasis on creation of cold chain infrastructure at farm level.
- The integrated cold chain project is set up by Partnership / Proprietorship Firms, Companies, Corporations, Cooperatives, Self Help Groups (SHGs), Farmer Producer Organizations (FPOs), NGOs, Central / State PSUs, etc.

### Mega Food Park Scheme

- It aims at providing a mechanism to **link agricultural production to the market** by bringing together farmers, processors and retailers so as to ensure maximizing value addition, minimizing wastage, increasing farmers income and creating employment opportunities particularly in rural sector.
- The Mega Food Park Scheme is **based on "Cluster" approach** and envisages creation of **state of art support infrastructure** in a well-defined agri / horticultural zone for setting up of modern food processing units in the industrial plots provided in the park with well-established supply chain.

- Mega food park typically consist of supply chain infrastructure including **collection centers, primary processing centers, central processing centers, cold chain** and around 25-30 fully developed plots for entrepreneurs to set up food processing units.



- The Mega Food Park project is implemented by a Special Purpose Vehicle (SPV) which is a Body Corporate registered under the Companies Act.
- So far following 19 Mega Food Parks are operational.

### **Pradhan Mantri Kisan SAMPADA Yojana**

- Government of India (GOI) has approved a new **Central Sector Scheme** – Pradhan Mantri Kisan SAMPADA Yojana (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) with an allocation of Rs. 6,000 crore for the period 2016-20
- The scheme will be implemented by Ministry of Food Processing Industries (MoFPI).
- It is a comprehensive package which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

### **Benefits**

- Provide a big boost to the growth of food processing sector.
- Helps in providing better returns to farmers.
- Creating huge employment opportunities especially in the rural areas,
- Reducing wastage of agricultural produce,
- Increasing the processing level and enhancing the export of the processed foods.

*The following schemes will be implemented under PM Kisan SAMPADA Yojana*

- Mega Food Parks
- Integrated Cold Chain and Value Addition Infrastructure
- Creation/ Expansion of Food Processing/ Preservation Capacities (Unit Scheme)
- Infrastructure for Agro-processing Clusters
- Creation of Backward and Forward Linkages
- Food Safety and Quality Assurance Infrastructure
- Human Resources and Institutions
- Operation Greens



## Steps taken by the Ministry

- The Ministry of Food Processing Industries is striving to establish an integrated and seamless network of **strong Cold Chain Grid and infrastructure** for the uninterrupted transfer of perishables from production to consumption areas/centers.
- This would maintain the safety, quality, and quantity and storage of perishable produce such as fruits and vegetables, dairy products, meat, fish marine, poultry, ready to eat food products.
- Under the **Central Sector Scheme** of Integrated Cold Chain and Value Addition Infrastructure, the Ministry provides financial assistance in the form of grant-in-aid **at the rate of 35 percent for general areas and the rate of 50 percent for North-Eastern States**, Himalayan States, ITDP Areas, and Islands for storage and transport infrastructure.

## Economy: India's GDP shrinks by 23.9% in first quarter of FY2020-21

**Relevance IN – Prelims (facts and figures of first quarter of the financial year 2020-21 report) + Mains (GS III Economic development)**

### What's the NEWS

- India's Gross Domestic Product (GDP) has shrunk by **23.9 per cent in the first quarter of the financial year 2020-21**.

### First quarter of FY2020-21 (take outs)

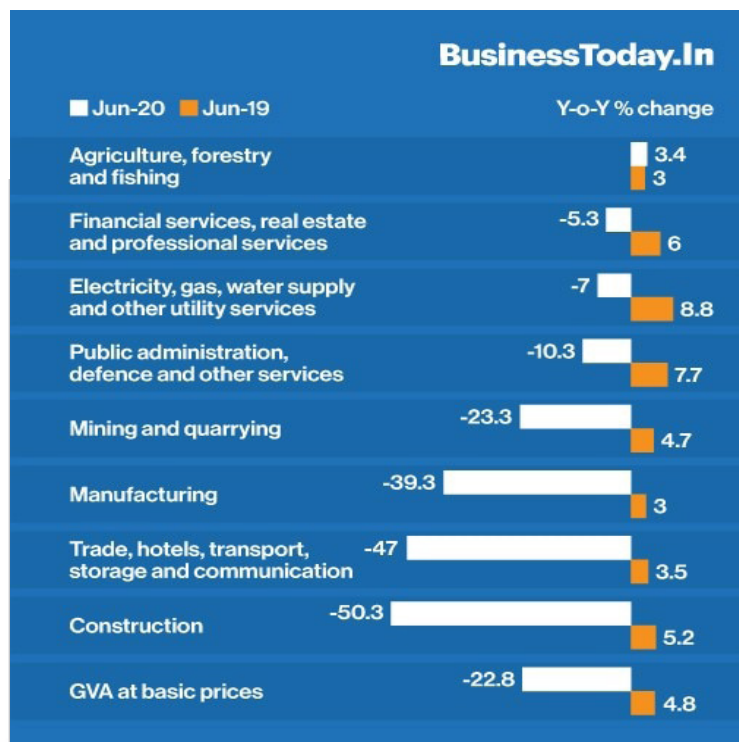
- "GDP has showing a contraction of 23.9 per cent as compared to 5.2 per cent growth in Q1 2019-20," an official statement by the National Statistical Office (NSO)
- The worst-hit sector in the first quarter of FY2020-21 was **construction**, which contracted by 50 per cent.
- The hotel industry contracted by 47 per cent, manufacturing by 39.3 per cent and mining by 23.3 per cent.
- The only sector which managed to survive the slump was **agriculture**, which registered a growth of 3.4 per cent.
- The GDP growth data accounts for the months of April, May and June - when a strict national lockdown was in place in the country due to the coronavirus pandemic.

### HOW THE SECTORS PERFORMED

Industry	Percentage change in Q1 2020-21	Percentage change in Q1 2019-20
Manufacturing	-39.3	3.0
Mining & quarrying	-23.3	4.7
Construction	-50.3	5.2
Electricity and gas	-7	8.8
Trade, hotels and transport	-47	3.5
Financial services and real estate	-5.3	6.0
Govt services	-10.3	7.7

#### The only positive

Agriculture	3.4	3.0
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### The Performance of eight Core industries

- Coal -5.7%
- Crude Oil -4.9%
- Natural Gas - 10.2%
- Refinery Product -13.9%
- Fertilizers +6.9%
- Steel -16.9%
- Cement -13.5%
- Electricity -2.3%

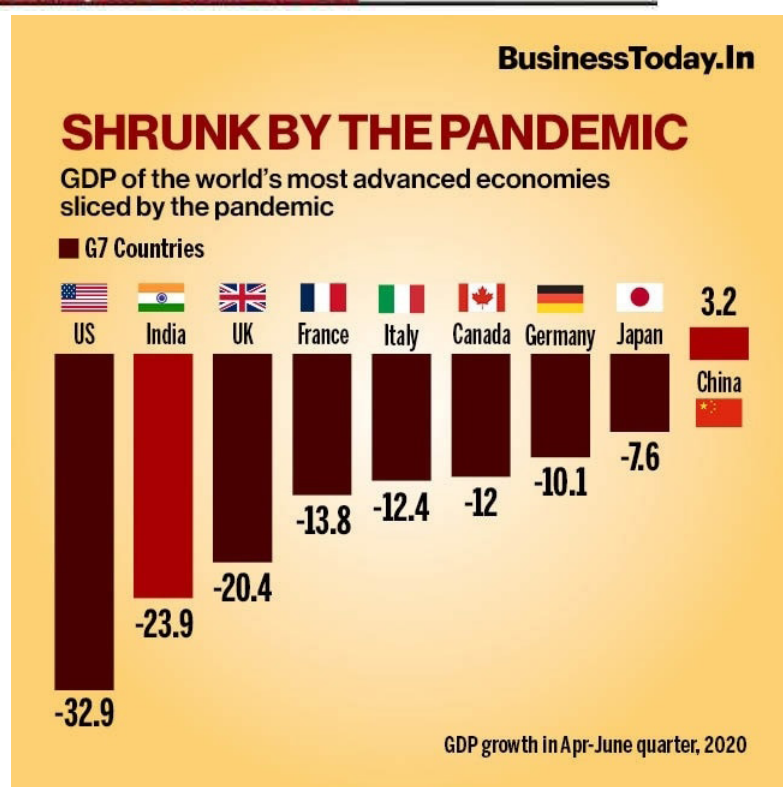
**Overall (core industries) -9.6%**

### Eight Core Industries

- Contracting for the fifth consecutive month, the output of eight core infrastructure sectors dropped by 9.6 per cent in July due to decline mostly in production of steel, refinery products and cement.
- Barring fertiliser, all seven sectors -- coal, crude oil, natural gas, refinery products, steel, cement and electricity -- recorded negative growth in July.

### Quarterly Estimates of GVA

Industry	Apr-June (2019-20)	Apr-June (2020-21)
<b>Agriculture, forestry &amp; fishing</b>	<b>3.0%</b>	<b>3.4%</b>
<b>Manufacturing</b>	<b>3.0%</b>	<b>-39.3%</b>
<b>Trade, hotel, transport, communication &amp; services related to broadcasting</b>	<b>3.5%</b>	<b>-47.0%</b>
<b>Public administration, defence &amp; other services</b>	<b>7.7%</b>	<b>-10.3 %</b>
<b>Gross Value Added (GVA)</b>	<b>4.8%</b>	<b>-22.8%</b>
<b>Gross Domestic Product (GDP)</b>	<b>5.2%</b>	<b>-23.9%</b>
<b>(at Basic Prices in Q1 (April-June) of 2020-21)</b>		



# Space Awareness: Images sent by Chandrayaan-1 indicate possible impact of Earth's atmosphere on Moon

**CHANDRAYAAN-1 SPOTS RUSTING ON THE MOON**

ISRO's maiden mission to Earth's natural satellite "**Chandrayaan-1**" orbiter shows that the Moon may be rusting along the poles

Occurrence of rust is a conundrum because even though the Moon is known to have iron-rich rocks littered across the surface, it's not known for the presence of water and oxygen—two elements that need to interact with iron to create rust.

Researchers at the **National Aeronautics and Space Administration (NASA)** believe that this could be because Earth's own atmosphere is lending a helping hand.

Sign that Moon's poles are home to water has emerged from the **Chandrayaan-1's** data.

Earth's atmosphere could be protecting the Moon as well.

Blue areas in this composite image from the Moon Mineralogy Mapper (M<sub>3</sub>) aboard the Indian Space Research Organization's Chandrayaan-1 orbiter show water concentrated at the Moon's poles. Having in on the spectra of rocks there, researcher found signs of hematite, a form of rust.

Earth's magnetic atmosphere and magnetotail, which extends away from the Sun.

drjitendras DrJitendraSingh Ddrjitendrasingh

**Relevance IN – Prelims (about Chandrayaan I and its recent findings + about Chandrayaan II and III) + Mains (GS III awareness in the field of space)**

## What's the NEWS

- ISRO's maiden mission to the Moon has sent images which show that Moon may be rusting along the poles.

## Know! about the finding

- The sign of this finding is that even though the surface of the Moon is known to have iron - rich rocks, it is not known for the presence of water and oxygen, which are the two elements needed to interact with iron to create rust.
- This could be because the Earth's own atmosphere could be protecting the Moon as well.
- Chandrayaan-1 Moon data indicates that the Moon's poles are home to water, this is what the scientists are trying to decipher.

## Know! about Chandrayaan

### Chandrayaan - 1

- Chandrayaan was launched aboard PSLV C-11 on October 22, 2008, which was an XL variant of ISRO's PSLV, one of the world's most reliable launchers.
- PSLV was later used to launch the Mars Orbiter Mission in 2013.

### Chandrayaan - 2

- Chandrayaan-2 is an Indian lunar mission to explore the uncharted south pole of the celestial body by landing a rover.
- On September 7 2019, India attempted to make a soft landing on to the lunar surface.
- However, lander Vikram missed the primary landing site and went for the second. The visuals went missing henceforth.
- If India does succeed, it will be the fourth country to land on the moon, after the erstwhile USSR, US and China, to cement its place among the world's space-faring nations.



## Chandrayaan - 3

- Chandrayaan-3 will be a mission repeat of Chandrayaan-2 and will include a Lander and Rover similar to that of Chandrayaan-2, but will not have an orbiter.
- Chandrayaan-3 launch may now take place somewhere in early 2021.

## Environment: PM Modi announces launch of Project Dolphin

**Relevance IN – Prelims (about Dolphins) + Mains (GS III Environment conservation)**

### What's the NEWS

- Prime Minister has announced the launching of the Project Dolphin for the conservation and protection of the **Dolphins in the rivers and in oceans of the country.**

### Know! about the Project

- The Project Dolphin will involve conservation of Dolphins and the aquatic habitat through use of modern technology specially in enumeration and anti-poaching activities.
- The proposed project is aimed at **saving both river and marine dolphins.**
- Project Dolphin **will be on the lines of Project Tiger**, which has helped increase the tiger population.
- The project will engage the fishermen and other river/ocean dependent population and will strive for improving the livelihood of the local communities.
- The conservation of Dolphin will also envisage activities which will also help in the mitigation of pollution in rivers and in the oceans.

### Know! the objective of Project Dolphin

- It got in-principle approval in December last year, at the first meeting of the National Ganga Council (NGC), headed by the Prime Minister.
- So far, the National Mission for Clean Ganga (NMCG), which implements the government's flagship scheme Namami Gange, has been taking some initiatives for saving dolphins.
- Now, Project Dolphin is expected to be implemented by the Ministry of Environment, Forest and Climate Change.

### Gangetic dolphin

- The Gangetic river system is home to a vast variety of aquatic life, including the Gangetic dolphin (*Platanista gangetica*).
- The Gangetic dolphin is one of five species of river dolphin found around the world.
- It is found mainly in the Indian subcontinent, particularly in Ganga-Brahmaputra-Meghna and Karnaphuli-Sangu river systems.

### Why is it declining and why it important to save a declining river species?

- The construction of dams and barrages, and increasing pollution have led to a decline in the population of aquatic animals in the rivers in general and of dolphins in particular.
- Aquatic life is an indicator of the health of river ecosystems. As the Gangetic dolphin is at the top of the food chain, protecting the species and its habitat will ensure conservation of aquatic lives of the river.

### Wildlife Act Protection and Conservation Plan

- The Gangetic dolphin remains listed as **endangered** by the International Union for the Conservation of Nature.
- After the launch of Ganga Action Plan in 1985, the government on November 24, 1986 included Gangetic dolphins in the **First Schedule** of the Indian Wildlife (Protection), Act 1972.

**PROJECT DOLPHIN**  
PRESERVING OUR UNDERWATER FRIENDS

- 10-YEAR PROJECT TO FOCUS ON BOTH RIVER AND SEA DOLPHINS
- AIM TO STRENGTHEN BIODIVERSITY, CREATE EMPLOYMENT OPPORTUNITIES AND ATTRACT TOURISM
- KILLING, HABITAT FRAGMENTATION BY DAMS AND BARRAGES AND INDISCRIMINATE FISHING HAS REDUCED THE GANGES RIVER DOLPHIN POPULATION FROM TENS OF THOUSANDS TO AROUND 3,700 OVER THE LAST CENTURY
- GANGES RIVER DOLPHIN, A SPECIES OF FRESHWATER DOLPHINS, IS PRIMARILY FOUND IN GANGA AND BRAHMAPUTRA RIVERS, AND THEIR TRIBUTARIES IN INDIA, BANGLADESH AND NEPAL
- IN INDIA, THESE DOLPHINS ARE SIGHTED IN DEEP RIVERS IN ASSAM, BIHAR, JHARKHAND, MADHYA PRADESH, RAJASTHAN, UTTAR PRADESH AND WEST BENGAL
- GANGES RIVER DOLPHIN, OFFICIALLY DISCOVERED IN 1801, CAN LIVE ONLY IN FRESHWATER

Source: Government of India

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- For instance, Vikramshila Ganges Dolphin Sanctuary was established in Bihar under this Act.
- The Conservation Action Plan for the Ganges River Dolphin 2010-2020, which “identified threats to Gangetic Dolphins and impact of river traffic, irrigation canals and depletion of prey-base on Dolphins populations”.

### **National aquatic animal.**

- The maiden meeting of the National Ganga River Basin Authority (On October 5, 2009, the then Prime Minister Manmohan Singh) declared the Gangetic river dolphin as the national aquatic animal.
- The National Mission for Clean Ganga celebrates October 5 as National Ganga River Dolphin Day.

### **Know! about Project Tiger**

- The Government of India has taken a pioneering initiative for conserving its national animal, the tiger, by launching the **‘Project Tiger’ in 1973**.
- The tiger reserves are constituted on a core/buffer strategy.
- The core areas have the legal status of a national park or a sanctuary, whereas the buffer or peripheral areas are a mix of forest and non-forest land, managed as a multiple use area.
- The Project Tiger aims to foster an exclusive tiger agenda in the core areas of tiger reserves, with an inclusive people oriented agenda in the buffer.

## **Environment: First International Day of Clean Air for Blue Skies**

**Relevance IN – Prelims (about International Day of Clean Air for Blue Skies +AQI + National Clean Air Programme) + Mains (GS III Environment conservation)**

### **What’s the NEWS**

- A webinar was organized by the Ministry of Environment, Forest and Climate Change on the occasion of first ever International Day of Clean Air For Blue Skies was attended by the Environment Ministry and Environment Department of 28 states and 8 Union Territories.
- **Commissioner of 122 cities** as identified in **NCAP programme** also participated and put forth their experiences and best practices.

