

# JOIN THE DOTS

April 2020



## A Current Affairs Series for UPSC Examination

- Hydroxychloroquine
- National Corona Survey
- Operation SHIELD
- World Intellectual Property Day
- SWAYAM and SWAYAM PRABHA
- SVAMITVA Scheme



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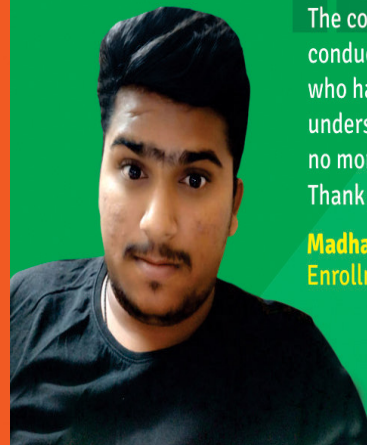


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## Compendium – April 2020

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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! APRIL 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! APRIL 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: Tablighi Jamaat

#### Relevance IN – Prelims (about Tablighi Jamaat)

##### What's the NEWS

- A religious congregation organised by the Tablighi Jamaat in Delhi's Nizamuddin area has turned out to be the super-spreader of coronavirus in India.

##### Know! all about Tablighi Jamaat

- Tablighi Jamaat literally the Outreach Society, is an Islamic missionary movement that focuses on urging Muslims to return to practising their religion during the lifetime of the Islamic prophet Muhammad, and particularly in matters of ritual, dress and personal behaviour
- The Tablighi Jamaat is a conservative Muslim organisation set up in 1926 by Maulana Muhammad Ilyas in Mewat (in present-day Haryana), and aims to spread religious knowledge among Muslims.
- The Tablighi Jamaat, which translates to “society for spreading faith”, is a global educational and missionary movement whose “primary purpose” is to encourage Muslims the world over to be religiously more observant.
- It is currently operating in over 150 countries, including countries in Western Europe.
- The movement is believed to have stemmed from the Deobandi brand (most commonly practised form of Islam in South Asia) of Hanafi Sunni school of jurisprudence.
- The members consciously work to remain away from the gaze of the media.
- They do not rely on donations and are largely financed by their senior members.

### TOLL SPREAD ACROSS 4 STATES, 1 UT

**Tablighi Jamaat, founded in 1926, is a major Islamic missionary movement headquartered in Nizamuddin, Delhi. Has followers across the globe, including several former Pakistani cricketers, such as Saeed Anwar**

**Source Of Infections**  
A Tablighi congregation in Nizamuddin earlier this month. Attended by 1,700-1,800 people, including 250 foreigners

**Casualty Count**  
**10** deaths and scores of Covid-19 cases linked to the gathering  
**285** people from Tablighi HQ showing corona virus symptoms admitted to Lok Nayak Hospital alone



People showing Covid-19 symptoms being taken to hospitals from Tablighi Jamaat office in Nizamuddin, Delhi

#### CASES LINKED TO EVENT

**Telangana:**  
Six deaths so far, including five who died on Monday

**TN & K'taka:** A 65-yr-old from TN and a man from Tumukur among dead

**J&K:** A 65-year-old businessman, preacher died in Srinagar

**Maharashtra:** A Filipino who died in Mumbai on March 22, part of a 10-member group from the Philippines that attended the event. Two more in the group tested positive, along with secretary of a mosque in Vashi. Mosque official's son and maid tested positive on March 26 and his grandson on March 27

### Prelims Factoids: Hydroxychloroquine

#### Relevance IN – Prelims (about Hydroxychloroquine + about Schedule drugs)

##### What's the NEWS

- Hydroxychloroquine* is now a schedule H1 drug, and can be sold on prescription only.

##### Know! more about Hydroxychloroquine

- The sale of the drug from now on should be in accordance with the conditions for sale of drugs specified in Schedule H1 to the Drugs and Cosmetics Rules, 1945.
- The Central Government is satisfied that the drug 'Hydroxychloroquine' is essential to meet the requirements of emergency arising due to pandemic COVID-19 and in the public interest, it is necessary and expedient to regulate and restrict the sale and distribution of the drug
- Hydroxychloroquine* is a drug used to prevent or treat malaria, and one theory suggests it could prevent the novel coronavirus from entering cells

## **Know! the difference between Schedule H, Schedule X and Schedule H1 drugs**

***According to drug and cosmetic act in India, drugs are divided into different schedules.***

### **Schedule H**

- schedule H stands for drugs to be sold on prescription of registered medical practitioner. These drugs should be labelled with the symbol 'Rx'

### **Schedule H1**

- schedule H1 stands for drugs to be sold on prescription of registered medical practitioner. This schedule was included in 2013 to check the indiscriminate use of antibiotics, anti-TB and some other drugs in the country.
- The package of the drugs will have a mandatory warning printed in a box with red colour border.
- The chemist should maintain the list of the customer names and details of the doctor who prescribed it. The list should be maintained with 3 years of data.

### **Schedule X**

- schedule X stands for narcotics and psychotropic drugs to be sold on prescription of registered medical practitioner.
- same rules are applied as per schedule H drugs.
- The drug retailer has to preserve the copy of prescription for two years and the drugs should be labelled with the symbol 'XRx'

## **Prelims Factoids: Genetic test and Serological test**

***Relevance IN – Prelims (about serological test and genetic test)***

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

- The Indian Council of Medical Research invited bids for an estimated 10 lakh antibody kits (for serological tests) for the diagnosis of COVID-19.

### **Know! about serological test and its benefits over genetic test**

- Viral infections are mainly identified by two kinds of tests– genetic and serological.
- Genetic tests can identify infections that are active, but cannot be used to detect past infections.
- To trace how infections like the novel coronavirus have spread so far, it is important to detect people who contracted the disease in the past and have recovered. This is what serological tests seek to determine.

### **Know! the difference between genetic and serological test**

- The genetic test is conducted on a swab collected from the back of the throat, a liquid sample from the lower respiratory tract, or a simple saliva sample.
- Unlike genetic tests, which look for RNA in swab samples, serological tests work on antibodies in blood samples. Hence, they are also called 'antibody tests'.

## **Prelims Factoids: Ministry of Tourism launches 'Stranded in India' portal**

***Relevance IN – Prelims (about Stranded in India portal)***


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

- The Ministry of Tourism, Government of India, with an aim to extend support to the foreign tourists who are stranded in India, has come up with a portal to disseminate information regarding the services that can be availed by foreign tourists who are stuck far away from their home land.

### **Know! more about the portal**

- The portal is titled 'Stranded in India' and aims to act as a support network for foreign tourists stuck in various parts of the country.
- The portal strandedinindia.com consists of information around Covid-19 helpline numbers and call centres that foreign tourists can reach out for help, information around Ministry of External Affairs control centers along with their contact information and information around state-based/regional tourism support infrastructure.

AA Not Secure — strandedinindia.com



**Ministry of Tourism**  
Government of India

COVID-19 Helpline Number : **+91-11-23978046 or 1075**

**#STRANDEDININDIA**

**For foreign travellers stranded anywhere in India**

The world is facing an unprecedented situation today. The Ministry of Tourism is with you in these difficult times. We are truly committed towards the safety of one and all. If you are a foreign traveller stranded anywhere in India due to the COVID-19 pandemic, we can help you get in touch with the concerned

COVID-19 Helpline Number :  
**+91-11-23978046 or 1075**

---

Helpline Email ID :  
**ncov2019@gov.in**  
**ncov2019@gov.com**

---

Whatsapp Number (Government of India's- COVID-19 helpdesk) :  
**+91 9013151515**

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BOI Helpline:  
**support.covid19-boi@gov.in**  
**011-24300666**

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Tourist Helpline:  
**1363 or 1800 11 1363**

## Prelims Factoids: Chinese govt recommends bear bile as cure for COVID-19

**Relevance IN -Prelims(about ursodeoxycholic acid or ursodiol)**

### What's the NEWS

- The Chinese government has suggested that bile extracted from bears could be a possible treatment for novel coronavirus disease (COVID-19)

### Know! more about it

- The government has put out a list of medicines to treat COVID-19 that include both western and traditional Chinese medicine.
- Among the 'cures' for COVID-19 is 'Tan Re Qing' that contains bear bile.
- Bile is usually produced in the liver and stored in the gall bladder.
- The Ursodeoxycholic acid in the bear bile can be used in the treatment of COVID-19.
- Bear bile contains ursodeoxycholic acid or ursodiol, that is helpful in dissolving gallstones and treating liver disease.
- Its use has been recorded in China for thousands of years and has continued into the present day
- The process of extracting bile from live bears is painful and can cause agony to the animal

## Prelims Factoids: NAVARATNALU – PEDALANDARIKI ILLU Scheme

**Relevance IN – Prelims (about Navaratnalu - Pedalandariki Illu programme)**

### What's the NEWS

- The Andhra Pradesh government has issued modified guidelines for the distribution of 25 lakh house sites to the poor in urban and rural areas under Navaratnalu - Pedalandariki Illu (houses for all the poor) programme as per the directions of the High Court



## Know! about the modified guidelines (as per the high court directions)

- The house sites will be allotted at a concessional rate of ₹1 to the beneficiaries with white ration cards.
- A sum of ₹20 (₹10 towards the cost of stamp paper, and ₹10 for lamination charges) will be collected from them.
- The beneficiaries have to use the sites for no purpose other than constructing houses and the title deeds will be in the form of conveyance deeds containing security features like photographs, thumb impressions, signatures of parties along with their details in addition to watermarks and emblems etc. on the stamp papers.
- Sale of vacant house sites is prohibited but the beneficiaries after construction of houses and occupying them for minimum five years can transfer in case of any necessity subject to conditions imposed by banks and financial institutions which extended credit for constructing the houses.

## Prelims Factoids: AarogyaSetu

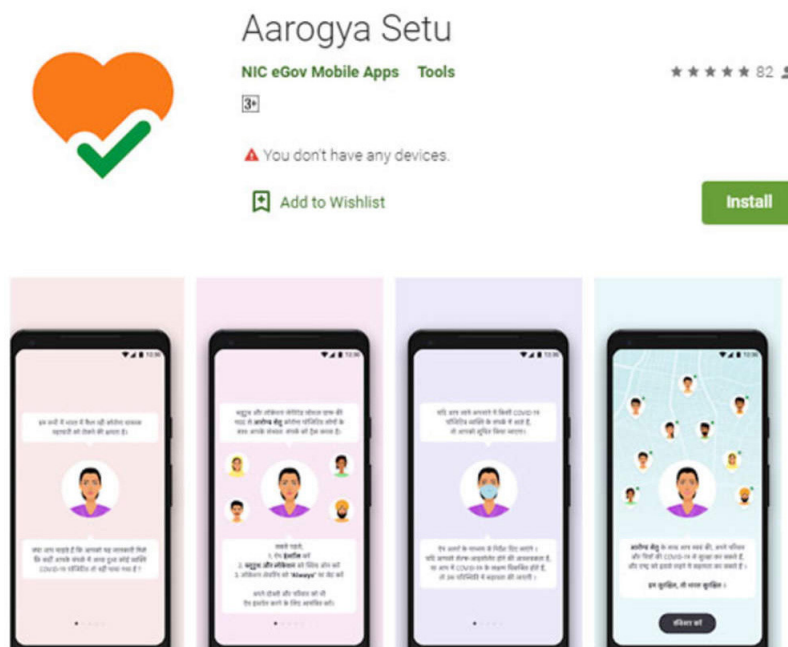
### Relevance IN – Prelims (about Arogya Setu app)

#### What's the NEWS

- The Government of India launched a mobile app developed in public-private partnership to bring the people of India together in a resolute fight against COVID-19.

#### Know! more about the app

- The App, called 'AarogyaSetu' joins Digital India for the health and well-being of every Indian.
- It will enable people to assess themselves the risk for their catching the Corona Virus infection.
- It will calculate this based on their interaction with others, using cutting edge Bluetooth technology, algorithms and artificial intelligence.
- Once installed in a smart phone the app detects other devices with AarogyaSetu installed that come in the proximity of that phone.
- The app can then calculate the risk of infection based on sophisticated parameters if any of these contacts is tested positive.
- The App will help the Government take necessary timely steps for assessing risk of spread of COVID-19 infection, and ensuring isolation where required.



## COVID-19: National Corona Survey

### Relevance IN – Prelims (about the National Preparedness Survey)

#### What's the NEWS

- The Ministry of State for Personnel, Public Grievances and Pensions released the National Preparedness Survey on COVID 19

#### Know! more about the Survey

- The COVID 19 National Preparedness Survey 2020 was conducted in 410 Districts in the Country within 3 working days to attain a bird's eye view of the governance challenges of the Nation while coping with the greatest health crisis India faced since Independence.
- The COVID 19 Preparedness Survey was conducted across all Districts of India, with responses from 410 civil servants who are providing field level leadership.

**The objectives of this preparedness survey are as follows:**

- to develop a comparative analysis of COVID 19 preparedness across States;
- to highlight the main priorities and constraints of COVID 19 preparedness, as they are perceived by the civil servants working in the field;
- to access enabling factors in making institutional/ logistics/ hospital preparedness, etc.;
- to capture trends to identify systemic and process related deficiencies, in combating COVID 19 in the districts of India.

## **COVID-19: Portable Multi-feed Oxygen Manifold (MOM)**

**Relevance IN – Prelims (about ‘Portable Multi-feed Oxygen Manifold (MOM)**

**What’s the NEWS**

- Personnel from Naval Dockyard in Andhra Pradesh’s Visakhapatnam have designed an innovative ‘Portable Multi-feed Oxygen Manifold (MOM)’ using a six-way radial header fitted to a single cylinder.

**Know! more about MOM**

- This innovation would enable one oxygen bottle to supply six patients concurrently thus enabling critical care management to a larger number of Covid-19 patients with the existing limited resources.
- The entire set up was made operational by the manufacture of a fine adjustment reducer and specific adapters of requisite dimensions for connecting the oxygen cylinder and the portable MOM.
- A typical oxygen providing facility at hospitals comprises of an oxygen cylinder feeding only one patient through a Ventimask arrangement.
- This portable arrangement could provide oxygen through masks to a number of needy patients using a single-cylinder during emergencies which is the need of the hour.
- After successful trials, Naval Dockyard, Visakhapatnam has commenced manufacture of 10 portable MOM with two 6-way radial headers catering for 120 patients at makeshift locations for cater for the Covid-19 pandemic.



## **Prelims Factoids: IAS, IPS officers’ associations form ‘Caruna’, an initiative to fight Coronavirus**

**Relevance IN – Prelims (about Caruna and its objective)**

**What’s the NEWS**

- Associations representing officers of Central Civil Services, including the Indian Administrative Service (IAS) and the Indian Police Service (IPS), have formed an initiative called ‘Caruna’ to support and supplement the government’s efforts in fighting coronavirus,

**Know! more about Caruna**

- The acronym ‘Caruna’ stands for Civil Services Associations Reach to Support in Natural Disasters and represents a collaborative platform, on which civil servants, industry leaders, NGO professionals and IT professionals among others have come together to contribute their time and abilities.



- Civil Service associations- IFS, IPS, IFoS, IRS (IT), IRS (C&E), IRPS, IRTS, IPOS, IA&AS, IDES, ICAS, IIS & IAS form CARUNA - Civil services Association Reach to Support in Natural Disasters - a technology platform to support Govt in the fight against #COVID19
- Caruna will support and supplement laudable government initiatives on a real time basis, besides sharing relevant information with @MoHFW\_INDIA, @mygovindia and the task forces set up by the central and state governments in the fight against COVID19

## Science & Technology: DST sets up rapid response centre at SINE, IIT Bombay to combat COVID-19 (CAWACH)

**Relevance IN – Prelims (about CAWACH and its objective) + about SINE)**

### What's the NEWS

- Department of Science & Technology, Government of India in a rapid response to combat COVID-19 global pandemic approved setting up of a **Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH)** to scout, evaluate and support the innovations and start-ups that address COVID-19 challenges.
- The Society for Innovation and Entrepreneurship (SINE), a technology business incubator at IIT Bombay supported by DST has been identified as the Implementing Agency of the CAWACH.

### Know! more about CAWACH and the role of DST

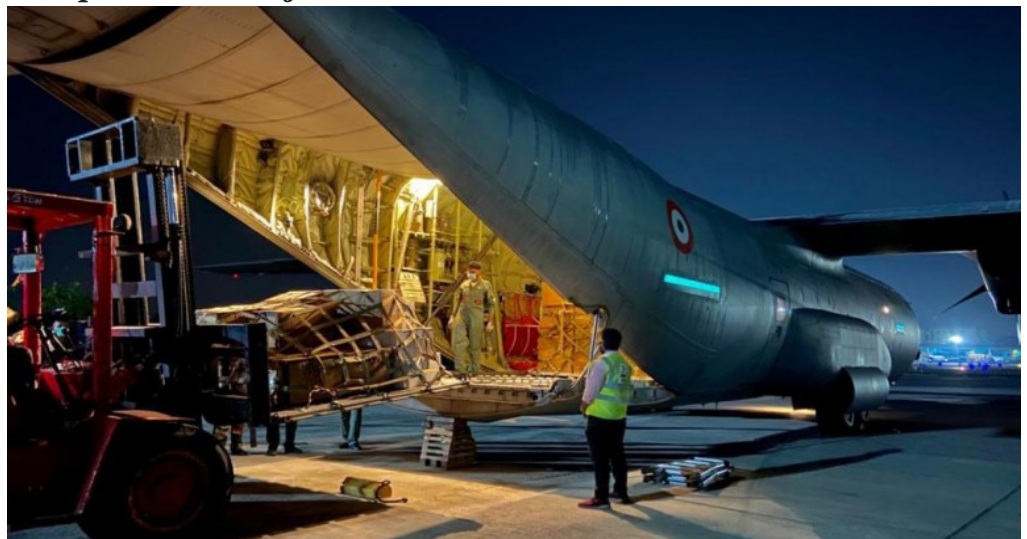
- DST's effort at this hour of need is to support R&D initiatives in this direction by boosting innovations offering comprehensive solutions like Ventilators, Diagnostics, Therapeutics, Informatics and other intervention for control and mitigation of Covid-19.
- The support will be provided to startups at different stages for fast tracking commercialization process and journey and scale-up across geographies which will have significant impact in the long term.
- The CAWACH's mandate will be to extend timely support to potential startups by way of the requisite financial assistance and fund deployment targeting innovations that are deployable in the market within next 6 months.
- CAWACH will identify upto 50 innovations and startups that are in the area of novel, low cost, safe and effective ventilators, respiratory aids, protective gears, novel solutions for sanitizers, disinfectants, diagnostics, therapeutics, informatics and any effective interventions to control COVID-19.
- It will provide access to pan India networks for testing, trial and market deployment of these products and solutions in the identified areas of priority COVID-19 solutions. This will help to address various challenges faced by country due to severe impact of Covid-19.

## Defence: IAF's C130J airlifts medicines, other health supplies to Maldives (Operation Sanjeevani)

**Relevance IN – Prelims (about operation Sanjeevani)**

### What's the NEWS

- The Indian Air Force (IAF) sent 6.2 tonnes of essential medicines and hospital consumables to the Maldives as this consignment could not be transported through usual channels due to the 21-day lockdown in India.
- IAF aircraft C-130J airlifted the supplies to Maldivian Capital, Male as part of Operation Sanjeevani



## **Know! more about Operation Sanjeevani**

- The Maldives is the first country in India's neighbourhood to have received essential medicines since the lockdown commenced in India.
- At the request of the government of Maldives, the IAF aircraft activated Operation Sanjeevani and lifted these medicines from airports in New Delhi, Mumbai, Chennai and Madurai before flying to the Maldives.
- The Indian Army facilitated the transport of these medicines and consumables from warehouses across India to the respective airports
- India had also sent a 14-member Covid-19 Rapid Response Team of doctors and specialists enhanced preparedness. The team worked closely with health authorities in Male and outlying islands.

## **Prelims Factoids: Naval Dockyard Mumbai designs low cost Temperature Gun**

### ***Relevance IN – Prelims (about the IR based temperature sensor)***

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

- Naval Dockyard, Mumbai has designed and developed its own handheld IR based temperature sensor for undertaking screening of large number of personnel at the entry gates of the yard reducing the load on the security sentries at the gate.

#### **Know! more about it**

- The instrument has been manufactured under Rs 1000 (US\$ 14.30)/ - through in-house resources (which is fraction of the cost of the Temperature Guns in the market).
- The non-contact thermometer has an Infrared sensor and an LED display integrated with a microcontroller which runs on a 9V battery.
- With the manufacturing cost of less than Rs 1000 (US\$ 14.30)/- the dockyard has the capability to scale up production of these if required towards which sourcing of the components is in progress.

#### **Know! the working of IR based temperature sensor**

- The non-contact thermometer works on the principle of Black body radiation and it uses lens to focus infrared light.
- Molecules of any object will start moving if the temperature of that particular object is above 0 degree
- If the temperature increases then the speed of the molecules also increases and as the molecules move they emit IR rays
- These IR rays from the hot body concentrated by a detector which is attached in the IR thermometer
- If the rays are more, the detector generates higher current. Higher the current, higher is the temperature of the body

## **Science & Technology: NIF invite innovative citizens to participate in Challenge COVID-19 Competition (C3)**

### ***Relevance IN – Prelims (about NIF + about C3)***

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

- National Innovation Foundation – India (NIF), an autonomous institute under the Department of Science and Technology, Govt. of India has come up with a call inviting innovative citizens to participate in its Challenge Covid-19 Competition (C3).

#### **Know! more about Challenge Covid-19 Competition (C3).**

- All interested innovators are welcome to participate with their creative ideas and innovations for problems or issues like reducing transmission of Corona virus through original creative ideas, innovations
- The initiative being launched will not only create awareness, but will intimately engage a wide cross-section of society with diverse backgrounds in providing and implementing solutions.
- The selected technological ideas and innovations will be supported for incubation and dissemination.



## Know! about the National Innovation Foundation (NIF)

- It 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 helps grassroots innovators and outstanding traditional knowledge holders get due recognition, respect and reward for their innovations.
- The INSPIRE Award - MANAK (Million Minds Augmenting National Aspiration and Knowledge) is being revamped and executed by Department of Science & Technology and National Innovation Foundation-India to align it with the action plan for "Start-up India

# CHALLENGE

## COVID-19

# COMPETITION

### (C3)

Today when the country is facing a great challenge crisis due to the Corona pandemic, National Innovation Foundation - India (NIF) wishes to engage innovative citizens in its Challenge COVID-19 Competition (C3) by requesting them to participate with their creative ideas and innovations for the following problems/issues.

#### Reducing transmission of Corona virus

The Government has suggested a slew of measures to reduce the transmission however can there be some original creative ideas / innovations, which can supplement the efforts of the government in slowing or eliminating the spread further.



#### Sanitising one's hands, body, home items and home, public places wherever required

To reduce transmission, sanitisation is very important. Government has urged people including Caregivers, to wash their hands periodically, not to touch their face and clean house daily. Any creative idea/innovation, which can make these tasks more interesting and effective?



#### Supply and distribution of essential items to people specially the elderly living alone

Despite lockdown, many people are seen outside their homes for the purchase of groceries or medicines. Ideas for door-to-door supply of essential products and services are invited which obliterate the need to move out of the home.



#### Healthy food for nutrition and boosting immunity

The damage due to the virus can be minimised if a person is healthy. Ideas for food or drinks, which help people build their immunity while at home may also be sent. It should be noted that the availability of raw materials is limited during the lockdown period hence only those food items may be suggested whose raw materials may be easily available.



#### Gainful engagement of people at home

It is increasingly becoming difficult for people, specially the children to be at home all the time. Ingenious ideas, which help people stay at home and also engage in productive activities, are invited.



## Human Resource Development: Bharat Padhe Online campaign

### Relevance IN – Prelims (about the campaign and its objective)

#### What's the NEWS

- The Human Resource Development Ministry has launched a week long 'Bharat Padhe Online' campaign for Crowd sourcing of Ideas for Improving Online Education ecosystem of India

#### Know! more about the campaign

- The campaign aims to invite all the best brains in India to share suggestions/solutions directly with HRD Ministry to overcome constraints of online education while promoting the available digital education platforms.




**Bharat Padhe Online : Intensifying Online Education!**

Log into Twitter and share your innovative ideas to boost e-Learning in India using **#BharatPadheOnline**. Tag **@HRDMinistry** and **@DrRPNishank** to notify us about your responses

OR

You can also email your suggestions at **bharatpadheonline.mhrd@gmail.com**

**Hurry: Entries valid only till 16<sup>th</sup> April**

- The Ideas can be shared on [bharatpadheonline.mhrd@gmail.com](mailto:bharatpadheonline.mhrd@gmail.com)
- Participation of Students and teachers in this campaign wholeheartedly will improve the existing online education methods. They can share what is lacking in the existing online platforms and how we can make them more engaging.
- The educators across the country can also come forward to contribute with their expertise and experience in the field of education.

## Government Schemes: Operation SHIELD

### Relevance IN – Prelims (about operation SHIELD)

#### What's the NEWS

- Delhi Chief Minister Arvind Kejriwal launched 'Operation SHIELD' for the neighbourhoods with a high concentration of COVID-19 cases in the national capital.

#### Know! all about operation SHIELD

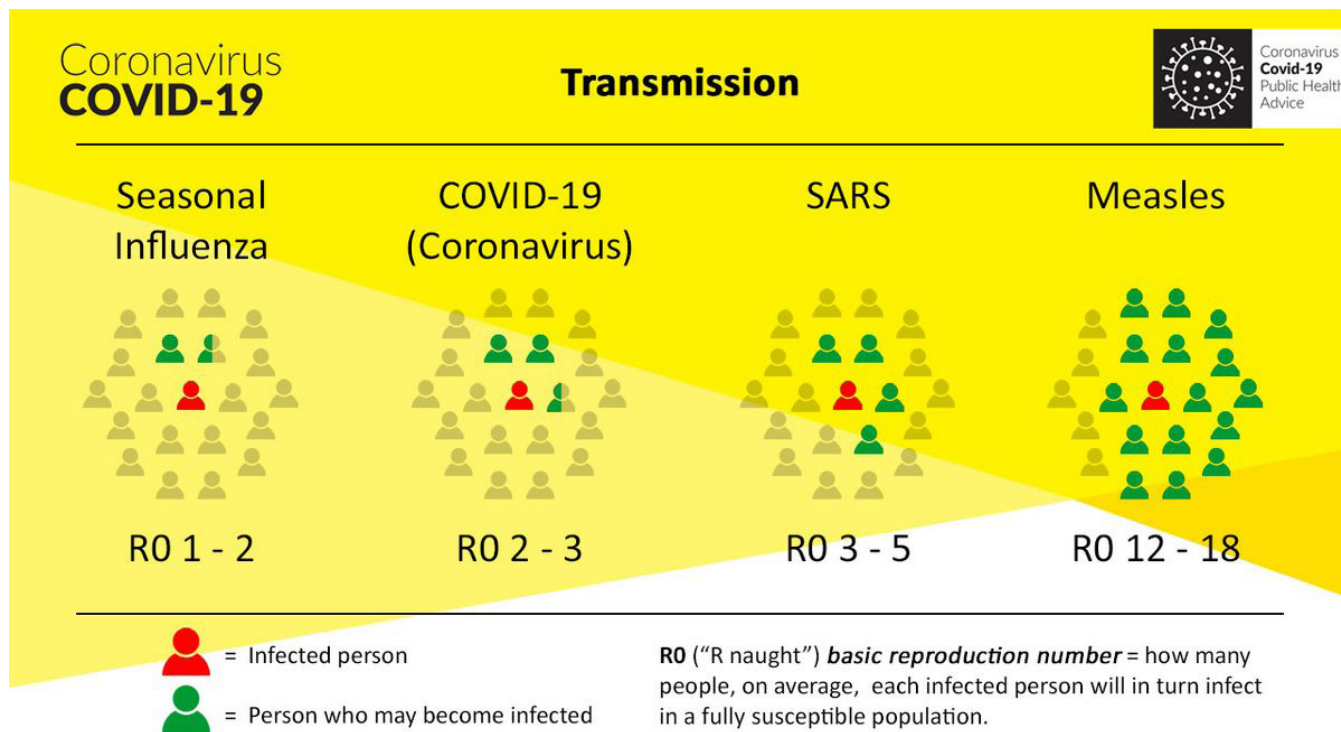
- The acronym SHIELD will stand for "Sealing, Home Quarantine, Isolation and Tracking, Essential Supply, Local Sanitisation and Door-To-Door Checking".
- 21 areas have been identified as containment zones in Delhi. These areas have been sealed. People are not being allowed to enter or exit from these areas
- All people in these areas will be under home quarantine. They will not be allowed to leave their homes. Coronavirus positive cases in these areas will be isolated and people they came in contact with will be traced

How containment takes place  
**Operation S.H.I.E.L.D.**

- S** Sealing of the immediate area or surroundings after geographical marking
- H** Home quarantine of all the people living in the area
- I** Isolation and Tracing of people who have been first and second contacts
- E** Essential Supply of commodities is ensured
- L** Local Sanitisation of the area by authorities
- D** Door 2 Door health checks of everyone living in the area

For Corona related queries, WhatsApp us on +91 8800007722

## Science and Technology: R0 (reproduction number)



## Relevance IN – Prelims (about RO)

### What's the NEWS

- R0 (pronounced “R-naught”) is the rate at which a virus is transmitted.

