

# JOIN THE DOTS

May 2020



## A Current Affairs Series for UPSC Examination

- RIMPAC 2020
- Operation Samudra Setu
- Open Skies Treaty
- One Nation, One Ration Card Plan



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## Compendium – May 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! MAY 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! MAY 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: AYURAKSHA

#### *Relevance IN – Prelims(about AYURAKSHA programme)*

##### What's the NEWS

- The All India Institute of Ayurveda (AIIA), under Ministry of AYUSH and Delhi Police organised AYURAKSHA programme for Delhi Police personal

##### Know! about the programme

- The joint programme titled AYURAKSHA “Corona Se Jung- Delhi Police Ke Sang” aims to fight against corona through simple and time tested Ayurveda immunity boosting measures.
- These measures are as per the advisory issued by the Ministry of AYUSH. The recommended formulations like Chyawanaprasha (Amla as main content), Anu Taila and SanshamaniVati (prepared from Guduchi) have simple herbs which are time tested and scientifically proven for enhancing the immunity.



### ATULYA

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

##### What's the NEWS

- Defence Institute of Advanced Technology, Pune, a deemed university supported by Defence Research and Development Organisation has developed a microwave steriliser named as ‘ATULYA’ to disintegrate (COVID-19).

##### Know! more about ATULYA

- The virus gets disintegrated by differential heating in the range of 560 to 600 Celsius temperatures.
- The product is cost effective solution, which can be operated in portable or fixed installations. This system was tested for human/operator safety and has been found to be safe.
- Depending upon size and shape of various objects, time of sterilisation is from 30 seconds to one minute.
- Approximate weight of the system is three kilogrammes and it can be used for non-metallic objects only.



### Index/Report: Global Terrorism Index (GTI) 2019

#### *Relevance IN – Prelims(Global Terrorism Index (GTI) and its findings)*

##### What's the NEWS

- Niti Aayog has questioned the methodology adopted by an Australian based institute to rank India as the seventh worst terrorism affected country ahead of conflict-ridden countries such as the Democratic Republic of Congo, South Sudan, Sudan, Burkina Faso, Palestine and Lebanon.





### Know! all about Global Terrorism Index (GTI)

- An Australia-based think-tank called the Institute for Economics and Peace (IEP) publishes the Global Terrorism Index (GTI)
- Global Terrorism Index (GTI) provides a comprehensive summary of the key global trends and patterns in terrorism since 2000.
- India has moved to the seventh position from the previous year's eighth in the annual Global Terrorism Index (GTI) 2019. The countries ahead of it are Afghanistan, Iraq, Nigeria, Syria, Pakistan and Somalia.
- The GTI report issued by the IEP is based primarily on the Global Terrorism Database (GTD) collated by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland, besides other sources.

### Know! the use of GTI Scores

- GTI scores are directly used in the Global Peace Index, the Global Slavery Report published by the Walk Free Foundation, and indirectly used in computing country scores in the World Economic Forum's Travel and Tourism Competitiveness and Global Competitiveness Indices and compilation of Safe Cities Index by the Economist Intelligence Unit.

## Miscellaneous: Internal Displacement Monitoring Centre (IDMC)



### Relevance IN – Prelims (about IDMC and its report highlights)

#### What's the NEWS

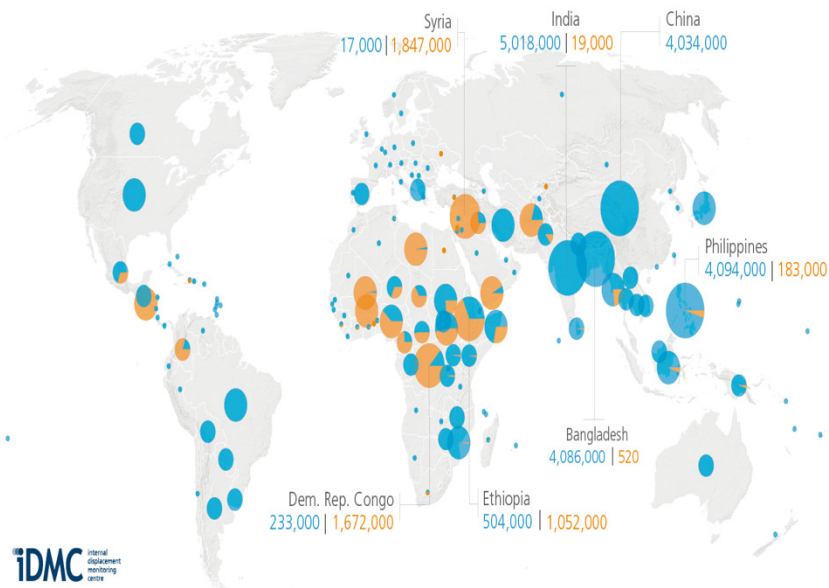
- Five million people were displaced in India last year, the highest in the world, due to disasters, including cyclones and monsoon floods.

#### Know! The IDMC report highlights

- The report by the Internal Displacement Monitoring Centre (IDMC) states that the displacements were a result of a combination of increasing hazard intensity, high population exposure and high levels of social and economic vulnerability.



- South Asia recorded 9.5 million new displacements associated with disasters in 2019, the highest figure since 2012 and the floods triggered by the monsoon in India and Bangladesh and cyclones Fani and Bulbul were among the events that forced most people to flee their homes both in the region and globally.
- While India reported 50,37,000 displacements, Bangladesh recorded 40,86,520 in the year 2019.
- The Other countries with new displacements are Afghanistan (5,78,000), Nepal (1,21,000) and Pakistan (1,16,000), according to the data provided in the report by the Geneva-based centre.



### Know! about IDMC

- Based in Geneva, Switzerland, the Internal Displacement Monitoring Centre (IDMC) is the world's authoritative source of data and analysis on internal displacement.
- Since its establishment in 1998 as part of the Norwegian Refugee Council, IDMC has offered a rigorous, independent and trusted service to the international community.
- The work of IDMC informs policy and operational decisions that improve the lives of the millions of people living in internal displacement, or at risk of becoming displaced in the future.

## U.S. Commission on International Religious Freedom downgrades India in 2020 list

### Relevance IN – Prelims (about USCIRF and its report highlights)

#### What's the NEWS

- The U.S. Commission on International Religious Freedom (USCIRF) has downgraded India to the lowest ranking, "countries of particular concern" (CPC) in its 2020 report.

#### Know! about the report findings

- The report, released in Washington by the federal government commission that functions as an advisory body, placed India alongside countries, including China, North Korea, Saudi Arabia and Pakistan.
- India was categorised as a "Tier 2 country" in last year's listing.
- This is the first time since 2004 that India has been placed in this category. India took a sharp downward turn in 2019.

#### Specific concerns noted by the commission

- the Citizenship Amendment Act,
- the proposed National Register for Citizens,
- anti-conversion laws and
- the situation in Jammu and Kashmir.



UNITED STATES COMMISSION ON  
**INTERNATIONAL  
RELIGIOUS  
FREEDOM**

ANNUAL REPORT  
**2020**





## The United States Commission on International Religious Freedom (USCIRF)

- The United States Commission on International Religious Freedom (USCIRF) is a U.S. federal government commission created by the International Religious Freedom Act (IRFA) of 1998.
- USCIRF Commissioners are appointed by the President and the leadership of both political parties in the Senate and the House of Representatives.
- USCIRF's principal responsibilities are to review the facts and circumstances of violations of religious freedom internationally and to make policy recommendations to the President, the Secretary of State, and the Congress.

## Prelims Factoids: Chak-Hao, the black rice of Manipur, the Gorakhpur terracotta, the Kashmir Saffron and the Kovilpatti kadalai mittai of Tamil Nadu bagged the GI tags

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Geographical Indication Registry

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Geographical Indication of Goods (Registration and Protection) Act, 1999

धारा 16 (2) के अधीन भौगोलिक उपदर्शन अथवा प्राधिकृत उपयोक्ता के रजिस्ट्रीकरण का प्रमाणपत्र  
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CERTIFICATE NO. 366

दिनांक  
Date: 03-12-2018

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in class 30 under no. 635 as of the date 03-12-2018  
in respect of "KASHMIR SAFFRON" Falling in Class - 30 - in respect of - Saffron

आज दिनांक माह 20 को चेन्नई में मेरे निदेश पर मुद्रांकित किया गया।  
Scaled at my direction this 1st day of May 20 20 at Chennai.

रजिस्ट्रार, भौगोलिक उपदर्शन  
Registrar of Geographical Indication.



## Relevance IN – Prelims (about GI tag -features + objective and about the recently added GI tags – unique characteristics)

### Gorakhpur terracotta

- The terracotta of Gorakhpur is centuries old traditional art form
- It is a type of ceramic craft made by baking terracotta clay
- The potters of the town make animal figures like elephants, horses, camel, goat and ox with hand applied ornamentation.



### Chak-Hao, the black rice of Manipur

- Geographical Indications Registry of Ministry of Commerce and Industries has announced in its website that the product, Chak-Hao of Manipur is registered under GI certificate.
- Chak-Hao, scented glutinous rice popularly known as Black Rice which is cultivated in Manipur since centuries and popular to people.
- Black aromatic rice owes its colour to powerful natural black colouring pigments called **anthocyanins** which boast an impressive antioxidant activity adding to the health benefits of this rice variety.



### Kovilpatti kadalai mittai

- After a five-year wait, **Kovilpatti kadalai mittai** -- peanut candy from the southern part of Tamil Nadu -- was granted the Geographical Indication (GI) tag on Thursday.
- Kovilpatti kadalai mittai was originally prepared during village festivals using palm jaggery and groundnuts from nearby districts.

### Kashmiri saffron

- Kashmiri saffron, known for its quality and aroma worldwide, has been witnessing an invasion by cheaper Iranian saffron.
- Iran is currently the largest producer of saffron in the world, cultivating over 300 tonnes every year on 30,000 hectares of land.
- Kashmiri saffron is of superior quality because of the **higher concentration of crocin**, a carotenoid pigment that gives saffron its color and medicinal value:
- Its crocin content is 8.72% compared to the Iranian variant's 6.82%, which gives it a darker color and enhanced medicinal value.
- It is cultivated and harvested in the **Karewa (highlands)** of Jammu and Kashmir.
- Kashmiri saffron, has been witnessing an invasion by cheaper Iranian saffron.
- Iran is currently the largest producer of saffron in the world, cultivating over 300 tonnes every year on 30,000 hectares of land.
- In **Kashmir**, which ranks second in supply, saffron cultivation is limited to about one-eighth that area—3,715 hectares.