### **International Day of Clean Air for Blue Skies**

- The General Assembly of United Nations on 19 December 2019 adopted a resolution to observe the International Day of Clean Air for Blue Skies on 07<sup>th</sup> September every year starting from 2020.
- The very first International Day of Clean Air for blue skies held on September 7<sup>th</sup>, 2020.
- The United Nations General Assembly invited the United Nations Environment Programme (UNEP) to facilitate the observance of the International Day, in collaboration with other relevant organizations.
- The Climate and Clean Air Coalition (CCAC) worked with UNEP and the Republic of Korea to advocate for the day in the lead up to the decision.
- WHO is working with BreatheLife partners to coordinate activities for the day.
- The first celebration will set a precedent for an important and exciting new international day for clean air to be celebrated annually.



### **Know! more about International Day of Clean Air for Blue Skies**

- The day intends to emphasize on the ill-effects of air pollution and is a call to action against the environmental evil.
- The International Day of Clean Air for Blue Skies was introduced to acknowledge the threats posed by air pollution and to encourage every country in the world to take preventive measures.
- The day emphasises the need to improve air quality for long-term benefits for humankind.
- Countries pledged to promote and support sustainable development in “The future we want”, an outcome document of the United Nations Conference on Sustainable Development.



- The UN also came up with the 2030 Agenda for Sustainable Development, which is a resolution comprising 17 goals and 169 targets for countries.

### Steps taken by India

- In 2014, the government launched the **Air Quality Index (AQI)** monitoring and tracking the levels of Pollution on eight parameters.
- In January last year, the Environment Ministry had launched **National Clean Air Programme (NCAP)** to tackle the problem of air pollution in a comprehensive manner with a target to achieve 20 to 30 percent reduction in PM 10 and PM 2.5 concentrations by 2024 keeping 2017 as base year.
- The plan identified earlier **102 non-attainment cities**, across 23 States and Union Territories.
- 20 more non-attainment cities have been included under NCAP based on latest data trend on air quality.

### Know! about AQI

- The AQI is an index for reporting daily air quality.
- It tells you how clean or polluted your air is, and what associated health effects might be a concern for you.
- The objective of an AQI is to quickly disseminate air quality information (almost in real-time) that entails the system to account for pollutants which have short-term impacts.
- **Eight parameters** (PM10, PM2.5, NO2, SO2, CO, O3, NH3, and Pb) having short-term standards have been considered for near real-time dissemination of AQI.
- It is recognized that air concentrations of Pb are not known in real-time and cannot contribute to AQI.
- The index has six categories with elegant colour scheme,

Air Quality Index (AQI) Values	Levels of Health Concern	Colors
<i>When the AQI is in this range:</i>	<i>..air quality conditions are:</i>	<i>...as symbolized by this color:</i>
0 to 50	Good	Green
51 to 100	Moderate	Yellow
101 to 150	Unhealthy for Sensitive Groups	Orange
151 to 200	Unhealthy	Red
201 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

## Space Awareness: India joins US, Russia, China hypersonic Missile club

**Relevance IN – Prelims (about Hypersonic Technology Demonstrator Vehicle + about Scramjet engine) + Mains (GSIII awareness in the field of space + indigenisation of technology)**

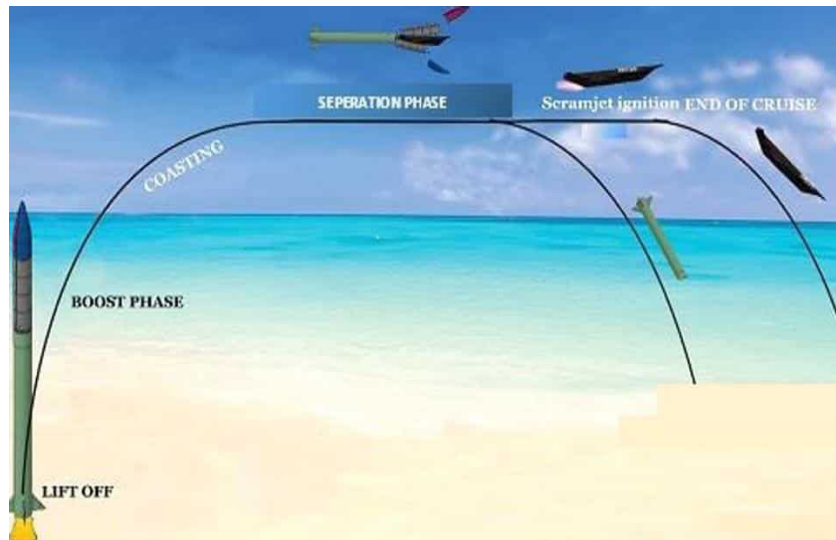
### What's the NEWS

- DRDO has successfully flight tested the Hypersonic Technology Demonstrator Vehicle using the indigenously developed scramjet propulsion system.
- India became the fourth country after the United States, Russia and China to develop and successfully test hypersonic technology from APJ Abdul Kalam testing range (Wheeler Island) in Balasore, Odisha.

### Know! more about the hypersonic missile with scramjet engine

- This indigenous technology will pave the way towards development of missiles travelling at six times the speed of sound (Mach 6).
- The test of Hypersonic Test Demonstrator Vehicle (HSTDV), developed by Defence Research and Development Organisation (DRDO) was conducted using the **Agni missile booster** and lasted for five minutes.

- DRDO will now have the capacity to develop a hypersonic missile with scramjet engine in next five years, which will have the capacity to travel at more than two kilometres per second.
- The Agni missile booster took the hypersonic vehicle to height of 30 km after which the latter separated.



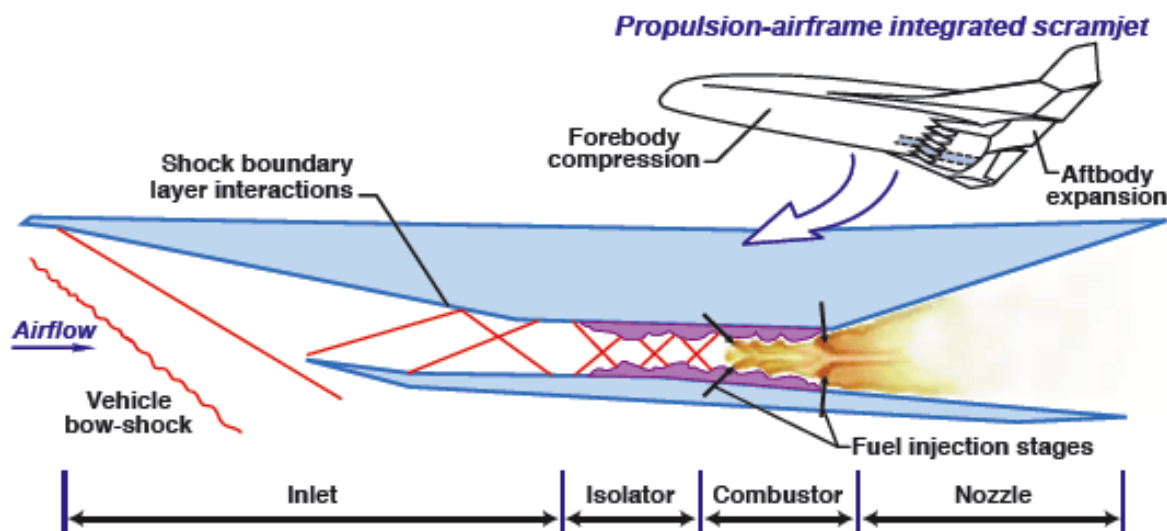
- Thereafter, the vehicle's air intake opened and that led to successfully firing of the test scramjet engine.
- The combustion lasted for more than 20 seconds with the vehicle achieving a speed of Mach 6.

### Hypersonic Technology Demonstrator Vehicle

- The HSTDV is an unmanned scramjet demonstration aircraft for hypersonic speed flight.
- Besides its utility for long-range cruise missiles of the future, the technology has multiple civilian applications also.
- It can be used for launching satellites at low cost too.
- The HSTDV cruise vehicle is mounted on a solid rocket motor, which will take it to a required altitude, and once it attains certain mach numbers for speed, the cruise vehicle will be ejected out of the launch vehicle.
- Subsequently, the scramjet engine will be ignited automatically.
- The scramjets are a variant of a category of jet engines called the air breathing engines.
- Hypersonic speeds are those which are five times or more than the speed of sound.
- In this test the hypersonic combustion sustained and the cruise vehicle continued on its desired flight path at a velocity of Mach 6 for a period of 20 seconds.

### Know! about Scramjet Engine

- A scramjet is a supersonic combustng ramjet.
- This is a variant of a ramjet jet engine in which combustion takes place in supersonic airflow.
- Rocket engine – It carries its own supply of oxygen for combustion (less energy efficient)
- Jet engine – It utilizes oxygen from the atmosphere for combustion. (high energy efficient)
- A ramjet operates by combustion of fuel in a stream of air compressed by the forward speed of the aircraft itself, as opposed to a normal jet engine, in which the compressor section (the fan blades) compresses the air.
- The air flow through a ramjet engine is subsonic, or less than the speed of sound. Ramjet-propelled vehicles operate from about Mach 3 to Mach 6.
- **A scramjet (supersonic-combustion ramjet)** is a ramjet engine in which the airflow through the engine remains supersonic, or greater than the speed of sound.
- Scramjet powered vehicles are envisioned to operate at speeds up to at least Mach 15.



## Defence: All about Special Frontier Force, the secretive Indian unit in news after Ladakh clash

**Relevance IN – Prelims (about Establishment 22: A special frontier force) + Mains (GS III Security challenges and their management in border areas)**

### What's the NEWS

- Establishment 22: A special frontier force trained in mountain warfare.
- Recent operation on the south bank of Pangong Tso has brought into limelight the possible role of 'Establishment 22'

### Know! all about Special Frontier Force (SFF)

- A secret force also known as the Special Frontier Force (SFF) under the administrative control of the Cabinet secretariat and the PMO.
- Raised towards the end of the 1962 war, SFF's commandos are drawn from Tibetan refugees settled in India.
- They were **initially trained by the Intelligence Bureau, RAW and CIA** for covert operations behind enemy lines.
- In the first few decades after it was raised, the force was used to keep an eye on Chinese plans to deploy nuclear warheads.
- The SFF has played an important role in multiple military operations — from the 1971 India-Pakistan war to the 1999 Kargil battle — **but has largely functioned under the shadows.**
- **SFF units, also known as Vikas battalions**, come under the direct purview of the Cabinet Secretariat, and is operationally involved with the Army.
- The force and is headed by a Major General rank Army officer, who serves as Inspector General of the SFF.
- The **SFF is based in Chakrata, Uttarakhand**, and its insignia is a snow lion. The exact strength of the force right now could not be determined.
- The **Vikas battalions** also played a critical role in the 1984 Operation Blue Star and the capture of Siachen Glacier in 1984, besides the Kargil battle of 1999.
- The first public acknowledgement of its existence reportedly came after SFF personnel participated in an abortive operation with the CIA in 1965 to place a nuclear-powered device on **Mount Nanda Devi to monitor China's nuclear weapons tests.**

# New and Renewable Energy: First World Solar Technology Summit



**Relevance IN – Prelims (about the World Solar Technology Summit) + Mains (GS III environment conservation +infrastructure development – energy)**

## What's the NEWS

- World Solar Technology Summit (WSTS) organised by **ISA and FICCI** aims to bring together key stakeholders - leading academic scientists, technology developers, researchers and innovators to present and discuss the recent highlights of **solar technologies, cost-wise; technology-wise, technology transfers**, challenges and concerns in the field.

## Know! about WSTS

- The main objective of WSTS is to showcase to member countries the **state of the art and next-generation solar technologies** worldwide and to give an opportunity to decision-makers and stakeholders to meet, and discuss their own priorities and strategic agenda towards a larger integration.
- WSTS will be marked by the presence of high -level representatives of the International Renewable Energy Agency (IRENA) and the International Energy Agency (IEA).
- The Federation of Indian Chambers of Commerce and Industry (FICCI), as the convenor of ISA Global Leadership Task Force on Innovation, is working with ISA in organizing the summit.
- More than 26000 participants from 149 countries have registered to join the virtual Summit.

## World Solar Technology Summit (key agreements)

- A tripartite agreement between India's Ministry of New and Renewable Energy, the World Bank and the International Solar Alliance.
- ISA's technology journal, Solar Compass 360 will also be launched.
- The inaugural will witness the rolling of an action- packed agenda with the conclusion and announcement of

## Three agreements between

- ISA and International Institute of Refrigeration
- ISA and Global Green Growth Institute
- ISA and National Thermal Power Corporation.

## Know! the steps taken by India

- India has enhanced its installed renewable capacity by 2.5 times and increased our solar installed capacity by more than 13 times.
- Globally India now ranks 4<sup>th</sup> in terms of Renewable power.
- India has scaled our non-fossil fuel-based power generations to 134GW, which is about 35 % of our total power generation. (target - increasing it to 220 GW by 2022)



- A scheme named KUSUM that aims to replace the use of diesel in our farm sector with solar energy.
- Under this scheme, the government has targeted the solarisation of 2.8 million irrigation pumps.
- India is providing capacity building support to ISA member countries through its ITEC training programme.
- India has also set up a Project Preparation Facility to develop bankable Solar Energy projects in ISA member countries with the help of EXIM Bank of India.
- Government had announced in 2018 about US \$1.4 Billion worth of lines of credit (LOCs) for covering 27 solar projects across 15 countries.
- The ISA is a part of “One Word One Sun One Grid” project.
- Petroleum and Natural Gas, announced that five Public Sector Undertakings (PSUs) under Petroleum & Natural Gas Ministry will be joining International Solar Alliance (ISA)’s Coalition for Sustainable Climate Action (ISA-CSCA) as Corporate Partners.
- Oil and Natural Gas Corporation Limited (ONGC), Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL), Hindustan Petroleum Corporation Limited (HPCL) and GAIL (India) Limited will be contributing to ISA’s Corpus Fund.

### Know! about ISA

- The International Solar Alliance (ISA) is a **treaty-based international intergovernmental organization**.
- ISA was jointly launched by India and France in the presence of Secretary General of the UN during CoP21.
- The Paris Declaration establishes ISA as an alliance dedicated to the promotion of solar energy among its Member Countries.
- The major objectives of the organization include deployment of 1000 GW of solar capacity and mobilization of US\$ 1000 billion of investment in solar energy sector by 2030.
- As an action-oriented organization, ISA intends to bring together member countries to aggregate demand and realise economies of scale, resulting in reduction of costs of solar applications, facilitating deployment of existing solar technologies at scale, and promoting collaborative solar R&D and capacity.
- As on June 26 2020, the ISA Framework Agreement has been signed by 86 countries, with 68 having also deposited instruments of ratification.
- The ISA is headquartered at Gurugram in Haryana, India. Mr. UpendraTripathy is the Director General.

## Science and Technology: A DBT-supported Facility For Viral Immunogenicity Testing, NIBEC Inaugurated

**Relevance IN – Prelims (about NIBEC and its role + about BIRAC + National Biopharma Mission + IRSHA) + Mains (GS III Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights)**

### What’s the NEWS

- National Immunogenicity & Biologics Evaluation Center, a facility supported by the Department of Biotechnology (DBT) was inaugurated in Pune.
- For assessing the clinical immunogenicity of viral vaccines, a facility, the National Immunogenicity & Biologics Evaluation Center (NIBEC) has begun operations after it was inaugurated through an e-inauguration.
- The facility is established jointly by BIRAC-DBT, the Government of India through the National Biopharma Mission, and Bharati Vidyapeeth University through the Interactive Research School for Health Affairs (IRSHA), its constituent unit.

### Know! about NIBEC

- NIBEC has laboratories of different biosafety levels that carries out key immunogenicity evaluation tests developed, standardized, and validated for SARS-CoV-2 viruses.
- The laboratory has already begun to closely associate with institutes engaged in vaccine developments nationally and internationally, and with leading vaccine manufacturing companies in India.
- NIBEC DBT-supported Facility in Pune **for testing viral immunogenicity Vaccine development** requires extensive evaluation in humans to establish safety, immunogenicity and clinical efficacy.

- Centralised Viral and Bacterial clinical Immunogenicity labs meeting the stringent GCLP standards were therefore identified as a critical need for the vaccine Industry.

### **Know! about DBT**

- The Department of Biotechnology (DBT), under the Ministry of Science & Technology, promotes and accelerates the development of biotechnology in India, including growth and application of biotechnology in the areas of agriculture, healthcare, animal sciences, environment and industry.

### **Know! about BIRAC:**

- Biotechnology Industry Research Assistance Council (BIRAC) is a not-for-profit Section 8, Schedule B, Public Sector Enterprise, set up by Department of Biotechnology (DBT), Government of India as an Interface Agency to strengthen and empower the emerging Biotech enterprise to undertake strategic research and innovation, addressing nationally relevant product development needs.