### Know! about it

- It indicates the average number of people who will contract the virus from a person who has already been infected, in a population that does not have immunity for the said disease.
- R0 is the division of the number of new infections by the number of existing infections, or the average number of new infections over an infectious period (**R0= new infections/existing infections**).
- The virus is assumed to be introduced to a population that does not have herd immunity or vaccination against it.
- To illustrate with an example, if the number of people diagnosed with a disease increases from four to eight in two days, it is likely to increase to 16 two days later, or in four days from the start. This makes the R0 two.
- The higher the R0, the more contagious the infection.
- **When the R0 is 1**, it means the number of infected persons in a population is constant. For every person who is cured of the disease or dies due to it, there will be one fresh case in the population.
- **When the R0 is below 1** it means the infection is transmitted to fewer people. When such a rate is maintained over a considerable period of time, the disease is eradicated.
- WHO has estimated the R0 for coronavirus at 1.4 to 2.5.

## Geographical features: Dhauladhar range in Himachal Pradesh visible from Jalandhar in Punjab

### Relevance IN – Prelims (about Dhauladhar mountain range)

#### What's the NEWS

- The Dhauladhar mountain range of Himachal, seen after 30 years, from Jalandhar(Punjab) after pollution drops to the lowest level in 30 years. The Dhauladhar mountain range is approx. 200 km away from Jalandhar
- Several Indian cities have recorded a decrease in pollution and improved air quality following the nationwide lockdown.



### Know! about Dhauladhar range

- The Dhauladhar range is part of a **lesser Himalayan chain** of mountains. It rises from the Indian plains to the north of Kangra and Mandi.
- Dhauladhar range, also known as the Outer Himalayas or Lesser Himalayas begin from near Dalhousie at the northwest end of Himachal Pradesh and pass through the state to the vicinity of the bank of the Beas River in the Kulu district of Himachal Pradesh.





- While they end near Badrinath in Garhwal, they lie almost entirely in Himachal Pradesh.
- The elevation of the Dhauladhar ranges widely from 3,500 m to nearly 6,000 m. From the banks of the Beas river in Kulu, the range curves towards the town of Mandi, Himachal Pradesh, India. Then, running north, it passes through Barabhangal, joins the Pir Panjal range and moves into Chamba, Himachal Pradesh.

## Science & Technology: CovidGyan

**Relevance IN – Prelims (about CovidGyan and its objective)**

### What's the NEWS

- To bring the scientific and factual aspects of this pandemic outbreak on to public domain, a multi-institutional, multi-lingual science communication initiative, called 'CovidGyan' has been created.
- The initiative is the brainchild of Tata Institute of Fundamental Research (TIFR), Indian Institute of Science (IISc), and Tata Memorial Centre (TMC).

### Know! more about the initiative

- An outcome of this initiative is the launch of a website that went live on April 03, 2020.
- This website also named CovidGyan serves as a hub to bring together a collection of resources in response to the COVID-19 outbreak.
- These resources are generated by public supported research institutions in India and associated programs.
- The content presented here relies on the best available scientific understanding of the disease and its transmission.
- The primary objective of this website is to create public awareness and bring in a holistic approach to the understanding of this disease and potential means to mitigate it.
- The id of the website is: <https://covid-gyan.in>



## Prelims Factoids: Festivals of India

**Relevance IN – Prelims (Vaisakhi, Vishu, Rongali Bihu, Naba Barsha, Vaisakhadi, Puthandu, Pirappu – in match the following)**

### What's the NEWS

- The President of India, Shri Ram Nath Kovind extend his warm greetings and good wishes on the occasion of Vaisakhi, Vishu, Rongali Bihu, Naba Barsha, Vaisakhadi, Puthandu, Pirappu, which are being celebrated in different parts of the country on 13th and 14th April, 2020



- These festivals are a symbol of unity inherent in the cultural diversity of India and are also an occasion to celebrate our farmers.
- Our farmers should always be at the centre of our gratitude as they not only produce food grains for us but also bring us food security and prosperity through their tireless efforts.

***Know! about these harvesting and New Year festivals of Vaisakhi, Vishu, Rongali Bihu, Naba Barsha, Vaisakhadi, Puthandu, Pirappu***

**Vaisakhi**

- The Sikh New Year festival is one of the most important dates in the Sikh calendar.
- It marks the start of the Punjabi New Year, but it is also a day to celebrate 1699 - the year when Sikhism was born as a collective faith.
- It is celebrated on 13 or 14 April
- Vaisakhi has been a harvest festival in Punjab - an area of northern India - for a long time, even before it became so important to Sikhs.
- In 1699, Guru Gobind Singh chose the festival as the moment to establish the Khalsa - that's the collective name given to Sikhs who've been baptised.

**Vishu heralds**

- The festival of Vishu heralds the beginning of the Malayalee New Year and the festival is celebrated in a big way in Kerala and the adjoining areas of Tamil Nadu.
- Malayalee people celebrate Vishu as the New Year Day celebration.

**Rongali Bihu**

- Bohag Bihu or Rongali Bihu is a festival celebrated in the state of **Assam** and northeastern India, and marks the beginning of the Assamese New Year.

**Naba Barsha**

- Naba Barsha is the celebration of Bengali New Year !! Naba Barsha in Bengal marks the first day of Baisakh - the first month of Bengali Calendar.
- The festival usually falls on the 13th or 14th day of April according to English Calendar Year.
- Naba Barsha festival is known as Poila Baisakh in Bangladesh and is celebrated as a national holiday.

**Puthandu**

- Puthandu also known as Puthuvarudam or Tamil New Year, is the first day of year on the Tamil calendar and traditionally celebrated as a festival.
- The festival date is set with the solar cycle of the lunisolar Tamil calendar, as the first day of the Tamil month Siththirai.
- It therefore falls on or about 14 April every year on the Gregorian calendar.
- The same day is observed by Hindus elsewhere as the traditional new year, but is known by other names such as Vishu in Kerala, and Vaisakhi or Baisakhi in central and northern India.

**Pirappu**

- **Aadi "Pirappu"**: The first day of the Aadi Month is very significant and prescribed rituals are performed in every Hindu-Tamil household and temples across Tamil Nadu.
- Every Tamil month is named as per the Hindu zodiac star on the full-moon day or the "PournamiDivasom"
- The star on the full-moon day of Aadi month is called "Ashaada". Hence this month is called 'Ashaadi' in the North of India and 'Aadi' in the South. Every Sunday, Tuesday and Friday of this month are considered to be very holy.

**Prelims Factoids: Unnayan: Mera Mobile, Mera Vidyalaya**

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

**What's the NEWS**

- Bihar Education Project Council (BEPC) has launched a mobile application and plans to book a slot with the All India Radio for the audio broadcast of study materials for government school students.

### Know! more about the app

- The BEPC, a wing of the State Education department, launched a mobile application “Unnayan: Mera Mobile, Mera Vidyalaya” for Class VI to XII of over 70,000 government-run schools.
- The app, was jointly developed by the United Nations Children’s Fund (UNICEF), the Bihar government and Eckovation, a social learning platform.
- The BEPC also has planned to book a slot with the All India Radio for the audio broadcast of study materials for school students.
- The BEPC has also encouraged students for the use of online education portals like Diksha.
- NCERT books are available free of cost on Diksha app for Class 1 to XII and has also integrated audio-visual media along with digital textbooks for better understanding and online assessment

## Prelims Factoids: 6 theme-based microsites to promote tourism spots

### Relevance IN – Prelims (about the theme based microsites and its objective)

#### What’s the NEWS

- Kerala Tourism has geared up for the post-COVID-19 era by coming up with six theme-based microsites in the official website to promote destination and tourism products and get an upper hand in the virtual marketing among brands.

#### Know! more about it

- The aim is to retain an edge in the post COVID-19 era for the official website that ranks first in the search results since 2004.
- The move to infuse content into the website and give a refreshing look is part of the long-term strategy to overcome the impact of COVID-19 that has taken a heavy toll on the travel and tourism industry facing job cuts and low margins.

#### The New microsites

1. Yoga
2. Kalaripayattu - an ancient martial art indigenous to the State
3. Temples of Kerala
4. Judaism in Kerala
5. Ayurveda
6. Discovering Malabar

*These are the new microsites that have been featured.*

## Human Resource Development: Fit India and CBSE organise first-ever live fitness sessions for school students



## ***Relevance IN – Prelims (about the Fit India, CBSE and Ministry of Ayush collaboration + about FIT India + Khelo India)***

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

- **Fit India**, the Government of India's flagship fitness movement is yet again set to start a new series of fitness sessions in partnership with the Central Board of Secondary Education (**CBSE**) for school children from across the country. During the programme guidelines of Ministry of **AYUSH** to stay healthy will be shared with students.
- Fit India and CBSE have taken this unique initiative to ensure fitness of all school children.
- Besides sessions on fitness-related issues, guidelines of the Ministry of Ayush on ways to build immunity and stay healthy during this time will also be shared with students.
- The live sessions will cover all aspects of children's fitness from daily workouts to yoga, nutrition to emotional well-being.

### **Know! about Fit India Movement**

- Fit India Movement under the Ministry of Youth affairs and sports is a nation-wide movement in India to encourage people to remain healthy and fit by including physical activities and sports in their daily lives.
- It was launched by Prime Minister of India Narendra Modi at Indira Gandhi Stadium in New Delhi on 29 August 2019 (National Sports Day).

### **Know! about Khelo India Youth Games (KIYG)**

- Khelo India Youth Games (KIYG), formerly Khelo India School Games (KISG) held annually in January or February, are the national level multidisciplinary grassroot games in India held for two categories, namely under-17 years school students and under-21 college students.
- Every year best 1000 kids will be given an annual scholarship of ₹5 lakh (US\$7,000) for 8 years to prepare them for the international sporting events.
- The **Training of Trainers (TOT)** Programme will be carried out semi-annually or quarterly to include all the interested teachers, principals, vice-principals and physical education trainers

## **Prelims Factoids: “DekhoApnaDesh” webinar series**



## ***Relevance IN – Prelims (about the webinar series and its 15 locations)***

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

- The Ministry of Tourism has launched “DekhoApnaDesh” webinar series to provide information on the many destinations and the sheer depth and expanse of the culture and heritage of our Incredible India.

### **Know! more about the webinar**

- The first webinar, which was part of a series that shall unfold, touched upon the long history of Delhi as it has unfolded as 8 cities, each one unique in its character and leaving behind traces which makes Delhi the magnificent city that it is today.
- The webinar was titled “City of Cities- Delhi's Personal Diary”.

- The series of webinars shall be an on-going feature and the Ministry would work towards showcasing the diverse and remarkable history and culture of India including its monuments, cuisine, arts, dance forms, natural landscapes, festivals and many other aspects of the rich Indian civilization.

## Defence: COVSACK

### *Relevance IN – Prelims (about COVSACK)*

#### What's the NEWS

- Defence Research & Development Laboratory (DRDL), Hyderabad under the Defence Research and Development Organisation (DRDO) has developed COVID Sample Collection Kiosk (COVSACK) to combat Coronavirus (COVID-19)

#### Know! more about COVSACK

- The unit has been developed by DRDL in consultation with the doctors of **Employees' State Insurance Corporation (ESIC)**, Hyderabad.
- The COVSACK is a kiosk **for use by healthcare workers** for taking COVID-19 samples from suspected infected patients.
- Patient under test walks into the Kiosk and a nasal or oral swab is taken by health care professional from outside through the built in gloves.
- The Kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread.
- The shielding screen of kiosk cabin protects the health care worker from the aerosols/droplet transmission while taking the sample. This reduces the requirements of PPE change by health care workers.



## Prelims Factoids: Virus halts J&K's 'Durbar move' for the first time in 144 years

### *Relevance IN – Prelims (about Durbar Move)*

#### What's the NEWS

- For the first time in 144 years, the J&K administration has decided to halt the annual shifting of the capital, called 'Durbar move', from Jammu to Srinagar in J&K due to the ongoing COVID-19 crisis,

#### Know! more about Durbar Move

- Introduced by Dogra monarch Maharaja Gulab Singh in 1872, the 'Durbar move' would see shifting of the Civil Secretariat in summers from Jammu to Srinagar and in winters from Srinagar to Jammu.
- In January 1987, the then Prime Minister Rajiv Gandhi had asked then Chief Minister Farooq Abdullah to stop the practice.
- The 'Durbar move' was continued to allow it to act as a bridge between two diverse cultures of the Kashmir Valley and the Jammu region.

## Prelims Factoids: Pattachitras

### *Relevance IN – Prelims (about Pattachitras)*

#### What's the NEWS

- Raghurajpur, The heritage crafts village that was often teeming with visitors has fallen silent. COVID-19 pandemic has robbed the livelihood of the artists here.

#### Know! about Pattachitras

- Traditional paintings in which mythological, religious stories and folk lore are told through intricate canvassing,
- Pattachitra or Patachitra is a general term for traditional, cloth-based scroll painting, based in the eastern Indian state of Odisha
- Pattachitra artform is known for its intricate details as well as mythological narratives and folktales inscribed in it.



- Pattachitra is one of the ancient artworks of Odisha.
- In the Sanskrit language, “Patta” literally means “cloth” and “Chitra” means “picture”.
- Most of these paintings depict stories of Hindu deities.
- These paintings are based on Hindu mythology and specially inspired by Jagannath and Vaishnava sect

## Prelims Factoids: COVID India Seva launched

### Relevance IN – Prelims (about COVID India Seva)

#### What's the NEWS

- The Ministry of Health & Family Welfare launched the COVID India Seva, which provided an interactive platform to establish a direct channel of communication with millions of Indians amid the pandemic.

#### Know! more about it

- This initiative is aimed at enabling transparent e-governance delivery in real-time and answering citizen queries swiftly, at scale, especially in crisis situations like the ongoing COVID-19 pandemic.
- Through this, people can pose queries @CovidIndiaSeva and get them responded to in almost real time.
- @CovidIndiaSeva works off a dashboard at the backend that helps process large volumes of tweets, converts them into resolvable tickets, and assigns them to the relevant authority for real-time resolution.
- It is powered by a team of experts who are trained and equipped to treat and respond to each query uniquely, and at scale.
- This will enable to establish a direct channel with Indian citizens, connecting with them in real-time to provide authoritative health and public information.



## Prelims Factoids: Saiyam Mobile App

### Relevance IN – Prelims (about Saiyam Mobile app)

#### What's the NEWS

- In order to effectively track the home-quarantined citizens and ensure they are actually staying in the home, a mobile application named Saiyam has been developed by the Pune Municipal Corporation under Smart Cities Mission (SCM).

#### Know! more about the app

- The teams will check if those under home quarantine have downloaded the Saiyam Mobile Application.
- The Mobile Application has GPS tracking so that whenever quarantined citizens leave their homes, City Administration gets alerted and the local ward or the local police station gets informed, who then visit the family.



## Miscellaneous: Global press freedom index

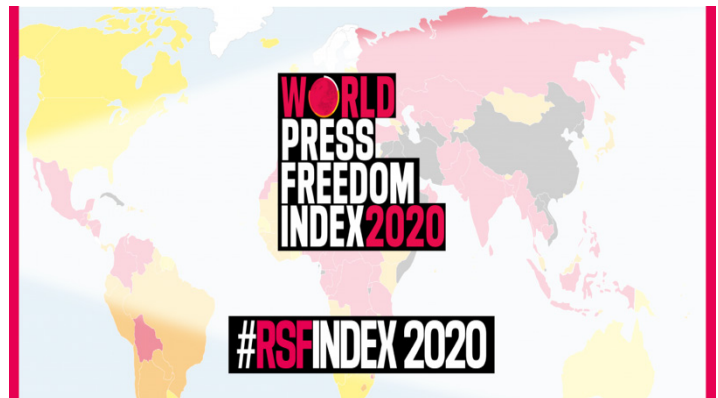
**Relevance IN – Prelims (about the index and its findings) + Mains (GS II Governance/ transparency/accountability – findings of the report to validate your answer writing)**

### What's the NEWS

- India has **dropped two places** on a global press freedom index to be **ranked 142nd** out of 180 countries in the annual Reporters Without Borders analysis

### Findings of the report (World)

- South Asia in general features poorly on the index, with Pakistan dropping three places to 145, and Bangladesh dropping one place to 151.
- Norway is ranked first** in the Index for the fourth year running. China at 177th position is just three places above North Korea, which is at 180th.



### Findings of the report (India)

- With no murders of journalists in India in 2019, as against six in 2018, the security situation for the country's media might seem, on the face of it, to have improved.
- However, there have been constant press freedom violations, including police violence against journalists, ambushes by political activists, and reprisals instigated by criminal groups or corrupt local officials
- It attributed the decline in index to "pressure on the media to toe the Hindu nationalist government's line."

### Reporters Without Borders

- Paris-based Reporters Sans Frontieres (RSF), or Reporters Without Borders, is a **non-profit organisation** that works to document and combat attacks on journalists around the world.

## Prelims Factoids: Sujalam Sufalam Jal Sanchay Abhiya

**Relevance IN – Prelims (about Sujalam Sufalam Jal Sanchay Abhiyan)**

### What's the NEWS

- The Gujrat government gave the green signal for the third edition of his government's "Sujalam Sufalam Jal Sanchay Abhiyan", a **conservation plan to deepen water bodies in the state before monsoon**.

### Know! more about the scheme

- The scheme, which will continue till June 10, will see the deepening of lakes, check dams and rivers by removing silt, and it will be done with people's participation as well as under MNREGA
- It would create employment opportunities for the rural population amid the lockdown, adding that norms in place to combat the coronavirus outbreak will be adhered to while carrying out works under the scheme.
- The scheme was started in 2018 after a weak monsoon, and till date, the state's water storage capacity has increased by 23,000 lakh cubic feet due to deepening of lakes, check-dams, rivers and reservoirs

## Defence: Project Chetak

**Relevance IN – Prelims (about project Chetak + river Ravi + BRO)**

### What's the NEWS

- Border Roads Organisation (BRO) has constructed and opened a new permanent bridge on the river Ravi connecting Kasowal enclave in Punjab to the rest of the country much ahead of its schedule.
- The 484-meter bridge was built by 141 Drain Maintenance Coy of 49 Border Roads Task Force (BRTF) of **Project Chetak**.

### Know! about BRO

- The Border Roads Organisation (BRO) which comes under the **Ministry of Defence** develops and maintains road networks in India's border areas and friendly neighbouring countries.
- The BRO operates and maintains over 32,885 kilometers of roads and about 12,200 meters of permanent bridges in the country.
- The BRO **operates in 18 Projects** namely: Arunank, Beacon, Brahmanak, **Chetak**, Deepak, Dantak, Himank, Hirak, Pushpak, Sampark, Setuk, Sewak, Shivalik, Swastik, Udayak, Vartak, Vijayak and Sela tunnel.



### Know! about Ravi River

- The Ravi River, a transboundary river of India and Pakistan, is an integral part of the Indus River Basin and forms the headwaters of the Indus basin.
- The waters of the Ravi River drain into the Arabian Sea (Indian Ocean) through the Indus River in Pakistan.
- The river rises in the Bara Bhangal, District Kangra in Himachal Pradesh, India.
- It is one of six rivers of the Indus System in Punjab region
- The waters of the Ravi are allocated to India under the Indus Waters Treaty.

## Miscellaneous: Anthurium

**Relevance IN – Prelims (about Anthurium + cross pollination + National Innovation Foundation + tissue culture) + Mains (GS III awareness in the field of Science and technology)**

### What's the NEWS

- D Vasini Bai, a women innovator from Thiruvananthapuram, Kerala, has developed ten varieties of *Anthurium*, a flower with high market value, by **cross-pollination**.

### Know! all about Anthurium

- Anthurium (*Anthurium spp.*) is a vast group of beautiful blooming plants available in a wide range of colors.
- Anthurium is one of the best domestic flowering plants in the world. They are beautiful but also purify the surrounding air and remove harmful airborne chemicals like formaldehyde, ammonia, toluene, xylene, and allergens.
- The National Innovation Foundation-India has facilitated mass multiplication and large scale production of four highly demanded varieties **through tissue culture technique** at the Indian Institute of Horticultural Research (IIHR), Bangalore, for the diffusion of the varieties in similar agroclimatic zones of the country.

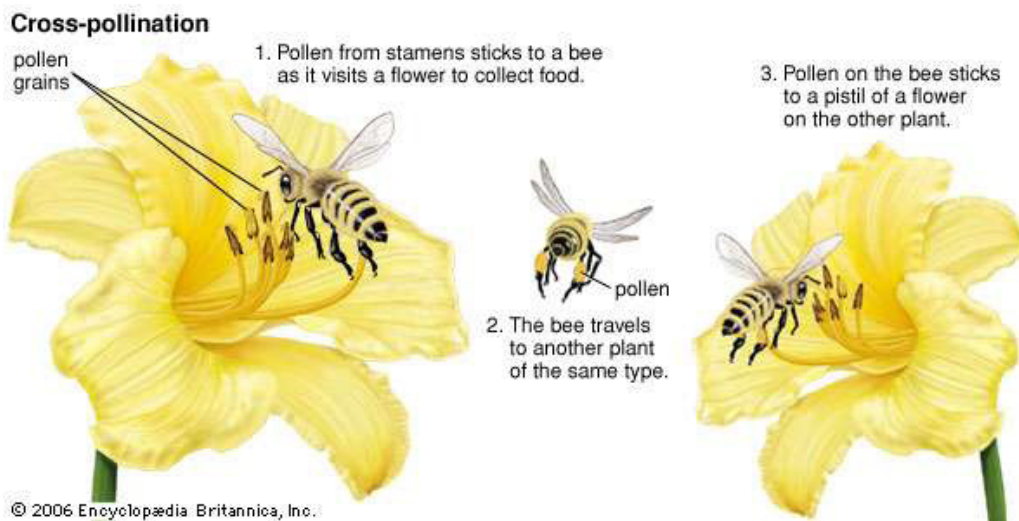
### Know! about Tissue culture technique

- Tissue culture is a technique in which small tissue pieces or organs are removed from a donor plant and cultured aseptically on a nutrient medium.
- By manipulating the chemical composition of the nutrient medium and other environmental parameters, the growth and development of the tissues in culture can be directed into different channels.





## Know! about Cross Pollination



### *The process of cross-pollination using an animal pollinator.*

- Cross pollination is when one plant pollinates a plant of another variety. The two plants' genetic material combines and the resulting seeds from that pollination will have characteristics of both varieties and is a new variety.

## National Innovation Foundation (NIF)

- NIF India is an autonomous body of the Department of Science and Technology (DST), Government of India.
- It was set up in February 2000 at Ahmedabad, Gujarat to provide institutional support for scouting, spawning, sustaining and scaling up the grassroots innovations across the country.

## Human Resource Development: Ruhdaar

### *Relevance IN – Prelims (about Ruhdaar)*

#### What's the NEWS

- A team of engineering students from IIT Bombay, NIT Srinagar and Islamic University of Science & Technology (IUST), Awantipora, Pulwama, Jammu and Kashmir is a group of creative individuals who have come forward to solve the problem of ventilator requirement. The team has come up with a **low-cost ventilator** using locally available materials.

#### Know! more about it

- The team has been able to design a low-cost ventilator using locally available materials.
- Ruhdaar provides necessary functionalities which can provide adequate breathing support necessary to save the life of a critically ill COVID-19 patient.



## Health: Immunity passports

### *Relevance IN – Prelims (about immunity passports)*

#### What's the NEWS

- The World Health Organization has **warned against issuing "immunity passports"** to people who have recovered from Covid-19, as there is no evidence that they will be protected from a second infection.



## Know! more about it

- The idea of issuing some form of certificates to people who have been sick with the virus – on the assumption they would be immune to reinfection – has been gaining ground in many places, including the UK, as authorities cast around for ways out of socially and economically devastating lockdowns.
- The WHO warned that “there is currently no evidence that people who have recovered from Covid-19 and have antibodies are protected from a second infection.
- Instead, the certificates could pose a health risk by providing unjustified assurances of protection to individuals and their communities.
- People who assume that they are immune to a second infection because they have received a positive test result may ignore public health advice. The use of such certificates may therefore increase the risks of continued transmission.
- Chile is so far the only country to launch an official immunity passport scheme. Elsewhere there have been concerns that schemes will be unreliable and impractical if only a small portion of the population has been infected.

## NO CLARITY YET

**Countries still testing SARS-CoV-2 antibodies at population level or health care workers**

- Such studies will produce data of people with detectable Covid-19 antibodies
- Many such studies are not designed to determine whether these people are immune to secondary infections
- Not much is known about immune response to Covid-19 for immunity passports to work
- Such initiatives could also provide false sense of security

## Miscellaneous: World Intellectual Property Day

**Relevance IN – Prelims (about World Intellectual Property day + about WIPO) + Mains (GS III issues relating to intellectual property rights)**

### Know! all about World Intellectual Property day

- The event was established by the World Intellectual Property Organization (WIPO) in 2000 to “raise awareness of how patents, copyright, trademarks and designs impact on daily life” and “to celebrate creativity, and the contribution made by creators and innovators to the development of societies across the globe
- 26 April was chosen as the date for World Intellectual Property Day because it coincides with the date on which the Convention Establishing the World Intellectual Property Organization entered into force in 1970.
- Every year, April 26 marks World Intellectual Property Day, when thousands of people around the globe celebrate the role that intellectual property (IP) rights play in encouraging innovation and creativity.
- This year’s World IP Day has taken a closer look at green innovation and sustainable technology, under the timely theme “Innovate for a Green Future”.



**INNOVATE  
FOR A  
GREEN  
FUTURE**  
WORLD  
INTELLECTUAL  
PROPERTY DAY  
2020

### World Intellectual Property Organization

- The World Intellectual Property Organization (Headquartered in Geneva, Switzerland) is one of the 15 specialized agencies of the United Nations (UN).
- WIPO currently has 193 member states
- 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, a date commemorated annually as World Intellectual Property Day, which raises awareness of the importance of IP.

- Unlike most UN organizations, WIPO does not rely heavily on assessed or voluntary contributions from member states; 95 percent of its budget comes from fees related to its global services.