### A SWEET AFFAIR

**Vellam (Jaggery)** | Traditional and organic special, fresh, pale, soft triangular block of jaggery available across Tamilnadu, and particularly in around Kovilpatti like Srivalliputhur.

**Groundnuts** | Grown in the native black soil in and around Kovilpatti and sourced from the nearby town of Aruppukottai, which are



shelled and roasted.

**Water** | From river Thamirabarani is used in the production which enhances the taste naturally.

### Know! all about Geographical indicator

- GI status is an indication that identifies goods as produced from a particular area, which has special quality or reputation attributable to its geographical origin and GI branded goods possess a recall value amongst consumers. Also GIs are covered as an element of IPRs under Paris Convention for Protection of Industrial Property.
- GI tags are granted for produce or products originating from and having unique qualities corresponding to a geographical area.



- The tag gives exclusive right to its holders over the uniqueness of the product.
- The Geographical Indications of Goods (Registration and Protection) Act, 1999 provides registration and also protection of GI goods in India.
- The act is administered by the Controller General of Patents, Designs and trademarks under the Ministry of Commerce and Industry.
- This also ensures that none other than the right holders to claim or use the product name attributing to its geographical origin.

## International: RIMPAC 2020

### Relevance IN – Prelims (about RIMPAC 2020)

#### What's the NEWS

- U.S. Pacific Fleet will host its major biennial Rim of the Pacific exercise this year amid the global COVID-19 pandemic, opting to limit the exercise to **just two weeks of at-sea-only events rather** than cancel the event altogether.
- The event typically spans from June into August and includes at-sea events as well as in-port cultural events and military exchanges, and amphibious landings and ashore training for Marines and other ground forces.
- This year's 27<sup>th</sup> iteration of the exercise will run from Aug. 17 to 31 and will have a minimal footprint at Pearl Harbor, Hawaii.



#### Know! all about RIMPAC

- RIMPAC, the Rim of the Pacific Exercise, is the world's largest international maritime warfare exercise.
- RIMPAC is held biennially during June and July of even-numbered years from Honolulu, Hawaii.
- It is hosted and administered by the United States Navy's Indo-Pacific Command, headquartered at Pearl Harbor.
- The US invites military forces from the Pacific Rim and beyond to participate.
- As an observer state the Indian Navy had participated in the exercise in 2006, 2010 and 2012. Since 2014 India has been participating as a member country.
- With RIMPAC the United States Indo-Pacific Command seeks to enhance interoperability among Pacific Rim armed forces, as a means of promoting stability in the region to the benefit of all participating nations.

## Prelims Factoids: Coswara- COVID-19 diagnosis based on cough, speech sounds

### Relevance IN – Prelims (about Coswara)

#### What's the NEWS

- A team of researchers at the Indian Institute of Science (IISc), Bangalore, is working on a tool for diagnosis of COVID- 19 **based on respiratory, cough and speech sounds**.

#### Know! more about Coswara

- The tool, once validated, will offer a test which poses minimum risk of exposure to the healthcare professional and can give the results faster than the current testing method.
- The eight-member team, has named the project for speech and sound based diagnostics "Coswara", with an aim to detect and quantify biomarkers of the disease in the acoustics of these sounds.
- The project requires participants to perform a recording of breathing sounds, cough sounds, sustained phonation of vowel sounds and a counting exercise.



## Defence: Operation Samudra Setu

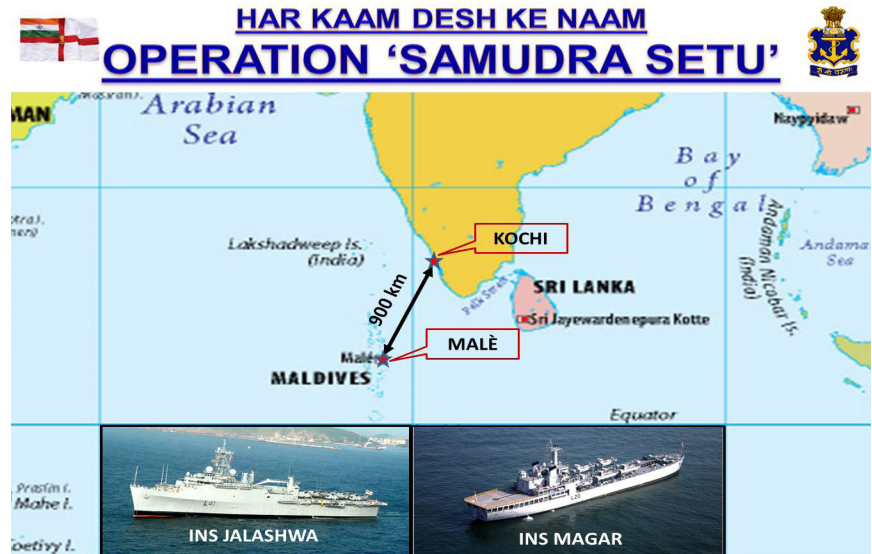
### Relevance IN – Prelims (about Operation Setu)

#### What's the NEWS

- Indian Navy has launched Operation “Samudra Setu” - meaning “Sea Bridge”, as a part of national effort to repatriate Indian citizens from overseas.

#### Know! more about the operation

- Indian Naval Ships *Jalashwa* and *Magar* are presently enroute to the port of Malé, **Republic of Maldives** to commence evacuation operations from 08 May 2020 as part of Phase-1.
- The ships have been suitably provisioned for the evacuation operation. The evacuated personnel would be provided the basic amenities and medical facilities during the sea-passage.
- This operation is being progressed in close coordination with Ministries of Defence, External Affairs, Home Affairs, Health and various other agencies of the Government of India and State governments.



## Miscellaneous: World Press Freedom Day 2020

### Relevance IN – Prelims (about World Press Freedom day +the difference between world press freedom day and world press freedom Index)

#### What's the NEWS

- World Press Freedom Day is planned, organised and promoted by the **United Nations**, observed annually on May 3.
- The day is celebrated to raise awareness regarding the importance of freedom of the press.
- May 3 the World Press Freedom Day is a day of support for media which are targets for the restraint, or abolition, of press freedom.
- It is also a day of remembrance for those journalists who lost their lives in the pursuit of a story.
- On May 3, UNESCO launched a global campaign on media and social media channels, with a focus on “**Journalism without Fear or Favour**” in an increasingly complex media landscape.
- The theme of World Press Freedom Day 2020, “**Journalism without Fear or Favour**”

#### Know! about Global Conference

- Since 1993, **the Global Conference is organized annually**. The conference provides an opportunity to journalists, civil society representatives, national authorities, academics and the broader public to discuss emerging challenges to press freedom and journalists’ safety and to work together on identifying solutions.
- The **Netherlands is the host for 2020**. UNESCO planned to hold the conference from April 22 to 24 at the World Forum in The Hague. But due to Covid-19 a global pandemic the conference is now scheduled for October 18 to 20 at the same venue.
- The conference will be a joint celebration of World Press Freedom Day (May 3) and the **International Day to End Impunity for Crimes against Journalists** (November 2).

#### Know! more about World Press Freedom Day (Genesis)

- It was started by the UN General Assembly in December 1993 in accordance with **recommendations by UNESCO’s General Conference**.



## Declaration of Windhoek

- This particular date, 3 May, was chosen to coincide with the anniversary of the **Declaration of Windhoek** — the declaration of free press principles put together by newspaper journalists in Africa during a UNESCO seminar called Promoting an Independent and Pluralistic African Press, in **Windhoek, Namibia, in 1991**.

## Connect the Dots (Current Capsules – April 2020)

### India drops to rank 142 in 2020 World Press Freedom Index

- For the last decade, the annual World Press Freedom Index, produced annually by the campaign group **Reporters Without Borders (Reporters sans Frontières)**.
- The **independent group surveys** the state of the media in 180 countries and territories, and records parameters such as the number of journalists killed, imprisoned, put under pressure or assaulted, apart from more qualitative reports on the track record of different governments.
- The 2020 World Press Freedom Index was released in April, and revealed that **India has dropped to rank 142**, two points below its 2019 rank.

## Miscellaneous: World Press Freedom Day 2020

*Relevance IN – Prelims (about World Press Freedom day +the difference between world press freedom day and world press freedom Index)*

### What's the NEWS

- World Press Freedom Day is planned, organised and promoted by the **United Nations**, observed annually on May 3.
- The day is celebrated to raise awareness regarding the importance of freedom of the press.
- May 3 the World Press Freedom Day is a day of support for media which are targets for the restraint, or abolition, of press freedom.
- It is also a day of remembrance for those journalists who lost their lives in the pursuit of a story.
- On May 3, UNESCO launched a global campaign on media and social media channels, with a focus on “**Journalism without Fear or Favour**” in an increasingly complex media landscape.
- The theme of World Press Freedom Day 2020, “**Journalism without Fear or Favour**”

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### Prelims Factoids: GARUD portal

#### *Relevance IN – Prelims (about GARUD portal)*

##### What's the NEWS

- The Civil Aviation Ministry and the Directorate General of Civil Aviation (DGCA) launched GARUD portal **for fast-track approval** to COVID-19-related drone operations.

##### Know! more about GARUD

- The objective of the GARUD (Government Authorisation for Relief Using Drones) portal is to assist **state-owned entities** in seeking **exemption** from central government for coronavirus related drone operations.
- This will also help in addressing the challenges posed by COVID-19 and will remain in force until further orders.
- The portal has been operationalised collectively by the MoCA, DGCA, AAI and NIC



### Corona-Killer

- Garuda Aerospace, a drone start-up from Chennai, manufactured drone to spray disinfectants and sanitise public spaces to contain spread of COVID-19.
- Named as 'Corona-Killer', these drones can be used to spray disinfectants on buildings up to 450 feet.
- Drone operations are faster, longer and safer than manual spraying by workers who can become potential carriers of COVID-19.

### Prelims Factoids: AarogyaSetu Mitr

#### *Relevance IN – Prelims (about AarogyaSetu Mitr)*

##### What's the NEWS

- Aarogya Setu and now there's AarogyaSetu Mitr. - The two are different and not related to one another at all.

##### Know! all about Aarogya Setu Mitr

- The AarogyaSetu Mitr is a new initiative initiated carried out by the offices of the Principal Scientific Advisor to the PM, NITI Aayog, various other organisations, industry coalitions, and startups.
- Under this initiative, the government is providing the Indian citizens with key services like free teleconsultations, home collection of samples for diagnostics and medicine delivery. The idea is to bring doctors at your fingertips.
- To use the AarogyaSetu Mitr service, people are required to first head to its official website (<https://www.aarogyasetumitr.in/>). The service provides citizens with three options: Consult Doctor, Home Lab Test and ePharmacy.