### **Know! about National Biopharma Mission:**

- The Industry-Academia Collaborative Mission of Department of Biotechnology (DBT), Govt of India for accelerating discovery research to early development for Biopharmaceuticals approved by the Cabinet for a total cost US\$ 250 million and 50% co-funded by the **World Bank** is being implemented at Biotechnology Research Assistance Council (BIRAC).
- This program is dedicated to deliver affordable products to the nation with an aim to improve the health standards of India's population.
- National Biopharma Mission identifies the needs and gaps of Biotherapeutics, Vaccine and Devices Industry and address those capacity bottlenecks.
- Vaccines, medical devices and diagnostics and biotherapeutics are few of its most important domains, besides, strengthening the clinical trial capacity and building technology transfer capabilities in the country.

### **Know! about IRSHA:**

- Interactive Research School for Health Affairs (IRSHA) is a unique constituent unit of Bharati Vidyapeeth (Deemed to be University), totally dedicated to research.
- The institute was established in 2001. The institute is mandated to conduct research in priority areas of human health in co-ordination with other constituents of the university like Medical, Ayurveda, Homeopathy, Dental colleges, Rajiv Gandhi Institute of IT & BT, Environmental sciences etc.

## **Government Schemes: Pradhan Mantri Matsya Sampada Yojana**

***Relevance IN – Prelims (about PMMSY +inaugurations related to fisheries and animal husbandries)+ Mains (GS III issues of buffer stocks and food security; Technology missions; economics of animal-rearing.)***

### **What's the NEWS**

- Prime Minister digitally launched the Pradhan Mantri Matsya Sampada Yojana (PMMSY)
- He also launched e-Gopala App**, a comprehensive breed improvement marketplace and information portal for direct use of farmers.
- Several other initiatives in the fisheries and animal husbandry sectors in Bihar launched by the Prime Minister.

### **Pradhan Mantri Matsya Sampada Yojana**

- The Pradhan Mantri Matsya Sampada Yojana (PMMSY) is a flagship scheme for focused and sustainable development of fisheries sector in the country with an estimated investment of Rs. 20,050 crores for its implementation **during a period of 5 years from FY 2020-21 to FY 2024-25** in all States/Union Territories, as a part of AatmaNirbhar Bharat Package.
- PMMSY aims at enhancing fish production by an additional 70 lakh tonne by 2024-25, increasing fisheries export earnings to Rs.1,00,000 crore by 2024-25, doubling of incomes of fishers and fish farmers.
- PMMSY scheme primarily focuses on adopting '**Cluster or Area based approaches**' and creation of Fisheries clusters through backward and forward linkages.
- Special focus will be given for employment generation activities such as seaweed and ornamental fish cultivation.

## Other inaugurations related to Fisheries sector

- **Establishment of Fish Brood Bank** at Sitamarhi, and of Aquatic Disease Referral Laboratory at Kishanganj, for which assistance has been provided under PMMSY.
- These facilities will help in enhancing production and productivity of fish by ensuring timely availability of quality and affordable fish seed.
- The P.M inaugurated **one-unit fish feed mill at Madhepura and two units of 'Fish on Wheels'** assisted at Patna under Blue Revolution.
- The PM also inaugurate the **Comprehensive Fish Production Technology Centre** at Dr. Rajendra Prasad Central Agricultural University, Pusa, Bihar.
- The Center, with facilities for Seed production technology and demonstration unit technology for fish, referral laboratory and diagnostic testing, will facilitate in boosting fish production and assist in capacity building of fish farmers.

## e-Gopala App

- e-Gopala App is a comprehensive **breed improvement marketplace and information portal for direct use of farmers.**
- At present no digital platform is available in the country for farmers managing livestock including buying and selling of disease free germplasm in all forms (semen, embryos, etc); availability of quality breeding services (Artificial Insemination, veterinary first aid, vaccination, treatment etc) and guiding farmers for animal nutrition, treatment of animals using appropriate ayurvedic medicine/ethno veterinary medicine.
- There is no mechanism to send alerts (on due date for vaccination, pregnancy diagnosis, calving etc) and inform farmers about various government schemes and campaigns in the area.
- The e-Gopala App will provide solutions to farmers on all these aspects.

## Other inaugurations related to Animal Husbandry sector

- Prime Minister inaugurated **Semen Station** with state of the art facilities, which has been established under Rashtriya Gokul Mission in Purnea,
- This is one of the largest semen stations in the government sector with production capacity of 50 lakh semen doses per annum.
- Prime Minister also launched use of sex sorted semen in artificial insemination under Rashtriya Gokul Mission by Baroni Milk Union in Begusarai district of Bihar.
- Through use of sex sorted semen in AI, only female calves can be produced (with more than 90% accuracy).
- This will help double the growth rate of milk production in the country.

## Infrastructure Development/e-governance: SAROD-Ports

**Relevance IN – Prelims (about SAROD – Ports + about MCA + landlord port model) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation. + GS III infrastructure development)**

### What's the NEWS

- Union Minister of State for Shipping launched 'SAROD-Ports' (Society for Affordable Redressal of Disputes - Ports)

### Know! about SAROD-Ports

- SAROD-Ports will resolve the disputes in fair and just manner while saving huge amount of legal expenditure and time.
- SAROD-Ports will inspire confidence in the private players and will ensure right kind of environment for our partners.

## 'SAROD-Ports'

Society for Affordable Redressal of Disputes - Ports

**Objectives:**

- Affordable and timely resolution of disputes in fair manner.
- Enrichment of Dispute Resolution Mechanism with the panel of technical experts as arbitrators.

**Benefits:**

- More investor- friendly for port projects
- Attractive investment climate in Port Sector

[MansukhMandviya](#) [www.MansukhMandviya.in](http://www.MansukhMandviya.in)

- It will promote ease of doing business in the maritime sector because of the fast, timely, cost effective and robust dispute resolution mechanism.
- SAROD-Ports is established under Societies Registration Act, 1860 with the following objectives:*
1. Affordable and timely resolution of disputes in fair manner.
  2. Enrichment of Dispute Resolution Mechanism with the panel of technical experts as arbitrators.
- SAROD-Ports consists members from Indian Ports Association (IPA) and Indian Private Ports and Terminals Association (IPTTA).
  - SAROD-Ports will advise and assist in settlement of disputes through arbitrations in the maritime sector, including ports and shipping sector in Major Port Trusts, Non-major Ports, including private ports, jetties, terminals and harbours.
  - It will also cover disputes between granting authority and Licensee/Concessionaire/Contractor.
  - 'SAROD-Ports' is similar to provision available in Highway Sector in the form of SAROD-Roads constituted by NHAI.

### Connect to the past

- The Union Cabinet has approved amendments in the **Model Concession Agreement (MCA)**.
- In January, 2018, the amendments in the MCA, envisaged constitution SAROD-PORTS as dispute resolution mechanism for PPP Projects in the Major Ports.
- All major Ports are shifting towards '**Landlord Model**' in the days to come.

### Model Concession Agreement (MCA)

- It forms the core of public private partnership (PPP) projects in India.
- The MCA spells out the policy and regulatory framework for implementation of a PPP project.
- It addresses a gamut of critical issues pertaining to a PPP framework like mitigation and unbundling of risks; allocation of risks and returns; symmetry of obligations between the principal parties; precision and predictability of costs & obligations; reduction of transaction costs and termination.
- The MCA allocates risk to parties best suited to manage them.
- The Model Concession Agreements for various sectors like National Highways, State Highways, Urban Rail Transit System and Ports are available.

### Know! about service port model and landlord port model

- The 11 ports owned by the Indian government and run as trusts widely follow a hybrid format of the long obsolete service port model and the preferred landlord model of port management followed globally.
- **In the service port model**, the port authority owns the land and all available assets—fixed and mobile—and performs all regulatory and port functions.
- Here, the port trust is both the landlord and the cargo terminal operator.
- **In the landlord port model**, the publicly governed port authority acts as a regulatory body and as landlord while private companies carry out port operations—mainly cargo-handling activities.
- Here, the port authority maintains ownership of the port while the infrastructure is leased to private firms that provide and maintain their own superstructure and install own equipment to handle cargo.
- In return, the landlord port gets a share of the revenue from the private entity.

## Economy: India Post launches Five Star Villages Scheme to ensure 100% rural coverage of postal schemes

**Relevance IN – Prelims (about Five Star Villages Scheme) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation + GS III financial inclusion)**

### What's the NEWS

- The Department of Posts has launched a scheme called **Five Star Villages**, to ensure universal coverage of flagship postal schemes in rural areas of the country.



## Know! about Five Star Villages Scheme

- The scheme seeks to bridge the gaps in public awareness and reach of postal products and services, especially in interior villages.
- All postal products and services will be made available and marketed and publicized at village level, under the Five Star Villages scheme.
- Branch offices will function as one-stop shop to cater all post office - related needs of villagers.
- The schemes covered under the Five Star scheme include:
- If a village attains universal coverage for four schemes from the above list, then that village gets four-star status; if a village completes three schemes, then that village get three-star status and so on.
- The scheme is being launched on **pilot basis in Maharashtra**; based on the experience here, it will be implemented nation-wide.
- The scheme will be implemented by a team of five **Gramin Dak Sevaks** who will be assigned a village for marketing of all products, savings and insurance schemes of the Department of Posts.
- The team of Gramin Dak Sevaks will conduct door-to-door awareness campaign on all schemes, covering all eligible villagers.
- Required training and infrastructure, covering all schemes, would be provided to all branch offices in identified villages.

Categories-Postal Schemes	Strategy
<ol style="list-style-type: none"><li>1. Savings Bank (SB/RD/TD/MIS or NSC/KVP)</li><li>2. Sukanya Samruddhi Account/PPF Account</li><li>3. Funded POSA linked IPPB Account</li><li>4. Postal Life Insurance/ Rural Postal Life Insurance Policy</li><li>5. Pradhan Mantri Suraksha Bima Yojana / Pradhan Mantri Jeevan Jyoti Bima Yojana</li></ol>	<ul style="list-style-type: none"><li>➤ Formation of dedicated Teams</li><li>➤ Infrastructure / Equipments</li><li>➤ Training</li><li>➤ Campaign</li><li>➤ Involvement of local Functionaries</li><li>➤ Monitoring</li><li>➤ Recognition of Achievements</li></ul>

## Science & Technology: National Science and Technology Entrepreneurship Development Board (NSTEDB)

**Relevance IN – Prelims (about NSTEDB + NIDHI + CAWACH) + Mains (GS III awareness in the field of science and technology)**

### What's the NEWS

- A report on the journey of the **National Science and Technology Entrepreneurship Development Board (NSTEDB)** in catalyzing **innovation, entrepreneurship, and incubation** was launched by the Secretary Department of Science and Technology.

### Know! the role played by NSTEDB

- The Department of Science and Technology (DST) has played a significant role in **fostering and nurturing the fledgling startup ecosystem** by steering it through its strong network of Incubators through the National Science and Technology Entrepreneurship Development Board (NSTEDB).
- The concerted efforts of NSTEDB, DST during last 5 years for supporting innovation-driven entrepreneurship and fuelling incubation activity in institutions of higher learning has gained momentum and traction with speed and scale.

- Programs like **National Initiative for Developing and Harnessing Innovation (NIDHI-)** initiated by NSTEDB, aligning its activities with the National Initiative of Startup India and Standup India has played a significant role in energizing the incubator led innovation value chain.
- The collective strength and power of NIDHI program, the DST Incubator network and its startups was tested successfully during the COVID 19 pandemic through **the Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) program** by supporting various solutions to resolve the crisis.

### **Know! about National Science & Technology Entrepreneurship Development Board (NSTEDB)**

- It was established in 1982 by the Government of India under the aegis of Department of Science & Technology.
- It is an institutional mechanism to help promote knowledge driven and technology intensive enterprises.
- The Board, having representations from socio-economic and scientific Ministries/Departments, aims to convert “job-seekers” into “job-generators” through Science & Technology (S&T) interventions.

### **Objectives:**

- To promote and develop high-end entrepreneurship for S&T manpower as well as self-employment by utilising S&T infrastructure and by using S&T methods.
- To facilitate and conduct various informational services relating to promotion of entrepreneurship.
- To network agencies of the support system, academic institutions and Research & Development (R&D) organisations to foster entrepreneurship and self-employing using S&T with special focus on backward areas as well.
- To act as a policy advisory body with regard to entrepreneurship.

### **Know! about NIDHI (National Initiative for Development and Harnessing Innovations)**

- It is an umbrella programme conceived and developed by the Innovation & Entrepreneurship division, Department of Science & Technology, Government of India, **for nurturing ideas and innovations (knowledge-based and technology-driven) into successful startups.**
- The programme would work in line with the national priorities and goals and its focus would be to build an innovation driven entrepreneurial ecosystem with an objective of socio-economic development through wealth and job creation.
- NIDHI aims to nurture start-ups through scouting, supporting and scaling of innovations.
- The key stakeholders of NIDHI includes various departments and ministries of the central government, state governments, academic and R & D institutions, mentors, financial institutions, angel investors, venture capitalists and private sectors.
- NIDHI is developed keeping in line the new national aspirations and on the basis of DST's experience of three decades, in promoting innovative start-ups.

*The key components of NIDHI are –*

1. NIDHI-GCC - **Grand Challenges and Competitions** for scouting innovations;
2. NIDHI-**P**romotion and **A**cceleration of **Y**oung and **A**spiring technology entrepreneurs (NIDHI-PRAYAS) - Support from Idea to Prototype;
3. NIDHI- **E**ntrepreneur **I**n **R**esidence (NIDHI-EIR) - Support system to reduce risk;
4. Startup-NIDHI through Innovation and Entrepreneurship Development Centres (IEDCs) in academic institutions; encouraging Students to promote start-ups;
5. Start-up Centre in collaboration with MHRD; Inculcating a spirit of entrepreneurship in National Institutions of Higher Learning;
6. NIDHI-**T**echnology **B**usiness **I**ncubator (TBI) - Converting Innovations to start- ups;
7. NIDHI-Accelerator - Fast tracking a start-up through focused intervention;
8. **NIDHI-Seed Support System (NIDHI-SSS)- Providing early stage investment;**
9. NIDHI **C**entres **o**f **E**xcellence (NIDHI-CoE) - A World class facility to help startups go global;

## Economy: EASE 2.0 Index

**Relevance IN – Prelims (about EASE Banking Reforms Index+ reforms taken by PSBs) + Mains (GSIII Economic development)**

### What's the NEWS

- Union Finance Minister inaugurated Doorstep Banking Services by Public Sector Banks (PSBs), **to provide the convenience of banking services to people at their doorsteps.**
- The services can be rendered by doorstep banking agents deployed by selected Service providers at 100 centres across the country.
- The Finance Minister also **participated in the awards ceremony to felicitate best performing banks on EASE Banking Reforms Index.**

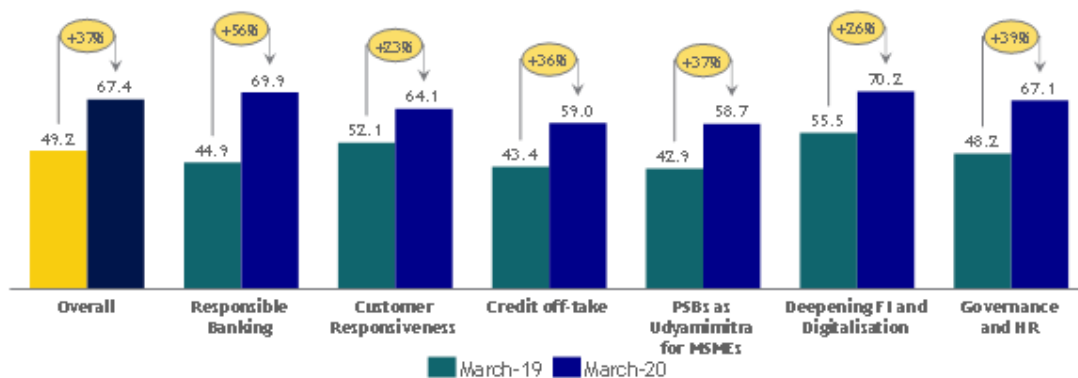
### Doorstep Banking Services by PSBs

- Doorstep Banking Services is envisaged to provide convenience of banking services to the customers at their door step through the universal touch points of Call Centre, Web Portal or Mobile App.
- At present only non-financial services viz. Pick up of negotiable instruments (cheque / demand draft / pay order, etc.), Pick up new cheque book requisition slip, etc are available to customers. **Financial services shall be made available from October 2020.**
- The services can be availed by customers of Public Sector Banks at nominal charges.
- The services shall benefit all customers, particularly Senior Citizens and Divyangs who would find it at ease to avail these services.

### Performance of PSB on EASE 2.0 Index

- The overall score of PSBs increased by 37% between March-2019 and March-2020
- Significant progress is seen across **six themes of the Reforms Agenda**, with the highest improvement seen in the themes of **'Responsible Banking', 'Governance and HR', 'PSBs as Udyamimitra for MSMEs', and 'Credit off-take'.**

### Strong progress across themes



Note: Average scores out of 100. Mar-19 baseline scores revised to ensure comparability

- **Bank of Baroda, State Bank of India, and erstwhile Oriental Bank of Commerce** were felicitated for being the top three (in that order) in the **'Top Performing Banks'** category according to the EASE 2.0 Index Results.
- **Bank of Maharashtra, Central Bank of India & erstwhile Corporation Bank** were awarded in the 'Top Improvers' category basis EASE 2.0 Index.
- **Punjab National Bank, Union Bank of India, and Canara Bank** were also recognized for outstanding performance in select themes.