## Science & Technology: Hospital Care Assistive Robotic Device (HCARD)

### *Relevance IN – Prelims (about HCARD)*

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

- The robotic device HCARD, in short for Hospital Care Assistive Robotic Device, can help frontline healthcare workers in maintaining physical distance from those infected by coronavirus.

#### **Know! more about HCARD**

- HCARD is developed by Durgapur-based CSIR lab, Central Mechanical Engineering Research Institute.
- The device is equipped with various state-of-the-art technologies and works both in automatic as well as manual modes of navigation.
- This robot can be controlled and monitored by a nursing booth with a control station having such features as navigation, drawer activation for providing medicines and food to patients, sample collection and audio-visual communication.



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# **GENERAL STUDIES I**

**Indian Heritage and Culture,  
History and Geography of the  
World and Society**



## Geographical features: Record sea temperatures cause third mass bleaching of Great Barrier Reef

**Relevance IN – Prelims (about great barrier reef + about coral reef and its features) + Mains GS I (geographical features and their location- changes in critical geographical features (including water bodies and ice-caps) and in flora and fauna and the effects of such changes.)**

### What's the NEWS

- Australia's Great Barrier Reef has suffered its most widespread coral bleaching on record. It is a big threat posed by climate change to the world's largest living organism.
- A third mass bleaching event in five years is a clear signal the marine wonder is "calling for urgent help" on climate change.
- The Great Barrier Reef has experienced five mass bleaching events – 1998, 2002, 2016, 2017 and 2020 – all caused by rising ocean temperatures driven by global heating.



### Know! more about the study

- A comprehensive survey last month found record sea temperatures had caused the third mass bleaching of the 2,300-kilometre reef system in just five years.
- Bleaching occurs when healthy corals become stressed by changes in ocean temperatures, causing them to expel algae living in their tissues which drains them of their vibrant colours.
- For the first time, severe bleaching has struck all three regions of the Great Barrier Reef -- the northern, central and now large parts of the southern sectors.
- The damage came as February brought the highest monthly sea temperatures on the Great Barrier Reef since Australia began keeping records in 1900.
- The reef is worth an estimated 4 billion dollars a year in tourism revenue for the Australian economy, but is at risk of losing its coveted world heritage status because warmer oceans brought about by climate change have damaged its health.
- Bleaching was first seen on the reef in 1998 -- at the time, the hottest year on record -- but as temperature records continue to tumble its frequency has increased, giving coral less time to recover.

### The Great Barrier Reef

- The Great Barrier Reef is the world's largest and longest coral reef system, stretching for 2,300km comprising 3,000 separate reefs and some 900 continental islands and coral cays, it's one of the world's great natural wonders.
- A World Heritage Area since 1981 (the world's first reef ecosystem to be recognised by UNESCO), it is highly protected and one of the best-managed marine areas on Earth.
- This reef structure is composed of and built by billions of tiny organisms, known as coral polyps.

### Know! about Coral reefs

- Coral reefs are large underwater structures composed of the skeletons of colonial marine invertebrates called coral.



- The coral species that build reefs are known as hermatypic, or “hard,” corals because they extract calcium carbonate from seawater to create a hard, durable exoskeleton that protects their soft, sac-like bodies.
- Each individual coral is referred to as a polyp. Coral polyps live on the calcium carbonate exoskeletons of their ancestors, adding their own exoskeleton to the existing coral structure.
- As the centuries pass, the coral reef gradually grows, one tiny exoskeleton at a time, until they become massive features of the marine environment.

## Culture: National List of Intangible Cultural Heritage (ICH) of India launched

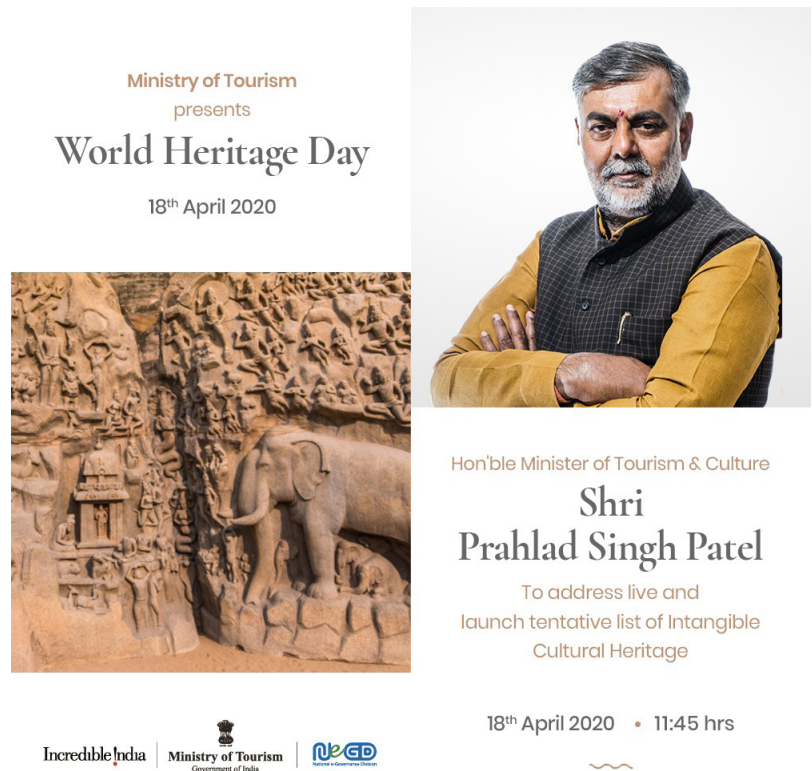
**Relevance IN – Prelims (about ICH + about the 13 Intangible Cultural Heritage elements from India inscribed on UNESCO’s Representative List + World Heritage Day) + Mains (GS I Indian Culture)**

### What’s the NEWS

- Minister for Culture launched the **National List of Intangible Cultural Heritage (ICH)** of India

### Intangible Cultural Heritage(ICH)

- India houses a repository of unique Intangible Cultural Heritage(ICH) traditions, **13 of which have also been recognized** by UNESCO as Intangible Cultural Heritage of Humanity.
- The National ICH List is an attempt to recognize the diversity of Indian culture embedded in its intangible heritage.
- It aims to raise awareness about the various intangible cultural heritage elements from different states of India at national and international level and ensure their protection.
- This initiative is also a part of the Vision 2024 of the Ministry of Culture.



Following UNESCO’s 2003 Convention for Safeguarding of Intangible Cultural Heritage, this list has been classified into **five broad domains** in which intangible cultural heritage is manifested:

1. Oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;
2. Performing arts;
3. Social practices, rituals and festive events;
4. Knowledge and practices concerning nature and the universe;
5. Traditional craftsmanship.

### Safeguarding the Intangible Cultural Heritage and Diverse Cultural Traditions of India

- The present items in the list have been collated from the projects sanctioned under the scheme for ‘**Safeguarding the Intangible Cultural Heritage and Diverse Cultural Traditions** of India’ formulated by the Ministry of Culture in 2013.
- The aim and objective of this scheme is to professionally enhancing awareness and interest in Intangible Cultural Heritage (ICH), safeguarding, promoting and propagating it systematically.
- As of now the list has **more than 100 elements**, It also **includes the 13** elements of India that have already been inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.

***Know! about the 13 Intangible Cultural Heritage elements from India inscribed on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.***

- The Sangeet Natak Akademi (SNA) an autonomous organisation under the Ministry of Culture, is the nodal office for matters relating to the intangible cultural heritage including for preparation of the nomination dossiers for the Representative List of UNESCO.

*Some of the major organisations involved in preservation of propagation of ICH are named below:*

1. ahitya Akademi, Lalit Kala Akademi, Sangeet Natak Akademi
2. Indira Gandhi National Centre for the Arts
3. National School of Drama
4. Centre for Cultural Resources & Training
5. Zonal Cultural Centres (seven in number)
6. Indira Gandhi Rashtriya Manav Sangrahalaya
7. Anthropological Survey of India

***Representative List of the Intangible Cultural Heritage of Humanity***

<u>S.No.</u>	<u>ICH Element</u>	<u>Year of Inscription</u>
	Tradition of Vedic chanting	2008
	Ramlila, the traditional performance of the Ramayana	2008
	Kutiyattam, Sanskrit theatre	2008
	Ramman, religious festival and ritual theatre of the Garhwal Himalayas, India	2009
	Mudiyettu, ritual theatre and dance drama of Kerala	2010
	Kalbelia folk songs and dances of Rajasthan	2010
	Chhau dance	2010
	Buddhist chanting of Ladakh: recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region, Jammu and Kashmir, India	2012
	Sankirtana, ritual singing, drumming and dancing of Manipur	2013
	Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab, India	2014
	Yoga	2016
	Nawrouz, Novruz, Nowrouz, Nowrouz, Nawrouz, Nawryz, Nooruz, Nowruz, Navruz, Nevruz, Nowruz, Navruz	2016
	Kumbh Mela	2017

***Know! about World Heritage Day***

- World Heritage Day is observed every year on April 18 to preserve the human heritage and recognize the efforts of the organizations working for it.
- Shared Cultures, Shared Heritage, Shared Responsibility is the theme of 2020.
- It is decided by the International Council on Monuments and Sites every year.

***International Council on Monuments and Sites (ICOMOS)***

- The ICOMOS organization was established on the principles put down in the Venice Charter, also known as the 1964 International Charter on the Conservation and Restoration of Monuments and Sites.
- In 1983 at the 22nd session of the UNESCO Conference, a resolution to celebrate World Heritage Day was passed on April 18 every year.

### **Know! about World Heritage site**

- It is a place that is listed by the United Nations Educational Scientific and Cultural Organization as of cultural importance.
- World Heritage Day gives us an opportunity to conserve and preserve our heritage culture which is of ancient significance.
- Archaeological Survey of India will light candles and diyas at Red Fort, Qutub Minar, and Humayun's tomb to express solidarity to the 'corona warriors' on World Heritage Day.



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# **GENERAL STUDIES II**

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

## Health: Medical devices to be treated as drugs from April 1

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

### What's the NEWS

- The central government notified all medical devices sold in the country will be treated as drugs under the Drugs and Cosmetics Act with effect from April 1, 2020.
- This means, all medical devices will be regulated by the government as drugs for quality control and price monitoring.

### Know! more about it

- The government is regulating 24 classes of medical devices which have been notified/regulated as drugs under Drugs & Cosmetics Act 1940 and Drugs & Cosmetics Rules 1945
- Currently, 24 medical devices are regulated under the Drugs and Cosmetics Act.
- Following this order, all medical devices used to treat a patient - be it syringes, needles, cardiac stents, knee implant, digital thermometers, CT scan, MRIs, dialysis machines - will be regulated under the DCA.
- As per the notification, four medical devices, cardiac stents, drug eluting stents, condoms and intra uterine devices (Cu-T), are scheduled medical devices for which ceiling prices have been fixed. These four medical devices are under price control.
- The National Pharmaceutical Pricing Authority (NPPA), a government regulatory agency, is monitoring Maximum Retail Prices (MRPs) of remaining non-scheduled medical devices, which have been regulated as drugs.
- The objective is to ensure that no manufacturer or importer increases the price of a drug more than ten per cent of MRP during preceding twelve months.
- The remaining non-scheduled medical devices which are notified/regulated as drugs, NPPA is currently monitoring Maximum Retail Prices (MRPs) under Para 20 of the DPCO, 2013 to ensure that no manufacturer/importers can increase the price more than ten per cent in preceding twelve months

### Know! about National Pharmaceutical Pricing Authority (NPPA)

- The National Pharmaceutical Pricing Authority (NPPA) is a government regulatory agency that controls the prices of pharmaceutical drugs in India.
- National Pharmaceutical Pricing Authority (NPPA) was constituted in 1997 as an attached office of the Department of Pharmaceuticals (DoP), Ministry of Chemicals & Fertilizers
- It is an independent Regulator for pricing of drugs and to ensure availability and accessibility of medicines at affordable prices.

### Drug Price Control Order (DPCO)

- The NPPA regularly publishes lists of medicines and their maximum ceiling prices.

## Bilateral relations: 70 Years of Diplomatic Relations between China and India

**Relevance IN – Prelims (facts about the India – China relations + about informal summit) + Mains (GS II bilateral relations)**

### What's the NEWS

- On April 1, 1950, India became the first non-Communist country in Asia to establish diplomatic relations with the People's Republic of China (PRC).
- India and China jointly hold 70 events to celebrate the 70th anniversary of the establishment of diplomatic ties, following an agreement reached between Indian prime minister Narendra Modi and Chinese President Xi Jinping at their informal summit in Mamallapuram near Chennai.



### Know! more about these activities

- These activities will demonstrate the historic connect between the two civilizations as well as their growing bilateral relationship over the years
- They will further deepen people-to-people exchanges between the two countries at all levels
- In the Mamallapuram summit –Indian Prime Minister showcased Tamil Nadu state's links with China's south eastern coastal Fujian
- The two sides also agreed to engage in cooperative projects in studying ancient maritime links between India and China.
- This will be through the establishment of sister-state relations between Tamil Nadu and Fujian Province, exploring the possibility of establishing an academy to study links between Tamil Nadu and Fujian and conducting research on maritime links between the two countries.
- The Chinese side will hold an India-China Trade and Investment Cooperation Forum in India
- The Indian side is to send naval ships to China besides a mid level armed forces delegation.

### Know! about the informal summit

- Modi and Xi met for their second informal summit at Mamallapuram, a coastal town near Chennai, on 11-12 October and discussed a range of bilateral issues. The first informal summit was held in Wuhan in China in April last year.
- In the Mamallapuram summit, the two countries had agreed that they would host 35 events each.

## COVID-19 (government measures): FCI ensures uninterrupted food grain supplies

**Relevance IN – Prelims (about NFSA + about PM Garib Kalyan Ann Yojana + benefits of e-auctions under Open Market Sales Scheme (OMSS))**

### What's the NEWS

- Food Corporation of India (FCI) is ensuring uninterrupted supply of wheat and rice throughout the country during the lockdown period.

### Know! more about it

- FCI is fully prepared to meet not only the food grain requirement under National Food Security Act (NFSA) @5 KG/Month/Beneficiary but also any additional demand including supply of 5Kg/Person for next 3 months to 81.35 Crore people under PM Garib Kalyan Ann Yojana. As on 01.04.2020



- FCI has 56.4 Million Metric Tonnes (MMT) of Food Grains (30.54 MMT Rice and 25.86 MMT Wheat).
- FCI is able to meet the increasing demand of food grains by gearing up the pace of supply of wheat and rice throughout the country mostly by Rail.
- FCI is conducting e-auctions under Open Market Sales Scheme (OMSS) for providing Wheat to the empanelled Roller Flour Mills/State Government to ease the supply constraint in the market.

## International: Chinese Coast Guard Patrols Near Philippine-occupied Second Thomas Shoal

**Relevance IN – Prelims (about the map location of Second Thomas Shoal + about the South China sea dispute + south China sea) + Mains (GSII India and its neighborhood- relations. Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)**

### What's the NEWS

- The above map representing where a Chinese Coast Guard ship has been patrolling since early March near land features in the South China Sea **disputed by the Philippines and China**. The inset shows the Philippines' exclusive economic zone and China's so-called nine-dash line.



### Know! more about the recent events

- A Chinese Coast Guard ship that was deployed during recent pressure campaigns in the South China Sea in Malaysian and Indonesian waters is now patrolling near land features claimed by the Philippines
- As countries look inward or are distracted [by the COVID-19 pandemic], like the U.S. and Japan, China has taken advantage of that by increasing its activities in the South China Sea or West Philippine Sea
- **Second Thomas Shoal** is the only feature of the three to actually be occupied by the Armed Forces of the Philippines, although the Philippines claims all of them.

## Natuna Islands

**Relevance IN – Prelims (about the south China sea dispute + about Natunas islands location + about nine dash line) + Mains (GS II India and its neighborhood- relations. Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)**

### What's the NEWS

- Chinese presence growing more aggressive, in the **Natunas islands**

### Know! more about the dispute (china – Indonesia)

- China's illegal fishing near the Natunas carries global consequence, reminding regional governments of Beijing's expanding claim
- On Chinese maps, a line made of nine dashes scoops out most of the South China Sea as China's. One of the dashes slices through waters north of the Natunas.



- In 2016, an international tribunal dismissed the nine-dash line as legally baseless. The Chinese government ignored the ruling.
- Instead, Beijing continued turning contested atolls and islets into military bases from which China can project its power across the South China Sea.
- Indonesia is increasing its military presence in the region and upgrading its forces in the Natuna Islands as it seeks to challenge China and maintain its control over an important sea domain containing abundant marine food and energy resources.
- China and Indonesia have started a new tug-of-war over the latter's declaration of intent to rename its 200-mile exclusive economic zone north of the Natuna Islands the "North Natuna Sea".
- Indonesia believes that China's nine-dash line overlaps with the Indonesian EEZ.
- China's unilateral claim to vast swathes of the South China Sea, as part of its so-called nine-dash line, has created tension and confrontation with almost all littoral nations.
- Last year China lost the legal argument over jurisdiction and rejected the verdict of the international arbitration court which trashed China's nine-dash line and upheld the claims of the Philippines.

### **Know! about 9 dash line**

- It refers to the undefined vaguely located, demarcation line used by People's Republic of China (PRC), for their claims of the major part of the South China Sea
- The contested area in the South China Sea includes the Paracel Islands,[a] the Spratly Islands, and various other areas

## **COVID-19: DARPG's National Monitoring Dashboard on COVID 19 Grievances**



***Relevance IN – Prelims (about National Monitoring Dashboard +about DARPG +about CPGRAMS) + 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**

- **Department of Administrative Reforms and Public Grievances** has launched the DARPG's National Monitoring Dashboard on COVID 19 Grievances

### **Know! about the National Monitoring Dashboard**

- The National Monitoring Dashboard was developed and implemented at <https://darpg.gov.in> where COVID 19 related grievances received in CPGRAMS with all Ministries/ Departments and States/ Union Territories are monitored on priority basis by a technical team of DARPG.
- The National Monitoring Dashboard was developed by DARPG in pursuance of the recommendations of the Empowered Group of Officers 10 constituted under the Disaster Management Act 2005 on Public Grievances and Suggestions to ensure timely implementation of COVID 19 Response Activities.

### **Know! about DARPG**

- The **Department of Administrative Reforms and Public Grievances** is the nodal agency of the **Government** of India for **administrative reforms** as well as redressal of **public grievances** relating to the states in general and those pertaining to Central **Government** agencies in particular.

## Know! about the Ministry of Personnel, Public Grievances and Pensions

- The Ministry of Personnel, Public Grievances and Pensions is a ministry of the Government of India in personnel matters specially issues concerning recruitment, training, career development, staff welfare as well as the post-retirement dispensation.
- The ministry is headed by the prime minister, with a minister of state reporting to him.

*The ministry was created with the name Ministry of Personnel, Public Grievances and Pensions with three separate departments under it:*

- Department of Personnel and Training (this also includes recruitment of officers through UPSC and SPSC)
- Department of Administrative Reforms and Public Grievances
- Department of Pensions and Pensioners' Welfare

## Know! about Centralized Public Grievance Redress and Monitoring System (CPGRAMS)

- CPGRAMS was created in June 2007 by the Department of Administrative Reforms & Public Grievances.
- Under the public grievance mechanism any citizen of India can raise their problems, grievance or pleas to the central govt and state government Ministries and Departments.
- Grievances can be submitted to all important portfolio ministers and departments. The system has been designed in-house by the National Informatics Centre team.
- Prime Minister Narendra Modi is the supreme head of the public grievances.

## International: UNSC unanimously adopts resolution on safety, security of peacekeepers

**Relevance IN – Prelims (about the resolution + about Action for Peace” initiative) +Mains (GS II international organisations)**

### What's the NEWS

- The UN Security Council (UNSC) has unanimously adopted Resolution 2518, a first of its kind, vowing to take all-dimensional measures to ensure the safety and security of peacekeepers.

### Know! more about the resolution

- This is the first resolution on the safety and security of peacekeepers and is well-received by the broad membership as a timely fit for the current peacekeeping situation in line with the expectations of the international community
- The resolution was sponsored by China and co-sponsored by 43 countries, including Italy, Kazakhstan, Pakistan, South Africa, Russia, Spain, Turkey and Vietnam, according to the statement.
- It covers areas such as training, health, technology, partnerships, including strengthening training system, improving health security and relief capabilities, requiring peacekeeping missions to strengthen communication with host countries and build mutual trust
- For 72 years, UN peacekeeping operations have played a significant role in the political settlement of hot-spot issues as an effective means of maintaining international peace and security, according to the statement.
- There are currently more than 95,000 peacekeepers on active duty in 13 mission areas.
- This year marks the 75th anniversary of the founding of the UN and a crucial year for the implementation of the “Action for Peace” initiative.

### Know! about Action for Peacekeeping (A4P) initiative

- The Action for Peacekeeping (A4P) initiative was launched on 28 March 2018, to establish a shared understanding of the achievements and challenges of peacekeeping, as well as to renew the individual and collective commitments of Member States to strengthen peacekeeping operations on the ground.





- The initiative will focus its efforts in three areas: refocusing peacekeeping with realistic expectations; making peacekeeping missions stronger and safer; and mobilizing greater support for political solutions and for well-structured, well-equipped, well-trained forces.

## Human Resource Development: YUKTI (Young India Combating COVID with Knowledge, Technology and Innovation)

**Relevance IN – Prelims (about YUKTI and its objective) + 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 HRD Shri Ramesh Pokhriyal “Nishank” has launched a web-portal YUKTI (Young India Combating COVID with Knowledge, Technology and Innovation)

### Know! more about the portal

- It's a unique portal and dashboard to monitor and record the efforts and initiatives of MHRD.
- The portal intends to cover the different dimensions of COVID-19 challenges in a very holistic and comprehensive way.
- It will cover the various initiatives and efforts of the institutions in academics, research especially related to CoVID, social initiatives by institutions and the measures taken for the betterment of the total wellbeing of the students.
- The portal will cover both qualitative and quantitative parameters for effective delivery of services to the academic community at large.
- The will also establish a two-way communication channel between the Ministry of HRD and the institutions so that the Ministry can provide the necessary support system to the institutions.
- This portal will help in critical issues related to student promotion policies, placements related challenges and physical and mental well-being of students in these challenging times.

## NITI Aayog: CollabCAD

**Relevance IN – Prelims (about CollabCAD and its objective + about ATL and AIM + about NIC) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation +Governance)**

### What's the NEWS

- Atal Innovation Mission, NITI Aayog and National Informatics Centre (NIC) jointly launched CollabCAD, a collaborative network, computer enabled software system, providing a total engineering solution from 2D drafting & detailing to 3D product design.

### Know! more about CollabCAD

- AIM's collaboration with NIC's CollabCAD is a great platform for students to utilize indigenous, state-of-the-art made-in-India software for 3D modeling/slicing to use 3D Printing.
- The aim of this initiative is to provide a great platform to students of Atal Tinkering Labs (ATLs) across country to create and modify 3d designs with free flow of creativity and imagination.
- This software would also enable students to create data across the network and concurrently access the same design data for storage and visualization.
- It is an indigenous three dimensional computer aided design system which helps the used to build models in virtual 3d space and create and engineering drawings for shop floor which makes it a complete package for smart manufacturing.



Think, Draw & Design 3D models  
with CollabCAD- exclusive made in India  
software for students who  
#TinkerFromHome





- ATLs established across India, provide tinkering spaces to children to hone their innovative ideas and creativity.

### **Tinker from Home' campaign**

- The ATL program has launched a 'Tinker from Home' campaign to ensure that the children across the country have access to useful easy-to-learn online resources to keep themselves fruitfully occupied.
- The objective of the initiative is to harness the creativity and innovativeness of children by encouraging learning through self-initiation.
- AIM also launched the Game Development module in partnership with DELL Technologies and Learning Links Foundation.
- It is an online platform where students can start their learning journey while tinkering from home.
- Through the platform they can learn to create their own games and also share it with others.

### ***Additional Info***

#### **Atal Tinkering Lab**

- In ATLs, students of class 6th to 12th 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.

#### **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.
- At the school level, AIM is establishing ATLs in all districts across India. As of today, AIM has selected a total of 14,916 schools across the country spread across 33 different states and union territories, for the establishment of ATLs.

#### **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.

#### **Generation Unlimited:**

- 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.

#### **National Informatics Centre (NIC)**

- NIC is an attached office under Ministry of Electronics and Information Technology (MeitY), Government of India.
- NIC provides infrastructure to help support delivery of Government IT services and delivery of some of the initiatives of Digital India.

## Health: Antiviral drug remdesivir may be effective in stopping replication of corona: ICMR

### Relevance IN – Prelims (about remdesivir + about Solidarity Trail)

#### What's the NEWS

- The Indian Council of Medical Research said antiviral drug remdesivir, which was used during the Ebola outbreak, may be highly effective in stopping the replication mechanism of SARS-CoV-2 that causes COVID-19.
- The research on its efficacy in the treatment of COVID-19 is a part of WHO's "Solidarity Trial".

#### Know! about remdesivir

- The drug which was **used against Ebola virus**, according to the researchers, hinders the reproduction of coronavirus which is why they believe that it could be effective in COVID-19 treatment.
- Remdesivir is an antiviral medication being studied during 2020 as a possible post-infection treatment for COVID-19 illness.
- Remdesivir is a nucleotide analog, specifically an adenosine analogue, which inserts into viral RNA chains, causing their premature termination.

#### Solidarity Trial

- It is a multi-country trial to identify potential cures for the Covid-19 outbreak
- The World Health Organisation's Solidarity trial is expected to witness participation from Thailand, Argentina, Bahrain, Canada, France, Iran, Norway, South Africa, Spain and Switzerland.
- The trial will not only test four different drugs or combinations but will also compare their effectiveness.

## Health: Celebrating World Chagas Disease Day for first time in 2020

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

#### What's the NEWS

- For the first time, the global community celebrated April 14 as the first World Chagas Disease Day.
- One of the aims is to raise the visibility and public awareness of people with Chagas
- Celebrating World Chagas Disease Day on April 14 will provide a unique opportunity to add a global voice in favour of this and other neglected tropical diseases.

#### Know! about Chagas disease

- Chagas disease, also called American trypanosomiasis, has been termed as a silent and silenced disease, not only because of its slowly progressing and frequently **asymptomatic clinical course** but also because it affects mainly poorest people of developing countries, hence it is classified as a **neglected tropical disease (NTD)**
- Once endemic in **Latin American countries**, Chagas disease is now present in many others, making it a global health problem.



- The main route of transmission (**vector-borne transmission**) has occurred in Latin America through the insect called triatomine bug, which can carry the **protozoan parasite Trypanosoma cruzi**.
- Other routes of transmission include: oral (food-borne) transmission, blood/blood products transfusion, mother-to-child (congenital) and organ transplantation transmissions or even laboratory accident transmission.
- Raising awareness and the profile of this neglected tropical disease, which is often diagnosed in its late stages, is essential to improve the rates of early treatment and cure, together with the interruption of its transmission. (**curable if detected at early stages**)

### Neglected tropical diseases (NTDs)

- NTDs are a diverse group of **tropical** infections which are common in low-income populations in developing regions of Africa, Asia, and the Americas.
- They are caused by a variety of pathogens such as **viruses, bacteria, protozoa and parasitic worms** (helminths).