## Prelims Factoids: African swine fever

### *Relevance IN – Prelims (about African swine fever)*

#### What's the NEWS

- In the first instance of African swine fever in India, the disease has killed around 2,500 pigs across 306 villages in Assam.
- The National Institute of High Security Animal Diseases (NIHSAD), Bhopal, has confirmed that it is African Swine Fever (ASF).

#### Know! about African swine fever

- ASF is a highly contagious haemorrhagic viral disease of domestic and wild pigs.
- It is responsible for serious economic and production losses, according to the World Organization for Animal Health (OIE).
- The ASF is caused by a large DNA virus of the Asfarviridae family, which also infects ticks of the genus Ornithodoros.
- Although signs of ASF and classical swine fever (CSF) may be similar, the ASF virus is unrelated to the CSF virus.
- **Unlike swine flu that can spread from animals to humans, swine fever does not, and therefore is not a public health threat.**
- Currently, there is no approved vaccine for ASF.
- The virus spreads through pig's meat, saliva, blood and tissue. So there will also be no transportation of pigs between districts.

## Prelims Factoids: Pulse oximeter

### *Relevance IN – Prelims (about Pulse oximeter)*

#### What's the NEWS

- Pulse oximetry is a test used to measure the **oxygen level** (oxygen saturation) of the blood.
- The device, used to measure oxygen levels in the blood, is being recommended for the early detection of 'Covid pneumonia'

#### Know! more about pulse oximeter

- It is an easy, painless measure of how well oxygen is being sent to parts of your body furthest from your heart, such as the arms and legs."
- The device is generally used to check the health of patients who have known conditions that affect blood oxygen levels, such as heart and lung conditions, and for those who show symptoms such as shortness of breath.
- The device measures the saturation of oxygen in red blood cells, and can be attached to a person's fingers, toes, nose, feet, ears, or forehead. It can be reused or disposed of after use.
- Based on the information from the blood oximeter, a healthcare provider can take a decision about whether a person needs extra oxygen.
- A pulse oximeter can help identify a potentially deadly condition in Covid-19 patients called '**Covid pneumonia**' (most severe condition of COVID 19) sooner and more effectively, and thus help save more lives.

## Silent' or 'happy' hypoxia

### *Relevance IN – Prelims (about silent hypoxia and how it can be detected using pulse oximeter)*

#### What's the NEWS

- Medical practitioners while treating people for Covid-19, have reported a condition called 'silent' or 'happy' hypoxia.
- It is a condition in which patients have extremely low blood oxygen levels, **yet do not show signs** of breathlessness.
- Its early detection is vital to avoid a fatal illness called Covid pneumonia.



## Know! about hypoxia

- Hypoxia is a condition wherein there is **not enough oxygen available** to the blood and body tissues.
- Hypoxia can either be generalised, affecting the whole body, or local, affecting a region of the body.

## Know! about silent hypoxia

- A serious medical condition found in severe Covid-19 patients
- It is a form of oxygen deprivation that is harder to detect than regular hypoxia.
- In 'silent' or 'happy' hypoxia, patients appear to be less in distress.
- Many Covid-19 patients, despite having oxygen levels below 80 per cent, look fairly at ease and alert
- In many cases, Covid-19 patients with silent hypoxia did not exhibit symptoms such as shortness of breath or coughing until their oxygen fell to acutely low levels, at which point there was a risk of acute respiratory distress (ARDS) and organ failure. **(that is the reason to detect the cases of silent hypoxia as early as possible by the help of pulse oximeter)**
- A medical device called a **pulse oximeter**– used to detect oxygen level in the blood– **could help in the early detection** of silent hypoxia.

## Prelims Factoids: Vizag gas leak: Styrene gas

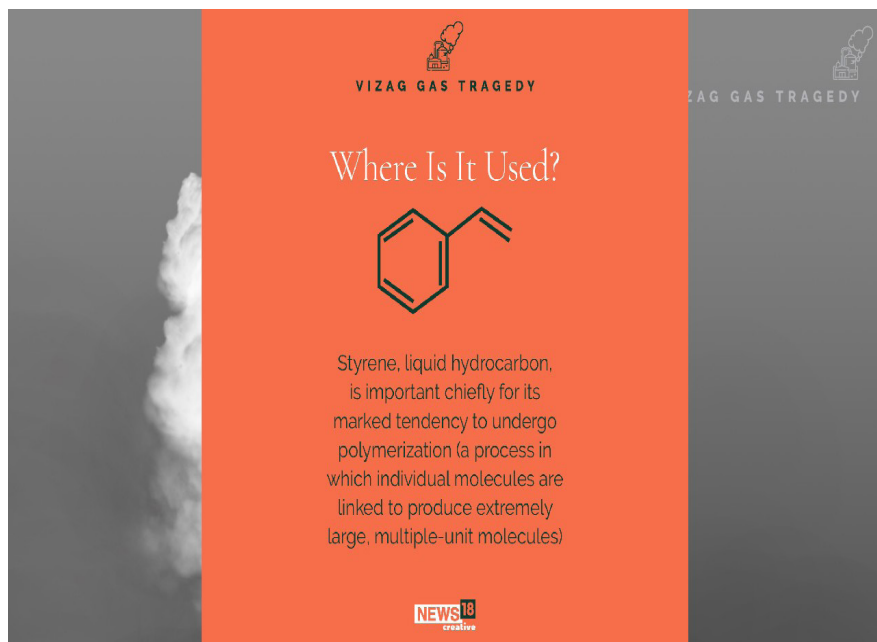
### Relevance IN – Prelims (about styrene gas)

#### What's the NEWS

- A gas leak, reminiscent of the 1984 Bhopal tragedy, has claimed at least 11 lives and affected thousands of residents in five villages in Visakhapatnam in Andhra Pradesh.

#### Know! all about styrene

- Styrene is a chemical which has the texture of a colourless liquid.
- It is a flammable liquid that is used in the manufacturing of polystyrene plastics, fiberglass, rubber, and latex.
- Styrene is also found in vehicle exhaust, cigarette smoke, and in natural foods like fruits and vegetables.
- Short-term exposure to the substance can result in respiratory problems, irritation in the eyes, irritation in the mucous membrane, and gastrointestinal issues.
- And long-term exposure could drastically affect the central nervous system and lead to other related problems like peripheral neuropathy.
- It could also lead to cancer and depression in some cases.
- The gas is “non-poisonous” and is only fatal when exposed for longer durations.
- It unclear at the moment whether the deaths are due to direct exposure to styrene gas or one of its byproducts



## Defence: Operation Samudra Setu

### Relevance IN – Prelims (about Operation Setu)

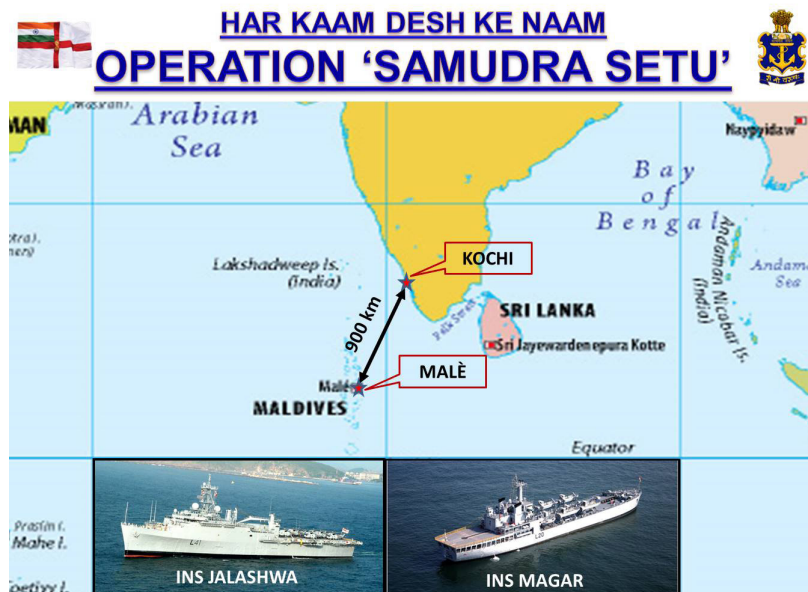
#### What's the NEWS

- Indian Navy has launched Operation “Samudra Setu” - meaning “Sea Bridge”, as a part of national effort to repatriate Indian citizens from overseas.



### Know! more about the operation

- Indian Naval Ships *Jalashwa* and *Magar* are presently enroute to the port of Malé, **Republic of Maldives** to commence evacuation operations from 08 May 2020 as part of Phase-1.
- The ships have been suitably provisioned for the evacuation operation. The evacuated personnel would be provided the basic amenities and medical facilities during the sea-passage.
- This operation is being progressed in close coordination with Ministries of Defence, External Affairs, Home Affairs, Health and various other agencies of the Government of India and State governments.



## Prelims Factoids: Vande Bharat Mission

### Relevance IN – Prelims (about Vande Bharat Mission)

#### What's the NEWS

- Vande Bharat Mission' will see the operation of **64 flights from May 7 to May 13** to bring back around **15,000 Indian nationals stranded abroad** amid the Covid-19 lockdown.
- Once completed, it may turn out to be the largest evacuation operation ever since the 1990 airlift of 1.7 lakh people from Kuwait.

### Know! more about the operation

- India will operate 10 flights to the UAE, seven flights each to the US and the UK, five flights to Saudi Arabia, five flights to Singapore and two flights to Qatar to repatriate Indian nationals between May 7 and May 13.
- During this period, India will also operate seven flights each to Malaysia and Bangladesh, five flights each to Kuwait and Philippines, two flights each to Oman and Bahrain.
- Under the repatriation plan, the government will be facilitating the return of Indian nationals stranded abroad on compelling grounds in a phased manner. All international flights have been grounded since mid-March.

## Prelims Factoids: Bishnu Sendra Parva 2020

### Relevance IN – Prelims (about Bishnu Sendra Parva)

#### What's the NEWS

- Bishnu Sendra Parva, **a hunting festival of tribals**, was observed with only the observance of at-home rituals in Jharkhand. Hence, no animal was killed during the Bishnu Sendra Parva for the first time.

### Know! more about the fest and the tribes

- The **tribal hunters of Jharkhand** did not reach the forests to observe the hunting festival, also known as Bishu Shikar. Instead, tribals observed the rituals with bows, arrows, spears and wire mesh outside the forests
- No animal was killed during the hunting festival as tribals refrained from venturing into the forest due to the lockdown.
- It is an annual hunting festival observed by tribals of Jharkhand and the neighbouring Odisha and West Bengal,
- While **Santhal tribals** take up the annual ritual of hunting animals one day, others, including **Ho and Oraon tribes**, observe this festival for a month so that every village gets a chance to hunt down a few animals.