## Top 3 banks in each theme

<b>Top 3 banks for EASE 2.0 Index</b> <ul style="list-style-type: none"> <li>Bank of Baroda</li> <li>State Bank of India</li> <li>Oriental Bank of Commerce</li> </ul>	<b>Theme 1: Responsible Banking</b> <ul style="list-style-type: none"> <li>Bank of Baroda</li> <li>State Bank of India</li> <li>Punjab National Bank</li> </ul>	<b>Theme 4: UdyamiMitra for MSMEs</b> <ul style="list-style-type: none"> <li>Oriental Bank of Commerce</li> <li>State Bank of India</li> <li>Union Bank of India</li> </ul>
<b>Top 3 banks in improvement from March baseline</b> <ul style="list-style-type: none"> <li>Bank of Maharashtra</li> <li>Central Bank of India</li> <li>Corporation Bank</li> </ul>	<b>Theme 2: Customer Responsiveness</b> <ul style="list-style-type: none"> <li>State Bank of India</li> <li>Oriental Bank of Commerce</li> <li>Bank of Baroda</li> </ul>	<b>Theme 5: Deepening FI &amp; Digitalisation</b> <ul style="list-style-type: none"> <li>Bank of Baroda</li> <li>Canara Bank</li> <li>Punjab National Bank</li> </ul>
	<b>Theme 3: Credit Off-take</b> <ul style="list-style-type: none"> <li>Oriental Bank of Commerce</li> <li>Union Bank of India</li> <li>State Bank of India</li> </ul>	<b>Theme 6: Governance and HR</b> <ul style="list-style-type: none"> <li>State Bank of India</li> <li>Bank of Baroda</li> <li>Punjab National Bank</li> </ul>

Note: Only banks with  $\geq 80\%$  of total weight for a theme applicable for them are considered for ranking

## Major Reform achievements

- Gross NPAs reduced from **°8.96 lakh crore** in March-2018 to **°6.78 lakh crore** in March-2020
- Record recovery of **2.27 lakh crore** in FY19-FY20 driven by newly setup dedicated stressed account management verticals in PSBs;
- Asset quality has improved significantly, with the net NPA ratio reducing from 7.97% in March 2018 to 3.75% in March 2020
- Number of PSBs under PCA down to three;
- CRAR **197 bps** above the regulatory minimum; and
- The highest provision coverage ratio of **80.9%** in eight years.
- PSBs have adopted digital platforms such as online OTS, e-Bकप, e-DRT for expedited recovery. **88% of one-time settlement (OTS) cases are now tracked through dedicated IT systems.**
- PSBs have adopted new ways of credit, such as PSBloansin59minutes.com and Trade Receivables Discounting System (TReDS) for digital lending for MSMEs and retail. **73% of all PSB inland bills are now discounted through online TReDS.**

## EASE Banking Reforms Index

- A common reform agenda for PSBs, EASE Agenda is aimed at institutionalizing clean and smart banking.
- It was launched in January 2018
- EASE 2.0 built on the foundation laid in EASE 1.0 and furthered the progress on reforms.
- Reform Action Points in EASE 2.0 aimed at making the reforms journey irreversible,
- The Index measures the performance of each PSB on **120+ objective metrics** across six themes.
- It provides all PSBs a comparative evaluation showing where banks stand vis-à-vis benchmarks and peers on the Reforms Agenda.
- The Index follows a fully transparent scoring methodology, which enables banks to identify precisely their strengths as well as areas for improvement.





## Connect to the Past (February 2020)

- FM Nirmala Sitharaman launches Ease 3.0 for tech-enabled banking.
- This move is expected to change the customer's experience at the Public Sector Banks (PSBs).
- Ease (Enhanced Access and Service Excellence) 3.0 reform agenda aims at providing smart, tech-enabled public sector banking for aspiring India.

### EASE 3.0: Digital & data-driven PSBs



## Infrastructure Development: Climate Smart Cities Assessment Framework (CSCAF 2.0) and Streets for People Challenge launched

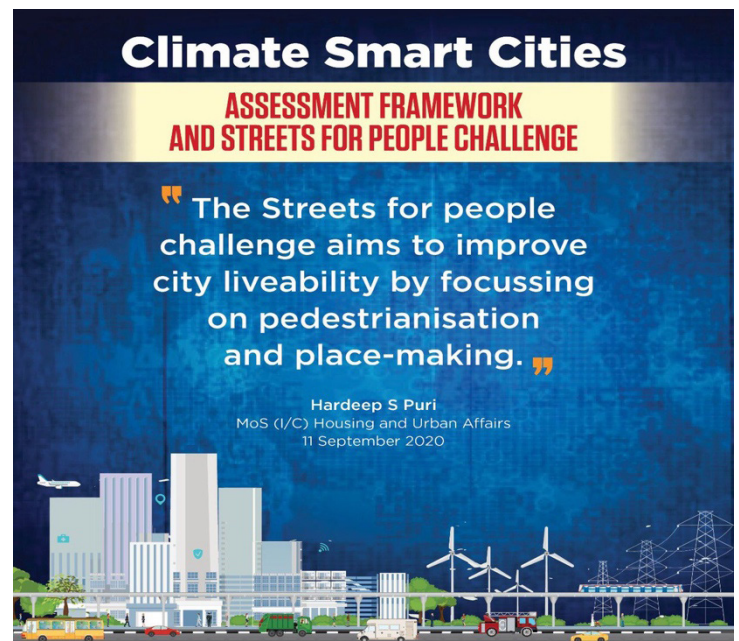
**Relevance IN – Prelims (about CSCAF 2.0 + Streets for People Challenge) + Mains (GS III Infrastructure development)**

### What's the NEWS

- The Minister of State for Housing and Urban Affairs has launched the Climate Smart Cities Assessment Framework (CSCAF) 2.0, along with the 'Streets for People Challenge' in a virtual event organized by the Smart Cities Mission.

### Know! about CSCAF

- The objective of CSCAF is to provide a clear roadmap for cities towards combating Climate Change while planning and implementing their actions, including investments.
- CSCAF initiative intends to inculcate a **climate-sensitive approach to urban planning and development in India.**



- This assessment framework was developed after review of existing frameworks and assessment approaches adopted throughout the world followed by series of extensive consultative process with more than 26 organizations and 60 experts from different thematic areas.

**The framework has 28 indicators across five categories namely;**

- (i) Energy and Green Buildings
- (ii) Urban Planning, Green Cover & Biodiversity
- (iii) Mobility and Air Quality
- (iv) Water Management and
- (v) Waste Management.
- The Climate Centre for Cities under National Institute of Urban Affairs (NIUA) is supporting MoHUA in implementation of CSCAF.

### Streets for People Challenge

- The Streets for People Challenge is the response to the need for making our cities more walkable and pedestrian friendly.
- The Challenge builds on the advisory issued by MoHUA for the holistic planning for pedestrian-friendly market spaces, earlier this year.
- The Challenge will support cities across the country to develop a unified vision of streets for people in consultation with stakeholders and citizens.
- It aims to inspire cities to create walking-friendly and vibrant streets through quick, innovative, and low-cost measures.
- All cities participating in the challenge shall be encouraged to use the 'test-learn-scale' approach to initiate both, flagship and neighbourhood walking interventions.
- **Fit India Mission, under Ministry of Youth Affairs and Sports, along with the India program of the Institute for Transport Development and Policy (ITDP) have partnered with the Smart Cities Mission to support the challenge.**

## Science & Technology: Million Minds Augmenting National Aspirations and Knowledge (MANAK)



The poster for Inspire Awards - MANAK features a large silhouette of a human head in profile, filled with a grid of 10 numbered boxes. Each box contains a brief description of a competition stage. To the right of the head, the text 'inspire awards - manak' is written in a stylized font, followed by the tagline 'million minds augmenting national aspiration and knowledge'. Below this, the word 'INSPIRING' is written in large, bold, blue letters. To the right of 'INSPIRING', there is a section titled 'Who can apply?' which states: 'Any student enrolled in Class 6<sup>th</sup> to 10<sup>th</sup> at any recognised school, government or private, aided or unaided.' Below this, a blue banner with white text says 'Nominations are open' and the website 'www.inspireawards-dst.gov.in' is listed. The DST logo is visible in the top right corner.

**inspire awards - manak**  
million minds augmenting national aspiration and knowledge

**INSPIRING**

INSPIRE Awards-MANAK is an initiative to foster a culture of innovation and creative thinking amongst school students to address societal needs through Science and Technology

**Who can apply?**  
Any student enrolled in Class 6<sup>th</sup> to 10<sup>th</sup> at any recognised school, government or private, aided or unaided.

**Nominations are open**  
[www.inspireawards-dst.gov.in](http://www.inspireawards-dst.gov.in)

**Relevance IN – Prelims (about MANAK + about NIF) + Mains (GS III Achievements of Indians in science & technology; indigenization of technology and developing new technology.**

## What's the NEWS

- This year online nominations for 2020-21 have resumed from 1<sup>st</sup> June 2020. Since students are not able to attend schools due to COVID 19, DST has encouraged them to use this time for generation of innovative ideas which can be submitted to the online portal **[www.inspireawards-dst.gov.in](http://www.inspireawards-dst.gov.in)**.

## Know! all about MANAK

- **The Million Minds Augmenting National Aspirations and Knowledge (MANAK) programme** was launched by the Department of Science and Technology (DST) in partnership with the **National Innovation Foundation (NIF) in 2017**.
- It emphasises on the power of ideas in young minds to create a pipeline of innovative students who can recognise problems and find solutions to them.
- Aiming to harness the power of bright minds spread across 6 lakhs school in the country, DST invites students from government and private schools to send original and innovative ideas having potential to solve common problems.
- These ideas go through a tough screening and mentoring process at the school level, district, and state level to be selected for the National level competitions.
- Government efforts are triggering children with imaginative minds and encourages children to come up with solutions for day to day problems based on science and technology.
- Such ideas are being solicited by the Department of Science and Technology (DST), and meritorious ideas are rewarded with the award money of Rs 10,000 with option of showcasing it to district, state, and national level exhibition along with mentoring support.
- More than 3.8 lakh students from all States and Union Territories of the country have submitted their ideas in 2019.
- Out of these, a few are provided with financial support of Rs 10,000 each for developing prototypes.
- After a series of DLEPC (District Level Exhibition and Project Competition) and subsequent SLEPC (State Level Exhibition and Project Competition), some of them are selected to exhibit their ideas at a national level competition.

## Know! about National Innovation Foundation (NIF)

- India was set up in March 2000 with the assistance of **Department of Science and Technology, Government of India**.
- It is India's national initiative to strengthen the grassroots technological innovations and outstanding traditional knowledge.
- Its mission is to help India become a creative and knowledge-based society by expanding policy and institutional space for grassroots technological innovators.
- NIF scouts, supports and spawns' grassroots innovations developed by individuals and local communities in any technological field, helping in human survival without any help from formal sector.
- NIF helps grassroots innovators and outstanding traditional knowledge holders get due recognition, respect and reward for their innovations.

## Science & Technology: Binational Centres of department of Science & Technology

***Relevance IN – Prelims (about all three binational centres and their programmes) + Mains (GS II bilateral relations+ GS III awareness in the field of science and technology)***

### Know! about the binational centres

*Presently the Department of Science & Technology, Govt. of India is having three binational Centres namely*

1. Indo-French Centre for Promotional of Advanced Research (IFCPAR) established with France in 1987
  2. Indo-US Science & Technology Forum (IUSSTF) established in 2000 with USA and
  3. Indo-German Science & Technology Centre (IGSTC) established in 2010 under inter-governmental agreements.
- During last three years, the following new programmes have been launched by these binational Centres:



## Indo-US Science & Technology Forum:

### JCERDC Phase II program

- The “UI-ASSIST: U.S.-India collaborative for smart distribution System with Storage” project co-led by the Indian Institute of Technology, Kanpur and Washington State University,
- The project seeks to address critical issues related to adoption and deployment of smart grid concepts along with Distributed Energy Resources (DERs)

### River Water and Air Quality Monitoring (WAQM) system

- Recognizing the importance of developing **online River Water and Air Quality Monitoring (WAQM) systems**, Department of Science and Technology (DST), Government of India and Intel® collaborated to jointly initiate the Research Initiative for Real-time River Water and Air Quality Monitoring Program.

### WISTEMM

- The “**Indo-US Fellowship for Women in Science, Technology, Engineering, Mathematics and Medicine (WISTEMM)**” is a fellowship program, conceptualized by IUSSTF in partnership with the Department of Science & Technology (DST)
- To provide opportunities to bright Indian women students and scientists for capacity building, gain exposure and **access to excellent research facilities in U.S. academia and labs.**

## Indo-German Science & Technology Centre:

### IGST CCONNECT Plus Programme

- IGSTC and Alexander von Humboldt Foundation (AvH) jointly launched the IGST CCONNECT Plus Programme in May 2018.
- The Programme is **aimed at boosting Indo-German networking and long term collaboration** among the participants of the Indo-German Frontiers of Engineering Symposia (INDOGFOE), which is co-organised by the Department of Science and Technology (DST) and the Alexander von Humboldt Foundation.

## Defence/Cyber Security: Hybrid warfare



## Relevance IN - Prelims (about hybrid warfare) + Mains (GS III Cyber security)

### What's the NEWS

- An investigation by the *Indian Express* has revealed that a Shenzhen-based company Zhenhua Data Information Technology Co Limited, with reported links to the Chinese government, was monitoring over 10,000 Indian nationals and organisations.

### Know! about Hybrid warfare

- Also referred to as ‘non-linear warfare,’ hybrid warfare involves the use of non-conventional and irregular tactics to support conventional military force.
- The contours of hybrid warfare, a shift in the arena of violence from military to political, economic and technological.



- The new weapons in this war, closely linked to the lives of the common people.
- It is a military strategy which employs political warfare and blends conventional warfare, irregular warfare and cyberwarfare with other influencing methods such as **fake news, diplomacy, lawfare and foreign electoral intervention.**

## Environment: Global Initiative to reduce Land Degradation and Coral Reef program launched

**Relevance IN – Prelims (about the Environment Ministerial Meeting (EMM) of the G20 and the initiatives launched) + Mains (GS III Environment conservation)**

### What's the NEWS

- The Environment Ministerial Meeting (EMM) of the G20 countries took place under the Presidency of Kingdom of Saudi Arabia.
- Union Minister applauded the launch of **Global Initiative to Reduce Land Degradation and Coral Reef program** at the G20 Environment Ministers meeting.

### Global Initiative to Reduce Land Degradation

- The Global Initiative on Reducing Land Degradation aims to strengthen the implementation of existing frameworks **to prevent, halt, and reverse land degradation** within G20 member states and globally, taking into account possible implications on the achievement of other SDGs and adhering to the principle of doing no harm.

### Coral Reef program

- The Global Coral Reef R&D Accelerator Platform is an innovative action-oriented initiative aimed at **creating a global research and development (R&D) program** to advance research, innovation and capacity building in all facets of coral reef conservation, restoration, and adaptation.

### Know! other highlights

- G20 consists of 19 individual countries, including the US, Russia, China, Japan, Australia, Saudi, plus the European Union.
- The Paris accord was adopted by 195 parties at the UN climate conference “COP 21” held in the French capital in 2015 with an aim to reduce the hazardous greenhouse gas emissions.
- Nineteen members of the G20, except the US, have voiced their commitment to the full implementation of the deal.
- The objective of the Paris Agreement is to prevent an increase in global average temperature and keep it well below 2 degrees Celsius.
- United Nations had asked countries to have specific plans for how they intend to cut carbon emissions in line with the science, which says global greenhouse gas emissions must fall **45 per cent by 2030 and reach net zero by 2050** to avoid the worst impacts of climate change.

### Land Degradation

- Deterioration in the quality of land (its topsoil caused by excessive or inappropriate exploitation)

### Desertification

- Degradation of land in arid, semi-arid and dry sub-humid areas (Not the natural expansion of existing deserts)

## Agriculture & Farmers Welfare: Lok Sabha passes The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020 and The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020

**Relevance IN – Prelims (about the provisions of these two bills) + Mains (GS III farmers welfare- steps taken by the government)**

### What's the NEWS

- These two bills were introduced in Lok Sabha to replace the ordinances promulgated on 5<sup>th</sup> June 2020.



## Know! about these bills

### The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020

- An ecosystem where the **farmers and traders** enjoy the **freedom of choice** relating to sale and purchase of farmers' produce.
- It will facilitate remunerative prices through competitive alternative trading channels **to promote efficient, transparent and barrier-free inter-State and intra-State trade and commerce of farmers' produce** outside physical premises of markets or deemed markets notified under various State agricultural produce market legislations.

### Why it was needed

- Farmers in India suffered from various restrictions in marketing their produce.
- There were restrictions for farmers in selling agri-produce outside the notified APMC market yards.
- The farmers were also restricted to sell the produce only to registered licensees of the State Governments.
- Further, barriers existed in free flow of agriculture produce between various States owing to the prevalence of various APMC legislations enacted by the State Governments.