## Health: Pooled testing, recommended by the ICMR

### Relevance IN – Prelims (about Pooled testing and its objective)

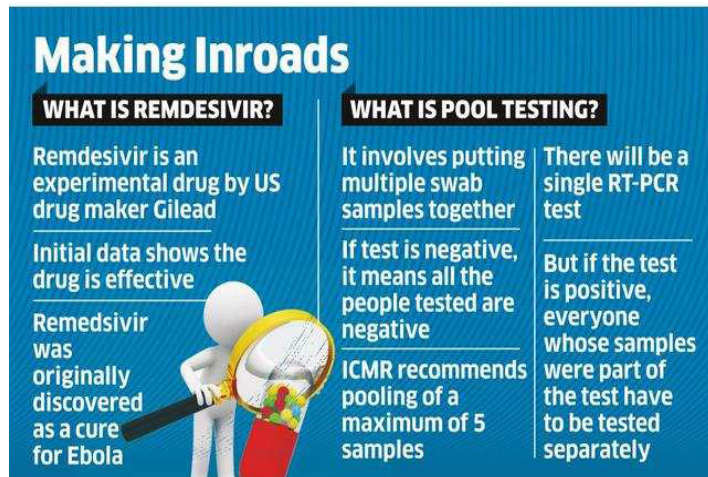
#### What's the NEWS

- The Indian Council of Medical Research (ICMR) issued an advisory for using pooled samples for testing of COVID-19 in order to increase the number of tests conducted by laboratories across the country.

#### Know! all about pooled testing

- In a pooled testing algorithm, samples of **multiple individuals are put together** in a tube and screened through the PCR test.
- In case the pooled test turns out to be positive, individual samples are tested, which is referred to as **pool de-convolution**.
- If there's no positive result, all individual samples in the pool are regarded as negative, resulting in substantial cost savings.
- ICMR has advised that while more than two samples can be pooled together, the **number should not exceed five samples** to avoid sample dilution, which can lead to false negatives.
- This method can be used in areas where the prevalence of COVID-19 is low, which means a positivity rate of less than two percent.

In areas with a positivity rate between two to five percent, sample pooling of PCR screening may be considered in a community survey of surveillance among asymptomatic individuals



## International Organisations: Indian Technical and Economic Cooperation (ITEC) programme

**Relevance IN – Prelims (about ITEC programme + about SAARC) + 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 External Affairs Ministry announced rolling out of a training programme on management of coronavirus pandemic **for healthcare professionals from SAARC countries**.



### Know! more about the training and other initiatives proposed by India

- The training will be imparted by the ministry under its **prestigious Indian Technical and Economic Cooperation (ITEC) programme**.
- At an India-initiated video conference of SAARC leaders on March 15, Prime Minister Narendra Modi suggested that healthcare professionals of the SAARC nations could come together to jointly fight the coronavirus pandemic.
- India has already proposed setting up of a **common electronic platform** for all SAARC nations to share expertise and best practices to jointly combat the pandemic.



### South Asian Association for Regional Cooperation (SAARC)

- The South Asian Association for Regional Cooperation (SAARC) was established with the signing of the SAARC Charter in Dhaka on 8 December 1985.
- SAARC comprises of eight Member States: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
- The Secretariat of the Association was **set up in Kathmandu** on 17 January 1987.
- All the SAARC member nations are reeling under adverse social and economic impact of the coronavirus pandemic.

### Indian Technical and Economic Cooperation (ITEC) Programme

- The Indian Technical and Economic Cooperation (ITEC) Programme was instituted by a decision of the Indian Cabinet on 15 September 1964 as a bilateral programme of assistance of the Government of India.
- Prime Minister Jawahar Lal Nehru, who also served as the External Affairs Minister, was the main architect of the ITEC programme.
- The ITEC Programme under the nodal Ministry of External affairs is fully-funded by the Government of India: The expenses on training under ITEC Programme, i.e. tuition fees, living allowances, study tours, emergency medical assistance as well as return international air fares are borne by the Government of India.

## International Organisations: Vietnam chairs online ASEAN Special Summit on Covid-19 challenges

**Relevance IN – Prelims (about ASEAN and ASEAN +3 + highlights of the summit) + Mains (GS II Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)**

### What's the NEWS

- The online **ASEAN Special Summit and ASEAN+3 Special Summit** on Covid-19 response takes place in Hanoi
- Vietnamese Prime Minister Nguyen Xuan Phuc chaired the virtual summit, which was attended by the heads of state or government of the 10 ASEAN members, namely Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam, and the ASEAN Secretary-General





- Leaders of the 10-nation bloc and their partners from **three ASEAN partners, namely China, the Republic of Korea and Japan**, discussed measures and initiatives to strengthen co-operation in the fight against the Covid-19 pandemic to ensure dynamic and sustainable development in the region in the long run.
- They adopted a joint statement of the ASEAN Summit and another of the ASEAN+3 Special Summit on COVID-19 response



Image: ASEAN

### ASEAN Plus Three (APT)

- It was established in 1997 as a forum that functions as a coordinator of co-operation between the Association of Southeast Asian Nations and the three East Asian nations of **China, South Korea, and Japan**.
- Government leaders, ministers, and senior officials from the 10 members of the ASEAN and the three Northeast Asian states consult on an increasing range of issues

## Health and Family Welfare: Government launches online data pool of critical human resource for combating and containing Covid-19

**Relevance IN – Prelims (about the online data pool and its objective + about iGOT platform + about Diksha portal) + 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 Government has **created an online data pool on <https://covidwarriors.gov.in> of doctors including AYUSH doctors, nurses and other health care professionals**, volunteers from NYKs, NCC NSS, PMGKVY, ex Servicemen etc for use by the ground level administration at state, district or municipal levels.



### **Know! more about online data pool dashboard and its role**

- A Dashboard master database of details of Healthcare Professionals and Volunteers, has been made operational.
- It contains state wise and district wise availability of the large pool of human resources from various groups alongwith contact details of the nodal officers.
- The dashboard is **available for use by various authorities to prepare Crisis Management/Contingency Plans** based on the available manpower, in coordination with nodal officers for each group.
- This database can also be used to utilise the services of volunteers for enforcing social distancing at banks, ration shops, mandis and for providing help to elderly, divyang and orphanages.
- This will also help States/UTs to move human resources from one location to the other for their utilisation.

### **Integrated Government Online Training (iGOT) portal**

- The government also calls for use of iGOT online training modules mounted on a especial digital platform- Integrated Government Online Training(iGOT) portal(<https://igot.gov.in>) for training and capacity building of doctors, nurses, paramedics, hygiene workers, technicians, AYUSH doctors and staff, other frontline workers and volunteers.
- This platform provides anytime onsite delivery of training material/modules through any device(mobile/laptop/desktop).

### **Know! more about iGOT platform**

- The Department of Personnel and Training, has announced the launch of a learning platform (<https://igot.gov.in>)
- The platform is called iGOT — Integrated Government Online Training and is set to be hosted on the Human Resources Development Ministry's DIKSHA platform.
- The iGOT platform delivers curated, role-specific content, to each learner at their place of work or home and to any device of their choice.

### **Know! about DIKSHA platform**

- National Teacher Platform (NTP) branded as “Diksha” is an initiative of the Ministry of Human Resource Development, Government of India.
- It is a state-of-the-art platform built to host Open Educational Resources (OER) and tools for Teachers in Schools, Teacher Educators in Teacher Education Institutes (TEIs) and Student Teachers in TEIs.
- It is built considering the whole teacher's life cycle - from the time student teachers enroll in TEIs to after they retire as teachers.

### **NTP envisages to provide**

- Teacher training courses (example - training on learning outcomes, CCE, etc.)
- Teaching resources such as lesson plans, concept videos, worksheets, mapped to curriculum.
- Assessments for teachers, to find out their strengths and areas of improvement.

## **Human Resource Development: SWAYAM and SWAYAM Prabha**

***Relevance IN – Prelims (steps taken by the government to promote online education) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.)***


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

- The Human Resource Development Ministry held a detailed review of the National online education platform SWAYAM and the 32 DTH Television Education Channels SWAYAM PRABHA
- In the lockdown condition there has been a tremendous increase in demand and the usage of SWAYAM Courses and SWAYAM PRABHA videos.

### **SWAYAM (steps taken to promote online education)**

- 1902 courses are available currently in SWAYAM, which have been offered to 1.56 cr. students since launch.
- WAYAM 2.0 also supports launch of Online degree programmes.

- It was decided that all the 1900 SWAYAM Courses and 60000 SWAYAM PRABHA videos would be translated into ten regional languages and made available to the students so that more benefit can be derived from the same.




**What is SWAYAM ?**

- Study Webs of Active Learning for Young Aspiring Minds
- Courses from 9th class to post-graduation from various streams of education & Teacher Training
- Courses consist of total 40 hours of Teaching Learning Material (20 hours of Video & 20 hours of e-text)

**Benefits of SWAYAM**

- Academicians through SWAYAM can facilitate effective teaching both On Campus & Online.
- A Class Teacher can act as Mentor to assist Online in class
- Material may be used as Blended Learning or Flip Classes, a mix of classroom & online activities.



**Features of SWAYAM Prabha- Educational Contents through DTH**

The 32 channels are proposed to be launched before September 2016

English & Regional languages

Covers all level of education

School education, undergraduate, postgraduate, engineering, out of school children, vocational courses and teacher training

**Curriculum**

Arts, science, commerce, performing arts, social sciences and humanities subjects, engineering, technology, law, medicine, agriculture etc.

/PrakashJavdekar | www.prakashjavadekar.com

### SWAYAM Prabha(steps taken to promote online education)

- The SWAYAM PRABHA is a group of 32 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 satellite.
- Every day, there will be new content for at least (4) hours which would be repeated 5 more times in a day, allowing the students to choose the time of their convenience.

The following decisions were taken:

- It was decided to enrich the content in SWAYAM PRABHA by collecting content from who so ever willing to contribute the same under Vidya Daan Programme.
- The video content on SWAYAM Prabha shall be mapped to curriculum, and the academic calendar
- For the translation of content of four IIT-PAL channels, CBSE, NIOS shall provide all assistance to IIT-Delhi.

### Human Resource Development: VidyaDaan 2.0

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

#### What's the NEWS

- The Human Resource Development Ministry has e-launched VidyaDaan 2.0 program for **inviting e-learning content contributions**
- The objective is to obtain high quality content under VidyaDaan from expert teachers/individuals and organizations and contributing digital resources on DIKSHA.

#### Know! more about the Programme

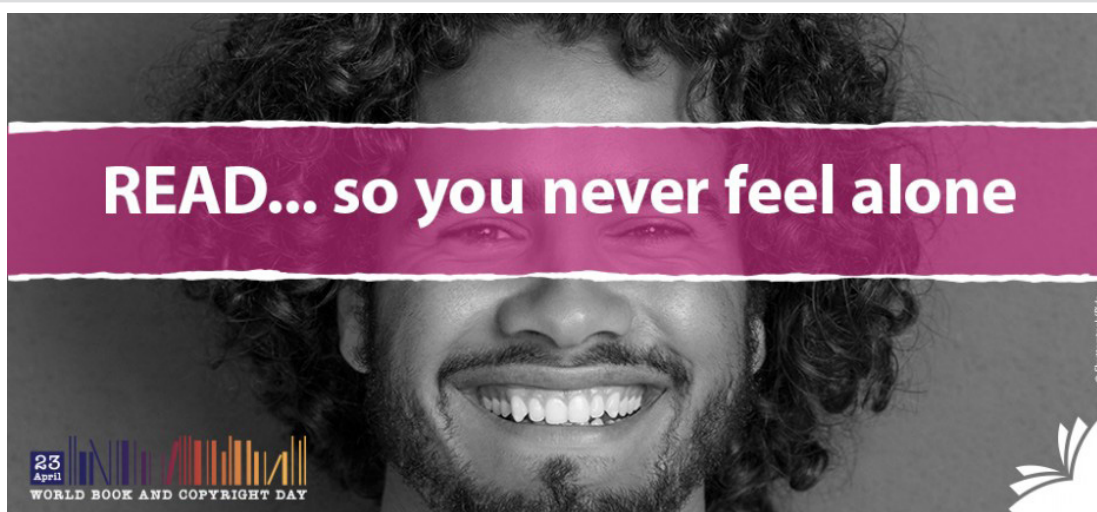
- The programme has been launched due to the increasing requirement for e-learning content for students(both school and higher education) especially in the backdrop of situation arising out of Covid- 19 and also due to the urgent need to integrate digital education with schooling to augment learning.



- VidyaDaan is conceptualised as a common national program for individuals & organizations across the **country to donate/contribute e-learning resources for both school and higher education** to ensure continuity of quality learning.
- The **content will be used on the DIKSHA app** to help millions of children across the country to continue their learning anytime and anywhere.
- The DIKSHA Platform of MHRD has been operating since September 2017 with 30+ States/UTs leveraging DIKSHA for augmenting teaching and learning processes.
- VidyaDaan has a content contribution tool that provides a structured interface for the contributors to register and contribute different types of content (such as, explanation videos, presentations, competency-based items, quizzes etc.), for any grade (from grade 1 to 12), for any subject as specified by the states/UTs.
- Contributions can be made by educationists, subject experts, schools, colleges, Universities, Institutes, government and non-government organisations, individuals.



## Human Resource Development: #MyBookMyFriendcampaign launched on World Book Copyright Day



**Relevance IN – Prelims (about World book and Copyright day + initiatives taken by MHRD on this day)**

### What's the NEWS

- The Ministry of Human Resource Development has **launches #MyBookMyFriendcampaign** on **#WorldBookDay**.
- #MyBookMyFriend campaign will run for the next 7 days

### WEBINAR on Post-COVID Publishing Scenario

- On the occasion of WORLD BOOK & COPYRIGHT DAY the Ministry of HRD participated in a WEBINAR on Post-COVID Publishing Scenario **organized by National Book Trust, India and FICCI**
- Over 180 participants logged-in to join the webinar across India, which included Publishers, Authors, Editors, Teachers, Booksellers, Digital content Creators, and Publishing professionals from different areas.
- The Webinar provided insights on the post-Covid scenario for the publishing Industry and probable shift in the publishing, teaching, learning methods, while understanding the ways in which the education will be re-looked into with **the rising e-learning practices**.



## Know! all about World Book Day

- World Book Day, **celebrated by UNESCO** and other related organisations since 1995, is the global celebration of books and reading material observed in more than 100 countries.
- The objective is to encourage people about books, reading, to understand copyright laws and measures to protect intellectual copyright.
- April 23 was selected by UNESCO to pay homage to renowned literary figures including William Shakespeare, Miguel Cervantes and Inca Garcilaso de la Vega.

## World Book Capital

- UNESCO and organisations representing publishers, booksellers and libraries select the World Book Capital for a year to maintain the celebrations of books and reading.
- For **the year 2019, Sharjah, UAE** had been declared as the World Book Capital.
- **Kuala Lumpur** has been officially recognised as this year's UNESCO's World Book Capital (KLWBC 2020), with an online launch celebration on April 23.

## Know! about Copyright

- Copyright (or author's right) is a legal term used to describe the rights that creators have over their literary and artistic works.
- It is the exclusive right given to the creator of a creative work to reproduce the work, usually for a limited time
- Works covered by copyright range from books, music, paintings, sculpture, and films, to computer programs, databases, advertisements, maps, and technical drawings.

## Government Schemes: Swamitva Yojana

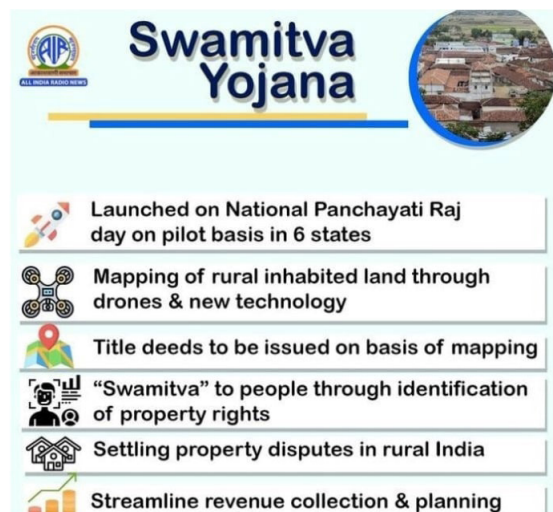
**Relevance IN – Prelims (about Swamitva Yojana -objective and benefits) + Mains (GS II Governance -transparency and accountability + Government policies and interventions for development in various sectors and issues arising out of their design and implementation.**

### What's the NEWS

- The Prime Minister launches Swamitva Yojana to boost rural economy
- Swamitva Yojana is **aimed to create property ownership record of land** in villages and empower rural population with grant of official document confirming their ownership of land titles.
- Swamitva Yojana or Ownership Scheme to map residential land ownership in the rural sector using modern technology like the use of drones.

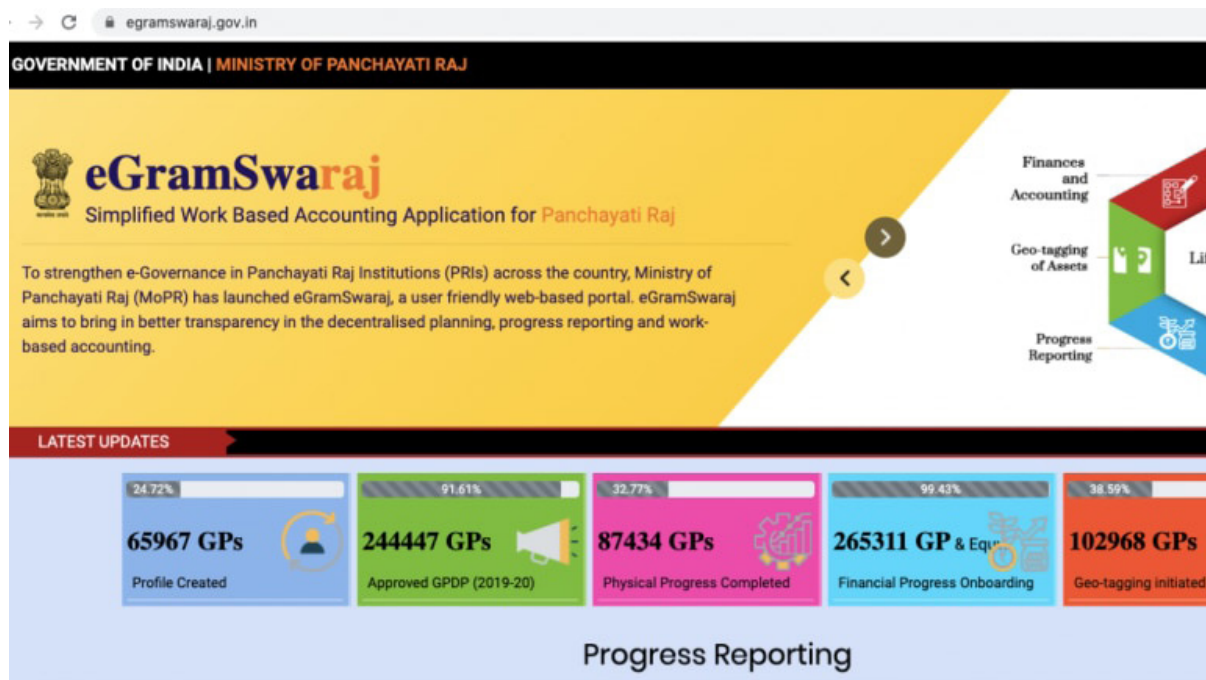
### Know about the 'Swamitva Yojana' (salient features)

- Swamitva Yojana is meant to create a **record of land ownership in rural** areas using modern technology.
- The scheme is **piloted by the Panchayati Raj ministry** of the Union government and has been launched on April 24 2020, the Panchayati Raj Diwas.
- The need for this Yojana was felt since several villagers in the rural areas don't have papers proving ownership of their land.
- Swamitva Yojana is aimed to fill the above gap **to provide ownership rights to people in the villages**. It is expected to go a long way in settling property rights in rural hinterlands
- The residential land in villages will be **measured using drones** to create a non-disputable record. It is the latest technology for surveying and measuring of land.
- The scheme will be carried out in **close coordination with the Central Panchayati Raj ministry, Survey of India, Panchayati Raj departments and Revenue departments** of various states.



- **Property card** for every property in the village will be prepared by states using accurate measurements delivered by drone-mapping. These cards will be given to property owners and will be **recognised by the land revenue records department**.
- The delivery of property rights through an official document will enable villagers **to access bank finance** using their property **as collateral**.
- The accurate property records can be used for facilitating tax collection, new building and structure plan, issuing of permits and for thwarting attempts at property grabbing

## Governance: E-Gram Swaraj Portal/App



**Relevance IN – Prelims (about E-Gram Swaraj online portal and eGramSwaraj mobile app. -objective and benefits + Mains (GS II Governance -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

- In order to strengthen e-governance in rural areas, govt. has now launched PM Swamitva Yojana, E-Gram Swaraj online portal and eGramSwaraj mobile app.
- The E-Gram Swaraj Portal will mark the complete digitization of the villages to strengthen e-governance in Panchayati Raj institutions in the whole country.

### Know! all about e-Gram Swaraj Portal/App

- The egramswaraj.gov.in portal is one single interface on which the details will be listed panchayat wise.
- The platform will provide records of work from planning to the implementation in every village panchayat under **Gram Panchayati Development Plan (GPDP)**.

### Know! the benefit of e-Gram Swaraj Portal/App

- Monitoring and recording all the work via Gram Swaraj Portal/App will help **speed-up the implementation of projects** in village areas.
- One can access and know about the groundwork as it will contain the details of ongoing development works and the fund allocated for the projects
- All the details related to Panchayat Sachiv and Panch can be viewed on Gram Swaraj Portal.

- The works of the Ministry of Panchayati Raj will be accessible through Gram Swaraj Portal.
- The Gram Swaraj Portal and application will provide a boost in transparency by decentralized planning of development projects, with progress reports updates and increased accountability.
- Anybody can create an account on the Gram Swaraj Portal and know about the developmental works of villages.

### **Know! about Panchayati Raj Diwas**

- Prime Minister Narendra Modi interacts with Sarpanchs from across the nation via video conferencing, on the occasion of Panchayati Raj Diwas
- The Constitution (73rd Amendment) Act, 1992 that came into force with effect from 24th April, 1993 has vested constitutional status on Panchayati Raj institutions.
- This date thus marks a defining moment in the history of decentralization of political power to the grassroots level.
- The impact of the 73rd Amendment in rural India is very visible as it has changed power equations irreversibly.
- Accordingly, the Government of India decided in consultation with the States to celebrate 24th April as National Panchayati Raj Day.
- The commemoration is being anchored by the Ministry of Panchayati Raj. The National Panchayati Raj Day (NPRD) is being celebrated on 24 April since 2010.
- The Constitution of India recognizes Panchayats as **‘Institutions of self government’**.
- There are 2.51 lakh Panchayats in our country, which include 2.39 lakh Gram Panchayats, 6904 Block Panchayats and 589 District Panchayats.
- Every year on this occasion, Ministry of Panchayati Raj has been awarding the best performing Panchayats/ States/ UTs across the country under the Incentivization of Panchayats in recognition of their good work for improving delivery of services and public goods.

## **Government Schemes: SVAMITVA scheme (guidelines issued)**

***Relevance IN – Prelims (about SVAMITVA scheme and its working guidelines) + 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 Ministry of Panchayati Raj has issued guidelines regarding the SVAMITVA scheme

### **SVAMITVA scheme (features and operational guidelines)**

- The aim of this program is to provide rural people with the right to document their residential properties so that they can use their property for economic purposes.
- This scheme will help in streamlining planning and revenue collection in rural areas and ensuring clarity on property rights.
- This will also help in resolving property related disputes.
- The scheme will enable creation of better-quality **Gram Panchayat Development Plans (GPDs)**, leveraging the maps created under this programme.
- SVAMITVA scheme, a collaborative effort of the **Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India**, aims to provide an integrated property validation solution for rural India, engaging the latest Drone Surveying technology, for demarcating the inhabitant (Aabadi) land in rural areas.
- The program is currently being **implemented in six states** - Haryana, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and Uttarakhand.
- Under this, mapping of rural housing land can be done using the latest survey methods and drones.
- In Punjab and Rajasthan, 101 **Continuously Operating Reference Stations (CORS)** will be set up during this year which will set the stage for undertaking actual survey and mapping of inhabited areas of villages next year.

## Standard Operating Procedure (SOP) regarding e-Gram Swaraj

- It will be ensured that the funds given to the panchayats are not misused and transparency can be maintained in its use.
- This process will help in establishing **a strong financial system by integrating the Priya Soft and PFMS**, the payment portals of the Ministry of Panchayati Raj.
- The application aims to bring in **better transparency** and strengthening of the e-Governance in Panchayati Raj Institutions (PRIs) across the country through decentralized planning, progress reporting and work-based accounting.
- e-Gram Swaraj provides a platform for effective monitoring by higher authorities.
- It will be a single platform for all planning and accounting needs of the Panchayats.

## The Online Payment Module

- The Online Payment Module (**erstwhile PRIASoft-PFMS Interface (PPI)**) is one of its kind whereby Gram Panchayats are carrying out online payments to the vendors and service providers.
- The main objective of introducing such a module is to have a sound financial management system in the Panchayats leading to their greater credibility and image.
- These endeavours are also congruent to that of Digital India Programme which is to transform India into a digitally empowered society and knowledge economy - **"Faceless, Paperless, Cashless"**.

## International Organisations: Lockdown Learners' series

***Relevance IN – Prelims (about Lockdown Learners' series – objective + about UNODC+ about Education for Justice)***

### What's the NEWS

- The United Nations Office on Drugs and Crimes (UNODC) has launched a 'Lockdown Learners' series of online dialogues with students and educators in India on COVID- 19 and its impact on Sustainable Development Goals, peace and rule of law.
- The dialogues have been launched by the United Nations body under its flagship Education for Justice initiative.

### Know! more about the online dialogues

- The aim is to **sensitise students on concerns of vulnerable groups** and emerging issues such as **cybercrime, misinformation, gender-based violence, discrimination, corruption** among others
- The Lockdown Learners series also provides a platform for students to receive mentorship and knowledge support through activity-based learning, and use their talent and skills to promote awareness and share their ideas and solutions to address some of these problems
- Educational resources have been shared with partner schools in New Delhi, Mumbai and Bengaluru, and focused interactions convened with hundreds of students and educators

### United Nations Office on Drugs and Crime

- The United Nations Office on Drugs and Crime was established in 1997 as the Office for Drug Control and Crime Prevention by combining the United Nations International Drug Control Program (UNDCP) and the Crime Prevention and Criminal Justice Division in the United Nations Office at Vienna. It is a member of the United Nations Development Group
- UNODC was established to assist the UN in better addressing a coordinated, comprehensive response to the interrelated issues of illicit trafficking in and abuse of drugs, crime prevention and criminal justice, international terrorism, and political corruption.

### Education for Justice

- The Education for Justice (E4J) initiative seeks to prevent crime and promote a culture of lawfulness through education activities designed for primary, secondary and tertiary levels.
- These activities **help educators teach the next generation** to better understand and address problems that can undermine the rule of law and encourage students to actively engage in their communities and future professions in this regard.
- A set of products and activities for the primary and secondary levels is being developed in partnership with UNESCO.



## Health: India co-sponsors resolution calling for equitable access to COVID-19 vaccines

**Relevance IN – Prelims (about the Mexico-drafted resolution and its objective) +Mains (GS II India's foreign policy – assertive role played by India at International platforms)**

### What's the NEWS

- India has co-sponsored a UN General Assembly resolution that called for a fair, transparent and equitable access to essential medical supplies and any future vaccines developed to fight COVID-19 that has claimed over 177,000 lives and infected more than 2.5 million people.

### Know! more about the Mexico-drafted resolution

- The 193-Member General Assembly **adopted the Mexico-drafted resolution** 'International cooperation to ensure global access to medicines, vaccines and medical equipment to face COVID-19' by consensus
- Pakistan was among the small minority of nations that did not sponsor the resolution.
- India was among the 179 nations co-sponsoring the resolution that called for ensuring "fair, transparent, equitable, efficient and timely access to and distribution of preventive tools, laboratory testing, reagents and supporting materials, essential medical supplies, new diagnostics, drugs and future COVID-19 vaccines" to all nations, particular developing countries.