## Prelims Factoids: Chhau dancers and artisans-the mask makers of Jharkhand

### *Relevance IN – Prelims (about chhau dance)*

#### What's the NEWS

- In April every year, for more than a century, this community has celebrated Spring with chhau, a **masked ritual dance drama**.
- This year, in response to the pandemic and resulting lockdown, the artisans are instead finding inventive ways to create personal protective equipment (PPE).
- The artisans have created a prototype of chhau PPE. In this the mask is made the traditional way, layering paper mache, cloth and clay, with an additional three ply fabric used inside to cover the nostrils.

#### Know! about Chhau dance

- Chhau dance, also spelled as Chau or Chhaau, is a semi classical Indian dance with martial, tribal and folk traditions, with origins in eastern India.
- There are three versions of chhau. Purulia chhau in West Bengal, Mayurbhanj chhau in Odisha and Seraikela chhau in Jharkhand.
- The dance ranges from celebrating martial arts, acrobatics and athletics performed in festive themes of a folk dance, to a structured dance with religious themes found in Shaivism, Shaktism and Vaishnavism.
- The costumes vary between the styles, with Purulia and Serakeilla using masks to identify the character
- The artform features epics and regional legends, using martial art and acrobatic moves.
- Mask making began in Charida, West Bengal, about 150 years ago, and these colourful masks depicting faces of boldly painted gods, heroes, birds and animals are still popular today.
- Mask makers come from two areas: Charida and Seraikela, as Odisha's chhau does not use masks.

## Prelim Factoids: Ayush Kavach-Covid App

### *Relevance IN – Prelims (about Ayush Kavach-Covid' app and how it is different from AYUSH Sanjivani' App)*

#### What's the NEWS

- Uttar Pradesh Chief Minister Yogi Adityanath launched 'Ayush Kavach-Covid' app to help people get health remedies which can be useful in fight against COVID-19. The app has been developed by AYUSH ministry

#### Know! more about the app

- The 'Ayush Kavach-Covid' App will provide s for measures to boost immunity based on natural resources.
- The app is designed to tell users how commonly available kitchen ingredients such as tulsi, clove and cinnamon can be used to enhance the body's immunity to fight against COVID-19.
- It also offers users the opportunity to seek advice from experts.

## Connect to the past (Prelim Proximity)

### AYUSH Sanjivani' App

- The Union Health & Family Welfare Ministry launched the 'AYUSH Sanjivani' App and two AYUSH based studies related to COVID-19 situation
- The 'AYUSH Sanjivani' mobile app, which has been launched, will help **to generate data on acceptance and usage of AYUSH advocacies** and measures among the population and its impact in prevention of COVID 19.
- It is developed by Ministry of AYUSH and MEITY and shall reach out to a target of 50 lakh people.

## Prelims Factoids: IIT Delhi startup launches 'Reusable Antimicrobial Mask'

### *Relevance IN – Prelims (about antimicrobial and washable face mask)*

#### What's the NEWS

- An IIT-Delhi startup named 'Nanosafe Solutions' has launched an antimicrobial and washable face mask that



can be reused up to 50 launderings.

### **Know! about the mask**

- The mask has been designed to maximize durability and dimensional stability, so that the mask can be reused 50 times.
- This is the first fabric based antimicrobial face mask launched in India, which is washable and reusable along with very high Bacterial Filtration Efficiency
- NSafe mask is a highly engineered triple-layered product consisting of - inner hydrophilic layer for comfort, middle layer having antimicrobial activity and outer most layer having water and oil repellent behaviour.
- NSafe mask has 99.2 per cent bacterial filtration efficiency (at 3 microns) and complies with ASTM standards of breathability and splash resistance.

## **Prelims Factoids: The Resistance Front (TRF)**

### ***Relevance IN – Prelims (about The Resistance Front (TRF))***

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

- **Kashmir's new militant group**, The Resistance Front (TRF) — which J&K Police say is an offshoot of Pakistan-based Lashkar-e-Taiba (LeT) — has kept security forces in the Valley on their toes.

#### **Know! about TRF**

- The TRF, from being a non-entity in Kashmir, has now become a considerable security threat and its emergence could be part of a strategy to escalate violence in the union territory.
- In a recent encounter security forces have killed five TRF militants, three of them being local youths.
- The emergence of the outfit even prompted the J&K administration to mention it as one of the reasons for the continued ban on high-speed internet.

## **Health: Phytopharmaceutical & Favipiravir**

### ***Relevance IN – Prelims (about phytopharmaceutical and favipiravir)***

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

- The Council for Scientific and Industrial Research (CSIR) has received approval for clinical trial of two drugs to treat COVID-19.

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

- The Drug Controller General of India (DGCI) has given approval for the clinical trials of the drugs namely, phytopharmaceutical and favipiravir.
- The drug trial will begin within a week and CSIR has already been working with pharmaceutical companies for the solution to control COVID-19.
- Favipiravir is a proven anti influenza drug used in Japan, China, and other countries while Phytopharmaceutical is a herbal medicine extracted from plants

## **Prelims Factoids: Lockdown air: less NO<sub>2</sub>, same PM2.5 and more urban ozone**

### ***Relevance IN – Prelims (about urban ozone)***

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

- While traffic pollution has been falling, the lockdown may be leading to the generation of a dangerous pollutant, urban ozone, which can cause airway inflammation in humans.

#### **Urban ozone**

- The photochemical production of ozone may become more important in urban areas during summertime in these low conditions of oxides of nitrogen.
- As **nitrogen oxides reduce**, photochemical production may become more efficient and can lead to higher ozone concentrations in the summertime as higher temperatures increase emissions of biogenic hydrocarbon from natural sources such as trees.



- These biogenic hydrocarbons significantly affect urban ozone levels.
- While ozone is important for screening harmful solar UV radiation when present higher up in the atmosphere, it can be a dangerous at the Earth's surface, and can react to destroy or alter many biological molecules.



## Prelims Factoids: Indian and Chinese troops clash in Sikkim, Ladakh

**Relevance IN – Prelims (geographical location – Naku la pass + Pangong Tso + doklam + about Operation Juniper)**

### What's the NEWS

- Indian and Chinese troops have clashed at two points along the Line of Actual Control this week, leaving personnel injured on both sides.
- The incidents took place in the **Naku La sector** — it's a **mountain pass** in **Sikkim** at an altitude of over 5000 metres and in a contested area near Pangong Tso, a lake in Ladakh.





## Pangong Lake Ladakh

- It is a long narrow landlocked lake situated at a height of more than 14,000 ft in the **Ladakh Himalayas**.
- One-third of the lake is in Indian control while the rest of the is under Chinese control.
- The LAC cuts through the lake but India and China do not agree on its exact location.

## Previous Stand-offs

- In August 2017, Indian and Chinese soldiers had pelted each other with stones and exchanged blows near **Pangong Lake in Ladakh**.
- In 2017, Indian and Chinese soldiers were locked in a **73-day standoff in Doklam** after the Indian side stopped the construction of a road in the disputed area by the Chinese Army.
- Since **‘Operation Juniper’** — when Indian troops moved into Doklam, a small territory in Bhutan, to stop the Chinese army from constructing a road that threatens India’s strategic interests — India has increased focus on its northern and eastern boundaries than being purely Pakistan centric.

## Prelims Factoids: Pranavayu to monitor ILI patients launched

### Relevance IN – Prelims (about Pranavayu)

#### What’s the NEWS

- Many COVID-19 patients have low oxygen levels that puts them at risk of complications.
- The Bruhat Bengaluru Mahanagara Palike (BBMP) launched an initiative that will allow them to monitor blood oxygen levels and heart rates of patients **showing influenza-like illnesses (ILI)** in fever clinics.
- It is aimed at helping patients monitor the progress of ILI to **severe acute respiratory illness (SARI)**

#### Know! about pulse oximeter

- A pulse oximeter is a small device or probe that can be clipped onto a finger for **reading of blood oxygen level and heart rate**.
- With this, it is possible to detect respiratory distress well in advance and start treatment to mitigate the distress, even possibly the use of ventilators.

## Prelims Factoids: PM CARES Fund v/s PM’s National Relief Fund

### Relevance IN – Prelims (about PM CARES and PMNRF – difference between both the funds)

#### Know! about PM CARES Fund

- The Prime Minister’s Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund) was created on 28 March 2020, following the COVID-19 pandemic in India.
- The fund receives voluntary contributions from individuals and organisations and does not get any budgetary support.
- Donations have been made tax-exempt, and can be counted against a company’s corporate social responsibility (CSR) obligations.
- It is also exempt from the Foreign Contribution (Regulation) Act, 2010, and accepts foreign contributions
- The Prime Minister chairs the fund in his official capacity, and can nominate three eminent persons in relevant fields to the Board of Trustees.
- The Ministers of Defence, Home Affairs and Finance are ex-officio Trustees of the Fund.

#### Know! about Prime Minister’s National Relief Fund (PMNRF)

- The Prime Minister’s National Relief Fund (PMNRF) was set up in January 1948, originally to accept public contributions for the assistance of Partition refugees.
- It is now used to provide immediate relief to the families of those killed in natural calamities and the victims of major accidents and riots and support medical expenses for acid attack victims and others.
- Prime Minister has sole discretion for fund disbursal. A joint secretary in the PMO administers the fund on an honorary basis.



- The PMNRF provides annual donation and expenditure information without any detailed break-up. The PM CARES Fund's trust deed is not available for public scrutiny.

## Prelims Factoids: Bharosa

### Relevance IN – Prelims (about Bharosa – aim and objective)

#### What's the NEWS

- To relieve the distress of student community during the troubled time of the COVID-19 pandemic, Union HRD Minister launched Central University of Odisha Helpline “Bharosa”

#### Know! more about Bharosa

- The helpline aims at providing **Cognitive Emotional Rehabilitation Services** to all University Students of Odisha
- The mental health concern of the students is of great importance and the Helpline launched by the Central University of Odisha is a great step towards that.

## Government Measures (COVID-19): Suraksha Store initiative



The image shows a man wearing a blue face mask, standing in front of a store. To his left is a sign that reads 'मेरा स्टोर आरोग्य सेतु सुरक्षा स्टोर...' (My Store Arogya Setu Suraksha Store...). To his right is a registration form for the 'SURAKSHA STORE INITIATIVE'. The form includes fields for 'Owner/ Manager Name', '10 digit Mobile Number (Don't add 0,+91)', 'Training Language' (with a dropdown menu showing 'English'), and 'Store Name'. There is also a link for 'Already Registered? Click Here'.