### Know! the Benefits

- The new legislation will create an ecosystem where the farmers and traders will enjoy freedom of choice of sale and purchase of agri-produce.
- It will also promote barrier-free inter-state and intra-state trade and commerce outside the physical premises of markets notified under State Agricultural Produce Marketing legislations.
- It will open more choices for the farmer, reduce marketing costs for the farmers and help them in getting better prices.
- It will also help farmers of regions with surplus produce to get better prices and consumers of regions with shortages, lower prices.
- The Bill also proposes an electronic trading in transaction platform for ensuring a seamless trade electronically.
- The farmers will not be charged any cess or levy for sale of their produce under this Act.
- Further there will be a separate dispute resolution mechanism for the farmers.

### One India, One Agriculture Market

- It aims at creating **additional trading opportunities outside the APMC market yards** to help farmers get remunerative prices due to additional competition.
- This will supplement the existing MSP procurement system which is providing stable income to farmers.
- It will certainly pave the way for creating One India, One Agriculture Market.



## The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020

- It seeks to provide for a national framework on farming agreements that protects and empowers farmers to engage with agri-business firms, processors, wholesalers, exporters or large retailers for farm services and sale of future farming produce at a mutually agreed remunerative price framework in a fair and transparent manner.

### Why it was needed

- Indian Agriculture is characterized by fragmentation due to small holding sizes and has certain weaknesses such as weather dependence, production uncertainties and market unpredictability.
- This makes agriculture risky and inefficient in respect of both input & output management.

### Benefits

- The new legislation will empower farmers for engaging with processors, wholesalers, aggregators, wholesalers, large retailers, exporters etc., on a level playing field without any fear of exploitation.
- It will transfer the risk of market unpredictability from the farmer to the sponsor and also enable the farmer to access modern technology and better inputs.
- It will reduce cost of marketing and improve income of farmers.
- This legislation will act as a catalyst to attract private sector investment for building supply chains for supply of Indian farm produce to national and global markets, and in agricultural infrastructure.
- Farmers will get access to technology and advice for high value agriculture and get ready market for such produce.
- Farmers will engage in direct marketing thereby eliminating intermediaries resulting in full realization of price.
- Farmers have been provided adequate protection. Sale, lease or mortgage of farmers' land is totally prohibited and farmers' land is also protected against any recovery.
- Effective dispute resolution mechanism has been provided for with clear time lines for redressal.

Historic Decisions to Transform Agriculture Sector

**The Farmers (Empowerment & Protection) Agreement on Price Assurance & Farm Services Bill, 2020 Passed by Lok Sabha**



- To empower farmers for engaging with processors, aggregators, large retailers, exporters etc. without any fear of exploitation
- Enable farmers to access modern technology & better inputs, will reduce cost of marketing & improve their income
- Will act as a catalyst to attract private sector investment for supply of Indian farm produce to global markets
- Allow direct marketing of farm produce thereby eliminating intermediaries resulting in full realization of price
- Adequate protection & effective dispute resolution mechanism provided to farmers with clear timelines

## Economy: Banking Regulation (Amendment) Bill passed in Lok Sabha to bring cooperative banks under RBI

**Relevance IN – Prelims (about Banking Regulation (Amendment) Bill, 2020 -highlights + about cooperative banks) + Mains (GS III financial inclusion)**

### What's the NEWS

- Lok Sabha passed the Banking Regulation (Amendment) Bill, 2020.
- The Bill proposes amendments to the Banking Regulation Act, 1949.

### Know! the highlights of the bill

- With this new Bill, the central government aims to bring cooperative banks under the supervision of the Reserve Bank of India (RBI).
- In June, the union cabinet approved the ordinance to bring 1,482 urban and 58 multi-state cooperative banks under the supervision of the central bank.

### Protecting Depositors

**KEY CHANGES**

**To protect interests of depositors** in cooperative banks

Seeks to improve governance, professionalise management

Seeks to empower RBI to reconstruct banks without moratorium


**RBI can supersede boards**, exempt them from provisions of the Act

**EXEMPTIONS**

**Applicable only to cooperatives** using term 'bank' or doing banking

Not applicable to primary agricultural credit societies

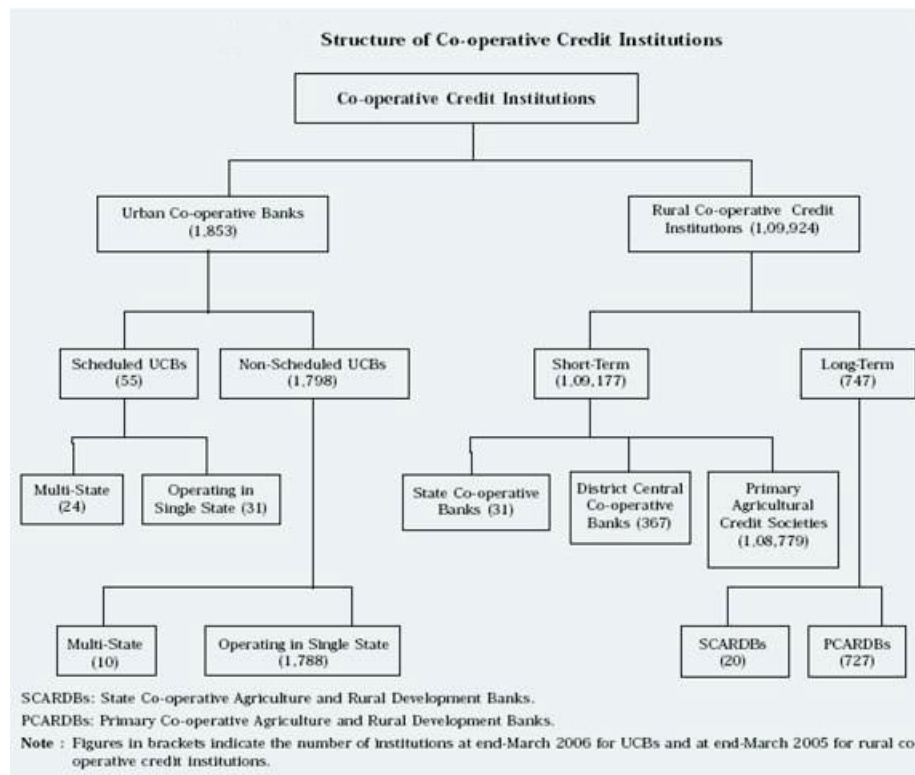
Not applicable to cooperatives providing long-term agricultural development finance



- This Bill does not regulate cooperative banks. The amendment is not for central govt to take over the cooperative banks.
- The bill aims to bring **co-operative banks under the supervision of the Reserve Bank of India (RBI)**.
- The bill will also permit the RBI to initiate a scheme for reconstruction or amalgamation of a stressed lender without imposing a moratorium.
- Prior to this amendment, if a lender was put under the moratorium, it not only capped the withdrawals by depositors, but also barred a bank's lending operations.
- The amendments **do not apply to Primary Agricultural Credit Societies (PACS) or co-operative societies whose primary object and principal business is long-term finance for agricultural development**, and which do not use the words "bank", "banker" or "banking".
- The bill also states that if a co-operative bank is registered with the Registrar of Co-operative Societies of a state, the central bank may supersede the lender's board after consultation with the concerned state government.

### Other Highlights

- A co-operative bank may issue equity, preference, or special shares on face value or at a premium to its members, via a public issue or private placement.
- The RBI has the authority to exempt a co-operative bank or a class of operative banks from certain provisions of the Act.
- The RBI may supersede the board of a multi-state co-operative bank for up to five years under certain conditions.



### Know! about Cooperative Banks (earlier provisions)

- Cooperative Banks are registered under the state Cooperative Societies Act.
- The Co-operative banks are also regulated by the Reserve Bank of India (RBI) and governed by the Banking Regulations Act 1949 and Banking Laws (Co-operative Societies) Act, 1955.
- Banking laws were made applicable to cooperative societies in 1966 through an amendment to the Banking Regulation Act, 1949.
- Since then banking related functions are regulated by RBI, management related functions are looked at by the respective State Governments/ Central Government.
- Powers have also been delegated to NABARD to conduct inspection of State and Central Cooperative banks.



- Many of the regulatory norms applicable to a commercial bank also apply to cooperative banks.
- Cooperative banks also have to set aside 4% as CRR and 18.75% under SLR.
- RBI has put in place a Supervisory Action Framework (SAF) in 2012. This is much like Prompt Corrective Action for commercial banks.
- Based on certain financial parameters such as capital adequacy, Gross NPAs, profitability etc., certain trigger points will be activated for corrective action.
- Co-operative banks are owned and controlled by the members, who democratically elect a board of directors. Members usually have equal voting rights, according to the cooperative principle of “one person, one vote”.

### Cooperative Banks (Problems)

- Weak Corporate Governance
- Lack of Professionalism
- Reluctance in technology adoption
- Dual control
- Not much capital to scale up
- Political connections

## Agriculture: SMAM Kisan Yojana 2020

**Relevance IN -Prelims (about SMAM Kisan Yojana 2020 and its objective) + Mains (GS III farmer's welfare)**

### What's the NEWS

- The Central government has launched the SMAM Kisan Yojana 2020, so that farmers across the country do not have any problem in farming.

### Know! about the Scheme

- Under this scheme, the government **helps farmers to buy tools for farming and gives them financial assistance** by giving subsidy up to 80 percent of the price of the tool or equipment.
- With the help of this SMAM Kisan Yojana 2020, farmers will be able to buy equipment easily and it will be easy to cultivate.

### Benefits of SMAM Kisan Yojana 2020

- All the farmers of the country can take advantage of this scheme.
- Under this, **50 to 80 percent subsidy** is available for purchasing farm equipment.
- For this, farmers have to apply online, after which they can get subsidy under this scheme.
- This makes it easier for farmers to buy farming equipment.
- With the help of these state-of-the-art equipment, farmers can keep their crops safe.
- Most of the benefits of the scheme will be given to the reserved (SC, ST, OBC) category.
- The farmers get the benefits of the scheme based on their economic status.

MINISTRY OF AGRICULTURE & FARMERS WELFARE  
GOVERNMENT OF INDIA

**Making Farming More Inclusive with Agricultural Mechanization**

Farm Machines at the door steps of farmers with Custom Hiring Centers Mobile App

Skill training of migrant labourers in Farm Mechanization through SMAM\*

Under "AatmaNirbhar Bharat Abhiyan" special drive for skill training migrant labourers of 116 identified districts in 6 States

India is the largest tractor manufacturer in the world with over 9 lakh units produced in 2019-20 & annual export of 92,000 units

\*Sub Mission on Agricultural Mechanization

#AatmaNirbharKrishi

Date: 8 August, 2020

## Environment: Eight beaches of India recommended for the coveted “Blue Flag” International eco-label.

**Relevance IN -Prelims (about International Coastal Clean-Up Day + SICOM + ICZM) + Mains (GS III environment conservation)**

### What's the NEWS

- On the eve of **International Coastal Clean-Up Day** which is celebrated across 100 countries since 1986, Union Ministry of Environment, Forest and Climate Change (MoEFCC) announced that **for the first time eight beaches of India are recommended for the coveted International eco-label, the Blue flag certification.**

- The recommendations are done by an independent National Jury composed of eminent environmentalists & scientists.

- Blue Flag beaches are considered the **cleanest beaches of the world**.

The eight beaches are

1. Shivrajpur in Gujarat
2. Ghoghla in Daman&Diu
3. Kasarkod beach in Karnataka
4. Padubidri beach in Karnataka
5. Kappad in Kerala
6. Rushikonda in Andhra Pradesh
7. Golden beach of Odisha and
8. Radhanagar beach in Andaman and Nicobar.



### Know! event highlights

- The event also saw the launch India's own eco-label *BEAMS* by e-hoisting the flag *#IAMSAVINGMYBEACH* simultaneously at these eight beaches.
- **SICOM, MoEFCC** in pursuit of promoting its policies for sustainable development in coastal regions have embarked upon a highly acclaimed program "*BEAMS*" (**Beach Environment & Aesthetics Management Services**) under its **ICZM (Integrated Coastal Zone Management) project**.
- This is one of the several other projects of ICZM that Govt of India is undertaking for the sustainable development of coastal regions, striving for globally recognized and the coveted eco-label '*Blue flag*'.

### Integrated Coastal Zone Management (ICZM)

- With a view to protect and conserve the coastal and marine ecosystems and environment through a holistic coastal management, **the Ministry of Environment, Forests & Climate Change launched the Integrated Coastal Zone Management (ICZM) activities in India**
- It *promotes sustainable development & management* of coastal zones **through its own wing SICOM**.
- The concept of ICZM was introduced in 1992 during the Earth Summit at Rio de Janeiro and most of the coastal countries in the World have been **adopting ICZM principles for managing their coastal zones**.
- India in keeping with its commitments to international agreements on ICZM by adopting its principles.

### Know! about BEAMS

- The objective of *BEAMS* program is to abate pollution in coastal waters, promote sustainable development of beach facilities, protect & conserve coastal ecosystems & natural resources, and seriously challenge local authorities & stakeholders to strive and maintain high standards of cleanliness, hygiene & safety for beachgoers in accordance with coastal environment & regulations.
- This program promotes beach recreation in absolute harmony with nature.

### International Coastal Cleanup Day

- International Coastal Cleanup Day got its start in 1986
- Linda Maraniss and Kathy O'Hara while working for Ocean Conservancy reached out to other ocean-lovers and organized a Cleanup.
- The first Cleanup consisted of 2,800 volunteers. Since that time, the Cleanup has grown into an international event in more than 100 countries.

### Society of Integrated Coastal Management (SICOM)

- It has been **established under the aegis of the Ministry of Environment, Forests and Climate change**, Government of India with a vision for vibrant, healthy and resilient Coastal and Marine Environment for continuous and enhanced outflow of benefits to the Country and the Coastal Community.

### Objective and Functions of SICOM

- To support the implementation of the Integrated Coastal Zone Management of India.
- To support to check violations to CRZ through improved technology-enabled enforcement strengthened institutions and regulatory and legal reforms.

- SICOM is the National Project Management Unit (NPMU) of India in strategic planning, management, execution, monitoring and successful implementation of **Integrated Coastal Zone Management Project and Enhancing Coastal and Ocean Resource Efficiency (ENCORE Project) in all 13 Coastal States / UTs of India.** (Maharashtra, Gujarat, Odisha, West Bengal, Andhra Pradesh, Tamil Nadu, Goa, Puducherry, Kerala, Karnataka, Daman and Diu, Andaman and Nicobar Island, Lakshadweep)
- SICOM has also embarked upon the **Pilot Blue Flag programme first time in India under Beach Environment & Aesthetic Management Services (BEAMS) for Pilot Beaches.**

## National: GRAND ICT CHALLENGE

**Relevance IN -Prelims (about ICT Grand Challenge) + Mains (GS II government policies and interventions + GS III Awareness in the fields of IT, Computers + infrastructure development)**



The poster for the ICT Grand Challenge features logos of the Government of India, Digital India, Ministry of Electronics and Information Technology, and the Jal Jeevan Mission. It also mentions support from CDAC, MEITY STARTUP, and the Smart India Hackathon (SIH). The central text reads: "ICT Grand Challenge" and "Grand challenge for development of smart water supply measurement & monitoring system". On the right, a box titled "Grand Challenge - Award:" lists the following details:

- Ideation to prototype stage : Funding for 10 selected teams @ Rs 7.5 Lakh each
- Prototype to product stage: Funding for 4 selected teams @ Rs 25 Lakh each
- Product deployment stage: Funding for 4 selected teams for Field trial, Testing, Deployment, Logistics & travel, sourcing & Installation (of Hardware & Software)
- Winner-1 @ Rs 50 Lakh and Runner-ups-2 @ Rs 20 Lakh each
- Incubation and Marketing support by MeitY and Jal Jeevan Mission
- Approved Solution - would be listed in GeM Portal

Registration Closes by - 5th October 2020

## What's the NEWS

- National Jal Jeevan Mission in partnership with Ministry of Electronics & Information Technology (MEITY) has launched an ICT Grand Challenge to create innovative, modular, and cost-effective solution to develop a 'Smart Water Supply Measurement and Monitoring System' to be deployed at the village level.

## ICT Grand Challenge (Digitisation of water supply infrastructure)

- The ICT grand challenge will be inviting proposal from Indian Tech start-ups, MSMEs, Indian Companies, Indian LLPs.
- Jal Jeevan Mission (JJM) aims at providing Functional Household Tap Connection (FHTC) **to every rural household by 2024.**
- The programme focuses on service delivery at the household level, i.e. water supply regularly in adequate quantity and of prescribed quality.
- This necessitates the use of modern technology in systematic monitoring of the programme and to capture service delivery data automatically for ensuring the quality of services.
- Digitisation of water supply infrastructure has the potential to solve some of the biggest societal problems facing the nation.