*The role of India(helping other countries in their fight against COVID 19 pandemic)*

- India has been at the forefront of sending essential medical supplies and medicines such as anti-malarial drug hydroxychloroquine to several nations
- A number of countries, including the US, Mauritius and Seychelles have already received the drug.
- In its neighborhood, India is sending the drug to Afghanistan, Bhutan, Bangladesh, Nepal, The Maldives, Mauritius, Sri Lanka and Myanmar.

### Know! more about the resolution

- The resolution, which received US support, was the second document to be adopted by the General Assembly on the COVID-19 pandemic.
- Earlier this month, the General Assembly unanimously adopted a resolution, co-sponsored by 188 nations including India, calling for intensified international cooperation to defeat the pandemic that is causing "severe disruption to societies and economies".
- The latest resolution also acknowledged the "crucial leading role" played by the World Health Organization, which has come under constant attack by the Trump administration over its handling of the outbreak.
- It recognised the importance of international cooperation and effective multilateralism in helping to ensure that all States have in place effective national protective measures

## Agreements: India signs \$1.5 billion loan with ADB to support India's COVID-19 immediate response

**Relevance IN – Prelims (about ADB and AIIB)  
+ Mains (GS II international organisations – Important International institutions, agencies and fora- their structure, mandate.)**

### What's the NEWS

- The Government of India and the Asian Development Bank (ADB) signed a \$1.5 billion loan that will support the government's response to the novel coronavirus disease (COVID-19) pandemic.

### COVID-19 immediate response

- Focuses on immediate priorities such as disease containment and prevention, as well as social protection for the poor and economically vulnerable sections of the society, especially women and disadvantaged groups.



*ADB's assistance for the government's immediate response measures to the coronavirus pandemic to implement*

- (i) COVID-19 containment plan to rapidly ramp up test-track-treatment capacity
- (ii) social protection for the poor, vulnerable, women, and disadvantaged groups to protect more than 800 million people over the next three months
- **The CARES Programme** is provided as the first support to meet the immediate requirements of the government.

### **Know! about Asian Development Bank**

- Founded in 1966, is owned by 68 members—49 from Asia-Pacific region, the Asian Development Bank's (ADB) headquarter is in Manila, Philippines.
- The Asian Development Bank's primary mission is to foster growth and cooperation among countries in the Asia-Pacific Region.
- The Asian Development Bank provides **assistance to its developing member countries**, the private sector, and public-private partnerships through grants, loans, technical assistance, and equity investments to promote development.
- The Asian Development Bank's primary mission is to foster growth and cooperation among countries in the Asia-Pacific Region.
- The two largest shareholders of the Asian Development Bank are the **United States and Japan**.
- Although the majority of the Bank's members are from the Asia-Pacific region, the industrialized nations are also well-represented.
- Regional development banks usually work in harmony with both the International Monetary Fund (IMF) and the World Bank in their activities.

### **AIIB's \$500 mn funding for healthcare system in India**

- The Asian Infrastructure Investment Bank (AIIB) has passed the proposal for financing \$500-million project in India to strengthen country's national health care systems.
- The scope of funding will also include the purchase of equipment and detection capacity as country battles COVID-19 pandemic.

### **Know! about AIIB**

- The Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank with a mission to improve social and economic outcomes in Asia.
- Headquartered in Beijing, it began operations in January 2016 and have now grown to 102 approved members worldwide.
- China is the largest contributor to the AIIB, contributing USD 50 billion, half of the initial subscribed capital. India is the second-largest shareholder, contributing USD 8.4 billion.
- China is the largest shareholder with 26.61 % voting shares in the bank followed by India (7.6%), Russia (6.01%) and Germany (4.2 %).
- By investing in sustainable infrastructure and other productive sectors in Asia and beyond, will better connect people, services and markets that over time will impact the lives of billions and build a better future.

### **Bilateral Relations: Pitch Black 2020**

**Relevance IN – Prelims (about Pitch black) + Mains (GS II Bilateral relations)**

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

- Australia's premier multilateral air combat training exercise *Pitch Black 2020* scheduled from July 27 to August 14 has been cancelled due to the COVID-19 situation.
- The next edition of Pitch Black is scheduled in 2022.



### **Know! more about the Exercise (objective + benefits)**

- In the last edition of Pitch Black in 2018, the Indian Air Force took part in the exercise for the first time and deployed fighter aircraft
- The exercise provides a unique opportunity for exchange of knowledge and experience with these nations in a dynamic warfare environment
- It also provides IAF an opportunity for engagement with different personnel
- The exercise is an opportunity to interact with forces from across the globe

### **India -Australia (steps taken to strengthen the bilateral relations) *facts to substantiate your answer writing (GSII)***

- The **defence and strategic engagement** with Australia has steadily gone up in recent years especially on the bilateral front with naval cooperation at the forefront.
- The bilateral naval **exercise AUSINDEX** early last year saw participation of the largest Australian contingent ever to India with over 1,000 personnel.
- The **Mutual Logistics Support Agreement (MLSA)** has been long pending and is expected to be concluded soon
- A broader maritime cooperation agreement including the **Maritime Domain Awareness (MDA)** to elevate the existing strategic partnership also on the pipeline
- Australia also made a pitch for trilateral cooperation among **India, Australia and Indonesia** to “identify new ways that our three countries can collaborate to be the best possible custodians of the Indian Ocean.
- The defence cooperation between India and Australia is underpinned on the Memorandum on Defence Cooperation 2006, the Joint Declaration on Security Cooperation 2009 and the bilateral Framework for Security Cooperation 2014.

### **Know! more about Exercise Pitch Black**

- Exercise Pitch Black is a biennial warfare exercise hosted by the **Royal Australian Air Force (RAAF)**.
- The exercise is normally held in Northern Australia, primarily at RAAF Bases
- The aim of the exercise is to practice Offensive Counter Air (OCA) and Defensive Counter Air (DCA) combat, in a simulated war environment.
- It traditionally consists of a ‘red team’ and a ‘blue team’ based at separate locations, with one attacking the other.





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# **GENERAL STUDIES III**

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

## Science & Technology: Anti-microbial coating

**Relevance IN – Prelims (about the anti-microbial coating and its benefits)**

### What's the NEWS

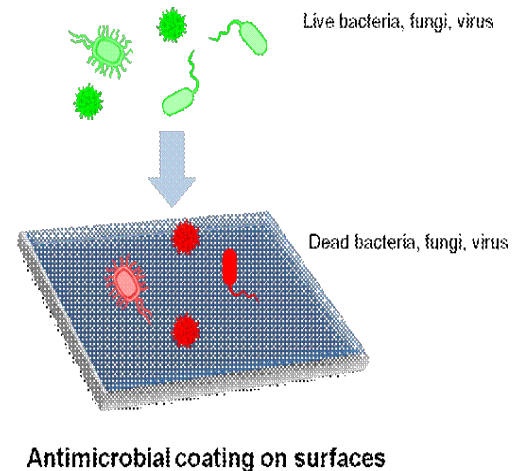
- Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), an autonomous institution under the Department of Science and Technology, has developed a one-step curable anti-microbial coating which, when coated on different surfaces such as textile, plastic and so on could kill a range of virus types including COVID 19.

### Know! more about the coating and its mechanism

- This covalent coating, has been found to completely kill influenza virus as well as resistant pathogenic bacteria and fungi
- Corona virus, like influenza, is also an enveloped virus. Therefore it is anticipated that the coating may inactivate SARS-CoV-2 upon contact and can help prevent contamination if coated on various surfaces.
- The coating can be fabricated on a variety of surfaces, and its ease and robustness eliminate the necessity of skilled personnel for procurement of the coating.
- The molecules developed have an ability to chemically cross-link with different surfaces upon UV irradiation.
- Upon the formation of the coating, it has been shown to permeabilize the membranes of pathogens (i.e. bacteria) leading to their inactivation.

### Know! the benefits

- Considering the current corona virus outbreak, if shown to be active, the molecule can be synthesized in large scale through a CRO (Contract Research Organization) and can be coated on various personal protective tools such as masks, gloves, gowns, etc. in collaboration with the private organizations.
- The molecules can also be coated on other medical devices and tools to avoid hospital-acquired or nosocomial infections.



## Environment: US Virgin Islands bans sunscreens harming coral reefs

**Relevance IN – Prelims (about USVI + Palau island (location) + about the chemicals) + Mains (GS III Environment conservation)**

### What's the NEWS

- The United States Virgin Islands (USVI) banned sunscreen products with chemicals known to be harmful to coral reefs and marine life.
- The ban came into effect on March 30, 2020, making USVI territory the first in the United States to implement it.

### Know! more about it

- unscreens containing the 3 Os — oxybenzone, octocrylene and octinoxate — harm the coral reefs that protect the Virgin Islands' shoreline.
- unscreens containing mineral alternatives such as zinc oxide and titanium dioxide have been exempted.
- The concentration of these chemicals is 40 times more than acceptable levels in some of our territorial waters

### Additional info - Connect the dots (current Jan 2020)

- The archipelago nation of Palau is set to become the first country to enact a sunscreen ban, which will take effect in 2020.



- **Palau** officially the **Republic of Palau** is an island **country** located in the western Pacific Ocean.
- The Pacific nation of Palau has become the first country to ban sun cream that is harmful to corals and sea life.
- Sun cream that includes common ingredients, including oxybenzone, is not allowed to be worn or sold in the country.



### Know! about USVI

- The United States Virgin Islands (USVI) are a group of Caribbean islands and an unincorporated and organized territory of the United States.
- The islands are geographically part of the Virgin Islands archipelago and are located in the Leeward Islands of the Lesser Antilles to the east of Puerto Rico and west of the British Virgin Islands.

## Agriculture & Farmers Welfare: Union Agriculture Minister launches new features of e-NAM platform

### Relevance IN – Prelims (about e-NAM platform and its new features)

#### What's the NEWS

- The Agriculture and farmer's welfare ministry has launched new features of National Agriculture Market (e-NAM) Platform to strengthen agriculture marketing by farmers which will reduce their need to physically come to wholesale mandis for selling their harvested produce

#### Know! more about the new platforms

- e-NAM is well poised to play a critical role during the period of Covid-19 to decongest mandis while helping the farmers at same time.
- For this purpose following 03 modules have been launched for enhancing the effectiveness of e-NAM.

#### 1.Launch of “Negotiable Warehouse Receipt (e-NWRs) module in National Agriculture Market (e-NAM) software

- To enable small & marginal famers to directly trade their stored produce from selected WDRA registered warehouses which are declared deemed market by the State.
- Farmers will be able to place their produce in WDRA accredited warehouses.

#### Benefits of eNWRs integration with e-NAM

- Depositor can save the Logistics expenses and will have better income.
- Farmers can sell the produce across the Nation to get better Price and at the same time can save himself from hassle of mandi.
- Farmers will be able to place their produce in WDRA accredited warehouses avail the benefit of pledge loan if required.
- Price stabilization by matching supply and demand through time and place utility.

#### 2.FPO trading module

- Facility provided to FPO to upload assaying report / photo of their produce from their premise to enable traders to visualise the produce before bidding.
- FPOs have the option for delivery of produce either from their premises or by bringing to mandi premise after successful bidding. This will not only decongest the mandis but also reduce the logistics cost for the FPOs.

#### Benefits

- This will help FPOs by reducing transaction costs (Transportation) and enhancing their bargaining power.
- Facilitates FPOs to avail online payment facility with ease of doing business.

### 3. Launch of Logistic Module

- a. Presently, e-NAM provides a database of individual transporters to the traders. Now provision has been made for linking large logistic aggregator platforms, which will provide choices to users.
- b. Traders would be able to use the link to navigate to the logistics provider's website and select appropriate services.
- c. With these additions, more than 3,75,000 number of trucks from large logistic providers would be added for logistic purpose.

#### Benefits

- a. This will help in seamless transportation of agri produce.
- b. This will promote inter-State trade under e-NAM by providing online transport facilities for distant buyers.

#### Know! about e-NAM

- e-NAM was launched on 14 April 2016 as a pan-India electronic trade portal linking APMCs across the States.
- Already 585 mandis in 16 States and 02 Union Territories have been integrated on e-NAM portal.
- e-NAM will be soon expanded to cover additional 415 mandis, which will take the total number of e-NAM mandis to 1,000.
- e-NAM provides for contactless remote bidding and mobile-based any time payment for which traders do not need to either visit mandis or banks for the same.
- e-NAM is well poised to play a critical role during the period of Covid-19 to decongest mandis while helping the farmers at same time.

## COVID-19: VCs and startup CEOs join hands to launch the Action Covid Team Grants

***Relevance IN – Prelims (about the action covid team grant and its objective + about the role of fund manager + about venture capital)***

#### What's the NEWS

- A number of top fund managers from blue- chip venture capital firms and prominent startup CEOs have joined hands to set up a Rs 100 crore grant that will back fledgling firms working on products and services to combat the Covid-19 pandemic.

#### Know! more about ACT Grants

- The Action Covid Team (ACT) Grants, which is possibly a first-of-its-kind initiative globally, has already received about 40% of its target corpus, with some of the country's top entrepreneurs also coming on board to not only provide capital, but also identify ventures that may be still at an ideation stage.
- The domestic arm of global non-profit organisation, United Way Worldwide, will manage the grant, with plans to distribute the capital over the next quarter or earlier.
- Nachiket Mor, India head of the Bill and Melinda Gates Foundation, is heading the leadership team for ACT Grants.
- In an effort to widen the pool, individual members are also believed to be reaching out to global funds for contributions.
- Given that the financial support to startups will be in the form of grants ranging from Rs 25 lakh to Rs 1 crore, the investors will not pick up a stake in the selected ventures.
- The fund managers are committing capital from the fees they charge and the carry that they earn from managing their respective funds.
- The grant will back ventures looking to provide Covid-19 scale testing, at-home disease management mental health support and procurement of prevention, protection and safety gear, among others.

#### Know! about fund manager

- A fund manager is responsible for implementing a fund's investing strategy and managing its portfolio trading activities.



- The fund can be managed by one person, by two people as co-managers, or by a team of three or more people.
- Fund managers are paid a fee for their work, which is a percentage of the fund's average assets under management (AUM).
- They can be found working in fund management with mutual funds, pension funds, trust funds, and hedge funds.

### Know! about Venture Capital

- Venture capital is a form of private equity and a type of financing that investors provide to startup companies and small businesses that are believed to have long-term growth potential.
- Venture capital generally comes from well-off investors, investment banks and any other financial institutions.
- Venture capital is typically allocated to small companies with exceptional growth potential, or to companies that have grown quickly and appear poised to continue to expand.

## Science and Technology: Coronavirus in India: 5 research projects launched to mitigate spread

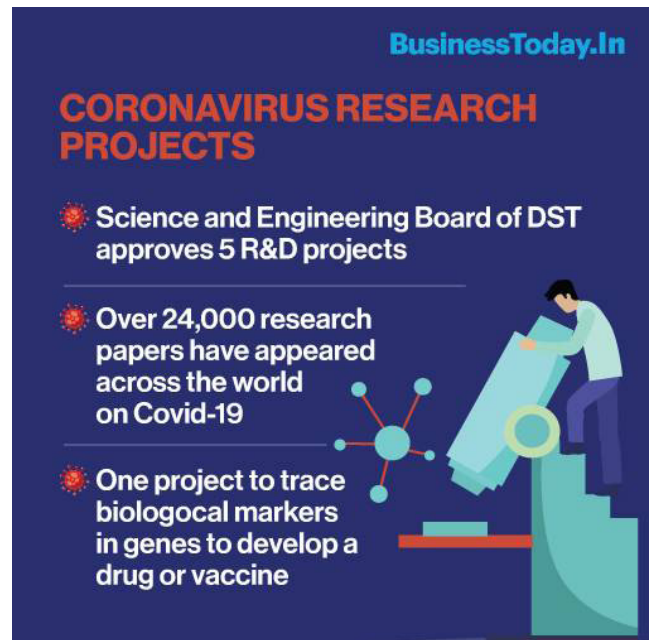
**Relevance IN – Prelims (about the research projects) + GS III (awareness in the field of science and technology)**

### What's the NEWS

- The government has launched a nationwide research and development (R&D) initiative to combat coronavirus, which neither has a medicine nor a vaccine.

### Know! more about the research projects

- The Department of Science and Technology - Science and Engineering Board (DST-SERB) has announced several special research projects.
- The first set of 5 projects have been selected for further development into implementable technologies.
- These projects were selected after peer-review and assessment by a Special Expert Committee for CoVID-19 projects.
- The **first project** will help in search of potential metabolite biomarker signature for coronavirus and recognition of novel targets for therapy.
- Biomarkers or biological markers capture activity of a cell or an organism at a given moment and help identifying potential drugs or vaccines.
- The **second project** will help develop viricidal coatings for inanimate surfaces used in healthcare settings such as surgical masks for the prevention of infectious diseases caused by highly contagious pathogens such as coronavirus, SARS-CoV-2.
- The **third project** concerns development of antiviral surface coatings to prevent the spread of infections caused by influenza virus.
- The objective is to develop small molecular and polymeric compounds which will be coated on various surfaces and kill respiratory viruses completely upon contact.
- The **fourth project** is to develop material which may be applied to mops to disinfect the surfaces and remove any adhering viruses or bacteria.
- The **fifth project** relates to development of antibody-based capture of 2019-nCoV and its inactivation using lipid-based in situ gel.
- This is the first such coordinated research initiative from India, and initiated by the government.



## Information and Technology: Hack the Crisis – India, an Online Hackathon to find working solutions for overcoming COVID 19 pandemic

**Relevance IN – Prelims (about Hack the Crisis – India hackathon and its objective) + Mains GS III (awareness in the field of science and technology)**

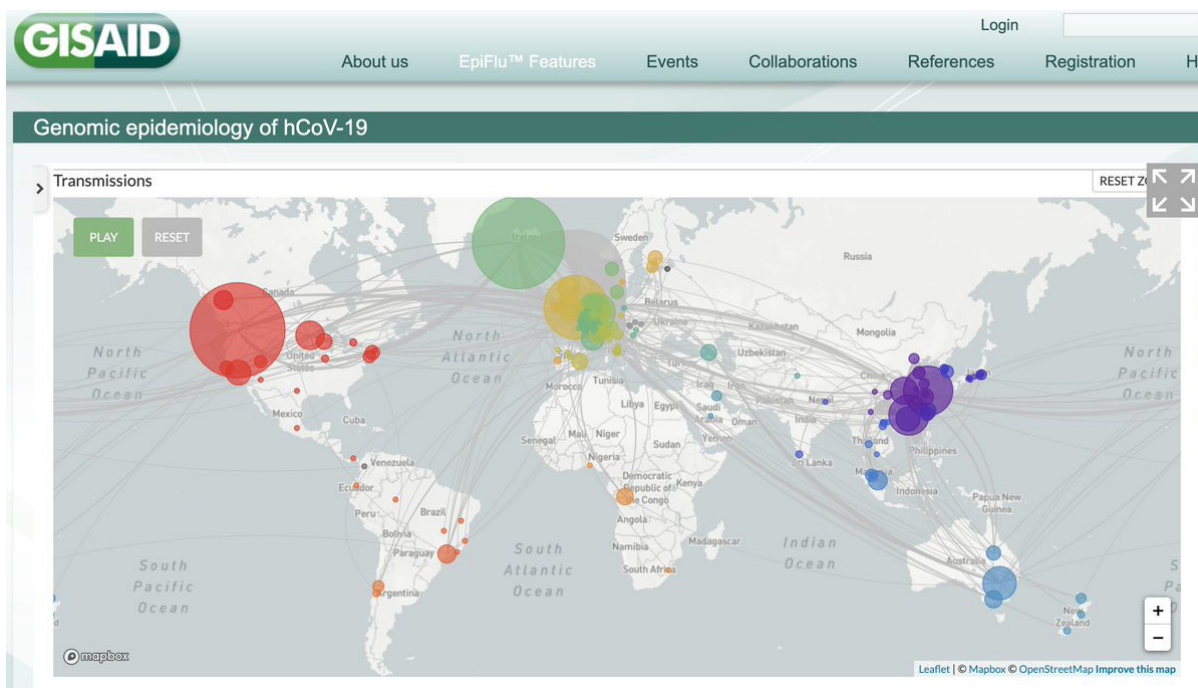
### What's the NEWS

- Hack the Crisis – India, an Online Hackathon to find working solutions for overcoming COVID 19 pandemic launched
- This hackathon is part of a global initiative and is being organised by 'Hack A Cause – India' and 'Ficci Ladies Organization Pune' and supported by Ministry of Electronics & Information Technology, Government of India (MEITY).

### Know! more about the hackathon

- **The** aim of this hackathon is to strengthen fight against COVID19. The winning ideas from few top participating teams, as implementable solutions on corona crisis is expected to help India and global citizens.
- over 2000 teams and over 15000 participants will be enhancing their working prototypes in 48hour hackathon with expert mentoring from India, Estonia and Finland. Top teams from India will participate in 'Hack the Crisis - World' global hackathon in coming weeks.

## Health: Global Initiative on Sharing All Influenza Data (GISAID)



**Relevance IN – Prelims (about GISAID and its objective)**

### What's the NEWS

- India has shared nine whole genome sequences of the novel **coronavirus** (SARS-CoV-2) with the Global Initiative on Sharing All Influenza Data (GISAID) — a public platform started by the WHO in 2008 for countries to share genome sequences.

### Know! more about it

- All the sequences have been shared by the Pune-based National Institute of Virology.
- so far, 3,086 sequences of the virus isolated from humans have been shared by 57 countries.
- With 621, the U.S. has shared the most number of sequences, followed by the U.K. (350), Belgium (253) and China (242).

- sequencing the genome of SARS-CoV-2 will help understand where the virus came from, if there are different strains circulating in India, and how the virus has spread.

## Environment Conservation: Scientists launch bid to save Myristica swamps

**Relevance IN – Prelims (about Myristica swamp ecosystem and its presence in India i.e. Shendurney Wildlife Sanctuary and Kulathupuzha) + Mains (GS III Environment conservation)**

### What's the NEWS

- The Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) here has launched a project for the restoration and conservation of Myristica swamps
- The institute has begun work on a swamp conservatory under a project funded by the Union Department of Biotechnology.

### Know! about the Myristica swamp ecosystem (characteristics and benefits)

- It is a vanishing ecosystem that could yield precious information about evolutionary biology and climate change.
- Myristica swamps are characterised by **tropical freshwater swamp** forests with an abundance of Myristicaceae trees, one of the most primitive of the flowering plants on earth.
- The evergreen, water-tolerant trees **have dense stilt roots** helping them stay erect in the thick, black, wet alluvial soil.
- The swamps also provide **habitat for a rich diversity** of invertebrate and vertebrate species, including amphibians, reptiles, and mammals.
- The swamps could promote better understanding of the influence of climate change on the evolution of plants. They are considered to be living museums of ancient life.
- Owing to their water holding capacity round the year, Myristica swamps act as a sponge, helping to sustain water in the streams and groundwater sources
- Myristica swamps also have higher biomass and carbon sequestration potential
- In Kerala, Myristica swamps are now largely confined to a few patches in the forested valleys of the **Shendurney Wildlife Sanctuary** and Kulathupuzha in the southern Western Ghats.

## Science & Technology: Exploring novel blood plasma therapy for COVID-19

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

### What's the NEWS

- Indian council for medical research (ICMR) the top authorising body in India has given approval to the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) an Institution of National Importance under the Department of Science and Technology for carrying out the novel treatment.
- Technically called “convalescent-plasma therapy”, the treatment aims at **using the immune power gained by a recovered person to treat a sick person.**

### Know! about convalescent-plasma therapy

- When a pathogen like novel coronavirus infects, our immune systems produce antibodies.
- The antibodies span out to identify and mark the invading virus.
- White blood cells attach the identified intruders, and the body gets rid of the infection.
- The therapy, like blood transfusion, harvests the antibody from a recovered patient and ingest into a sick person.
- Helped by the antibody, the immune system mounts robust combat on the virus.

### Know! about antibodies

- Antibodies are one of the front-line immune response to an infection by a microbe.

- They are a particular type of proteins secreted by immune cells called B lymphocytes when they encounter an invader, such as a novel coronavirus.
- The immune system designs antibodies that are highly specific to each invading pathogen.
- A particular antibody and its partner virus are made for each other.

## Science & Technology: Wormivet

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

### What's the NEWS

- National Innovation Foundation India (NIF) has brought out an **indigenous herbal medication (dewormer)** in form of commercial product for livestock owners as an alternate to chemical method of treatment of worm.
- In order to make the indigenous herbal dewormer titles 'wormivet' available for livestock owners, NIF worked on a medication in treatment of endoparasite (worm) infestation among livestock.

### Know! about NIF

- National Innovation Foundation (NIF) – India is an autonomous body of the Department of Science and Technology (DST), Government of India.
- It was set up in February 2000 at Ahmedabad, Gujarat to provide institutional support for scouting, spawning, sustaining and scaling up the grassroots innovations across the country.
- NIF conducts a biennial national competition for grassroots green technologies, developed by farmers, mechanics, artisans and others, through their own genius, without any recourse to professional help.
- NIF then gets these innovations validated with the help of experts and if the innovation is deemed novel, NIF files a patent on behalf of the innovator in his/her name.
- NIF also funds value-addition initiatives in these innovations to upscale them and make them more useful for a larger segment of people.
- IGNITE is an annual competition for student's ideas and innovations conducted by NIF in partnership with the Central Board of Secondary Education (CBSE).



## Science & Technology: Technology Development Board (TDB)

**Relevance IN – Prelims (about TDB and its objective + about GITA) + Mains (GS III Science and technology - Achievements of Indians in science & technology; indigenization of technology and developing new technology)**

### What's the NEWS

- The Indian industry and the start-up ecosystem have responded enthusiastically to the invitation by the Technology Development Board (TDB), a statutory body of the Department of Science and Technology (DST), for proposals from Indian companies and enterprises for supporting technologically innovative solutions towards fighting COVID-19.
- TDB **provides financial support** to Indian companies for commercialization of indigenous technology or adaptation of imported technology and had invited proposals to strengthen the nation's core capacities in fighting COVID 19.

### Know! about TDB

- The Government of India constituted the Technology Development Board (TDB) in September 1996, under the Technology Development Board Act, 1995, as a statutory body, to promote development and commercialization of indigenous technology and adaptation of imported technology for wider application.



- The TDB is the first organization of its kind within the government framework with the sole objective of commercializing the fruit of indigenous research.
- The Board plays a pro-active role by encouraging enterprises to take up technology oriented products.
- Provides equity capital or loans to industrial concerns and financial assistance to research and development institutions. The loan carries a simple interest rate of 5% per annum.

### Global Innovation & Technology Alliance (GITA)

- In order to stimulate private sector's investment in R&D, TDB established Global Innovation & Technology Alliance (GITA) as a Section 25 company in a joint venture between Confederation of Indian Industry (CII) and TDB with an equity contribution of 51:49 respectively.
- The GITA will assist Department of Science & Technology (DST) in implementing industrial research and development programme with different countries under bilateral and multilateral science and technology cooperation agreements.