### Relevance IN – Prelims (about Suraksha store initiative – role and objective)

#### What's the NEWS

- Aarogya Setu compliant Suraksha Store is a **public private initiative** to ensure a safe and secure environment for consumers and shop owners at Kirana Stores.
- The government plans to set up a chain of 20 lakh retail shops called ‘Suraksha Stores’ across India which will provide daily essentials to citizens while maintaining stringent safety norms.

#### Know! more about the Suraksha Store

- The Suraksha Stores initiative will convert the neighbourhood **kirana stores into sanitised retail outlets** selling daily essentials while adhering to safety norms such as social distancing and sanitisation to control the spread of the novel coronavirus.
- The Department of Consumer Affairs has partnered with tech startups Safejob and Seekify to use technology to prevent the spread of Covid-19 at the local Kirana store level.
- The Suraksha Store initiative is designed for the health and safety of the citizens during and after the lockdown
- The primary objective of this project is to **educate Kirana store owners** across the country about the Covid-19 safety guidelines and protocols required to be followed while running their businesses.
- The protocols were decided by the Food Safety and Standards Authority of India (FSSAI) and the Ministry of Home Affairs (MHA) and included norms around social distancing and hygiene at all retail outlets.



- The objective was to allow consumers to use the Aarogya Setu app to find a Suraksha Store near them and shop, companies mentioned.
- The 'Suraksha Store' will not only be for groceries but also consumer durables, apparel and salons.
- The government is planning to create Suraksha Store and Suraksha Circle to ensure hygiene and safety norms across the supply chain.
- FMCG companies will be asked to provide training and mobilise health kits (masks, gloves and sanitisers) to enable retail outlets to become Suraksha Stores.

### Suraksha Circle

- The Consumer Affairs Ministry is working on creating 'Suraksha Circle' where **lead manufacturing plants will help their business partners** and smaller factories in their vicinity in order to ensure a safe environment across the product supply chain.

## Science and Technology: Defence Research Ultraviolet Sanitiser (DRUVS).

### *Relevance IN – Prelims (about DRUVS and NOTESCLEAN and about UVC)*

#### What's the NEWS

- Hyderabad-based Defence Research and Development Organisation (DRDO) premier lab, Research Centre Imarat (RCI) has developed a **contactless UVC sanitisation cabinet** called Defence Research Ultraviolet Sanitiser (DRUVS).

#### Know! about DRUVS

- It has been designed to sanitize mobile phones, iPads, laptops, currency notes, cheques, challans, passbooks, paper, envelopes, etc.
- DRUVS cabinet has a contactless operation which is very important to contain the spread of the coronavirus.
- The proximity sensor switches, clubbed with drawer opening and closing mechanism, makes its operation automatic and contactless.
- It provides 360-degree exposure of UVC to the objects placed inside the cabinet.
- Once the sanitisation is done, the system goes in sleep mode hence the operator would not have to wait or stand near the device.



#### NOTESCLEAN

- The RCI has also developed an automated UVC currency sanitising device called NOTESCLEAN.
- It picks the notes one by one and makes them pass through a series of UVC lamps for complete disinfection.

#### Know! about UV and UVC

- Ultraviolet (UV) light is a component of the electromagnetic spectrum that falls in the region between visible light and X-Rays.
- This invisible radiation includes the wavelength range of 100 nm to 400 nm.

### *UV light can be further subdivided and categorized into four separate regions:*

#### 100 nm to 200 nm

- Far UV or vacuum UV (these wavelengths only propagate in a vacuum)

#### 200 nm to 280 nm

- UVC – useful for disinfection and sensing

#### 280 nm to 315 nm

- UVB – useful for curing, tanning and medical applications



### 315 nm to 400 nm

- UVA (or “near UV”) – useful for printing, curing, lithography, sensing and medical applications

### Know! about UVC

- Most natural UV light is generated by the sun with about ten percent of sunlight being UV and only about three to four percent penetrating the atmosphere to reach the ground.
- Of the UV radiation that reaches the earth, 95 percent is UVA and five percent is UVB.
- No measurable UVC from the sun reaches the earth’s surface as it is completely absorbed by the Earth’s atmosphere.
- UVC has a short wavelength and it is used for disinfecting water, sterilizing surfaces.

## Prelims Factoids: National Technology Day 2020

**Relevance IN – Prelims (about National technology day + about operation shakti and smiley buddha)**

### What’s the NEWS

- The National Technology Day is celebrated on May 11. The day is observed to commemorate the achievements of the science fraternity.

### Know! all about National Technology Day

- It was on this day in 1998 when India had its breakthrough moment in the field of technology by successfully carrying out nuclear tests at Pokhran.
- This year, on behalf of the Ministry of Science & Technology, Technology Development Board (TBD) has organised a conference to celebrate the day.
- The theme of the conference is ‘**Rebooting the Economy through Science, Technology and Research Translations titled RESTART**’.



### Shakti-Pokhran 2 (Operation Shakti)

- The Pokhran-II tests were a series of five nuclear bomb test explosions conducted by India at the Indian Army’s Pokhran Test Range in May 1998.
- It was the second instance of nuclear testing conducted by India; the first test, **code-named Smiling Buddha**, was conducted in May 1974.

## Prelims Factoids: GI tag for Jharkhand’s Sohrai Khovar painting, Telangana’s Telia Ruma

**Relevance IN – Prelims (about Sohrai Khovar painting and about Telia Ruma)**

### What’s the NEWS

- **Jharkhand’s Sohrai Khovar** painting and **Telangana’s Telia Ruma** were given the Geographical Indication (GI) tag by the Geographical Indications Registry headquartered in Chennai.

### Sohrai Khovar painting

- The Sohrai Khovar painting is a traditional and ritualistic mural art being practised by local tribal women during local harvest and marriage seasons using local, naturally available soils of different colours in the area of Hazaribagh district of Jharkhand.
- Traditionally painted on the walls of mud houses, they are now seen on other surfaces, too.



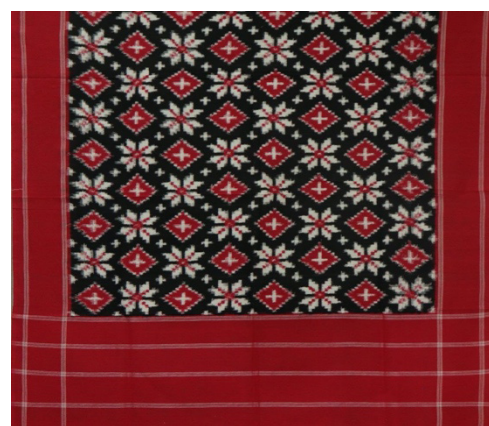


At Birsa Munda Airport, Ranchi

- The style features a profusion of lines, dots, animal figures and plants, often representing religious iconography.

### Telia Rumal

- Telia Rumal cloth involves intricate handmade work with cotton loom displaying a variety of designs and motifs in three particular colours — red, black and white
- Telia Rumal can only be created using the traditional handloom process and not by any other mechanical means as otherwise, the very quality of the Rumal would be lost.



## Connect to the Past (Current Capsules 02<sup>nd</sup> May)

- Last week Chak-Hao, the black rice of Manipur, the Gorakhpur terracotta, the Kashmir Saffron and the Kovilpatti kadalai mittai of Tamil Nadu bagged the GI tags

## Prelims Factoids: GI tag for Thanjavur Netti Works, Arumbavur Wood Carvings

**Relevance IN – Prelims (about the Thanjavur Netti Works and Arumbavur wood carvings)**

### What's the NEWS

- The **Thanjavur Netti Works and Arumbavur wood carvings** have been given Geographical Indication (GI) tag by the Geographical Indications Registry here in Chennai.

### Thanjavur Netti works

- Thanjavur Netti Works (Thanjavur Pith Work) is **made from pith**. The pith is obtained from netti, a **hydrophyte plant called as Aeschynomene aspera**.
- The artisans are skilled in this particular craft and this art is traditionally transferred from their forefathers.





- The lakes around **Pudukottai (Pudukullam & Kallaperumbur lake)** are surrounded with marshy land which favours the growth of the hydrophytic plant.
- The soil found in Thanjavur is favourable for the growth of the plant that is used for the production of pith handicraft based in Thanjavur.
- The pith stems are found in and around the Thanjavur region and Mannargudi.
- The notable works from Thanjavur Netti Works include models of the Brihadeeshwara Temple, Hindu idols, garlands, door hangings and show pieces used for decoration.

### Arumbavur wood carvings

- Arumbavur Wood Carving is done at **Arumbavur and around the Veppanthattai taluk of Perambalur district.**
- The wood carvings are primarily made out of wooden logs of Indian siris (Poo Vaagai, Albizia lebbeck), mango (Mangifera indica), lingam tree (Mavilangam), Indian ash tree (Othiyam – Odina wodier), rosewood, neem tree (Vembu – Azadirachta indica).
- The carvings in Arumbavur Wood Carvings are often inspired by **architectural details on temple sculptures and carvings.**
- The dimensions of the wood blocks used depend on the wooden sculpture to be carved.
- The descriptions and designs which inspire the work lie in temple architecture indigenous to the region. Usually, the statues are crafted in the range of 1 to 12 feet.

### About GI tag

- A GI tag is a sign used on products that have a specific geographical origin and possess qualities or a reputation by virtue of their geographical association.
- The tag conveys an assurance of quality and distinctiveness, which is essentially attributable to the geographical origin of the product.
- The owner of the GI tag has exclusive rights over the product

## Connect to the Past (Current Capsules 02<sup>nd</sup> and 14<sup>th</sup> May)

- Yesterday **Jharkhand's Sohrai Khovar** painting and **Telangana's Telia Rumal** were given the Geographical Indication (GI) tag
- Last week Chak-Hao, the black rice of Manipur, the Gorakhpur terracotta, the Kashmir Saffron and the Kovilpatti kadalai mittai of Tamil Nadu bagged the GI tags

## Prelims Factoids: FIR Aapke Dwar Yojana

### Relevance IN – Prelims (about FIR aapke dwar yojana)

#### What's the NEWS

- Madhya Pradesh launched country's first ever 'FIR Aapke Dwar Yojana' in Bhopal.

#### Know! more about it

- Madhya Pradesh is the first state in the country to implement such an innovative scheme.
- 'FIR Aapke Dwar' scheme has been started as a pilot project in 23 Police Stations including one urban and one rural Police Station at 11 Divisional Headquarters.
- That Dial 100 vehicle would have trained Head Constables to lodge FIR.
- FIRs in complaints of general nature will be lodged on the spot.
- In case of serious complaints, guidance will be sought from senior officers.