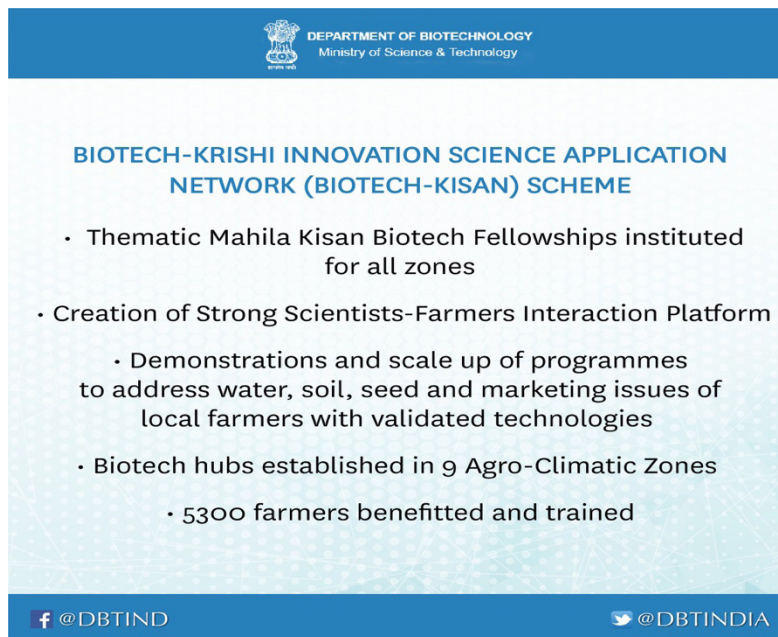
## Know! more about the challenge

- This grand challenge will harness the vibrant IoT eco-systems of India for creating smart rural water supply eco-system.
- This challenge will provide opportunity to work for cause of Jal Jeevan Mission and to assure potable water supply through Functional Household Tap Connections to every rural household.
- The Grand challenge will provide support at ideation Stage, prototype development stage, deployment stage.



- The pilot will be conducted at 100 villages. The best solution will get cash prize of Rs. 50 Lakh and runner ups will get prize of Rs. 20 Lakh each.
- The successful developers will be given an opportunity to join the MEITY supported incubator/ CoEs for further nurturing of their solution.

## Science & Technology: Biotech-KISAN programme



***Relevance IN -Prelims (about Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) + Mains (GS III Awareness in the fields of bio-technology)***

### What's the NEWS

- The Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) programme focuses on taking innovative technologies to the farmers.
- During the last three years, approximately Rs. 310 crores has been invested for supporting the use of Biotechnology in agriculture including organic farming through these programmes.
- Government through Department of Biotechnology (DBT) has implemented **integrated Human Resource Development Program** in Biotechnology to provide Biotechnology trained personnel in various fields including agriculture.

### Know! all about Biotech-KISAN

- Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) is a Department of Biotechnology, Ministry of Science and Technology initiative that empowers farmers, especially women farmers.
- It aims to understand the problems of water, soil, seed and market faced by the farmers and provide simple solutions to them.
- The Scheme is for farmers, developed by and with farmers, it empowers women, impacts locally, connects globally, is Pan-India, has a hub-and spoke model and stimulates entrepreneurship and innovation in farmers.
- Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) is being implemented in **15 agro-climatic zones of India in phased manner**
- This programme **aims to work with small and marginal farmers especially the woman farmer** for better agriculture productivity through scientific intervention and evolving best farming practices in the Indian context.
- Biotech-KISAN aims to link farmers, scientists and science institutions across the country in a network that identifies and helps solve their problems in a cooperative manner.
- The scheme includes the Mahila Biotech- KISAN fellowships, for training and education in farm practices, for women farmers.



- The Scheme also aims to support the women farmers/ entrepreneur in their small enterprises, making her a grass root innovator.
- Biotech-KISAN will connect farmers to best global practices; training workshops will be held in India and other countries. Farmers and Scientists will partner across the globe.
- Biotech KISAN will **connect farmers with science** in the 15 agro-climatic zones of the country in a manner, which constantly links problems with available solutions.
- In each of these 15 regions, a Farmer organisation will be the hub connected to different science labs, Krishi Vigyan Kendra and State Agriculture Universities co-located in the region.
- The hub will reach out to the farmers in the region and connect them to scientists and institutions.
- The hub will have tinkering lab, communication cell and will run year-long training, awareness, workshops and which will act as education demonstration units to encourage grass root innovation in the young as well as women farmers.

## Environment: Living Planet Report 2020

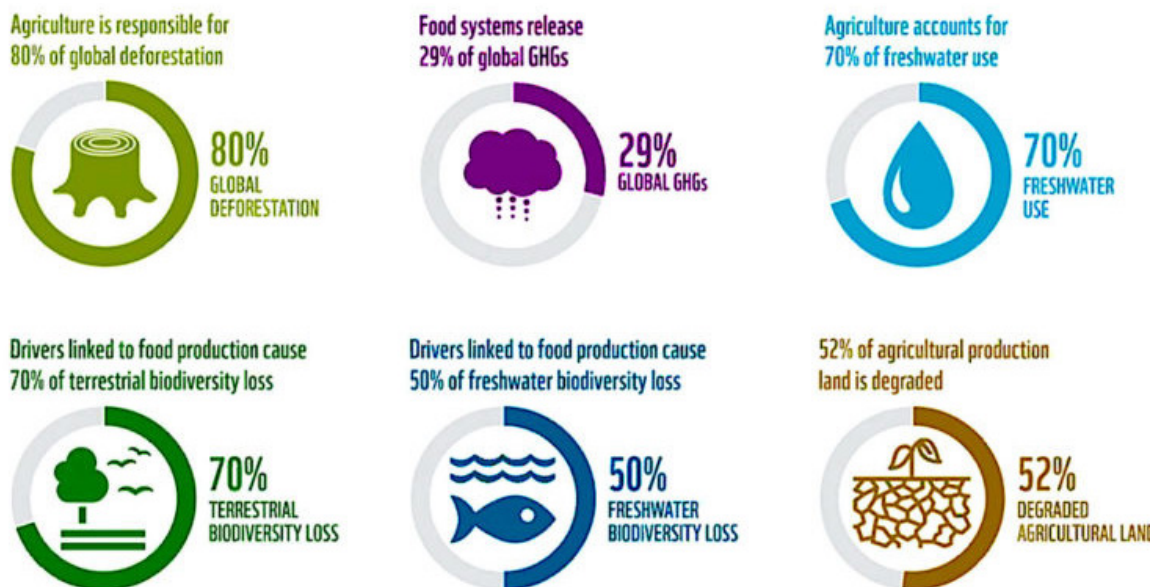
**Relevance IN -Prelims (about The Living Planet Report 2020 -highlights) + Mains (GS III environment conservation)**

### What's the NEWS

- The Living Planet Report 2020, **published by WWF** after two years(WWF report published once every two years) has revealed a global **species loss of 68 percent in less than 50 years** (from 1970 to 2016) a catastrophic decline never seen before.

### Know! about Living Planet Report

- The Living Planet Report is based on data from the Living Planet Index produced **by the Zoological Society of London (ZSL)**.
- The index is statistically created from journal studies, online databases and government reports for 20,000 populations of 4,200 species of mammal, bird, reptile, amphibian and fish, or approximately 6 percent of the world's vertebrate species.



### Living Planet Report Highlights

- About **75 percent of the earth's ice-free land surface has already been significantly altered**, most of the oceans are polluted, and more than 85 percent of the area of wetlands has been lost.
- The rate of decline is not uniform. The Freshwater Living Planet Index shows that freshwater biodiversity is declining far faster than that in oceans or forests.
- In the tropical sub-regions of the Americas, there is a catastrophic 94 percent decline.

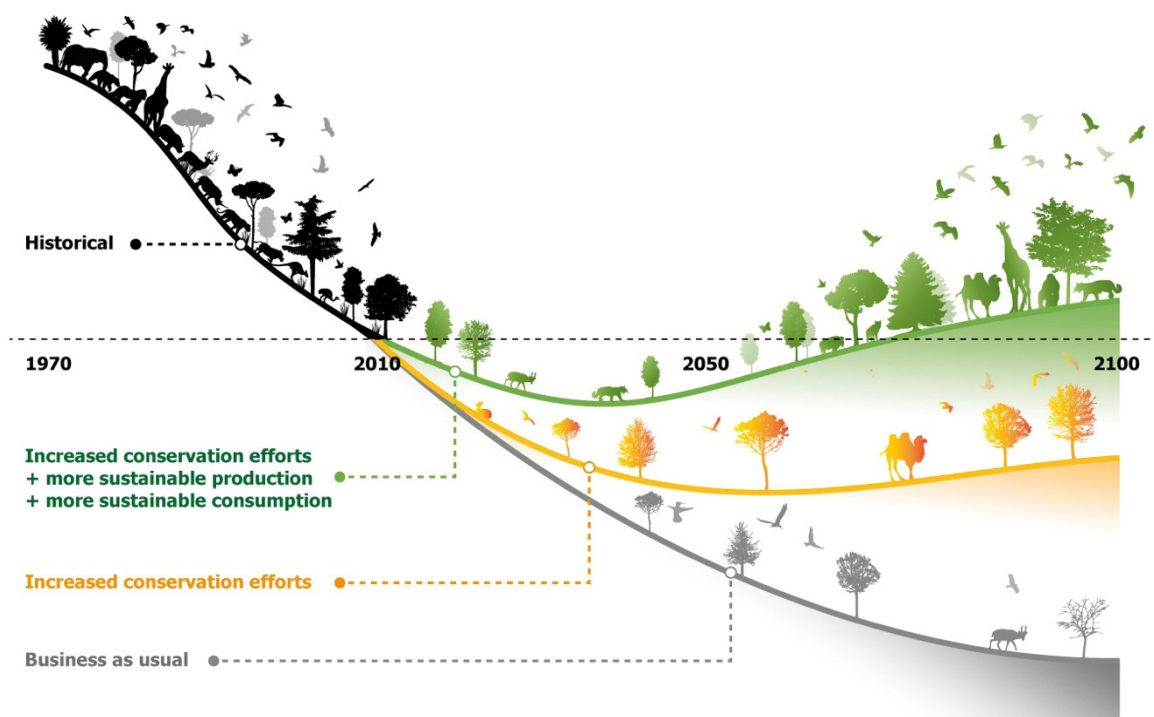
- Land conversion for agriculture has caused 70 percent of global biodiversity loss and half of all tree cover loss, and of the total amount of water withdrawn from available freshwater resources, 75 percent is used for crops or livestock.

### India's situation

- India's ecological footprint, according to the index, is lower than 1.6 global hectares per person, which is the lowest bracket and is smaller than that of many large countries.
- India is a highly biodiverse country, holding over 45,000 species of plants in only 2.4 percent of the world's land area. Over 12 percent of wild mammal species are threatened with extinction in the country.
- Larger animals, particularly in freshwater habitats, are in greater danger of extinction.
- These include river dolphins found in India, giant catfish in the Mekong, otters and beavers, among others.
- In India, **3 percent of bird species face extinction**, with the number increasing every year. As many as 19 percent of amphibians are threatened or critically endangered. Bee colonies are also collapsing drastically across the country.

### Bending the curve

- Known as the **Bending the Curve Initiative**, this research has developed pioneering modelling, providing a proof of concept that terrestrial biodiversity loss from land-use change can be halted and reversed.



### Way forward

- This study shows the world may still be able to stabilise and reverse the loss of nature.
- But to have any chance of doing that as early as 2030, we will need to make transformational changes in the way we produce and consume food, as well as bolder, more ambitious conservation efforts.
- The Anthropocene could be the moment we achieve a balance with the rest of the natural world and become stewards of our planet.

## Agriculture & Farmers Welfare: Parliament passes The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020 and The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020



## WHAT'S IN THE BILLS AND WHY THE OPPOSITION

### BILL ON AGRI MARKET

Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020

#### Provisions

- > To create an ecosystem where farmers and traders enjoy the freedom to sell and purchase farm produce outside registered 'mandis' under states' APMCs
- > To promote barrier-free inter-state and intra-state trade of farmers' produce
- > To reduce marketing/transportation costs and help farmers in getting better prices
- > To provide a facilitative framework for electronic trading

#### Opposition

- > States will lose revenue as they won't be able to collect 'mandi fees' if farmers sell their produce outside registered APMC markets
- > What happens to 'commission agents' in states if entire farm trade moves out of 'mandis'?
- > It may eventually end the MSP-based procurement system
- > Electronic trading like in e-NAM uses physical 'mandi' structure. What will happen to e-NAM if 'mandis' are destroyed in absence of trading?

### BILL ON CONTRACT FARMING

The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020

#### Provisions

- > Farmers can enter into a contract with agri-business firms, processors, wholesalers, exporters or large retailers for sale of future farming produce at a pre-agreed price
- > Marginal and small farmers, with land less than five hectares, to gain via aggregation and contract (Marginal and small farmers account for 86% of total farmers in India)
- > To transfer the risk of market unpredictability from farmers to sponsors

- > To enable farmers to access modern tech and get better inputs
- > To reduce cost of

marketing and boost farmers' income

- > Farmers can engage in direct marketing by eliminating intermediaries for full price realisation
- > Effective dispute resolution mechanism with redressal timelines

#### Opposition

- > Farmers in contract farming arrangements will be the weaker players in terms of their ability to negotiate what they need
- > The 'sponsors' may not like to deal with a multitude of small and marginal farmers
- > Being big pvt cos, exporters, wholesalers and processors, the sponsors will have edge in disputes

### BILL RELATING TO COMMODITIES

The Essential Commodities (Amendment) Bill, 2020

#### Provisions

- > To remove commodities like cereals, pulses, oilseeds, onion and potatoes from the list of essential commodities. It will do away with the imposition of stockholding limits on such items except under "extraordinary circumstances" like war
- > This provision will attract private sector/FDI into farm sector as it will remove fears

- of pvt investors of excessive regulatory interference in business operations
- > To bring investment for farm infrastructure like cold storages, and modernising food supply chain
- > To help both farmers and consumers while bringing in price stability
- > To create competitive market environment and cut wastage of farm produce

#### Opposition

- > Price limits set for "extraordinary circumstances" are so high that they are likely to be never triggered
- > Big cos will have freedom to stock commodities — it means they will dictate terms to farmers, which may lead to less prices for the cultivators
- > Recent decision on export ban on onion creates doubt on its implementation

**Relevance IN – Prelims** (facts related to these bills (pros and cons) + **Mains** (GS II Centre – State Relations + Parliament and State Legislatures – structure, functioning, conduct of business, powers & privileges and issues arising out of these. + GS III issues related to farmers)

### What's the NEWS

- Parliament passed two bills aimed at transforming agriculture in the country and raising farmers' incomes.

### The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020

#### Main provisions –

- The new legislation will create an ecosystem where the farmers and traders will enjoy **freedom of choice of sale and purchase of agri-produce**.
- It will also promote **barrier-free inter-state and intra-state trade** and commerce outside the physical premises of markets notified under State Agricultural Produce Marketing legislations.
- The farmers **will not be charged any cess or levy** for sale of their produce and will not have to bear transport costs.
- The Bill also **proposes an electronic trading** in transaction platform for ensuring a seamless trade electronically.
- In addition to mandis, **freedom to do trading at farmgate, cold storage, warehouse, processing units etc.**
- Farmers will be able to engage in direct marketing thereby **eliminating intermediaries** resulting in full realization of price.

#### Doubts – (MSP/APMC/e-NAM)

- Procurement at Minimum Support Price will stop.
- If farm produce is sold outside APMC mandis, these will stop functioning.
- What will be the future of government electronic trading portal like e-NAM.

### Clarification –

- Procurement at **Minimum Support Price will continue**, farmers can sell their produce at MSP rates, the MSP for Rabi season will be announced next week.
- **Mandis will not stop functioning**, trading will continue here as before. Under the new system, farmers will have the option to sell their produce at other places in addition to the mandis.
- The e-NAM trading system will also continue in the mandis.
- Trading in farm produce will increase on electronic platforms. It will result in greater transparency and time saving.

### The Farmers (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020

#### Main provisions –

- The new legislation will **empower farmers for engaging with processors, wholesalers, aggregators, wholesalers, large retailers, exporters etc.**, on a level playing field. Price assurance to farmers even before sowing of crops. In case of higher market price, farmers will be entitled to this price over and above the minimum price.
- It will transfer the risk of market unpredictability from the farmer to the sponsor. Due to **prior price determination**, farmers will be shielded from the rise and fall of market prices.
- It will also enable the farmer to access modern technology, better seed and other inputs.
- It will reduce cost of marketing and improve income of farmers.
- Effective dispute resolution mechanism has been provided for with clear time lines for redressal.
- Impetus to research and new technology in agriculture sector.

#### Doubts – (Contract Farming)

- Under **contract farming**, farmers will be under pressure and they will not be able to determine prices.
- How will small farmers be able to practice contract farming, sponsors will shy away from them.
- The new system will be a problem for farmers.
- In case of dispute, big companies will be at an advantage.

### Clarification –

- The farmer will have full power in the **contract to fix a sale price of his choice for the produce**. They will receive payment within maximum 3 days.
- 10000 Farmer Producer organizations are being formed throughout the country. These **FPOs will bring together small farmers** and work to ensure remunerative pricing for farm produce.
- After signing contract, farmer will not have to seek out traders. The purchasing consumer will pick up the produce directly from the farm.
- In case of dispute, there will be no need to go to court repeatedly. There will be **local dispute redressal mechanism**.

## Science & Technology: India's first CRISPR Covid-19 test developed

**Relevance IN – Prelims (about Clustered Regularly Interspaced Short Palindromic Repeats) + Mains (GS III Achievements of Indians in science & technology; indigenization of technology and developing new technology.)**

#### What's the NEWS

- The Tata CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) test, powered by CSIR-IGIB (**Institute of Genomics and Integrative Biology**) FELUDA, received regulatory approvals today from the Drug Controller General of India (DCGI) for commercial launch.