## Science & Technology: IUSSTF boosts Indo-US virtual networks to address COVID 19 challenges

**IUSSTF boosts Indo-US virtual networks to address COVID 19 challenges**

- The Indo-U.S. Science and Technology Forum (IUSSTF), has invited Proposals for 'COVID-19 Indo-U.S. Virtual Networks' that would allow Indian and U.S. scientists and engineers currently engaged in COVID-related research to carry out joint research activities
- It is booting collaborations between Indian and US scientists for this specific purpose in keeping with their core mandate to catalyze collaborative initiatives across both countries.
- Collaboration across nations and organizations can leverage and share expertise across S&T communities and facilitate the development of a workforce which can proactively work towards solutions for the Pandemic

Submission from April 15 to May 15, 2020

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**Relevance IN – Prelims (about the virtual mechanism + about IUSSTF) + Mains (GS II Bilateral relations + GS III awareness in the field of S&T)**

### What's the NEWS

- The Indo-U.S. Science and Technology Forum (IUSSTF), has invited Proposals for 'COVID-19 Indo-U.S. Virtual Networks' that would allow Indian and U.S. scientists and engineers currently engaged in COVID-related research to carry out joint research activities through a virtual mechanism, leveraging existing infrastructure and funding.
- The IUSSTF is booting such collaborations for this specific purpose in keeping with their core mandate to catalyze collaborative initiatives across both countries.

### Know! about IUSSTF

- The IUSSTF established under an agreement between the Governments of India and the United States of America in March 2000 is an autonomous bilateral organization jointly funded by both the Governments that promotes Science, Technology, Engineering, and Innovation through substantive interaction among government, academia, and industry.
- The Department of Science and Technology, Governments of India, and the U.S. Department of State are respective nodal departments.

## Agriculture & Farmers Welfare: National Agriculture Market portal e-NAM to Complete four Years on 14th April 2020

**Relevance IN – Prelims (about e-NAM and its objective) + Mains (GS III e-technology in the aid of farmers)**

### Know! all about e-NAM

- National Agriculture Market or eNAM is an online trading platform for agricultural commodities in India.
- e-NAM was an innovative initiative in agricultural marketing to enhance farmers accessibility digitally to multiple number of markets & buyers and to bring transparency in trade transactions with the intent to improve price discovery mechanism, quality commensurate price realization and also to develop the concept of One Nation One Market for agriculture produce.
- To make the marketing of commodities easier for farmers, e-NAM was envisioned and launched by Prime Minister in 21 mandis on 14th April, 2016 which has now reached 585 mandis across 16 States and 02 UTs.
- Farmers are free to register on e-NAM portal and they are uploading their produce for sale online to the traders across all e-NAM mandis and traders can bid for the lots available for sale on e-NAM from any location.
- The market facilitate farmers, traders and buyers with online trading in commodities.
- Over 90 commodities including staple food grains, vegetables and fruits are currently listed in its list of commodities available for trade.
- The eNAM markets are proving popular as the crops are weighed immediately and the stock is lifted on the same day and the payments are cleared online.
- It was launched by the Ministry of Agriculture, Government of India.
- The Portal is managed by Small Farmers' Agribusiness Consortium (SFAC) with the technology provider, NFCL's iKisan division.
- On the ENAM platform, farmers can opt to trade directly on their own through the mobile app or through registered commission agents.



## Economy: RBI should implement 'Helicopter Money' to counter economic crisis

**Relevance IN - Prelims (about Helicopter Money + about FRBM act) + Mains (GS III Economic development)**

### What's the NEWS

- Telangana Chief Minister K. Chandrashekar Rao has suggested RBI to adopt the concept of Helicopter Money to help state governments tide over the current crisis and kickstart economic activity in India

### Statement stated by the Telangana CM

- To counter (economic crisis) this we need a strategic economic policy. RBI should implement quantitative easing policy. This is called Helicopter Money.
- This will facilitate the states and financial institutions to accrue funds. We can come out of the financial crisis. Release 5 percent of funds from the GDP through Quantitative Easing Policy.



- The chief Minister K Chandrashekar Rao wanted the Union Government to increase the FRBM (Fiscal Responsibility and Budget Management) limit to **five per cent from the present three per cent** to help the States sail through the financial crisis.

### Know! about Helicopter Money

- This is an unconventional monetary policy tool. It involves printing money and distributing it to the public. Milton Friedman coined this term. It basically denotes a helicopter dropping money from the sky. Friedman used the term to signify ***“unexpectedly dumping money onto a struggling economy with the intention to shock it out of a deep slump.”***
- Under such a policy, a central bank “directly increase the money supply and, via the government, distribute the new cash to the population with the aim of boosting demand and inflation
- It basically means non-repayable money transfer from the central bank to the government. It seeks to goad people into spending more and thereby boost the sagging economy.
- The policy aims at putting more money into the pockets of people to nudge them to spend more money and in turn pick-up economic activity in the country.
- The direct impact of Helicopter Money is rise in disposable incomes of the people, increase in money supply with an intention to boost demand and inflation in the economy.

### Know! about Fiscal Responsibility and Budget Management (FRBM)

- The Fiscal Responsibility and Budget Management (FRBM) Act, 2003, intends to bring transparency and accountability in the conduct of the fiscal and monetary actions of the government.
- The rules set targets for the phased reduction of the fiscal deficit to acceptable levels. **It requires the government to limit the fiscal deficit to 3% of the GDP by 31 March 2021** and the debt of the central government to 40% of the GDP by 2024-25, among others.
- The Act provides room for deviation from the annual fiscal deficit target under certain conditions.
- The government is also required to provide the Parliament details of fiscal indicators such as fiscal, revenue and primary deficit as a percentage of GDP, tax and non-tax revenues as a percentage of GDP, and central government debt as a percentage of GDP.

## Agriculture: How ‘Confarm’ is leading the way in Telangana



**Relevance IN – Prelims (about Confarm and its objective) + Mains (GS III Farmers’ welfare + 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)**

### Know! about Confarm

- It is a **partnership between farmers and urban consumers** in Telangana, christened ‘ConFarm’ (Consumer-Farmer Compact), has been doing for the last two years.
- The consumers support farmers with their agricultural needs; in return, farmers ensure consumers are able to access food in a hassle-free manner.



- The initiative kicked off in June 2018 and has been endeavouring to bring farmers and consumers on the same platform for their benefit.

### **Know! about the Confarm initiative**

- The initiative requires **consumers to support farmers in the beginning of a farming season.**
- Each consumer supports a group of farmers with about Rs 12,500 per acre for their farming needs.
- In return, at the time of harvest, consumers are given products according to the value they invested, leaving the middlemen out.
- They are **provided with millets, pulses, oil, jaggery and** other necessary items produced organically — either in bulk or on monthly basis.
- The initiative also aims to give millets a push in the urban market, enabling consumers to move beyond the commonly consumed grains such as rice and wheat.

### **Way Forward (helps in concluding the answer)**

- Such supply chains are the need of the hour. Farmers and consumers must come together to face crisis moments in the future as well
- When all of us are confined to our homes with restricted access to essentials, our farmer friends offer solace. They ensure access to good food even during the crisis.
- At this juncture in crisis — when free-market system and global trade are staring at an uncertain future — local solutions such as ‘Confarm’ hold greater prominence

## **Economy: Sovereign Gold Bond Scheme 2020-21**

### ***Relevance IN – Prelims (about Sovereign Gold Bond scheme) + Mains (GS III Economic development)***

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

- The Government of India, in consultation with the Reserve Bank of India, has decided to issue Sovereign Gold Bonds.
- The Sovereign Gold Bonds will be issued in six tranches from April 2020 to September 2020
- The Bonds will be **sold through Scheduled Commercial banks** (except Small Finance Banks and Payment Banks), Stock Holding Corporation of India Limited (SHCIL), designated post offices, and recognised stock exchanges viz., National Stock Exchange of India Limited and Bombay Stock Exchange Limited.

### **Know! about Sovereign Gold Bond Scheme**

- Sovereign Gold Bond Scheme was launched by Govt in November 2015, under Gold Monetisation Scheme.
- Under the scheme, the issues are made open for subscription in tranches by RBI in consultation with GOI. RBI Notifies the terms and conditions for the scheme from time to time.
- It offer investors an alternative to own gold. It belongs to the debt fund category.

### **Know! the features of the Sovereign Gold Bond Scheme**

- The Bonds will be denominated in multiples of gram(s) of gold
- The Gold Bonds will be issued as Government of India Stock under GS Act, 2006. The investors will be issued a Holding Certificate for the same. The Bonds are eligible for conversion into demat form.
- The Bonds will be restricted for sale to resident individuals, HUFs, Trusts, Universities and Charitable Institutions.
- The minimum permissible investment will be 1 gram of gold and the maximum limit of subscription shall be 4 kg for individual, 4 kg for HUF and 20 kg for trusts and similar
- The current interest rate for SGB is 2.50 percent annually. They are paid twice a year on the nominal value. Returns are usually linked to the current market price of gold.
- The tenor of the Bond will be for a period of 8 years with exit option after 5<sup>th</sup> year to be exercised on the interest payment dates.
- Bonds can be used as collateral for loans.



## Know! the Benefits

- The SGB offers a superior alternative to holding gold in physical form.
- The risks and costs of storage are eliminated.
- Investors are assured of the market value of gold at the time of maturity and periodical interest.
- GB is free from issues like making charges and purity in the case of gold in jewellery form.
- GBs are government securities and are considered safe.
- Their value is denominated in multiples of gold grams.
- Some banks accept SGB as collateral/security against secured loans.

## Science & Technology: Integrated geospatial platform

The infographic features a dark blue header with the title in white. The background is a light green grid with a network of white dots and lines. On the right side, there is a large, stylized image of a COVID-19 virus particle in blue and green. The main content consists of three bullet points, each preceded by a small red virus icon. At the bottom, there is a blue footer bar containing the IndiaDST logo, the website URL, and the Twitter handle.

**Integrated geospatial platform to help area-specific strategies & decisions in COVID-19 outbreak**

- Integrated Geospatial Platform created out of available geospatial datasets, standards-based services, and analytic tools to help decision making during the current COVID-19 outbreak and aid devising area-specific strategies to handle the socio-economic impact in the recovery phase
- The platform is expected to strengthen the public health delivery system of the State and Central Governments and also provide geospatial information support to citizens and agencies dealing with the challenges related to health, socio-economic distress, and livelihood
- The mobile application SAHYOG, as well as a webportal prepared & managed by Sol, has been customized to collect COVID-19 specific geospatial datasets through community engagement to augment the response activities by Government of India to the pandemic

IndiaDST [www.dst.gov.in](http://www.dst.gov.in) @IndiaDST

**Relevance IN – Prelims (about Integrated Geospatial Platform + about SAHYOG app) + Mains (GS II good governance + government policies and interventions + GS III awareness in the field of S&T)**

## What's the NEWS

- The Department of Science and Technology (DST), Government of India, has created **an Integrated Geospatial Platform** out of available geospatial datasets, standards-based services, and analytic tools to help decision making during the current COVID-19 outbreak and aid devising area-specific strategies to handle the socio-economic impact in the recovery phase.

## Know! more about the Integrated Geospatial Platform

- The platform will strengthen the public health delivery system of the State and Central Governments and subsequently provide the necessary geospatial information support to citizens and agencies dealing with the challenges related to health, socio-economic distress, and livelihood challenges.
- The mobile **application SAHYOG**, as well as the web portal (<https://indiamaps.gov.in/soiapp/>) **prepared & managed by the Survey of India (SoI)**, has been customized to collect COVID-19 specific geospatial datasets through community engagement to augment the response activities by Government of India to the pandemic.

- The SAHYOG mobile application will complement the “AAROGYA-SETU” mobile application launched by the Government of India for Contact tracing, Public awareness, and Self-assessment objectives.

### Way Forward

- Integration of demographic information with geospatial data is** essential for decision making, governance, and development.
- DST's efforts in integrating geospatial information can help the country in taking rapid spatial information-based decisions to face the multilayered crisis that the pandemic and brought and spread the impact of such decisions through the country.

## Science and Technology: Science and Technology of Yoga and Meditation (SATYAM) programme of the DST


*Relevance IN – Prelims (about about the DST proposal under SATYAM programme + about CSRI) + Mains (GS III Science and Technology- developments and their applications and effects in everyday life. Achievements of Indians in science & technology; indigenization of technology and developing new technology.*

### What's the NEWS

- The Department of Science and Technology (DST) has invited proposals to **study appropriate intervention of yoga and meditation** in fighting **COVID-19** and similar kinds of viruses.

### Know! about the proposal

- The proposals have been invited under the Science and Technology of Yoga and Meditation (SATYAM) programme of the DST, a department under the Ministry of Science and Technology.
- It states that the project may address improving immunity, improving respiratory system and interventions to overcome respiratory disorders and other dimensions like stress, anxiety and depression-related issues due to isolation, uncertainty and disruption in normal life.



सत्यमेव जयते  
Department of Science & Technology  
Govt. of India

## Science and Technology of Yoga and Meditation (SATYAM)

**Call for Research Proposals [2018-19]      Last date : 15 December 2018**

Research proposals under SATYAM are invited in interdisciplinary field of 'Yoga & Meditation' having interface with Neuroscience, Medicine, Psychology, Physiology, Philosophy, etc.


**Themes:**

- (1) Investigations on the effect of Yoga and Meditation on physical and mental health and well being.
- (2) Investigations on the effect of Yoga and Meditation on the body, brain, and mind in terms of basic processes and mechanisms.

**Who can apply:** Scientists/academicians with research background in 'Yoga and Meditation' and having regular position are invited to participate in this initiative.

**Detailed Information about SATYAM:** [onlinedst.gov.in](http://onlinedst.gov.in) & [www.dst.gov.in](http://www.dst.gov.in)  
**Contact:** Dr Vandana Singh, Scientist-E, Department of Science & Technology, New Delhi. E-mail: [vandana.singh@nic.in](mailto:vandana.singh@nic.in)

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## **Know! about Science and Technology of Yoga and Meditation (SATYAM)**

- Department of Science and Technology (DST), in 2015, conceptualized a new research program- 'Science and Technology of Yoga and Meditation' (SATYAM)- under its **Cognitive Science Research Initiative (CSRI)**.
- Scientists/academicians with research background in 'Yoga and Meditation' are invited to participate in this initiative.
- Practitioners actively involved in yoga and meditation practices are also encouraged to apply in collaboration with academic and research institutions of repute.

## **Interdisciplinary approach**

- **Yoga and Meditation are interdisciplinary endeavours** that interface with Neuroscience, Medicine, Psychology, Philosophy, and so on, therefore an interdisciplinary approach is needed to converge different & diverse disciplines as well as approaches & methods in the study of yoga and meditation.

## **Outcome**

- The comprehensive research on yoga and meditation is expected to address various challenges confronting physical and mental health.
- It is aimed to foster scientific research on the **effects of yoga and meditation on physical & mental health** and on cognitive functioning in healthy people as well as in patients with disorders.

## **Know! about CSRI**

*Cognitive Science Research Initiative (CSRI) is a unique program of Department of Science and Technology (DST) which is aimed to revolutionize research in various fields such as,*

1. Nature and origin of mental disorders of psychological, social and neuro-chemical origin
2. Design of better learning tools and educational paradigms; and
3. Design of better cognition based software technologies and devices, among others.

## **Additional Info.**

### **Knowledge Involvement in Research Advancement through Nurturing (KIRAN)**

- More than 2200 women scientists & technologists have benefitted from the Women Scientists Scheme, including WOS-A, WOS-B, and WOS-C in the last five years,
- Women ranging in the age group 27 to 57 years receive fellowship support ranging from Rs 25000 to 55000 for different categories under Knowledge Involvement in Research Advancement through Nurturing (KIRAN)' Scheme **for continuing higher education in Science and Technology after a break in career.**
- The Department of Science and Technology (DST) is implementing 'Knowledge Involvement in Research Advancement through Nurturing (KIRAN)' Scheme **to provide various career opportunities** to women scientists and technologists.
- It is primarily aimed to bring gender parity in the Science & Technology sector **by inducting more women talent in the research & development domain through various programmes.**
- Women Scientists Scheme (WOS) of the Department under the KIRAN scheme, including other schemes, empowers women in science and technology.
- The 'Women Scientist Scheme' provides career opportunities to unemployed women scientists and technologists, especially those who had break in career, for pursuing research in frontier areas of Science and Engineering.

*There are three major components of the Women Scientist Scheme, namely, WOS-A, WOS-B, WOS-C.*

- The WOS-A scheme provides a platform to women scientists and technologists **for pursuing research in basic or applied sciences**
- The WOS-B scheme focuses on projects related to Science & Technology (S&T) interventions **for societal benefit.**
- The WOS-C scheme aims to train women having qualifications in science/engineering/medicine or allied areas in the **field of Intellectual Property Rights (IPRs)**



## Science & Technology: Centre for Nano and Soft Matter Sciences (CeNS)

**Relevance IN – Prelims (about CeNS and compact solid-state sensor + about heavy metal ions) + Mains (GS III Science and Technology- developments and their applications and effects in everyday life. Achievements of Indians in science & technology; indigenization of technology and developing new technology.**

### What's the NEWS

- Centre for Nano and Soft Matter Sciences (CeNS) has developed a compact solid-state sensor to detect **the heavy metal ions in water**.

### Know! about compact solid-state sensor

- It is a portable device which can help onsite detection in remote areas.
- Heavy metal ions **such as lead, mercury and cadmium** pose severe potential threats to living beings as they can easily be accumulated in the body and cannot be detoxified by any chemical or biological processes.
- The health hazards associated with heavy metal ions in water demands the development of efficient and portable sensors for rapid onsite detection of these ions.
- There is an urge to develop visual sensors, which can effectively detect heavy metal ions rapidly (within seconds) under ambient conditions.

### Know! about CeNS

- The **Centre for Nano and Soft Matter Sciences (CeNS)** is an autonomous research institute under Department of **Science** and Technology (DST), Government of India.
- DST provides core support to the **Centre** in the form of a grant-in-aid for conducting basic and applied research in **nano and soft matter sciences**

## Environment: National Board for Wildlife hasn't met even once since 2014

**Relevance IN – Prelims (about NBWL and its objective + about Wild Life (Protection) Act, 1972 (WLPA) + Mains (GS III Environment Conservation)**

### What's the NEWS

- The Standing Committee of NBWL through VC (Video Conference) approved wildlife clearance for a number of developmental project proposals submitted by 11 states
- Union Minister for Environment, Forest and Climate Change chaired the meeting
- India's National Board for Wildlife (NBWL) hasn't met in six years.
- The projects were cleared by the Standing Committee of the NBWL.

### Know! about Wild Life (Protection) Act, 1972 (WLPA) and its provisions

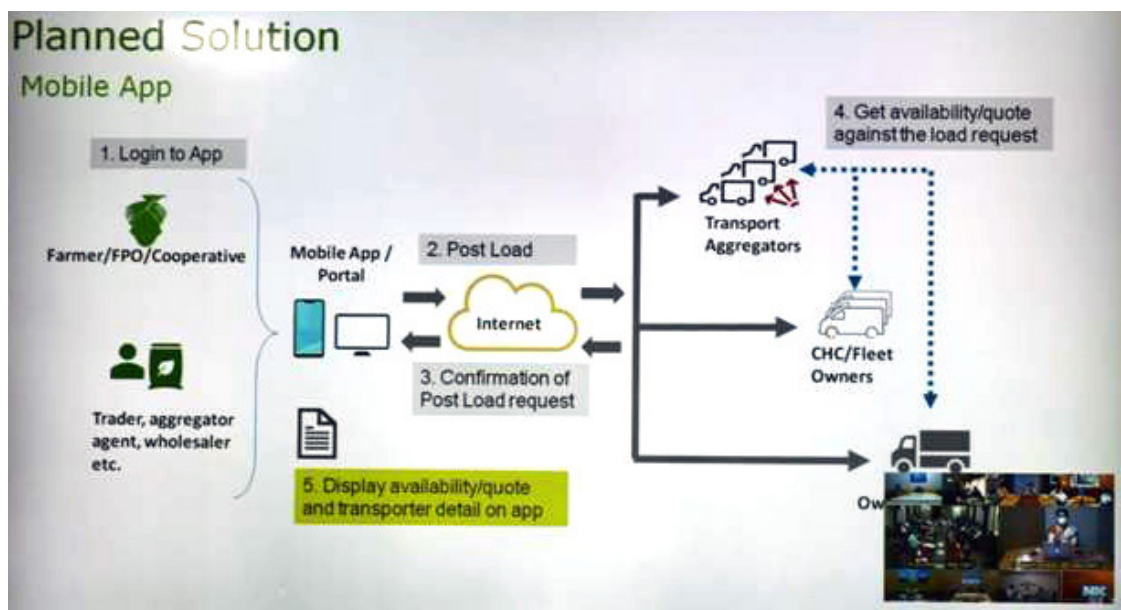
- Under the provisions of the Wild Life (Protection) Act, 1972 (WLPA), the NBWL can constitute a Standing Committee, but the board has to meet at least twice a year. But the board hasn't met even once since 2014
- The NBWL is chaired by the Prime Minister according to the WLPA.
- The NBWL which is a statutory policy level body has 47 members including the chairperson. Among these, 19 members are ex-officio members.
- Every new government constitutes a new board, based on the provisions of the WLPA, with the new PM as the chair.
- The Standing Committee's function is to regulate land diversion within Protected Areas and Eco Sensitive Zones, making it a purely project clearance body.
- The NBWL, on the other hand, has the power to deal with policy-level decisions on wildlife.

### Know! about the Standing Committee of NBWL

- While the NBWL had not met, policy level decisions were being taken by the Standing Committee
- While the members of the Standing Committee are also part of the NBWL, the committee is a much smaller body in terms of membership.



## Agriculture & Farmers Welfare: Kisan Rath Mobile App



**Relevance IN – Prelims (about the app and its objective) + Mains (GS III storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers Food processing and related industries in India +scope and significance, location, upstream and downstream requirements, supply chain management.**

### What's the NEWS

- The Ministry of Agriculture & Farmers' Welfare, launched a farmer friendly mobile application developed by the **National Informatics Centre (NIC)** to facilitate farmers & traders in searching transport vehicles for **Primary and Secondary transportation** for movement of Agriculture & Horticulture produce
- **Primary transportation** would include movement from Farm to Mandis, FPO Collection Centre and Warehouses etc.
- **Secondary Transportation** would include movement from Mandis to Intra-state & Inter-state mandis, Processing units, Railway station, Warehouses and Wholesalers etc.

### Know! more about the app

- This 'Kisan Rath' App will greatly **facilitate farmers, FPOs and Cooperatives** in the country to have the choice to find a suitable transport facility to transfer their agriculture produce from farm gate to markets.
- The Mobile Application named "Kisan Rath" facilitates Farmers and Traders in **identifying right mode of transportation** for movement of farm produce ranging from foodgrain (cereal, coarse cereal, pulses etc), Fruits & Vegetables, oil seeds, spices, fiber crops, flowers, bamboo, log & minor forest produce, coconuts etc.
- This App also facilitates traders in transportation of perishable commodities by Reefer (Refrigerated) vehicles.
- "Kisan Rath" will ensure smooth and seamless **supply linkages between farmers, warehouses, FPOs, APMC mandis** and intra-State & inter-State buyers and help in reduction of food wastage by providing timely services. All these will contribute in better prices for perishable commodities.

## All India Agri Transport Call Centre

**Relevance IN – Prelims (about the objective of Call Centre) + Mains (GS III storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers)**

### What's the NEWS

- The Ministry of Agriculture and Farmers Welfare has launched the All India Agri Transport Call Centre to facilitate the **inter-state movement of perishables** in the current situation of lockdown due to the COVID-19 threat.

## Know! about the call centre

- The Call Centre numbers are 18001804200 and 14488. These numbers can be called from any mobile or landline phone any time of the day or night.
- The 24x7 service All India Agri Transport Call Centre is an initiative of the Department of Agriculture, Cooperation and Farmers Welfare (DAC&FW), Government of India for coordination between States for inter-state movement of perishables - Vegetables & Fruits, Agri Inputs like seeds, pesticides, and fertilizer, etc.
- The call centre has been **operated by the IFFCO Kisan Sanchar Limited (IKSL)** from their offices in Faridabad, Haryana

## Science & Technology: Inactivated virus vaccine in focus for novel coronavirus

**Relevance IN – Prelims (about the concept of inactivated virus vaccine) + Mains (GS III Achievements of Indians in science & technology; indigenization of technology and developing new technology.**

### What's the NEWS

- Researchers from the Centre for Cellular and Molecular Biology (CCMB) have embarked upon developing an inactivated virus vaccine for the dreaded novel coronavirus.

### Know! about inactivated vaccine

- Inactivated vaccines are known for their safety and easy production.
- Vaccination is thought to be the most effective and sure way to arrest the progress and deadly effect of this virus.
- Active virus is cultured in large numbers and then killed either by a chemical or heat.
- When this dead microbe is introduced, the immune system is tricked to respond by producing antibodies against specific antigens still left intact, without knowing that the pathogen is dud.
- **Inactivated polio vaccine and the rabies vaccines are made this way.**
- As the pathogen is dead, it cannot reproduce nor cause even a mild disease. Thus, it is **safe to administer to even people with lesser immunity**, like the old and those who have co-morbidity.
- If we grow a large amount of virus and we can inactivate it, that will be material for candidate vaccine to be injected. Now the virus will not be active but the human body will recognise the proteins of the virus and start making antibodies against it.

### Challenges

- The important technological challenge is to artificially culture and harvest the deadly virus outside of the human host.
- locating the right source of the cell line to culture the virus outside of the human body is key to this technology.

## Energy: Power Ministry floats draft Electricity Act(Amendment) Bill 2020

**Relevance IN – Prelims (about the draft proposals highlights – ECEA,APTEL) + Mains (GS III infrastructure development -Energy)**

### What's the NEWS

- The Ministry of Power has issued draft proposal for amendment of Electricity Act, 2003 in the form of draft Electricity Act (Amendment) Bill, 2020

**Major amendments proposed in the Electricity Act are as follows.**

### Establishment of Electricity Contract Enforcement Authority(ECEA)

- A Central Enforcement Authority headed by a retired Judge of the High Court is proposed to be set-up with powers of the Civil Court to enforce performance of contracts related to purchase or sale or transmission of power between a generating, distribution or transmission companies.
- It is proposed to empower Load Dispatch Centres to oversee the establishment of adequate payment security mechanism before scheduling dispatch of electricity, as per contracts.

# POWER MINISTRY PROPOSES AMENDMENT TO ELECTRICITY ACT, 2003

## DRAFT ELECTRICITY AMENDMENT BILL 2020

- Proposes privatisation of discoms by way of sub-licensing and franchisee
- Proposes state commissions to determine tariff for retail sale of electricity without any subsidy under section 65 of the Act; tariff should reflect the cost of supply of electricity and cross-subsidies to be reduced

## INTRODUCES ELECTRICITY CONTRACT ENFORCEMENT AUTHORITY (ECEA)

- ECEA to adjudicate upon matters regarding performance of obligations under a contract related to sale, purchase or transmission of electricity
- Proposes to empower load dispatch centre to oversee the payment security mechanism before scheduling dispatch of electricity
- Proposes National Renewable Energy Policy for the promotion of generation of electricity from renewable sources



## APTEL

- **strengthening of the Appellate Tribunal (APTEL)** to seven apart from the Chairperson so that multiple benches can be set-up to facilitate quick disposal of cases.
- It is proposed to have one Selection Committee and Uniform qualifications in Central and State Electricity Regulatory Commissions.

## National Renewable Energy Policy

- It is proposed to provide for a policy document for the development and promotion of generation of electricity from renewable sources of energy.

## Cross border trade in Electricity

- Provisions have been added to facilitate and develop trade in electricity with other countries.