## Prelims Factoids: COVID JAGRATHA PORTAL

**Relevance IN – Prelims**(about the objective of the Covid-Jagratha portal.)

### What's the NEWS

- Kerala has made it mandatory for those coming into the state on special trains starting to apply for digital passes on the Covid-Jagratha portal.

### Know! about Covid-Jagratha Portal

- Covid19 jagratha is a comprehensive solution for effective daily monitoring of the quarantine and health status of the people under surveillance and provision of health service through tele consultation and referral based on the reports available in the system.
- This portal is designed for disseminating information related to Covid 19 for public and provisions for accessing emergency services for public.
- This platform can be used to generate simplified daily report on welfare measures initiated by the District Administration for public who are provided with support during lock down like support to elderly people, migrant labourers, Public Distribution system.
- This is also a one stop platform for the public to avail emergency services and information related to Covid19 and ensures transparency and quality in public service and welfare measures.

## Prelims Factoids: Coir Geo textiles

**Relevance IN – Prelims** (about Coir Geo textiles + about The Indian Roads Congress)

### What's the NEWS

- Coir Geo textiles, a permeable fabric, natural, strong, highly durable, resistant to rots, moulds and moisture, free from any microbial attack, has finally been **accepted as a good material for rural road construction.**

### Know! more about Coir Geo textiles

- Coir Geo textiles will be used for construction of rural roads **under the PMGSY-III** says a communication from the National Rural Infrastructure Development Agency under Union Ministry of Rural Development, Govt. of India.
- Deploying coir geo textile in road construction is a very significant development and it will give a big boost to the coir industry especially in these difficult times of COVID-19 pandemic.
- As per the PMGSY new technology guidelines for road construction, 15% length in each batch of proposals, is to be constructed using new technologies. Out of this 5% roads are to be constructed **using IRC accredited technology.** The IRC has now accredited coir Geo textiles for construction of rural roads.
- As per these instructions, 5% length of the rural roads under PMGSY-III will be constructed using Coir Geo textiles.
- The decision opens up a huge market potential for Coir Geo-textiles in the Country and will be a boon to the Covid-19 hit Coir Industry.

### Know! about Coir and Coir geo textiles

- Coir, or **coconut fibre**, is a natural fibre extracted from the outer husk of coconut and used in products such as floor mats, doormats, brushes and mattresses. Coir is the fibrous material found between the hard, internal shell and the outer coat of a coconut.
- Hard and strong, it can be spun and woven into matting. They also have the right strength and durability to protect the slopes from erosion, while allowing vegetation to flourish.





- Coir Geotextiles protect land surface and promote quick vegetation.
- Geotextiles are a wonderful treasure of natural eco friendly, erosion control blankets in woven and non-woven preparations.
- Totally biodegradable, geotextiles help soil stabilisation and renew vegetation in varying slopes.

### Know! about IRC

- The Indian Roads Congress (IRC) is the Apex Body of Highway Engineers in the country.
- The IRC was set up in December, 1934 on the recommendations of the Indian Road Development Committee best known as Jayakar Committee set up by the Govt. of India with the **objective of Road Development in India.**

## Science & Technology: Carcinogenic or Mutagenic compound

**Relevance IN – Prelims (to remember terminologies like carcinogenic or mutagenic compound N-nitrosodimethylamine (NDMA) and N-nitrosodiethanolamine (NDEA))**

### What's the NEWS

- Institute of Advanced Study in Science and Technology (IASST), Guwahati, has developed an electrochemical sensing platform for detecting **carcinogenic or mutagenic compound N-nitrosodimethylamine (NDMA) and N-nitrosodiethanolamine (NDEA)** sometimes found in food items like cured meat, bacon, some cheese, and low-fat milk.
- It was achieved by developing a **modified electrode by immobilizing carbon nanomaterials (carbon dots) in DNA.**

### Know! more about Carcinogenic compound and its detection mechanism

- Some harmful chemicals belonging to Nitrosamine family are present in cured meats, bacon, some cheese, low-fat dry milk, and fish.
- Such chemicals include carcinogenic ones like NDMA and NDEA, which may also alter the chemical composition of our DNA. Hence it is important to develop detection techniques to detect them.
- The scientists, have fabricated an electrochemical biosensor using DNA immobilized on the surface of carbon dots for sensitive and selective detection of N-nitrosamine.
- The electrochemical biosensor platform was developed using the ability of NDMA and NDEA, to alter the DNA.

## Science and Technology: Sonic Boom

**Relevance IN – Prelims (about Sonic boom)**

### What's the NEWS

- The sonic boom was probably heard while the aircraft was **decelerating from supersonic to subsonic speed** between 36,000 and 40,000 feet altitude.”

### Know! about Sonic Boom

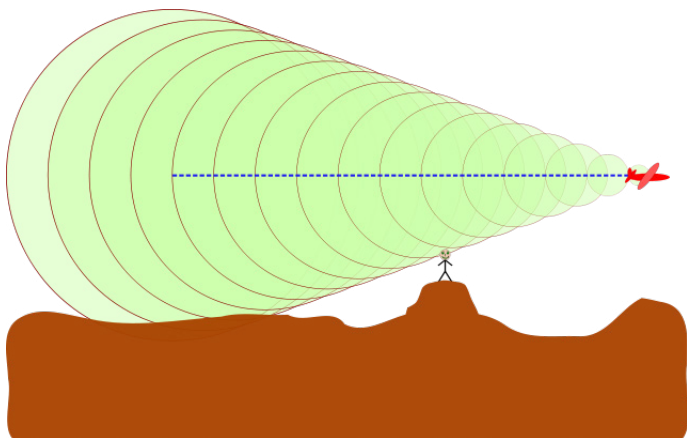
- A sonic boom is a thunder-like noise a person on the ground hears when an aircraft or other type of aerospace vehicle flies overhead faster than the speed of sound, or “supersonic.”
- Air reacts like fluid to supersonic objects. As those objects travel through the air, molecules are pushed aside with great force and this forms a shock wave, much like a boat creates a wake in water. The bigger and heavier the aircraft, the more air it displaces.

### Know! the science behind sonic boom

- When any object flies through the atmosphere, it continuously pushes the air in front of it, creating pressure waves that ripple out at the speed of sound.
- When the object goes supersonic – i.e. crosses the speed of sound in the medium in which it is flying, in this case the atmosphere – these pressure waves are pushed out at faster than the speed of sound.
- But since they can only *move* out at the speed of sound, they begin to accumulate in front of the object.
- At some point they merge together into a single high-pressure wave known as a shockwave.



- When this shockwave reaches your ear, you hear the sonic boom: a thunderous clap of noise signalling there is a supersonic object in your wider vicinity.
- The IAF jet would also have stayed supersonic for a time, and in this time, it constantly produces the shockwaves.
- But you hear it only once because the waves stream out from **the front tip of the jet in the shape of a cone**, and the boom is audible only when the waves *reach* you, not when they wash over you.



## Mach Number

Glenn  
Research  
Center

$$\text{ratio} = \frac{\text{Object Speed}}{\text{Speed of Sound}} = \text{Mach Number}$$



**Subsonic**  
Mach < 1.0

**Transonic**  
Mach = 1.0



**Supersonic**  
Mach > 1.0



**Hypersonic**  
Mach > 5.0

## Know! about Mach Number

- It is the ratio of the speed of a body to the speed of sound in the surrounding medium.
- Speed below the speed of sound is termed as subsonic whereas speed above the speed of sound is termed as supersonic
- India's fastest jets include the Sukhoi SU-30 MKI (Mach 2.35) and the Mirage-2000 (Mach 2.3).

## Prelims Factoids: Khudol

### Relevance IN – Prelims (about Khudol)

#### What's the NEWS

- The United Nations Secretary-General's Envoy on Youth has listed **Manipur's Khudol (gift)** among the top 10 global initiatives for an inclusive fight against the COVID-19 pandemic.

#### Know! more about Khudol

- Khudol is a crowdfunded initiative of Ya\_All, an **Imphal-based NGO** that had created India's first transgender football team.
- The initiative entails ensuring food, health and hygiene of the LGBTQI+ community, people living with HIV, daily-wage earners, children and adolescents.
- Mobilising a network of 100 volunteers, they have provided around 2,000 families and individuals with over 1,000 health kits, 6,500 sanitary pads and 1,500 condoms
- Ya\_All, which was founded in 2017, for organising mental health workshops and founding Meitram, the first co-working and networking space owned and run by queer individuals in India.

#### Dedicated quarantine centres for transgender persons

- Ya\_All created a model of an inclusive safe space for transgender returnees by creating a separate quarantine centres for them





## Prelims Factoids: Katkari Tribe

**Relevance IN – Prelims (about Katkari tribe + about PVTGs + about Pradhan Mantri Van Dhan Yojana)**

### What's the NEWS

- A group of tribal youth from the Katkari community in Shahpur has come together to market Giloy, a herb used in treatment of viral fever, malaria as well as diabetes. The herb has a huge demand from pharmaceutical companies.
- A team of Katkari (कातकरी) community, started facilitating various works of Katkari tribals at revenue offices in his native place
- Katkari is one of the 75 Particularly Vulnerable Tribal Groups, as per the classification by Ministry of Home Affairs.



### Know! more about Katkari tribes

- The Katkari are an Indian Tribe mostly belonging to the state of Maharashtra.
- They have been categorised as a Scheduled tribe.
- They are bilingual, speaking the Katkari language, a dialect of the Marathi-Konkani languages, with each other; they speak Marathi with the Marathi speakers
- In Maharashtra the Katkari have been designated a Particularly vulnerable tribal group (PVTG), along with two other groups included in this sub-category: the Madia Gond and the Kolam.