### Tata CRISPR

- ▶ India's first COVID-19 test using the CRISPR technology
- ▶ Cost-effective and quicker than traditional RT-PCR tests
- ▶ Futuristic technology that can also help detect multiple other pathogens in the future

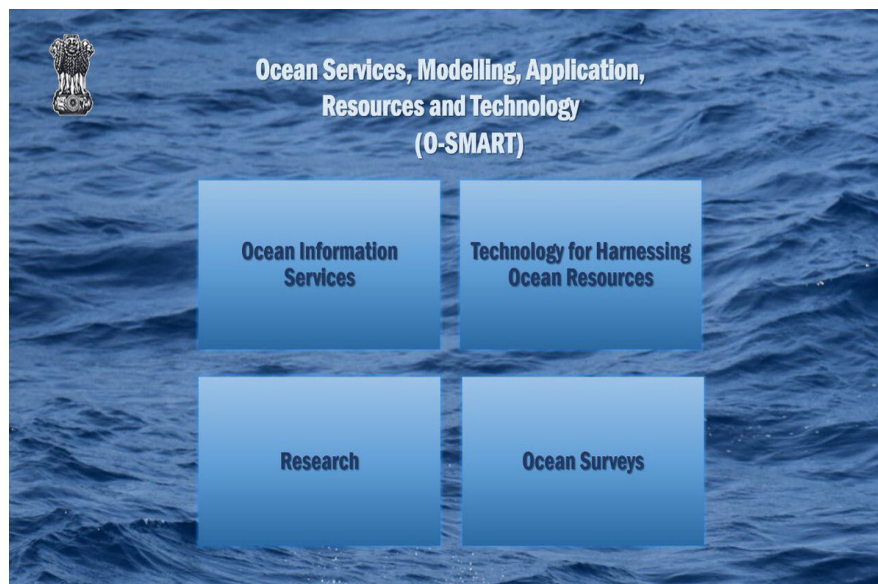


- The Tata CRISPR test is the world's first diagnostic test to deploy a specially **adapted Cas9 protein** to successfully detect the virus.

### Know! all about Tata CRISPR

- This test uses an indigenously developed, **cutting-edge CRISPR technology for detection of the genomic sequence of SARS-CoV-2 virus**.
- CRISPR is a **genome editing technology** to diagnosing diseases.
- The Tata CRISPR test is the world's first diagnostic test to deploy a specially adapted Cas9 protein to successfully detect the virus causing Covid-19.
- The Tata CRISPR test achieves accuracy levels of traditional RT-PCR tests, with quicker turnaround time, less expensive equipment, and better ease of use.
- CRISPR is a futuristic technology that can also be configured for detection of multiple **other pathogens in the future**.
- The Tata Group has worked closely with CSIR-IGIB and ICMR to create a high-quality test that will help the nation ramp up Covid-19 testing quickly and economically, with a 'Made in India' product that is safe, reliable, affordable, and accessible.

## Disaster Management: Ocean Services, Modelling, Applications, Resources and Technology (O-SMART) SCHEME



**Relevance** IN–Prelims (about O-SMART and its objective + ITEWC + Tsunami Ready Programme) + Mains (GS III disaster management + awareness in the field of science and technology)

### Know! all about O-SMART

The objectives of O-SMART (Ocean Services, Modelling, Applications, Resources and Technology) scheme of Ministry of Earth Sciences (MoES), Govt. of India are

- To generate and regularly update information on Marine Living Resources and their relationship with the physical environment in the Indian Exclusive Economic Zone (EEZ)
- To periodically monitor levels of sea water pollutants.
- To develop shoreline change maps for assessment of coastal erosion due to natural and anthropogenic activities.
- To develop a wide range of state-of-the art ocean observation systems for acquisition of real-time data from the seas around India.
- To generate and disseminate ocean information, advisories and warnings.
- To develop algorithms for validation of satellite data for coastal research and to monitor changes in the coastal research,

- To develop technologies to tap the marine bio resources,
- To develop technologies generating freshwater and energy from ocean,
- To develop underwater vehicles and technologies.
- Establishment of **Ballast water treatment facility**
- Establishment of state of the art sea front facility to cater to the testing and sea trial activities of ocean technology.
- To carryout exploration of **Polymetallic Nodules (MPN)** from water depth of 5500 m in site of 75000 sq.km allotted to India by United Nations in Central Indian Ocean Basin, to carryout investigations of gas hydrates,
- Exploration of polymetallic sulphides near **Rodrigues Triple junction** in 10000 sq. km of area allotted to India in International waters by International Seabed Authority.

### The Indian Tsunami Early Warning Centre (ITEWC)

- It was established at Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, an **autonomous body under Ministry of Earth Sciences** which continues to provide timely tsunami advisories to stake holders and has functioned flawlessly since its establishment in October 2007.
- The ITEWC is also providing tsunami services to 25 Indian Ocean Countries as part of the Intergovernmental Oceanographic Commission (IOC) of UNESCO framework.
- INCOIS has introduced several innovative concepts in tsunami modeling, mapping of coastal inundation, Decision Support System, SOPs to meet the emerging challenges and provide accurate and timely tsunami early warnings.
- INCOIS has established a **Global Navigation Satellite System (GNSS)** & Strong Motion Accelerometers in Andaman and Nicobar Islands for quick and reliable estimation of source parameters for near source earthquakes.
- INCOIS has carried out **Multi-hazard Vulnerability Mapping (MHVM)** along the mainland of Indian coastland MHVM atlas has been prepared.

### Tsunami Ready Programme

- Tsunami Ready Programme, is a concept introduced by UNESCO, at community level.
- Odisha has implemented the programme in two **villages (Venkatraipur and Noliasahi)** and based on the national board recommendation, IOC (UNESCO) recognized these villages as Tsunami ready communities.

## Infrastructure Development: Optical Fibre Internet Service

**Relevance IN – Prelims (about Optical Fibre Village Connectivity project + about Bharatnet) + Mains (GSIII infrastructure development + GS II government policies and interventions)**

### What's the NEWS

- On 15<sup>th</sup> August, 2020, the P.M announced that connectivity is to be taken up to the **all more than 6 Lakh villages (from the existing Gram Panchayat level) within 1000 days.**
- As a first step towards this goal, P.M has launched internet through Optical Fibre project for connecting all 45,945 villages of Bihar on Optical Fibre for providing high-speed internet.

### Optical Fibre Village Connectivity project

- This project will be implemented in a short span of 180 days and will be completed by 31.03.2021 at an approximate cost of **Rs. 1,000 Crore through CSC SPV** providing 1 Wi-Fi and 5 FTTH connections for one year free of cost to identified Government Institutions, Primary Schools, Anganwadi Centres, Aasha Workers & Jeevika Didi etc. and one Wi-Fi at a public place in every village of Bihar.
- Rs. 640 Crore of capital expenditure will be borne by the Department of Telecommunications, Government of India.
- Bihar will be the First State in India to Connect all Villages by optical Fiber Network Internet.
- This project will be executed by combined efforts of Department of Telecom which has already connected 1.5 lakh Gram Panchayats across India with optical fibre internet service, along with Ministry of Electronics & Information Technology and Common Service Centres.
- The Optical Fibre Village Connectivity project has been launched by Department of Telecommunications in order to achieve the dreams of Digital Gram.

- It will be **implemented by CSC e-Governance Services Ltd.**, an SPV of Ministry of Electronics & IT.
- The project aims to provide broadband connectivity in every village of Bihar through Aerial Optical Fibre.
- Objective of the Project is to convert Village into Digital Villages, enhance Digital empowerment/awareness.

#### **Main features of the project include:**

- Govt. of India would be funding the VGF support of Rs. 640 Cr.
- Monitoring of the Project: By the State of Bihar/DoT.
- A full-fledged customer care service shall be established by CSC-SPV for redressal of consumer grievances.

#### **Know! about BharatNet**

- BharatNet envisages laying of about 8 lakh kilometre of incremental optical fibre cable (OFC) to all the 2,50,000-plus Gram Panchayats (GP) in the country at an estimated cost of Rs 42,068 crore (\$6.2 billion)
- Initiated by the UPA government in October 2011, BharatNet was originally named National Optical Fibre Network or NOFN.
- It's being financed by the Universal Service Obligation Fund of the Department of Telecommunications, through a 5 per cent levy on the revenues of private telecom service providers.
- The project's primary objective is to extend fibre connectivity — available at the state capital, district headquarters and blocks — **to every panchayat**, thereby providing access to broadband internet services to 69 per cent of India's rural population.
- Phase I of BharatNet, which commenced in June 2014 was completed in December 2017.
- In the second phase, the remaining 1,29,827 gram panchayats are to be covered through 5 km of new fibre per gram panchayats.
- This phase incorporates a mix of both underground and aerial fibre as well as radio and satellite connectivity.
- It was unable to meet its March 2020 deadline for its second phase of deployment, which was shifted to August 2021

## **Agriculture & Farmers Welfare: Brucella abortus S19Δ per vaccine**

**Relevance IN – Prelims (about Brucella abortus S19Δ per vaccine + about Brucellosis)+ Mains (GS III Technology missions; economics of animal-rearing + achievements of Indians in science & technology)**

#### **What's the NEWS**

- A Technology License Agreement (TLA) ceremony on “*Brucella abortus* S19Δ per vaccine” developed by **ICAR-Indian Veterinary Research Institute (IVRI)** was held recently.

#### **Know! about the technology**

- The technology was developed by the scientists of ICAR-IVRI, it is **collaboration between ICAR and DBT**
- The vaccine has great demand in India and will be of immense help in the national control programme on brucellosis.
- The vaccine has **DIVA capability** meaning that it can differentiate between naturally infected and vaccinated animals.

#### **Know! about Brucellosis**

- Brucellosis is one of the most important zoonotic diseases worldwide and also endemic in India causing huge economic losses to dairy industry due to **infertility, abortion, birth of weak offsprings and reduced productivity**.

#### **Know! about the modified strain of *B. abortus* S19**

- In India, calf-hood vaccination is practiced using live attenuated *B. abortus* S19 strain for control of the disease.
- *B. abortus* S19 strain is a very strong immunogen and provides lifelong immunity.
- However, this vaccine strain has several drawbacks.
- To overcome some of these drawbacks, a modified strain of *B. abortus* S19 has been developed at ICAR-IVRI.
- The vaccine candidate was developed under DBT funded “**Brucellosis network program**”.

- In the process of modifying the S19 strain, lipopolysaccharide (LPS) structure of the organism was altered through deletion mutation.
- The newly developed strain was named as *B. abortus* S19Δ per.
- Vaccine potential of S19Δ per has been evaluated in experimental small animal model and also in buffalo calves.

#### **DIVA stands for Differentiating Infected from Vaccinated Animals.**

- These vaccines, also termed as marker vaccines, induce an immune response which is different from that induced by natural infection.
- Marker vaccines are based on deletions mutants of wild-type pathogens, subunit vaccines and inactivated whole virus vaccines.
- The DIVA immune response can be detected by companion diagnostic tests such as enzyme linked immunosorbent assays (ELISA).
- The main advantage of DIVA vaccines and their companions test is the possibility to **distinguish between infected and vaccinated animals**.

## **Agriculture & Farmers Welfare: ‘Kritagya’ Hackathon by National Agricultural Higher Education Project of ICAR**



### ***Relevance IN – Prelims (about KRITAGYA and its objective) + Mains (GS III e-technology in the aid of farmers)***

#### **What's the NEWS**

- In order to promote potential technology solutions for enhancing farm mechanization with special emphasis on women friendly equipments, a hackathon named “KRITAGYA” has been planned by the Indian Council of Agricultural Research (ICAR) under National Agricultural Higher Education Project (NAHEP).
- ICAR is organizing KRITAGYA- Ag-Tech Hackathon to promote innovation in farm mechanization- A joint initiative by NAHEP and Agricultural Engineering Division.

#### **Know! all about KRITAGYA- Ag-Tech Hackathon**

- Students, faculties and innovators/entrepreneurs from any university / technical institution across the country can apply and participate in the event in the form of a group.
- Participating students can collaborate with local start-ups, students from technology institutes, and can win Rs. 5 lakhs, Rs 3 lakhs and Rs. 1 lakh as first, second and third prize.
- The development and promotion of women friendly equipments through innovative technology solutions and right collaborations with stakeholders would play an important role in enhancing the farm productivity and profitability.
- This event will give an opportunity to the students, faculties, entrepreneurs, innovators and other stakeholders to showcase their innovative approaches and technology solutions to promote farm mechanization in India.

#### **National Agricultural Higher Education Project (NAHEP).**

- The ICAR commenced NAHEP, a **Government of India and World Bank project**, in November 2017 with the overall objective to support the National Agricultural Research and Education System in providing more relevant and better quality education to the students.



# Science and Technology: RAISE 2020



**Relevance IN – Prelims (about RAISE 2020) + Mains (GS III Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology)**

## What's the NEWS

- The Ministry of Electronics and Information Technology (MeitY) and NITI Aayog will organize a Mega Virtual Summit on Artificial Intelligence (AI), **RAISE 2020- 'Responsible AI for Social Empowerment 2020,'** from **October 5-9, 2020.**

## Know! all about RAISE

- RAISE 2020 will be a global meeting of minds to **exchange ideas and chart a course for using AI for social transformation, inclusion and empowerment** in areas like Healthcare, Agriculture, Education and Smart Mobility, among other sectors.
- Delegates and experts in research, policy and innovation on Artificial Intelligence will join from across the globe.
- The RAISE 2020 Summit will feature some of the most exciting startups working in Artificial Intelligence-related fields.
- Startups chosen through the **AI Solution Challenge** will showcase their solutions in the AI Startup Pitch fest.
- This is part of Government of India's continuing support to tech entrepreneurs and startups by providing exposure, recognition and guidance.

## Know! the role of AI

- AI has emerged as a catalyst across industries and can play a transformative role in accelerating development.
- The Summit will explore in-depth, the role of AI in accelerating social empowerment.
- RAISE 2020 has tracks like AI for Health, Agriculture, Education, Skilling, Mobility, Fintech, Research, Inclusive AI, Future of Work, and Responsible AI.
- The Summit will serve as a platform for the meeting of some of the best minds in the world on AI.
- RAISE 2020 will facilitate an exchange of ideas to create mass awareness about the need to ethically develop and practice AI.

## Know! more about RAISE 2020:

- RAISE 2020 is a **first of its kind, global meeting of minds on Artificial Intelligence** to drive India's vision and roadmap for social transformation, inclusion and empowerment through responsible AI.
- Organized by Government of India along with Ministry of Electronics and Information Technology, the event will witness robust participation from global industry leaders, key opinion makers, Government representatives and academia.

## Agriculture: Centralized Farm Machinery Performance Testing Portal

**Relevance IN – Prelims (about Centralized Farm Machinery Performance Testing Portal) + Mains (GS III transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers)**

### What's the NEWS

- Union Minister for Agriculture and Farmers Welfare launched in the public domain, the “Centralized Farm Machinery Performance Testing Portal”

### Centralized Farm Machinery Performance Testing Portal

- It has been developed by the Department of Agriculture, Cooperation and Farmers Welfare as a further step to improve services of **farm machinery testing institutions** and bringing out transparency in the entire process of testing and evaluation of machines.
- This portal will facilitate manufacturers in applying, communicating and monitoring the progress of testing of their machines in a seamless manner as it is easily accessible from any location and from any device connected to the Internet.
- It offers the possibility of integrated management in a unified manner within the organization and thus will help in improving the efficiency of the testing institutes thereby **reducing testing time** for various agricultural machines and equipments.

### Agricultural mechanization

- Agricultural mechanization is a central indispensable support to make farm operations efficient and productive.
- It contributes in increasing the efficiency and productivity of all direct as well as indirect inputs used in the crop production system besides, reduction in drudgery associated with various farm operations.
- The programs and schemes of the Government of India on farm mechanization have resulted in progressive increase in the availability of farm power per unit area for performing various agricultural operations.
- The shift has also helped in diversification of agriculture from conventional crops to commercial crops.

### Testing of farm machines

- Testing of farm machines is important aspect of agricultural mechanization which benefits both buyers i.e. farmers as well as to the manufacturers of agricultural machinery.
- Testing and evaluation of agricultural machinery encourages improvement in quality and functional suitability.
- Comparable data for similar machines is available to manufacturers, which help them in improving the design of their product and open up avenues in commercialization of agricultural machinery not only on national level but also Globally.

## Science & Technology: DBT – ICAR Transfer of Technology of novel Brucella vaccine

**Relevance IN – Prelims (about Brucella abortus S19 delta per vaccine) + Mains (GS III awareness in the field of biotechnology)**

### What's the NEWS

- Department of Biotechnology (DBT), facilitated Transfer of Technology of novel Brucella vaccine viz. **Brucella abortus S19 delta per vaccine**

### Know! all about the vaccine

- This vaccine was developed by **ICAR-Indian Veterinary Research Institute (ICAR-IVRI)**, Izatnagar, Uttar Pradesh through a Network project on Brucellosis supported by DBT in which a gene was knocked out from Brucella abortus S19 strain.
- This vaccine has confirmed protection against virulent challenge in experimental mice model conducted at IVRI, Izatnagar and in buffalo calves conducted at **National Institute of Animal Health**, an institute of Department of Animal Husbandry and Dairying.
- The developed vaccine is also found to have DIVA compatible.