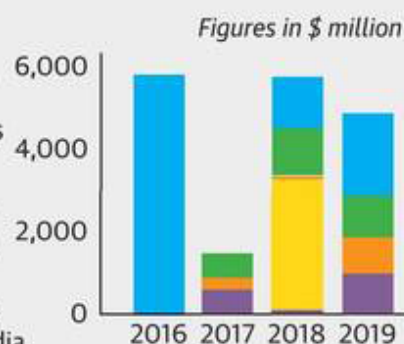
## India amends FDI policy to prevent 'opportunistic acquisitions' of Indian companies by the Chinese

### China's economic footprint in India

Chinese investment in India increased from \$1.6 billion in 2014 to \$8 billion in 2017 according to a Brookings India report. The investments span a range of sectors with a significant share in the start-up space

### INVESTMENT VALUE

The chart depicts the estimated value of China's investments in India since 2016 across various sectors such as infrastructure, consumer goods, energy, real estate and automobiles. The chart includes both actual and planned investments. Data sourced from Brookings India



**Relevance IN – Prelims (about the changes in the FDI Norms) + Mains (GS III Economic development)**

## What's the NEWS

- The Centre has made prior government approval mandatory for foreign direct investments from **countries which share a land border with India**. Previously, only investments from Pakistan and Bangladesh faced such restrictions.



- The restrictions that were earlier imposed on Bangladesh and Pakistan will now apply to other neighbouring countries like China as well
- The revised FDI policy is aimed at “**curbing opportunistic takeovers/acquisitions** of Indian companies due to the current COVID-19 pandemic

### **Know! about the amendment to India's FDI Policy by DPIIT**

- India shares land borders with Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh and Myanmar.
- Investors from countries not covered by the new policy only have to inform the RBI after a transaction rather than asking for prior permission from the relevant government department.
- The revised policy states that the countries that share land borders with India can only invest in Indian companies with government's approval. It will be applicable to large shareholding — more than 10%
- Any investments in these 17 sectors — including defence, space, pharmaceuticals and atomic energy — needs government nod.
- A non-resident entity can invest in India, subject to the FDI Policy except in those sectors/activities which are prohibited.
- However, an entity of a country, which shares a land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route
- In case of the transfer of ownership in an FDI deal, the acquisitions can be made only via government route.

### **Why it was needed?**

- The recent amendment to India's FDI Policy by DPIIT was much needed because in the current depressed economic environment, Indian companies are vulnerable to predatory acquisitions.
- China is now investing and acquiring companies all over the world
- Chinese firms are engaged in high numbers of direct and indirect Chinese investments in India (e.g recently the People's Bank of China acquired 1.01% stake in the HDFC Housing finance Company).
- China is now investing and acquiring companies all over the world but now with the amendment to India's FDI Policy any firm (including the Chinese firm) will now have to get Indian Government permission in order to make an acquisition in India or acquire an Indian firm.

## **FOCUS ARTICLE/Economy: How a dollar swap line with US Fed can help in uncertain times**

***Relevance IN – Prelims (about Currency Swap Agreement) + Mains (GS III Economic development + GS II Bilateral relations)***

### **What's the News**

- India is working with the United States to secure a dollar swap line that would help in better management of its external account and provide extra cushion in the event of an abrupt outflow of funds, according to banking industry and government sources.

### **Background**

#### **Know! about Currency Swap Agreement**

- Forex reserves/assets (also called foreign exchange assets) are assets held on reserve by a central bank in foreign currencies. These may include foreign currencies, bonds, treasury bills and other government securities. These are held to ensure that a central bank has enough funds if its national currency weakens/ devalues rapidly.
- A currency swap between the two countries is an agreement to exchange currencies with **predetermined terms and conditions**. The parties agree to swap back these quantities of their two currencies at a specified date in the future, which is the next day or as far ahead as three months, using the **same exchange rate as in the first transaction**.





- These swap operations **carry no exchange rate** or other market risks as transaction terms are set in advance. Central banks and Governments engage in currency swaps with foreign counterparts to meet short term foreign exchange liquidity requirements or to ensure adequate foreign currency to avoid Balance of Payments (BOP) crisis till longer arrangements can be made.
- In a dollar swap arrangement, a kind of currency swap, the US Fed provides dollars to a foreign central bank (Say, RBI), which, at the same time, provides the equivalent funds in its currency (here, Indian Rupees) to the Fed, based on the market exchange rate at the time of the transaction.
- In 2019, India signed a \$75 billion bilateral currency swap line agreement **with Japan**, which has the second largest dollar reserves after China. This facility provides India with the flexibility to use these reserves at any time in order to maintain an appropriate level of balance of payments or short-term liquidity. The Reserve Bank of India also offers similar swap lines to central banks in the SAARC region within a total corpus of \$2 billion.

### **Know! what's the Need Of Dollar Swap In The Present Context**

- In roughly a month, India's foreign exchange reserves have fallen by nearly \$13 billion — from an all-time high of \$487.23 billion on March 6 to \$474.66 billion as of April 3, as per the latest data reported by the RBI.
- Despite the slump in global crude oil prices and reduction in imports due to the pandemic outbreak, a sharp outflow of funds resulting from foreign portfolio investors (FPIs) looking for safer havens amidst the current global uncertainty, has pulled down India's foreign exchange reserves.
- On March 19, 2020, the Fed opened temporary swap arrangements with the central banks of Australia, Brazil, Denmark, South Korea, Mexico, Norway, New Zealand, Singapore, and Sweden, to be in place for at least six months for a combined \$450 billion.
- The Fed already has permanent swap arrangements with the Bank of Canada, the Bank of England, the European Central Bank, the Bank of Japan, and the Swiss National Bank. Other large economies including India, China, Russia, Saudi Arabia and South Africa — all part of the G-20 grouping — currently do not have a currency swap line with the US.

### **How a Swap Agreement will benefit the present economy**

- With the high level of Forex available with India at present, it is largely expected to tide over any challenge posed by continued outflows of funds from the markets. However, a swap line with the US Federal Reserve provides additional comfort to the forex markets.
- Foreign institutional investors (FIIs) have been large sellers in the Indian equity and debt markets in March and April so far, as concerns over the economic effects of the COVID-19 pandemic has hit investor sentiment.
- Even as the stock markets have seen a pullback from earlier low levels, there is apprehension that the economic impact of COVID-19 will last for a significant length of time, and there is unlikely to be any V-shaped recovery in the economy or in the financial markets.
- This means that the government and the RBI cannot lower their guard on the management of the economy and the external account.

## **Space Awareness: NASA will launch astronauts from US soil for the first time in nearly a decade, with help from SpaceX**

***Relevance IN – Prelims (about Demo-2 mission + about CREW-1 + about the Commercial Crew Program + about ISS + Mains (GS III awareness in the field of space)***

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

- Demo-2 will launch two NASA astronauts to the International Space Station for the first time since the end of the Space Shuttle program nearly a decade ago.



## Know! more about the Demo-2 mission

- NASA and SpaceX are targeting May 27 for the launch of Demo-2, the first launch of NASA astronauts from the U.S. since 2011 and the first crewed launch for Elon Musk's space company.
- As its name implies, Demo-2 will be the second time SpaceX launches its Crew Dragon capsule to the International Space Station. But, unlike Demo-1 last year, this time two astronauts will be on board.
- NASA astronauts Robert Behnken and Douglas Hurley will fly on the SpaceX spacecraft as part of the US space agency's Commercial Crew Programme, heralding a new era of human spaceflight.
- The Demo-2 mission will be the final major step before NASA's Commercial Crew Program certifies Crew Dragon for operational, long-duration missions to the space station.

## Know! about Crew-1

- The plan is to bring Behnken and Hurley back from the space station after about two or three months.
- About a month after they return, NASA and SpaceX will launch Crew-1, which the agency considers to be Crew Dragon's "first operational" flight. Crew-1 will mark the official start of SpaceX flying astronauts on regular missions to the ISS.

## Know! about the Commercial Crew Program

- The Commercial Crew Program is a human spaceflight program that is funded by the U.S. government and administered by NASA through which private vendors are to develop and operate crew vehicles to carry US and international astronauts to and from the International Space Station (ISS).

## Know! about ISS

- The International Space Station (ISS) is a space station (habitable artificial satellite) in low Earth orbit.
- The ISS programme is a joint project between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada).
- The ownership and use of the space station is established by intergovernmental treaties and agreements.
- The ISS serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields.

## FOCUS ARTICLE/ECONOMY: Understanding RBI's response to 'The Great Lockdown'

### DAS CAPITAL

- **Fixed rate reverse repo rate reduced** by 90 bps to 4%

**LIKELY IMPACT:** Banks may use funds available with them for on-lending to various sectors

- **RBI to conduct targeted long-term repos** up to 3-year tenor

**LIKELY IMPACT:** Greater investment in debt capital markets

- **CRR cut by 100 bps** to 3%

**LIKELY IMPACT:** Liquidity to the tune of ₹1.37 trillion will be released in the banking system

- **Moratorium on term loans** for 3 months

**LIKELY IMPACT:** Debt servicing burden on consumers will reduce

- **Deferment of interest on working capital** facilities for 3 months

**LIKELY IMPACT:** Reduced pressure on corporate and no asset classification downgrade

- **Permitting banks to deal in offshore** rupee NDF markets

**LIKELY IMPACT:** Better price discovery with the possibility of RBI intervening in the markets through banks

RBI Governor Shaktikanta Das ➔



## **Relevance IN – Prelims (about the policy announcements made by RBI) + Mains (GS III Economic development)**

### **What's the News**

- The International Monetary Fund has christened the ongoing economic crisis due to Covid-19 as “The Great Lockdown” and reckons it to be the worst recession that the world would have faced since the Great Depression that happened in the first half of the 20th Century. The total estimated loss to global economic growth is pegged at \$9 trillion — more than three times India's GDP.
- In this context, Reserve Bank of India Governor Shaktikanta Das has so far **made two rounds of policy announcements** to counter the debilitating effects of the spread of Covid-19 on the Indian economy.

**(A). On March 27, the RBI had announced the first round of a flurry of measures essentially trying to do two things:**

*1. Provide regulatory forbearance (that is, greater leniency) in recognising non-performing assets. This broadly involved the following initiatives.*

- (i) RBI permits all lending institutions to allow 3-month moratorium on payment of instalments on term loans.
- (ii) Moratorium on term loan, deferring of interest on working capital will not classify as default, not to impact credit history of borrower.
- (iii) Interest on working capital facilities to be deferred by three months; such deferment not to be considered for NPA

*2. RBI tried to boost the liquidity in the financial system so that businesses do not starve of funds. To achieve this,*

- (i). It cut the repo rate (the rate at which it lends money to the banking system) and the reverse repo rate (the interest rate it pays banks when they park their money with the RBI).

*Why decrease of repo rate?*

- It makes it cheaper for the banks to borrow money from RBI. Thus banks are expected to pass the benefits by decreasing the interest rate charged on the loans to their customers.

*Why decrease of reverse repo rate?*

- Banks have been dithering from extending credit to their customers and the total amount of money parked with the RBI is close to Rs 7 lakh crore as of April 15.
  - In other words, cuts in the repo rate are largely failing to boost credit as banks are so risk-averse that they are preferring to keep the money with RBI, even if it pays them less than what they borrowed it for. Thus, by now decreasing the reverse repo rate, RBI intends to disincentivise the banks to park the excess liquidity back to the RBI.
- (ii). It also started **Targeted Long Term Repo Operations (TLTROs)** — essentially, this facility allowed banks to borrow money from the RBI at the repo rate, which is far lower than the prevailing interest rate in the market. The hope was that banks would use cheaper loans to extend cheaper credit to businesses and that will help businesses survive this tumultuous period.

**(B) Again on 17<sup>th</sup> April 2020, RBI announced second set of measures that includes the following:**

*1. RBI has cut the reverse repo rate further by 25 basis points (100 basis points make up one full percentage point). The reverse repo rate now stands at 3.75 per cent while the repo rate is 4.40 per cent.*

### **Implication**

- By further cutting reverse repo, the RBI is expecting that the banks understand that it is even more unremunerative for them to park their funds with the RBI.
- 2. RBI announced another TLTRO of Rs 50,000 crore but this time it has mandated that 50 per cent of this amount borrowed by the banks must go to small and mid-sized Non-Banking Financial Companies (NBFCs) and Micro Finance Institutions (MFIs).*

### **Implication**

- The benefits of this move are two-fold. One, it provides more liquidity. But more importantly, it also provides it targeted to those institutions that are most hit by the economic slowdown and, as such, most in need of funds to survive themselves and boost economic activity at the bottom of the pyramid (that is, the poorest customers).



**3.** All India financial institutions (AIFIs) such as the National Bank for Agriculture and Rural Development (NABARD), the Small Industries Development Bank of India (SIDBI) and the National Housing Bank (NHB), which borrow from the RBI and the market to extend credit to NBFCs and MFIs, will be provided “special refinance facilities for a total amount of Rs 50,000 crore” by the RBI.

#### **Implication**

- This will financially help the end consumer, especially in the rural sector, small industries, and housing finance companies.

**4.** RBI also announced that it will provide more funding to state governments — under the Ways and Means Advances (WMA) facility

#### **Implication:**

- This will assist the states to mitigate the economic stress. This will provide the states the much needed liquidity, while fulfilling its role as “the lender of last resort”.

#### **Know! more about WMA**

- The WMA is essentially a facility by which **state governments borrow from the RBI to meet the shortfall between their revenues and their expenditure**. But the WMA is a short-term measure, only meant for exigencies.
- On April 1, the RBI had said it will extend the WMA limit for states by 30 per cent. Today the Governor extended it to 60%. This will enable states to borrow from the RBI and spend that money to provide support (both monetary and otherwise) to the people most badly hit by Covid-19.

**5.** RBI has allowed Scheduled Commercial Banks to reduce their Liquidity Coverage Ratio from 100 per cent to 80 per cent with immediate effect.

#### **Know! more about LCR**

- The LCR essentially mandates the amount of cash that a bank is required to keep with itself. At 100 per cent LCR, a bank would have been required to keep 100 per cent of the net cash it expects to flow out of the bank over the next 30 days.

#### **Implication**

- With this being reduced to 80 per cent, banks would have more cash to deal with. However, the RBI said that this limit will gradually go back to 100 per cent by April 2021.
- Apart from easing liquidity in the system like in the past, the other focus has been to provide an easier regulatory regime.
- The global lockdown has almost completely halted the economic activity. Under the circumstances, it is natural that business will struggle to pay back their loans and there will be a steady accretion of non-performing assets (NPAs) across the board.

#### **The RBI has announced the following measures to halt this accretion:**

- In respect of all accounts for which lending institutions decide to grant moratorium or deferment, and which were standard as on March 1, 2020, the 90-day NPA norm shall exclude the moratorium period, i.e., there would be an **asset classification standstill** for all such accounts from March 1, 2020 to May 31, 2020.
- Similarly, the RBI has extended the deadline for **large account NPAs by another 90 days**.
- Also, to ensure that loans given to real estate projects, that are getting delayed due to the crisis, do not turn into NPAs, the **RBI provided an extension of another year before they are recognised as NPAs**.

## **Science & Technology: The Technology Information, Forecasting and Assessment Council (TIFAC)**

**Relevance IN – Prelims (about TIFAC) + 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 Technology Information, Forecasting and Assessment Council (TIFAC), an autonomous technology think tank under the Department of Science & Technology (DST), Government of India, by virtue of its mandate of thinking for future, is preparing a white paper to strategize revival of post-COVID 19 Indian economy.



## Containment strategy and steps suggested to strengthen the Indian economy post-COVID-19 by TIFAC

- This document would mainly focus on
- strengthening Make in India initiatives,
- Commercialization of Indigenous technology,
- Developing a technology-driven transparent Public Distribution System (PDS),
- Efficient rural health care delivery,
- Reduction of import
- Adoption of emerging technology domains like AI, Machine Learning, Data Analytics and many more.

### Know! about Technology Information, Forecasting and Assessment Council (TIFAC)

- As per the recommendation of Technology Policy Implementation Committee (TPIC) in 1985, Cabinet approved the formation of TIFAC in mid 1986 and TIFAC was formed as a registered Society in February, 1988 under the Department of Science and Technology as an autonomous body.
- It was mandated to assess the state-of-art of technology and set directions for **future technological development** in India in important socio-economic sectors.
- As a unique knowledge network institution in India, TIFAC activities encompass a wide array of technology areas and fill a critical gap in the overall S&T system of India.
- The organization has carried out technology **foresight exercise, facilitated and supported technology development; prepared technology linked business opportunity reports and implemented mission-mode programmes.**

## Environment: World Earth Day 2020

### Relevance IN – Prelims (about Earth day and about Earth overshoot day)

#### What's the NEWS

- On 22nd April 2020, World Earth Day was celebrated across the globe via 'digital means' amid the on-going COVID-19 pandemic.
- Earth Day 2020 will mark the 50th anniversary of this holiday.
- Typically, Earth Day is assigned a different theme or area of focus each year; this year's **theme is Climate Action.**
- World Earth Day 2020 has been celebrated all over the world to spread awareness for Earth's wellbeing and to encourage people to support environmental protection.



#### World Earth Day 2020 – Digital celebration

- World Earth Day 2020 is all set to be celebrated digitally. People who plan on participating can join '24 hours of action' by going on the website.
- Every year, we see rallies, global pledges and campaigns to commemorate the landmark event, but not this time.
- The Covid-19 pandemic not only highlights the need to save the Earth and its resources, now more than ever, but has also taken celebrations online.

#### World Earth Day 2020 -Genesis

- World Earth Day has been celebrated as an annual event since April 22, 1970.
- World Earth Day is coordinated globally **by the Earth Day Network (a US based international environmental NGO)** and is celebrated in more than 193 countries.
- The day will celebrate its 50<sup>th</sup> year when people all over the world will be taking an oath to protect and nurture the environment.

## Additional Info: Earth Overshoot Day

- Earth Overshoot Day marks the date **when humanity's annual demand on nature exceeds** what Earth's ecosystems can regenerate in that year.
- Over the past 20 years, it has moved up three months to July 29, the earliest ever.
- On July 29 2019, humanity will have used nature's resource budget for the entire year
- This means that humanity is currently using nature 1.75 times faster than our planet's ecosystems can regenerate, equivalent to 1.75 Earths.
- Humanity first saw ecological deficit in the early 1970s. Overshoot is possible because we are depleting our natural capital, compromising the planet's future regenerative capacity.
- Earth Overshoot Day is hosted and **calculated by Global Footprint Network**, an international research organization that provides decision-makers with a menu of tools to help the human economy operate within Earth's ecological limits.

## Food Processing Industries: Indian Institute of Food Processing Technology (IIFPT)

### Relevance IN – Prelims (about IIFPT)

#### What's the NEWS

- Indian Institute of Food Processing Technology (IIFPT), a pioneer Research and Educational Institution under the Ministry of Food Processing Industries(MoFPI), is supporting India's fight against Covid-19.
- IIFPT has started the initiative to manufacture nutrient rich foods for COVID-19 patients at a time when the need for healthy and immunity boosting foods is indispensable.

#### Know! about IIFPT

- Indian Institute of Food Processing Technology (IIFPT), formerly Indian Institute of Crop Processing Technology is an education and research institution under the Ministry of Food Processing Industries (MoFPI)
- The IIFPT offers various services in areas of food processing, value addition, food quality and safety, and business incubation.

## Government Schemes: Cabinet approves fixation of Nutrient Based Subsidy (NBS) rates

### Relevance IN – Prelims (about NBS Scheme and its objective) + GS III Issues related to direct and indirect farm subsidies and minimum support prices)

#### What's the NEWS

- The Centre slashed the subsidy **on non-urea fertilisers**, a move that would reduce the burden on the exchequer to ₹22,186.55 crore in this fiscal amid the COVID-19 outbreak.

#### Know! more about it

- The Cabinet Committee on Economic Affairs, chaired by Prime Minister has given its approval for fixation of Nutrient Based Subsidy (NBS) rates **for Phosphatic and Potassic (P&K) Fertilizers** for the year 2020-21.

### 5. Nutrient Based Subsidy Scheme

Nutrient Based Subsidy Policy was introduced in 2010.

#### Objectives

1. To ensure the balanced application of fertilizers.
  2. To improve agricultural productivity.
  3. To ensure nation's food security.
- A fixed rate of subsidy (in Rs. per Kg basis) was announced on nutrients namely N, P, K and S by the Government on annual basis.
- 22 grades of P&K fertilizers and 16 grades of NPKS complex fertilizers are covered .

28

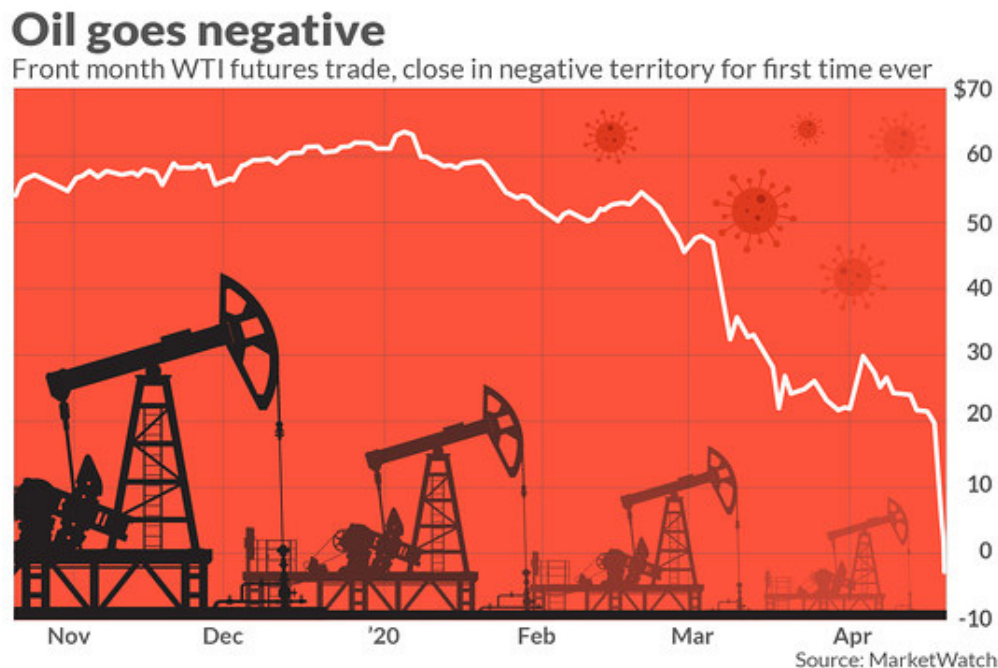
Per Kg Subsidy rates (in Rs.)			
N	P	K	
18.789	14.888	10.116	2.374

- The CCEA also approved the inclusion of a complex fertilizer namely **Ammonium Phosphate** (NP 14:28:0:0) under the NBS Scheme.
- Government is making available fertilizers, namely **Urea and 21 grades of P&K fertilizers** to farmers at subsidized prices through fertilizer manufacturers/importers.
- The **subsidy on P&K fertilizers** is being governed by **NBS Scheme** w.e.f 01.04.2010.
- The subsidy would be released to fertilizer companies as per the above given price so that they can make available fertilizers to farmers at a cheaper price than it would have been otherwise.

### The Nutrient Based Subsidy (NBS) Scheme

- It simply means that the price of fertilizer is determined by the weight of Particular nutrient present in the fertilizer
- It is being implemented by the Department of Fertilizers, Ministry of Chemicals & Fertilizers.
- In 2010, the government had launched the nutrient-based subsidy (NBS) programme under which a fixed amount of subsidy, decided on an annual basis, is provided on each grade of subsidised phosphatic and potassic (P&K) fertilisers, except for urea, **based on the nutrient content present in them.**(before NBS it was product based subsidy regime)
- Retail prices of non-urea fertilisers such as Di-ammonium Phosphate (DAP), Muriate of Potash (MoP) and NPK **are decontrolled** and are determined by manufacturers, while Centre gives a fixed subsidy each year.
- The main drawback of NBS Scheme is that **it left out Urea** (main source of Nitrogen) and its price is still controlled by the government of India.

## FOCUS ARTICLE/ECONOMY: Oil Price Falling To Negative Territory



**Relevance IN – Prelims (about WTI +OPEC+ Brent Crude Grade) + Mains (GS III Economic development + GS II Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests + Effect of policies and politics of developed and developing countries on India’s interests + facts to substantiate your answer writing)**

### What’s the News

- The United States oil markets created history when prices of **West Texas Intermediate (WTI)**, the best quality of crude oil in the world, fell to “minus” \$40.32 a barrel in interlay trade in New York. At this price, the seller of crude oil would be paying the buyer \$40 for each barrel that is bought.

## Know! the background

- There are different grades of crude oil depending the different regions these are produced from. For Example, the USA produces the West Texas Intermediate (WTI) grade of crude oil, Oil Field of the North Sea uses the **Brent Crude grade**, while oil field of Dubai, Oman and Abu Dhabi uses the Dubai/Oman crude. The USA, that uses the WTI grade is currently the world largest producer of crude oil.

## Did this happen earlier?

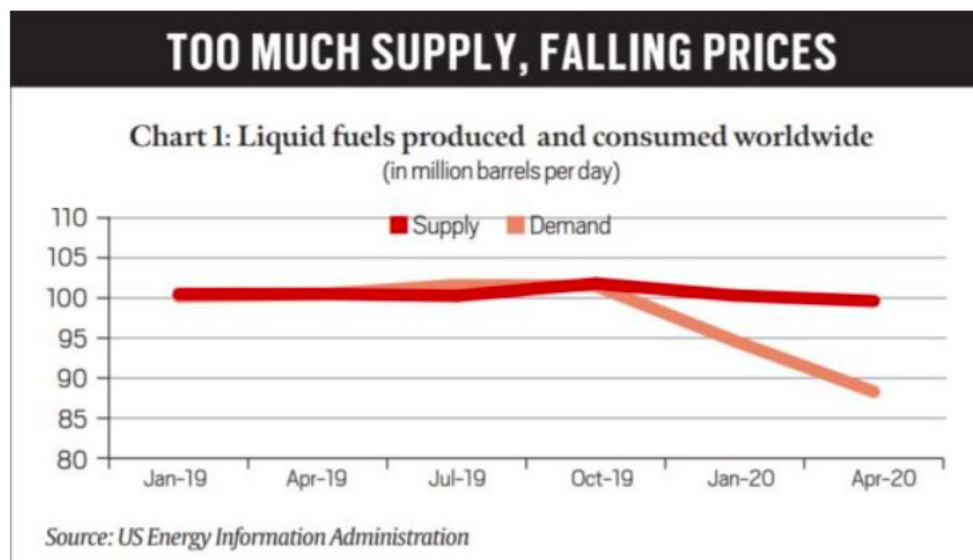
- The recent negative dip in the oil price was the lowest ever recorded. The previous lowest was immediately before the World War II- also well below the zero mark.

## Other examples:

- There have been instances of commodities being sold at negative prices. For instance, natural gas hit negative prices in May 2019 in the US.
- The banking industry has seen negative interest rates — where one pays the bank to keep one's money — and bonds have been known to have negative yield, in which a bondholder makes a loss by lending money.

## Understanding The Trend In Oil Pricing

- Even before the COVID-19 outbreak induced lockdowns across the world, crude oil prices had been falling over the past few months. They were close to **\$60 a barrel** at the start of 2020 and, by March-end, they were closer to **\$20 a barrel**.
- The reason was straightforward:** Too much supply and too little demand (see Chart 1). To a great extent, oil markets, globally and more so in the US, are facing an enormous glut.



## Understanding the oil pricing mechanism

- It must be understood that cutting production or completely shutting down an oil well is a difficult decision, because restarting it is both immensely costly and cumbersome. Moreover, if one country cuts production, it risks losing market share if others do not follow suit.
- The global oil pricing is by no stretch an example of a well-functioning competitive market. In fact, its seamless operations crucially depend on oil exporters acting in consort.
- Historically, the **Organization of the Petroleum Exporting Countries (OPEC)**, led by **Saudi Arabia**, which is the largest exporter of crude oil in the world (single-handedly exporting 10% of the global demand), used to work as a **cartel and fix prices in a favourable band**. It could bring down prices by increasing oil production and raise prices by cutting production.
- In the recent past, the OPEC has been working with Russia, as **OPEC+**, to fix the global prices and supply. In early March, this **happy accord** came to an end as **Saudi Arabia and Russia disagreed** over the production cuts required to keep prices stable.
- As a result, oil-exporting countries, led by Saudi Arabia, started **undercutting each other on price** while continuing to produce the same quantities of oil. This was an unsustainable strategy under normal circumstances



but what made it even more calamitous was the **growing spread of novel coronavirus disease**, which, in turn, was sharply reducing economic activity and the demand for oil.