### Particularly Vulnerable Tribal Groups (PVTGs)

- There are certain tribal communities who use a pre-agricultural level of technology, face stagnant or declining population growth, and are equipped with only an extremely low level of literacy and a subsistence level of economy.
- 75 tribal groups have been categorized by Ministry of Home Affairs as Particularly Vulnerable Tribal Groups (PVTGs). PVTGs reside in 18 States and UT of A&N Islands.
- The Ministry of Tribal Affairs implements the Scheme of “Development of Particularly Vulnerable Tribal Groups (PVTGs)” exclusively for them.
- Under the scheme, Conservation-cum-Development (CCD)/Annual Plans are to be prepared by each State/UT for their PVTGs based on their need assessment, which are then appraised and approved by the Project Appraisal Committee of the Ministry.
- Pradhan Mantri Van Dhan Yojana provides working capital for these SHGs. So they don't have to sell their produce in distress, moreover they can immediately pay tribals for produce they have picked up, this greatly helps tribals in having steady income

### Pradhan Mantri Van Dhan Yojana (PMVDY)

- It is a retail marketing led value addition plan for Minor Forest Produce (MFP)
- It meant for forest-based tribes to optimize the tribal income, locally.
- MFP-based tribal groups / enterprises of around 300 members are formed for collection, value addition, packaging & marketing of Minor Forest Produces (MFPs).
- These tribal enterprises will be in the form of Van Dhan SHGs which will be a group of 15-20 members and such 15 SHG groups will further be federated into a larger group of Van Dhan Vikas Kendras (VDVKS) of around 300 members.
- TRIFED will support the VDVKS through providing them with model business plans, processing plans & tentative list of equipment for carrying out the value addition work of MFPs.



## Prelims Factoids: ReSTART

**MSME**

Major initiatives to strengthen MSME sector...  
**Jagananna Government releasing..**  
**"ReSTART" package of Rs. 1,110 crores for MSMEs, Today...**

- Waiver of fixed electricity charges against contracted maximum demand for MSMEs for a period of 3 months from April 2020 to June 2020 amounting Rs. 187.80 crores...
- Working Capital loans to enable MSMEs... for meeting the liquidity crisis, a loan of Rs. 2 lakhs- 10 lakhs will be provided @ 6 % - 8 % interest. Creation of a fund with Rs. 200 crores for providing working capital loans...
- Exemption of - fee for tender sets, Earnest Money Deposit and waiver of minimum turnover condition to MSMEs...
- To strengthen MSMEs, Jagananna Government releases industrial incentives of Rs. 904.80 crores... including pending amount of Rs. 927.5 crores of previous regime...
- Government entities to procure 25% of goods and services from MSMEs, of which 4% shall be earmarked for SC, ST and 3% for women entrepreneurs...
- Government entities to make payments within 45 days for the goods and services procured from the MSMEs...
- 20% enhanced additional working capital limits for standard MSME accounts as on 29 Feb 2020 without any collateral... In case of stressed MSMEs Banks will provide loan equal to 15% of equity in the unit subject to a maximum of Rs. 75 lakhs.

Apply to the Director, Department of Industries through online portal  
<http://www.apindustries.gov.in/restart-package>  
to derive all these benefits...

For assistance  
Help Desk Number:  
**0866-2530685**  
between 10:30 AM - 5:00 PM  
Monday to Friday  
oMail: [singledesk.india@ap.gov.in](mailto:singledesk.india@ap.gov.in)

**Sri Y.S. Jagan Mohan Reddy**  
Hon'ble Chief Minister, Government of Andhra Pradesh

**Sri Mekapati Gautam Reddy**  
Hon'ble Minister for Industries and commerce

Around one lakh MSMEs in AP.. Providing employment to around 10 lakh unemployed...

Agriculture & Allied Services - 1907 | Tele Medicine Services - 14410 | Complaints against Corruption - 14400 | Disha - 181 | Complaints against illegal manufacture, sale and transport of liquor & sand - 14500

Issued by: Information & Public Relations Department, Andhra Pradesh

### Relevance IN – Prelims (about ReSTART)

#### What's the NEWS

- To help micro, small and medium enterprises (MSMEs) tide over the coronavirus-induced economic crisis, **Andhra Pradesh government has** announced a stimulus package ReSTART for such firms operating in the state.

#### Know! about ReSTART

- The Rs 1,110 crore relief package for the MSME sector includes release of Rs 905 crore outstanding incentives, **waiver of fixed electricity charges, and soft loans to meet working capital needs.**
- A preferential market access policy has also been announced which will ensure **that 25 per cent of government purchases** are from MSME firms for about 364 items.
- The move has come days after Centre announced a relief package including Rs 3 lakh crore collateral-free loans for the MSME sector.

## Prelims Factoids: Western Ghats yield 3 new plant species

### Relevance IN – Prelims (about the three new plant species + about BSI)

#### What's the NEWS

- A team of scientists of the Botanical Survey of India (BSI) have reported the discovery of three new plant species from the evergreen forest patches of the southern end of the **Western Ghats in Kerala and Tamil Nadu.**

#### Know! about the three species

The three new species —

##### *Eugenia sphaerocarpa*

- It belongs to the Myrtaceae or Rose apple family
- It is growing in the Kakkayam area of the Malabar wildlife sanctuary in Kerala

##### *Goniiothalamus sericeus*

- It belongs to the Annonaceae family of custard apple



- It has been found in the Kanyakumari wildlife sanctuary in Tamil Nadu.

### ***Memecylon nervosum***

- It belongs to the Melastomataceae (Kayambo or Kaasavu in local parlance) family were discovered during a recent exploration
- It is also found in the Kanyakumari wildlife sanctuary in Tamil Nadu

### **Know! about BSI**

- Botanical Survey of India (BSI), founded 13 February 1890, is Government of India Ministry of Environment, Forest and Climate Change's organization for survey, research and conservation of plant resources, flora and endangered species of India, including by collecting and maintaining germplasm and gene bank of endangered, patent and vulnerable plant species.

## **Prelims Factoids: Ashwagandha / Kangra Tea**

### ***Relevance IN – Prelims (about Kangra tea and terminologies related with these researches + about IHBT)***

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

- After the well known herb Ashwagandha, now, Kangra tea has been marked as a potential coronavirus blocker.
- Chemicals in Kangra tea could be effective in boosting immunity as they can block coronavirus activity better than anti-HIV drugs according to scientists at the **Institute of Himalayan Bioresource Technology (IHBT)**, based in Palampur, Himachal Pradesh.

#### **ICMR to replace HCQ**

- India's premier medical research institute, the Indian Council of Medical Research (ICMR) is considering **replacing hydroxychloroquine (HCQ) with anti-HIV drugs** to improve immunity and possibly reduce viral replication.

#### **Know! about Ashwagandha**

- Ashwagandha contains certain bio-actives that interact with SARS-CoV-2 virus in a way that prevents it from multiplying.
- Ashwagandha, which is also popular as an aphrodisiac, has a natural compound called **withanone (Wi-N)**, with the potential to block Covid-19's enzyme responsible for replication.
- It is being alleged that Ashwagandha, if used along with an active ingredient of propolis called **Caffeic Acid Phenethyl Ester (CAPE)** can block the replication process of the virus.

#### **Know! about Kangra Tea**

- Kangra Tea is farmed at a geographically small area in the Kangra district of Himachal Pradesh.
- Kangra tea is a registered Geographical Indication (GI)
- The first flush of Kangra tea, grown at a height ranging from 900 metres to 1400 metres above the sea level in Kangra district of Himachal Pradesh, is known for quality, unique aroma and tinge of fruity flavor.
- A little milder than Darjeeling tea in terms of flavour, Kangra tea has more body and liquor.

#### **Know! about IHBT**

- Institute of Himalayan Bioresource Technology or IHBT established in 1983 is a **constituent laboratory of Council of Scientific and Industrial Research**.
- This institute located in Palampur, Kangra district, Himachal Pradesh is engaged in various advanced research aspects of Himalayan Bio-resources and modern biology.
- It has also been imparting Ph.D. in Biological and Chemical Sciences.



## Prelims Factoids: Breakthrough event of Chamba Tunnel under Chardham Pariyojana inaugurated

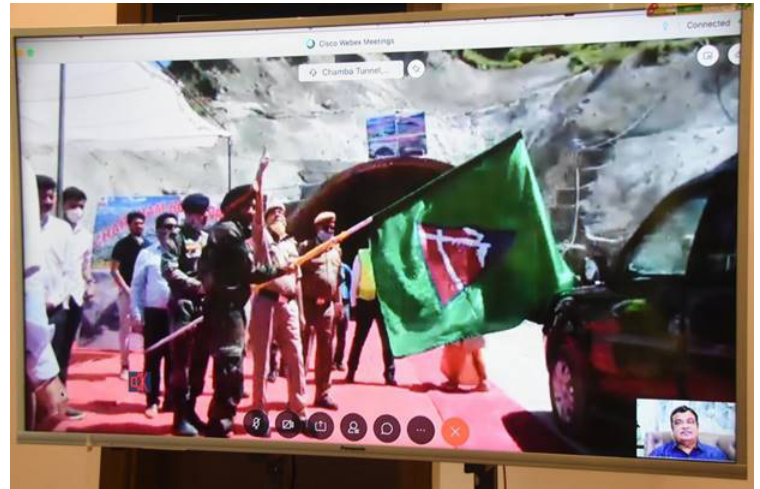
**Relevance IN – Prelims (about Chambal tunnel + about Chardham Pariyojana +location based MCQs)**

### What's the NEWS

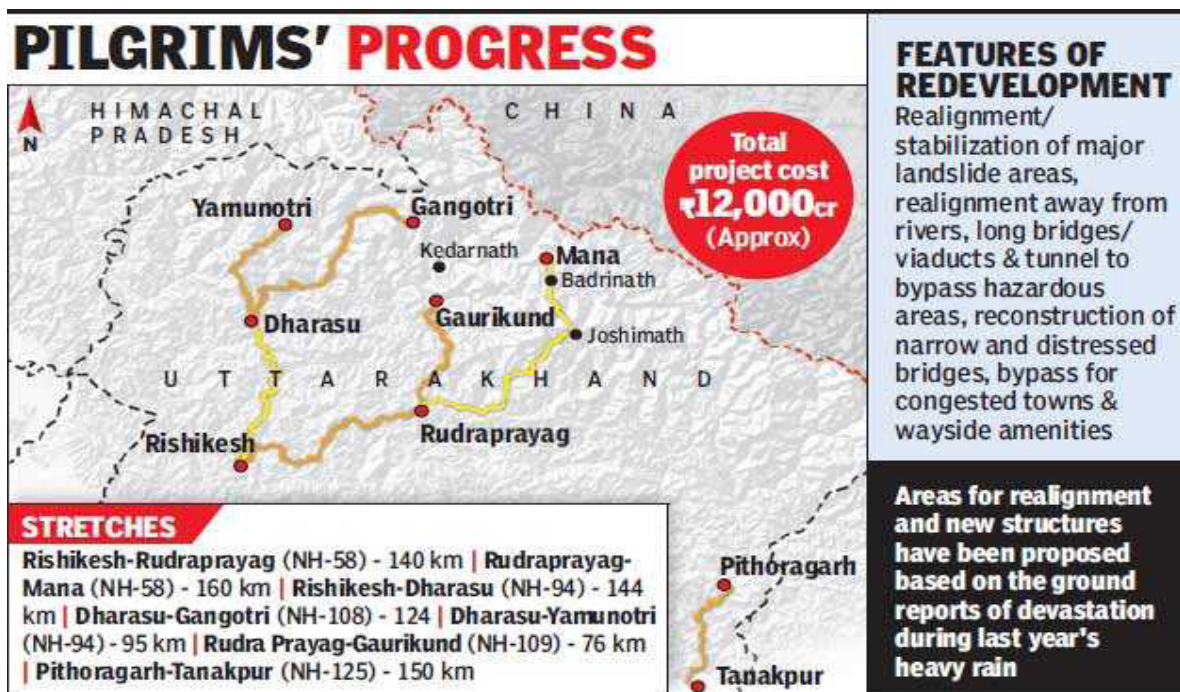
- The Union Minister for Road Transport & Highways inaugurated the breakthrough event of **Chamba Tunnel under Chardham Pariyojana** through video conference mode.