- *Brucella abortus* S19 delta per vaccine can play an important role in **National Brucellosis Control Programme** initiated by Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India.

### Brucellosis

- Brucellosis is a zoonotic disease which causes production losses in livestock.
- The disease induces abortion at the last stage of pregnancy, infertility and other reproductive problem which causes losses in production of milk and meat.
- Globally the disease is reported in approximately half a million human population every year.
- In India huge population involved in dairy farming is directly affected with the Brucellosis.

## Economy: IFSCA Committee submits interim report on development of international retail business

**Relevance IN – Prelims (about IFSC and IFSCA) +Mains (GS III Economic development)**

### What's the NEWS

- **The International Financial Services Centres Authority (IFSCA)** Expert Committee on international retail business development in the IFSC has submitted its interim report to the Chairperson of the IFSCA.

### Interim report highlights

- The interim report covers a number of suggestions aimed at swift and efficient development of international retail businesses in the IFSC, and focuses mainly on the banking vertical.
- Other key business verticals, i.e., insurance, asset management, and capital markets, will be covered in reports that the committee plans to release subsequently.
- The Expert Committee has been constituted by the IFSCA with an aim to suggest how to develop international retail business in International Financial Services Centre (IFSC)

### The committee suggests that the IFSC can aim at:

- Becoming a gateway to India growth story for international investors and business.
- Providing Indian diaspora and individuals from Asia and Africa with a comprehensive range of financial services from the IFSC.
- Serving domestic residents availing liberalized remittance scheme.

### Know! about IFSCA

- The Government of India had constituted the IFSCA with Shri I Srinivas as its Chairperson earlier this year to develop and regulate the financial services market in the IFSC in India.
- Apart from channelizing India's offshore business to the IFSC located at GIFT City and making it the gateway for India centric international financial services, **the objective is to make it a global hub for international financial services** on the lines of London, Hong Kong, Singapore, and Dubai.

### Connect the dots (inception of IFSCA)

- The finance ministry has established the International Financial Services Centres Authority (IFSCA) through a notification.
- With this, the government has established a unified authority to regulate all financial services in International Financial Services Centres (IFSCs) in the country.
- Currently, the banking, capital markets and insurance sectors in IFSC are regulated by multiple regulators such as Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI) and Insurance Regulatory and Development Authority of India (IRDAI).
- The main function of the authority will be to regulate financial products such as securities, deposits or contracts of insurance, financial services, and financial institutions which have been previously approved by any appropriate regulator in an IFSC.
- As per the Act, the regulators include SEBI, RBI, IRDAI and the Pension Fund Regulatory and Development Authority.
- The IFSCA will comprise a chairperson, and one member each nominated by the regulators mentioned earlier. There will also be two members from the central government and full-time or part-time members.

## International Financial Services Centres (IFSCs)

- An IFSC caters to customers outside the jurisdiction of the domestic economy.
- Such centres deal with flows of finance, financial products and services across borders. London, New York and Singapore can be counted as global financial centres.
- Many emerging IFSCs around the world, such as Shanghai and Dubai, are aspiring to play a global role in the years to come.
- The aim is to develop a world class smart city that becomes a global financial hub with the development of an International Financial Services Centre.
- The government is also trying to bring back the financial services and transactions that are currently carried out in offshore financial centres by local corporate entities and overseas branches or subsidiaries of financial institutions (FIs) to India.
- IFSC is a jurisdiction that provides financial services to resident and non-resident Indians in foreign currencies.
- GIFT IFSC will be a deemed foreign territory dealing in foreign currency. The units in IFSC will be recognised as non-resident entity under the FEMA regulations of Reserve Bank of India.
- GIFT City has two zones –domestic and special economic zone (SEZ). All rupee-denominated transactions can be undertaken from GIFT domestic area.

## Science & Technology: Himalayan Chandra Telescope



***Relevance IN – Prelims (about HCT+ IAO + MACE+ HAGAR+GROWTH) +Mains (GS III Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology***

### **What's the NEWS**

- To mark the 20 years of the first light event of the **2m Himalayan Chandra Telescope (HCT)**, IIA, an autonomous institute of the Department of Science and Technology (DST), has organized a two-day online science workshop.
- The workshop will highlight the science that the telescope has produced since the commissioning and the future of IAO.

### **Himalayan Chandra Telescope (HCT)**

- The 2-m Himalayan Chandra Telescope (HCT) was installed at the **Indian Astronomical Observatory (IAO), Mt. Saraswati, Digpa-ratsa Ri, Hanle** at an altitude of 4500 m (15000 ft) above by the Indian Institute of Astrophysics (IIA), Bangalore, in August 2000.
- The telescope remotely operated using a dedicated **INSAT-3B** satellite communication link from the **Centre for Research & Education in Science & Technology (CREST)**, Indian Institute of Astrophysics (IIA), Bangalore.
- It is equipped with 3 science instruments like **The Himalayan Faint Object Spectrograph Camera (HFOSC), the near-infrared camera and Optical CCD imager** for regular observations.



- The telescope has been used in many coordinated international campaigns to monitor stellar explosions, comets, exo-planets, gravitational wave sources, young supernovae and near-earth asteroids and has contributed significantly to these studies.
- It contains a modified Ritchey-Chretien system with a primary mirror made of ULE ceramic which is designed to withstand low temperatures it experiences.

### **The Indian Astronomical Observatory (IAO) at Hanle in Ladakh**

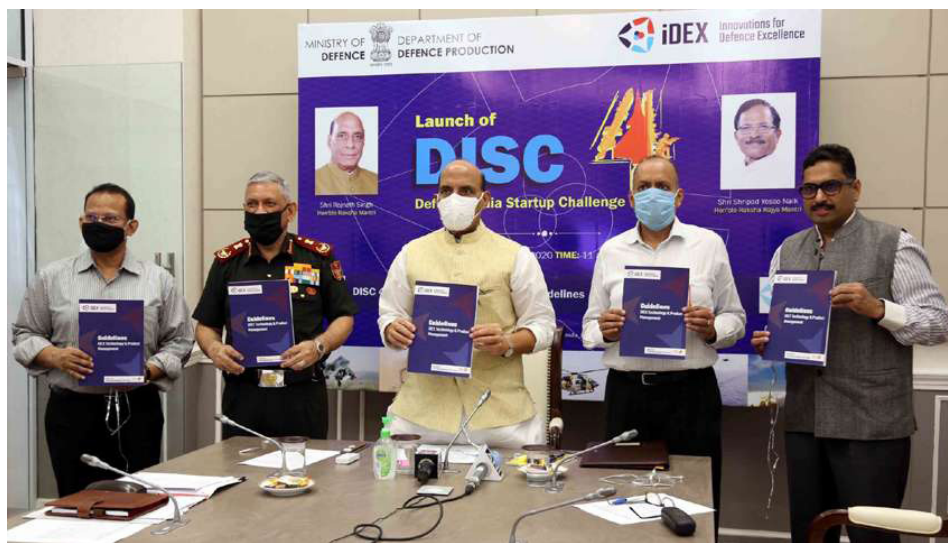
- The Indian Astronomical Observatory (IAO), located in Hanle near Leh in Ladakh, India, has one of the world's highest located sites **for optical, infrared and gamma-ray telescopes**.
- It is operated by the Indian Institute of Astrophysics, Bangalore.
- The Indian Astronomical Observatory stands on Mt. Saraswati, Digpa-ratsa Ri, Hanle in south-eastern Ladakh union territory of India.

### **Facilities at IAO**

#### **Global Relay of Observatories Watching Transients Happen (GROWTH)-India**

- The telescope located at the **Indian Astronomical Observatory (IAO)** at Hanle in Ladakh is the country's **first robotic telescope** and the first one designed to observe dynamic or transient events in the universe.
- The **GROWTH-India** telescope is part of the **Global Relay of Observatories Watching Transients Happen**.
- Its goals are threefold: (1) Search for explosions in the optical regime whenever LIGO group detects a Binary Neutron Star merger (2) study nearby young supernova explosions.
- The project is fully funded by the Science and Engineering Research Board (SERB) of the Department of Science and Technology (DST) under the PIRE project, administered by Indo US Science and Technology Forum.
- The fully robotic optical research telescope joins other larger facilities at IAO in Hanle – **the Himalayan Chandra Telescope, the gamma-ray array telescope (HAGAR), and the imaging Cherenkov telescope (MACE)**.

### **Defence: DISC 4 Challenge and iDEX4 Fauji launched**



**Relevance IN – Prelims (about iDEX and iDEX4 fauji + about DISC 4 + about role of DIO) + Mains (GS III Achievements of Indians in science & technology; indigenization of technology and developing new technology)**

#### **What's the NEWS**

- Defence Minister attended the virtual launch of the 'Defense India Start-up Challenge 4' and 'iDEX4Fauji'

#### **Know! about iDEX4 Fauji**

- 'iDEX4Fauji' is an initiative launched by the Centre to connect the forces on ground with the startups to facilitate idea-sharing and innovation.

- iDEX4Fauji is a first of its kind initiative, launched to support **innovations identified by members of the Indian Armed Forces**

#### How it will work?

- There are more than 13 Lakh service personnel working in the field and on borders, handling extreme conditions and equipment and would be having many ideas and innovations to improve such equipment.
- iDEX4Fauji would allow our Faujis to become part of the innovation process and get recognised and rewarded.

#### DISC-4 Challenge

- Defence Minister also launched the DISC-4 Challenge in which 11 new Challenges will be presented to the innovators covering all the needs of the forces.
- In the three rounds of DISC so far, more than 700 start-ups and innovators have registered their participation, out of which 58 participants were selected for innovation grants under **‘Support for Prototype and research kickstart’ (SPARK)**
- Under Defence India Startup Challenge (DISC) 4, eleven challenges from Armed forces, OFB&DPSUs were thrown **open to prospective startups, innovators, MSMEs** alike to provide their innovative ideas on technologies which find their application in the defence sector.

#### Know! about the iDEX initiative

- The iDEX initiative of the **Department of Defence Production(DDP)** was launched by Prime Minister in 2018 with the objective to encourage and nurture innovations in the Indian Defence sector and create an ecosystem where Startups, MSMEs and individual innovators could interact easily with the Indian defence establishment and provide the latest technological innovations for specific challenges experienced in operational environments through co-development and co-production of innovative solutions.
- The iDEX initiatives are executed by **Defence Innovation Organisation**, a Section 8 company of DPSUs BEL and HAL.

#### iDEX -DIO (Defence Innovation Organisation)

- DIO has evolved and expanded the magnitude of its activities since inception in 2018
- iDEX-DIO has launched three rounds of Defence India Startup Challenge (DISC) with 18 problem statements from Armed Forces, DPSUs&OFB and identified 55+ start-ups/ individuals to receive innovation grants in technological areas through the Prototype funding guidelines called **“Support for Prototype and Research Kickstart” (SPARK)**, which entail provisioning of grants upto Rs 1.5 crore to the Startups.
- The iDEX event successfully **brought together the iDEX stakeholders on a single platform** i.e. Ministry of Defence (MoD), iDEX selected startups, partner incubators, Defence Innovation Organisation (DIO), nodal agencies (Indian Army, Indian Navy, Indian Air Force), NITI Aayog, DRDO, DPSUs, OFB, think tanks, private industry and Industry associations.

#### Support for Prototype and research kickstart’ (SPARK)

- The Support for Prototype and Research Kickstart (in Defence) framework by the Defence Innovation Organization – Innovations for Defence Excellence (under the aegis of the Ministry of Defence) in partnership with Atal Innovation Mission, is aimed at supporting Startups/MSMEs/Innovators to create prototypes and/or commercialize products/solutions in National Defence and security.

#### Other recent steps taken by the Defence Ministry

- In order to further strengthen the defence system and make it self- reliant certain steps like partnerships with private sector, technology transfer, 74 % FDI through automatic route and the recently released negative list of 101 items for import ban after a stipulated period have been taken by the Ministry.

## Agriculture & Farmers Welfare: NITI Aayog Holds Two-Day Consultation on Natural Farming

**Relevance IN – Prelims (about Natural farming + organic farming + ZBNF) + Mains (GS III Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers)**

## What's the NEWS

- To leverage the many socioeconomic and environmental benefits of natural farming for boosting farmers' welfare, consumer health, food security and nutrition, NITI Aayog has organized a two-day national-level consultation with relevant stakeholders.

## Know! about Natural Farming

- Natural farming is a system where the laws of nature are applied to agricultural practices.

### Similarities between natural farming and organic farming:

- Natural and organic both are chemical free and more or less poison free farming methods.
- Both systems discourage farmers from using any chemical fertilizers, pesticides on plants and in all agricultural practices.
- Both farming methods encourage farmers to use local breeds of seeds, and native varieties of vegetables, grains, pulses and other crops.
- Organic and natural farming methods promote nonchemical and homemade pest control methods.

### Key differences between natural farming and organic farming:

- In organic farming, organic fertilizers and manures like compost, vermicompost, cow dung manure, etc. are used and added to farmlands from external sources.
- In natural farming, neither chemical nor organic fertilizers are added to the soil. In fact, no external fertilizers are added to soil or give to plants whatsoever.
- In natural farming, decomposition of organic matter by microbes and earthworms is encouraged right on the soil surface itself, which gradually adds nutrition in the soil, over the period.
- Organic farming still requires basic agro practices like plowing, tilting, mixing of manures, weeding, etc. to be performed.
- In natural farming there no plowing, no tilting of soil and no fertilizers, and no weeding is done just the way it would be in natural ecosystems.
- Organic farming is still expensive due to the requirement of bulk manures, and it has an ecological impact on surrounding environments; whereas, natural agriculture is an extremely low-cost farming method, completely molding with local biodiversity.

## Zero budget natural farming (ZBNF)

- There are many working models of natural farming all over the world, the zero budget natural farming (ZBNF) is the most popular model in India.
- This comprehensive, natural, and spiritual farming system is developed by Padma Shri Subhash Palekar.

### Features of Zero budget natural farming (ZBNF):

- Commercial level farming can be done in almost zero budget only by using locally available and farm-based resources.
- According to ZBNF principles, **plants get 98% of their supply of nutrients from the air, water, and sunlight**. And the remaining 2% can be fulfilled by good quality soil with plenty of friendly microorganisms. (Just like in forests and natural systems)
- **Soil microclimate:** The soil is always supposed to be covered with an organic mulch, which creates humus and encourages the growth of friendly microorganisms.
- **Desi cow:** The system requires cow dung and cow urine (Gomutra) obtained from Indian breed cow only. Desi cow is apparently the purest as far as the microbial content of cow dung, and urine goes.
- **Cultures:** A farm made bio-culture named '**Jeevamrutha**' is added to the soil instead of any fertilizers to improve microflora of soil. Jeevamrutha is derived from very little cow dung and cow urine of desi cow breed.
- Natural, farm-made pesticides like **Dashparni ark and Neem Astra** are used to control pests and diseases.
- Weeds are considered essential and used as living or dead mulch layer. Understand mulching.
- In ZBNF, multi-cropping is encouraged over single crop method.

# Science and Technology: Science and Technology Policy 2020

**Relevance IN – Prelims (about the new policy + steps taken by DST to increase the participation of Women in STEM) + Mains (GS III inclusive growth)**

## What's the NEWS

- The Department of Science and Technology(DST) is developing a framework to rate and rank science institutes **depending on the proportion of women employed.**

## Science and Technology Policy 2020 (to be included in the final Policy)

- The initiative, under the new Science and Technology Policy 2020, will cover government and private institutes, which will be rated on a number of parameters that includes **promotion opportunities, leadership positions and support structure, such as creches.**
- The framework is being conceptualised as a part of the new policy's push towards **"inclusivity, equity and diversity"**
- The last science policy was drawn up in 2013, and the new version is expected to be unveiled by December.
- The framework will look at how to create interventions that will help female entrepreneurs as well as other communities that are cut off from science due to geographical and regional reasons and as well as that of privilege.

## Task Force on Women in Science

- A Task Force on Women in Science, set up by the government in 2005, had found that there has been a growth in enrolment of women at the university level, from **10.9 per cent in 1950-51 to 39.4 per cent in 2000-2001.**
- Women representing over **50 per cent enrolment** in Goa, Kerala, Pondicherry and Punjab, and less than **35 per cent** in Bihar, Rajasthan, Odisha and Arunachal Pradesh.
- The representation of women in engineering courses at IITs **is around 10-12 per cent.**
- The number of women scientists occupying faculty positions in research institutes and prestigious universities was **less than 15 per cent.**

*The DST has, over the years, introduced various initiatives to encourage women in science*

## Kiran

- Kiran for scientists to build their career paths, especially those who had taken a break to look after their families, etc.

## Vigyan Jyoti

- Launched recently, to encourage girls student from grade 9 to 12 to choose STEM (Science, Technology, Engineering and Mathematics) careers and bring more of them into IITs, NITs and IISERs.
- The Navodaya Vidyalaya Samiti is running this programme for DST in which 2,500 of the top performing Class XI students have been chosen from 50 districts, as a pilot.

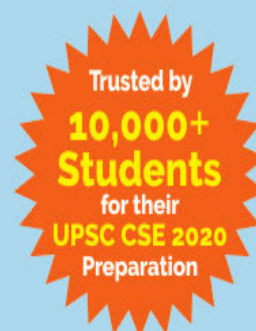




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