### What Triggered the Negative Dip

- **Oil is traded in future price.** This means the order of oil for the month of May is placed a month before, that is, April. Order for the month June is placed in May, and so on. Thus the negative price of \$37.63 was for the month May, as the expiry date for placing contracts was 21<sup>st</sup> April.

*As the deadline approached, prices started plummeting. This was for two broad reasons.*

1. **From producer's side:** By Monday (21 April- the deadline) there were many oil producers who wanted to get rid of their oil even at unbelievably low prices rather than choose the other option — shutting production, which would have been costlier to restart when compared to the marginal loss on May sales.
  2. **From consumer's side:** From the consumer side, that is those holding these contracts, it was an equally big headache. Contract holders wanted to get wriggle out of the compulsion to buy more oil as they realised, quite late in hindsight, that there was **no space to store the oil** if they were to take the delivery.
- They figured that it would be more costly for them to accept the oil delivery, pay for its transportation and then pay for storing it (possibly for a longish period, given the circumstances) especially when there was no storage available, than to simply take a hit on the contract price.
  - This desperation from both sides — buyers and sellers — to get rid of oil meant the WTI oil contract prices not only plummeted to zero but also went deep into the negative territory.
  - In the short term, for both the holders of the delivery contract and the oil producers, it was less costly to pay \$40 a barrel and get rid of the oil instead of storing it (buyers) or stopping production (producers).

### The Possible Future Trajectory of Oil Price

- It is possible that this was a one-off event where prices dropped below zero because of an existing glut in **WTI oil, which is found inland**, and there was no space to store or transport it in a hurry.
- Investment budgets of exploration and production companies are expected to drop in the face financial turmoil due to low shale oil prices. Normally, this should force oil exporting countries to cut back production and negate the excess supply, restoring some balance in the oil markets.
- But one cannot rule out a repeat of Monday's trend because, with COVID-19 continuing to spread, global oil demand is falling every day.
- In the coming quarter, some estimates claim that total demand will fall by 30%. In the end, it would be the **demand-supply mismatch** (adjusted for how much can be stored away) that will decide the fate of oil prices.

### Possible Impact on India

- The Indian crude oil **basket does not comprise WTI** — it only has Brent and oil from some of the Gulf countries — so there is no direct impact. But oil is traded globally and weakness in WTI is mirrored in the falling prices of the Indian basket as well

*There are two ways in which this lower price can help India.*

- If the government passes on the lower prices to consumers, then, whenever the economic recovery starts in India, individual consumption will be boosted.
- If, on the other hand, governments (both at the Centre and the states) decide to levy higher taxes on oil, it can boost government revenues.

## Focus Article/Economy: Understanding Ways and Means Advances and its impact

**Relevance IN – Prelims (about WMA – objective + benefits + Mains GS III Economic development – steps taken by the government and RBI + factual data to substantiate answer writing)**

### What's the News

- The Reserve Bank of India (RBI), **announced a 60% increase** in the Ways and Means Advances (WMA) **limit of state governments** over and above the level as on March 31, with a view to enabling them “to undertake COVID-19 containment and mitigation efforts” and “to better plan their market borrowings”.

## Know! about Ways and Means Advances (WMA)

- Ways and Means Advances is a facility **for both the Centre and states to borrow from the RBI**. These borrowings are meant purely to help them to tide over temporary mismatches in cash flows of their receipts and expenditures. In that sense, they aren't a source of finance per se.
- Section 17(5) of the RBI Act, 1934 authorises the central bank to lend to the Centre and state governments subject to their being repayable **"not later than three months** from the date of the making of the advance".
- The interest rate on WMA **is the RBI's repo rate**, which is basically the rate at which it lends short-term money to banks. That rate is currently 4.4%.
- The governments are, however, allowed to draw amounts in excess of their WMA limits. The interest on such overdraft is **2 percentage points above the repo rate**, which now works out to 6.4%.

### Existing WMA limits and overdraft conditions

- For the Centre, the WMA limit during the first half of 2020-21 (April-September) has been **fixed at Rs 120,000 crore**. This is 60% higher than **the Rs 75,000 crore** limit for the same period of 2019-20. The limit for the second half of the last fiscal (October-March) was Rs 35,000 crore.
- For the states, the aggregate WMA limit was Rs 32,225 crore till March 31, 2020. On April 1, the **RBI announced a 30% hike in this limit**, which has now been enhanced to 60%, taking it to **Rs 51,560 crore**. The higher limit will be valid till September 30.

### Reasons behind these relaxations

- Owing to the Corona virus pandemic, the government is facing severe financial crunch.
- The lockdown has resulted in revenues drying up, and it is the states that are actually feeling the heat.
- With economic activity at a near standstill, there is hardly any money coming in from GST, petroleum products, liquor, motor vehicles, stamp duty or registration fee.
- At the same time, the states are also incurring the bulk of the on-the-ground expenditures for combating the novel coronavirus.
- Most of them have resorted to slashing expenditures of other departments in order to meet

### Why WMA Is Being Given Preference To Market Borrowing?


- The financial position of states was precarious even before the lockdown. The gross fiscal deficit of 22 states, as per latest available data, rose from 2.4% of their GSDP (gross state domestic product) in 2018-19 to 2.9% in 2019-20, with the corresponding revenue deficit ratio also climbing from 0.1% to 0.7%.
- Moreover, gross **government market borrowings** shot up from Rs 10,49,323 crore (Centre: Rs 571,000 crore, States: Rs 478,323 crore) in 2018-19 to Rs 13,44,521 crore (Centre: Rs 710,000 crore, States: Rs 634,521 crore) in 2019-20.
- The lack of clarity on how much the states (and even the Centre) would eventually need to borrow is reflected in bond yields. Since March 9, the weighted average yields (interest) at auctions of 10-year state government securities have risen from 6.86% to 7.57%.

### Know! more on Bond Yield





- Bond Yield is the profit an investor earns on a bond investment. Bond yield is inversely related to the bond price. If the demand for bond decreases (which is happening in the present situation due to uncertainty of coronavirus), Its selling price will also decrease, thereby increasing the bond yield.

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## RBI Easing Financial Stress amidst COVID-19

-  Reverse repo rate reduced by 25 basis points from 4% to 3.75%; will boost investments & loans
-  90-day NPA norm not to apply on moratorium granted on existing loans by Banks; will provide relief to borrowers
-  Ways & Means Advances Limit of States increased from 30% to 60%; will strengthen state govt's fight against COVID-19
-  Liquidity Coverage Ratio requirement for Scheduled Commercial Banks brought down from 100% to 80%

## Way Forward: The Present Crisis Requires Interventions Beyond Just WMA Relaxation

- Given the likelihood of total government borrowings crossing Rs 20 lakh crore – a conservative underestimate – a WMA limit of Rs 120,000 crore for the Centre and Rs 51,560 crore for states may prove grossly insufficient.
- At some point, the Centre, at least, **might have to invoke Section 5(3) of its Fiscal Responsibility and Budget Management Act, 2003**. That overriding provision in the Act – which otherwise bars the RBI from lending to the government, except for meeting temporary cash flow mismatches – allows the central bank to “subscribe to the primary issues of Central Government securities” under very specified grounds. Those cover, among other things, “act of war” and “national calamity”.
- Apart from **monetisation of deficits** – which is what this provision effectively entails – the RBI may, in the coming day, also have to undertake increased secondary market purchases and sales of Central as well as state government securities.

## Economy: Banking declared as public utility service for six months

**Relevance IN – Prelims (about public utility service + about IBA + about Industrial dispute act + Mains (GS III Economic development))**

### What's the NEWS

- The government has declared banking industry as a public utility service for six months till October 21 **under the provisions of the Industrial Disputes Act**.

### Know! the salient features of coming under public utility service

- Bringing banking services under the provisions of this Act means that the banking sector would not see any strikes by employees or officers during the operation of the law starting from April 21.
- The Department of Financial Services said the labour and employment ministry through a notification has declared “banking industry as a public utility service” for six months with effect from April 21.
- All public sector banks, old generation private sector banks like HDFC Bank, ICICI Bank, Axis Bank and Federal Bank are members of IBA.
- Some of the oldest foreign banks -- HSBC, StanChart and Citibank -- are also part of it. All of them come under wage settlements and other employee issues that are taken up by IBA.
- New generation private sector lenders like Kotak Bank, IndusInd Bank and Yes Bank are outside the purview of IBA norms.

### The Industrial Disputes Act

- The Industrial Disputes Act, 1947 regulates Indian labour law so far as that concerns trade unions as well as Individual workman employed in any Industry within the territory of Indian mainland.
- The laws apply only to the organised sector.
- The objective of the Industrial Disputes Act is to secure industrial peace and harmony by providing mechanism and procedure for the investigation and settlement of industrial disputes by conciliation, arbitration and adjudication which is provided under the statute.

### Indian Banks' Association (IBA)

- Indian Banks' Association (IBA), formed on 26 September 1946 as a representative body of management of banking in India operating in India - an association of Indian banks and financial institutions based in Mumbai.
- With an initial membership representing 22 banks in India in 1946, IBA currently represents 237 banking companies operating in India.
- IBA was formed for development, coordination and strengthening of Indian banking, and assist the member banks in various ways including implementation of new systems and adoption of standards among the members.

### Public utility Service

- A public utility is a business that furnishes an everyday necessity to the public at large. Public utilities provide water, electricity, natural gas, telephone service, and other essentials.



## FOCUS ARTICLE/ SCIENCE and TECHNOLOGY: First merger of two black holes with unequal masses detected

**Relevance IN – Prelims (about GW190412 and significance of unequal mass black + about black hole + general theory of relativity + LIGO + Event horizon telescope + Virgo interferometer) + Mains (GS III awareness in the field of space)**

### What's the NEWS

- For the first time since it started functioning, the gravitational wave observatories at LIGO scientific collaboration have detected a merger of **two unequal-mass black holes**.

### Know! more about the recent detection

- The event, dubbed GW190412, was detected nearly a year ago, and this is **almost five years after (September 2015)** the first ever detection of gravitational wave signals by these powerful detectors.
- subsequent analysis of the signal coming from the violent merger showed that it involved two black holes of unequal masses coalescing, one of which was some **30 times** the mass of the Sun and the other which had a mass nearly **8 times** the solar mass.
- The actual merger took place at a distance of 2.5 billion light years away.

### The new unequal mass system

- The detected signal's waveform has special extra features in it when it corresponds to the merger of two unequal-sized black holes as compared with a merger of equal-sized black holes.

*These features make it possible to infer many more things about the characters in this celestial drama, namely*

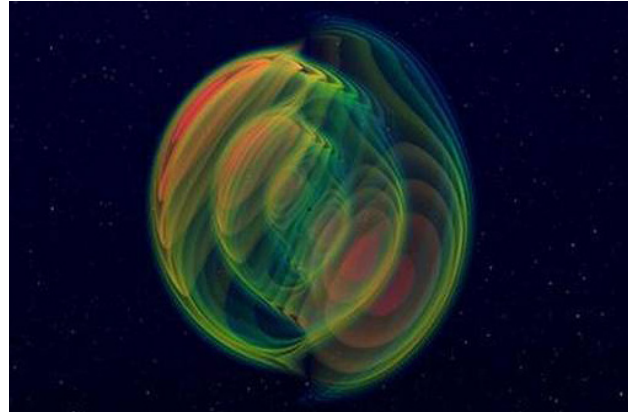
- a more accurate determination of the distance from the event
- the spin or angular momentum of the more massive black hole
- the orientation of the whole event with respect to viewers on Earth.

### General Relativity (once again confirmed by this observation)

- Indian team consisting of researchers from ICTS-TIFR, Bengaluru, verified the consistency of the signal with the prediction of General Relativity.
- The existence of **higher harmonics** was itself a prediction of General Relativity.
- General relativity (GR), also known as the general theory of relativity (GTR), is the geometric theory of gravitation published by Albert Einstein in 1915
- GR predicts the existence of higher harmonics, i.e. gravitational waves at two or three times the fundamental frequency.
- The first direct detection of gravitational waves and the first observation of the collision and merger of a pair of black holes is the key predictions of Einstein's GTR

### The Laser Interferometer Gravitational-Wave Observatory (LIGO)

- The Laser Interferometer Gravitational-Wave Observatory (LIGO) was designed to open the field of gravitational-wave astrophysics through the **direct detection of gravitational waves** predicted by Einstein's General Theory of Relativity.
- LIGO's multi-kilometer-scale gravitational wave detectors use laser interferometry to measure the **minute ripples in space-time** caused by passing gravitational waves from cataclysmic cosmic events such as colliding neutron stars or black holes, or by supernovae.





- LIGO consists of **two widely-separated interferometers** within the United States—one in Hanford, Washington and the other in Livingston, Louisiana—operated in unison to detect gravitational waves.

### Interferometers

- **Interferometers** are investigative tools used in many fields of science and engineering.
- They are called **interferometers** because they work by merging two or more sources of light to create an interference pattern, which can be measured and analyzed; hence 'Interfere-o-meter', or **interferometer**

### Connect with the past events September 14, 2015

***LIGO made its first detection of gravitational waves, generated by a pair of colliding black holes some 1.3 billion light years away.***

- For the first time, scientists have observed ripples in the fabric of spacetime called gravitational waves, arriving at the earth from a cataclysmic event in the distant universe.
- This confirms a major prediction of Albert Einstein's 1915 general theory of relativity and opens an unprecedented new window onto the cosmos.
- Gravitational waves carry information about their dramatic origins and about the nature of gravity that cannot otherwise be obtained.
- The detected gravitational waves were produced during the final fraction of a second of the merger of two black holes to produce a single, more massive spinning black hole.
- This collision of two black holes had been predicted but never observed.
- The **gravitational waves were detected on September 14, 2015** by both of the twin Laser Interferometer Gravitational-wave Observatory (LIGO) detectors, located in Livingston, Louisiana, and Hanford, Washington, USA.
- Based on the observed signals, LIGO scientists estimate that the black holes for this event were about 29 and 36 times the mass of the sun, and the event took place 1.3 billion years ago.
- About 3 times the mass of the sun was converted into gravitational waves in a fraction of a second
- After the detection of first gravitation wave by LIGO, many more gravitational wave detections have been made.

### Understand the concept of General relativity

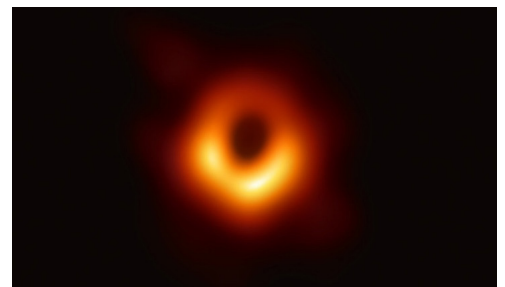
- According to general relativity, a pair of black holes orbiting around each other lose energy through the emission of gravitational waves, causing them to gradually approach each other over billions of years, and then much more quickly in the final minutes.
- During the final fraction of a second, the two black holes collide into each other at nearly one-half the speed of light and form a single more massive black hole, converting a portion of the combined black holes' mass to energy, according to Einstein's formula  $E=mc^2$ .
- This energy is emitted as a final strong burst of gravitational waves. It is these gravitational waves that LIGO has observed.

### Black Hole

- A *black hole* is a place in space where gravity pulls so much that even light can not get out. The gravity is so strong because matter has been squeezed into a tiny space. Because no light can get out, people can't see *black holes*.
- They are invisible. Space telescopes with special tools can help find *black holes*.
- Gravitational waves are created when two black holes orbit each other and merge.

### April 2019 – First ever picture of Black hole

- The first image of black hole is the stunning achievement of the **Event Horizon Telescope project**, a global collaboration of more than 200 scientists using an array of observatories scattered around the world, from Hawaii to the South Pole.
- Combined, this array acts like a telescope the size of Earth, and it was able to collect more than a petabyte of data while staring at **M87's black hole in April 2017**. It then took two years for scientists to assemble the mugshot.



### **Additional info: Virgo interferometer**

- The Virgo interferometer is a large interferometer designed to detect gravitational waves predicted by the general theory of relativity.
- Virgo is part of a scientific collaboration of laboratories from six countries: Italy and France, the Netherlands, Poland, Hungary and Spain.
- Other interferometers similar to Virgo have the same goal of detecting gravitational waves, including the two LIGO interferometers in the United States (at the Hanford Site and in Livingston, Louisiana).
- Since 2007, Virgo and LIGO have agreed to share and jointly analyze the data recorded by their detectors and to jointly publish their results.
- On 14 August 2017, LIGO and Virgo detected a signal, GW170814, which was reported on 27 September 2017. It was the **first binary black hole merger detected by both LIGO and Virgo**.

## **Economy: International Financial Services Centres Authority (IFSCA)**

**Relevance IN – Prelims (about IFSC and IFSCA – objective + benefits) + Mains (GS III Economic developments)**

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

- The finance ministry has established the International Financial Services Centres Authority (IFSCA) through a notification.
- The body will be headquartered in Gandhinagar in Gujarat, as per the notification.

### **Know! about IFSCA**

- 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**
- The notification brings into effect certain provisions of the IFSCA Act, 2019, related to its functioning
- 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 The Pension Fund Regulatory and Development Authority.

### **IFSCA Members**

- The IFSCA consists of 9 members that are appointed by the Government of India with a term of three years.
- The IFSCA will comprise a chairperson, and one member each nominated by the regulators (SEBI, RBI, IRDAI and the The Pension Fund Regulatory and Development Authority.)
- There will also be two members from the central government and full-time or part-time members.

### **International financial services centre (IFSC)**

- Gujarat International Finance Tec-City Co. Ltd is being developed as the country's first international financial services centre (IFSC).
- 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.



- 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.

### Services provided by IFSC

- Fund-raising services for individuals, corporations and governments
- Asset management and global portfolio diversification undertaken by pension funds, insurance companies and mutual funds
- Wealth management
- Global tax management and cross-border tax liability optimization
- Risk management operations such as insurance and reinsurance
- Merger and acquisition activities among trans-national corporations

## Science and Technology: New list of names of tropical cyclones over north Indian Ocean



**Relevance IN – Prelims (about the role of RSMC and the naming mechanism + naming a tropical cyclone – objective + benefits) + Mains (GS III awareness in the field of science and technology + disaster management)**

### What's the NEWS

- The tropical cyclones forming over different Ocean basins are named by the concerned RSMCs & TCWCs.
- For north Indian Ocean **including Bay of Bengal and Arabian Sea**, the **RSMC, New Delhi** assigns the name to tropical cyclones following a standard procedure.

### Know! the role of RSMCs and TCWCs

- Worldwide there are **six regional specialised meteorological centres (RSMCs)** and **five regional Tropical Cyclone Warning Centres (TCWCs)** mandated for issuing advisories and naming of tropical cyclones.
- India Meteorological Department is one of the six RSMCs to provide tropical cyclone and storm surge advisories to **13 member countries under WMO/ESCAP Panel** including Bangladesh, India, Iran, Maldives, Myanmar, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Thailand, United Arab Emirates and Yemen.

- RSMC, New Delhi is also mandated to name the Tropical Cyclones developing over the **north Indian Ocean (NIO)** including the Bay of Bengal (**BoB**) and the Arabian Sea (**AS**).

### **Naming of Tropical Cyclones helps the scientific community, disaster managers, media and general masses to**

- identify each individual cyclone.
- create awareness of its development.
- remove confusion in case of simultaneous occurrence of TCs over a region
- remember a TC easily
- rapidly and effectively disseminate warnings to much wider audience

## **Regional Specialized Meteorological Centre**

# **Regional Specialized Meteorological Centre for Tropical Cyclones Over North Indian Ocean**

**India Meteorological Department  
Ministry of Earth Sciences, Government of India**

- Regional Specialized Meteorological Centre is responsible for the distribution of information, advisories, and warnings regarding the specific program they have a part of, **agreed by consensus at the World Meteorological Organization** as part of the World Weather Watch.
- RSMC, New Delhi (one of the 6 RSMC's) will be responsible to name tropical cyclones forming over the North Indian Ocean including Bay of Bengal & the Arabian Sea when they have been diagnosed with maximum sustained **surface windspeed of 34 knots (62 kmph) or more** as per Global Data Processing and Forecasting System (GDPFS) of WMO
- The name of a Tropical Cyclone from South China Sea which crosses Thailand and emerge into the Bay of Bengal as a tropical cyclone will not be changed.

### **Know! about WMO**

- The World Meteorological Organization (WMO) is an intergovernmental organization with a membership of 193 Member States and Territories.
- It originated from the International Meteorological Organization (IMO), the roots of which were planted at the 1873 Vienna International Meteorological Congress.
- Established by the ratification of the WMO Convention on 23 March 1950, WMO became the specialised agency of the United Nations for meteorology (weather and climate), operational hydrology and related geophysical sciences a year later.
- The Secretariat, headquartered in Geneva, is headed by the Secretary-General.
- Its supreme body is the World Meteorological Congress.

### ***Know! about the Naming of tropical cyclones/hurricanes/typhoons***

- The name list is proposed by the **National Meteorological and Hydrological Services (NMHSs) of WMO** Members of a specific region, and approved by the respective tropical cyclone regional bodies at their annual/ bi-annual sessions.

There are five tropical cyclone regional bodies, i.e.

- ESCAP/WMO Typhoon Committee
- WMO/ESCAP Panel on Tropical Cyclones
- RA I Tropical Cyclone Committee
- RA IV Hurricane Committee, and
- RA V Tropical Cyclone Committee.



## The WMO/ESCAP Panel on Tropical Cyclones

- The panel at its twenty-seventh Session held in 2000 in Muscat, Sultanate of Oman, agreed in principal to assign names to the tropical cyclones in the Bay of Bengal and Arabian Sea.
- The naming of the tropical cyclones over north Indian Ocean commenced from September 2004, with names provided by eight Members. Since then, five countries have joined the Panel.
- The RSMC New Delhi Tropical Cyclone Center is responsible to name the tropical cyclones that have formed over the Bay of Bengal and the Arabian Sea when they have reached the relevant intensity.

## Environment: 11th session of Petersberg Climate Dialogue

**Relevance IN – Prelims (about Petersberg Climate Dialogue) + Mains (GS III Environment conservation)**

### What's the NEWS

- Minister for Environment, Forest and Climate Change Prakash Javadekar represented India in the first virtual Petersberg Climate Dialogue.

### Know! about the dialogue highlights

- The first virtual Climate Dialogue, was the eleventh session of Petersberg Climate Dialogue which has been **hosted by Germany** since 2010 (an initiative of German Chancellor Angela Merkel)
- The objective is to provide a forum for informal high-level political discussions, focusing both on international climate negotiations and the advancement of climate action.
- It is hosted by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety.
- The dialogue saw participation from Ministers and representatives of about 30 countries.
- It is co-chaired by **Germany and the United Kingdom**, the incoming Presidency of the 26th Conference of Parties (COP 26) to United Nations Framework Convention on Climate Change (UNFCCC).



## Science & Technology: Electrostatic Disinfection Machine

**Relevance IN – Prelims (about the working mechanism of Electrostatic Disinfection Machine)**

### What's the NEWS

- CSIR-Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh, has designed and developed an innovative technology for effective disinfection and sanitization to fight with corona pandemic.
- CSIR-CSIO has transferred this technology to a Nagpur-based company, Rite Water Solutions Pvt. Ltd., for commercialization and large-scale production.
- This technology has been found very efficient and effective to stop the spread of coronavirus and pathogens

### Know! the working mechanism of Electrostatic Disinfection Machine

- Electrostatic Disinfection Machine is developed based **on the electrostatic principle**.
- It produces uniform and fine spray droplets of disinfectants in the size range of 10-20 micrometre to kill microorganisms and viruses.
- Due to the small size of droplets, the surface area of spray droplets increases thereby enhancing the interaction with harmful microorganisms and coronavirus.



- The machine uses very less disinfection material as compared to conventional methods
- Charged droplets emitted from the disinfection machine can cover the directly exposed and obscured surfaces uniformly with increased efficiency and efficacy

## Environment: Radio tagged Amur falcons begin to arrive in India after winter sojourn

**Relevance IN – Prelims (all facts about Amur Falcon) + Mains (GS III Environment conservation)**

### What's the NEWS

- Amid the COVID-19 pandemic across various parts of the world, the radio tagged Amur falcons have started to arrive in India for further destination to their breeding grounds in northern China,

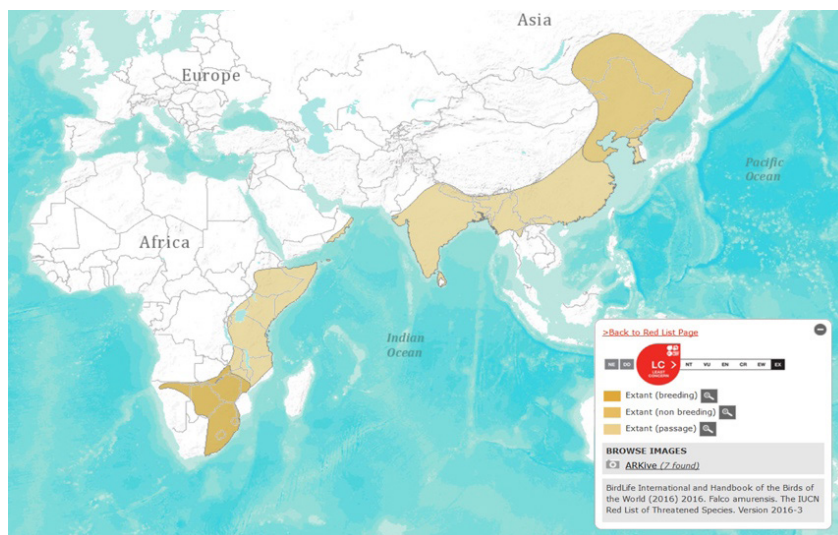
### Know! about the recent events

- Amur Falcon named as 'Longleng', which flew non-stop for FIVE DAYS covering thousands of kilometres to reach Somalia as part of their routine annual migratory journey in Nov last year, has returned to the Indian sub-continent. This reached India just recently.
- In November 2019, five Amur falcons were radio tagged with satellite transmitters by the Forest department in collaboration with WII scientists to study the flight route of these long-distance migratory birds and environmental patterns along the route.
- The Amur falcons which spend their summers **at their breeding grounds in China**, migrate to their wintering grounds in South Africa, from where they start their return journey in April-May, undertaking a yearly journey of about 20,000 km. In between, they stop in India's north-eastern states.



### Know! about Amur Falcon

- The Amur Falcon is a migratory raptor.
- Every year, the small, resilient birds make the daring voyage from breeding grounds in **Russia and China to winter in southern Africa**.
- It is supposed that the falcons cross the Arabian Sea during their migration, but much is still unknown about the patterns of their estimated 22,000 km migration.
- Breeds in South-east Russia and northern China.
- Flyway: **East-Asian Australasian and African Eurasian**



- Population of more than 1,000,000 breeding individuals
- IUCN Red List Status - **Least Concern**
- It is also protected under the Indian Wildlife Protection Act, 1972 and the Convention on Migratory Species(CMS) to which India is a signatory.
- Nagaland is known for million Amur falcons coming to the state each year and that is why it is also known as the Amur falcon capital of the world.
- Amur falcons were once hunted and by raising awareness about the role in migration, conservation work by communities paid off and the hunting stopped.
- Nagaland Government organises Amur Falcon festival to spread awareness about the need to provide safe passage to Amur falcons.





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