### Know! more about it

- Border Roads Organisation (BRO) achieved this major milestone by digging up a 440 m long Tunnel below the busy Chamba town on Rishikesh-Dharasu road Highway (NH 94).
- The Rishikesh-Dharasu-Gangotri road in Uttarakhand has a very significant role from socio economic and religious point of view.
- The tunnel will be through for traffic by October this year, almost three months before its scheduled date of completion.



### Know! about Chardham Project



- Under prestigious *Chardham* Project costing around Rs 12,000 Crore with approximate length of 889 Km, BRO is constructing 250 Km of National Highways leading to holy shrine Gangotri and Badrinath.
- The Ministry has taken up separate programme for connectivity Improvement for Char-Dham (**Kedarnath, Badrinath, Yamunothri & Gangotri**) in Uttarakhand.
- The highway will be called Char Dham Mahamarg (Char Dham Highway) and the highway construction project will be called as Char Dham Mahamarg Vikas Pariyojana (Char Dham Highway Development Project)
- Road will include several long bridges and tunnels to eliminate accident and slide prone areas.
- Indian Railway and National Highways Authority of India** have been directed to ensure that rail and road highway routes are integrated on this circuit.



## Prelim Factoids: CoAST India (Collaboration/Covid Action Support Group)

### *Relevance IN – Prelims (about CoAST India and its objective)*

#### What's the NEWS

- India Observatory, an open-source database, has come up with a **GIS-enabled dashboard** that includes an India map reflecting the movement of migrants in real time on their long journeys, along with facilities and relief organisations on their routes.

#### Know! more about the platform

- The platform, a collaboration with Foundation for Ecological Security (FES), Anand as its main nodal point, is called **CoAST India (Collaboration/Covid Action Support Group)**.
- It draws information from 55 organisations on the ground, mostly in villages, and aims to make such data available so that it would enable governments and small local civil society groups to be of assistance.
- The map matches “time and spatial data, on administrative facilities in the area, transportation and healthcare facilities of an area and summaries, on the fly, in real time of people passing by

#### Know! about India Observatory

- India Observatory was set up in December 2019, with FES focused on ecological issues about forests, water bodies, conservation, etc. that needed “a bird’s eye view or a satellite’s vision”.
- It is India’s first socio economic ecological open source integrated Geospatial data platform
- It aims to provide comprehensive information on India’s social, ecological and economic parameters on a single platform to supplement local level decision making
- Now they decided to recraft the site to take into account movements of people, and formed a group called **RCRC (Rapid Community Response to Covid)**.

## Prelims Factoids: FAITH trials

### *Relevance IN – Prelims (about faith trails)*

#### What's the NEWS

- Glenmark Pharmaceuticals Ltd., has announced a new randomised, open-label study to test the combined efficacy of two antiviral drugs — Favipiravir and Umifenovir — as a potential COVID-19 treatment strategy.

#### Know! more about Faith trails

- Glenmark study will examine whether early administration of a **combination of Favipiravir and Umifenovir** enhances anti-viral efficacy on COVID-19 patients. Hence, a combined use of Favipiravir and Umifenovir acting on different mechanisms offers a comprehensive antiviral cover on pre-entry and post-entry life-cycle of the SARS-CoV-2 virus, the company said.
- The new combination clinical trial will be called **FAITH – (FA vipiravir plus Um I fenovir (efficacy and safety) Trial in Indian Hospital setting)**.

## Defence: Agneeprastha

### *Relevance IN – Prelims (about agneeprastha + about chakra)*

#### What's the NEWS

- Foundation Stone for a Missile Park “**AGNEEPRASTHA**” was laid at INS Kalinga

#### Know! about agneeprastha

- The Missile Park ‘**AGNEEPRASTHA**’ once completed will be dedicated to all the Officers, Sailors and Support Staff of INS Kalinga, who have served in this premier op-support Base of the ENC since its establishment in 1981.





- The Park also commemorates the award of the prestigious Unit Citation to INS Kalinga for the year 2018-19.
- ‘AGNEEPRASTHA’ aims to capture glimpses of Missile History of INS Kalinga since 1981 till date.
- The Missile Park has been set up with a **replica of missiles and Ground Support Equipment (GSE)** that showcase the evolution of missiles handled by the unit.
- The exhibits have been created from scrap / obsolete inventory which have been reconditioned in-house.
- The main attraction is **P-70 ‘Ametist’**, an underwater launched anti-ship missile from the arsenal of the old ‘Chakra’ (Charlie-1 submarine) which was in service with IN during 1988-91.

#### **Know! about INS Kalinga**

- INS Kalinga is a premier Naval Establishment located on the **Visakhapatnam** - Bheemunipatnam beach road.
- It is about 25 kilometers from the city and 40 kilometers from the Naval Base. INS Kalinga was commissioned in 21 Nov 1985.
- It is an Indian Navy establishment reporting to the Eastern Naval Command.
- It is responsible for preparing, storing and delivering advanced missiles to ships of the Eastern Fleet.

#### **Know! about Chakra (Charlie-1 submarine)**

- K-43 was a Charlie-class nuclear-powered cruise missile submarine operated by the Soviet and Indian navies.
- It was built between 1964 and 1967 and was commissioned into the Soviet navy on 5 November 1967.
- It later served as INS Chakra in the Indian Navy from 1988 to 1991.
- The submarine was transferred for helping train the Indian Navy in operating nuclear submarines.
- The lease of Chakra reportedly helped India gain first-hand experience in handling a nuclear submarine that helped them build the Arihant class of nuclear submarines.



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# **GENERAL STUDIES I**

**Indian Heritage and Culture,  
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World and Society**



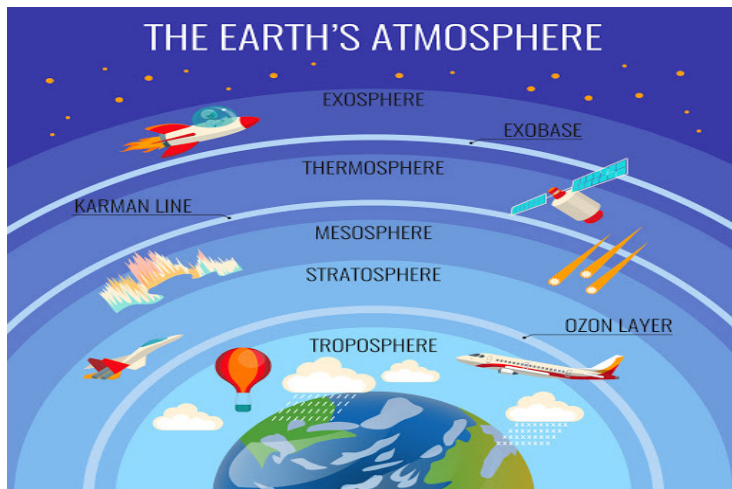
## Focus Article / Environment Conservation: Closure of Ozone layer Hole Over The Arctic

**Relevance IN – Prelims (all about Ozone layer + Montreal protocol + Kigali amendment) + Mains (GS III Environment conservation + GS I geographical features and their location)**

### What's the News

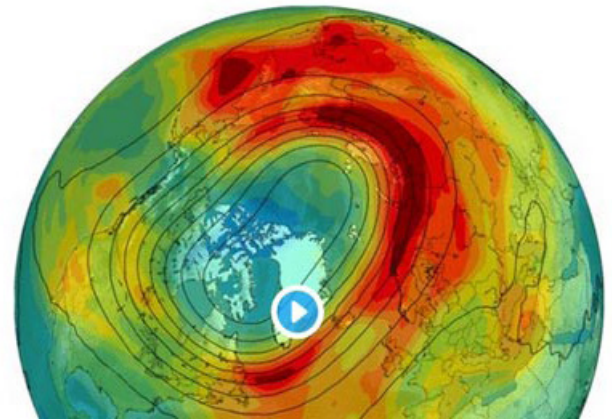
- Last week, the European Union's Copernicus Atmosphere Monitoring Service (CAMS) announced that a **hole in the Arctic ozone layer**, believed to be the biggest reported, has closed.

### Know! More On The Ozone Layer



The unprecedented 2020 northern hemisphere #OzoneHole has come to an end. The #PolarVortex split, allowing #ozone-rich air into the Arctic, closely matching last week's forecast from the #CopernicusAtmosphere Monitoring Service.

More on the NH Ozone hole [bit.ly/39JQRU8](https://bit.ly/39JQRU8)



- Ozone (chemically, **a molecule of three oxygen atoms**) is found mainly in the upper atmosphere, an area called the **stratosphere**, between 10 and 50 km from the earth's surface.
- The ozone layer or ozone shield is a region of the Earth's stratosphere that **absorbs most of the Sun's Ultraviolet (UV) radiation**.
- It protects the earth from the Sun's harmful UV radiation. It absorbs 97 – 99% of the UV radiation from the Sun. UV rays can cause skin cancer and other diseases and deformities in plants and animals.
- Ozone layer depletion is the thinning of the ozone layer present in the atmosphere.
- This happens when the **chlorine and bromine atoms** in the atmosphere come in contact with ozone and destroy the ozone molecules.
- The ozone-depleting substances that contain chlorine include **chlorofluorocarbon, carbon tetrachloride, hydrochlorofluorocarbons, and methyl chloroform**. Whereas, the ozone-depleting substances that contain bromine are **halons, methyl bromide, and hydrobromofluorocarbons**.
- Chlorofluorocarbons are the most abundant ozone-depleting substance. It is only when the chlorine atom reacts with some other molecule, it does not react with ozone.

### The ozone hole

- The 'ozone hole' is not really a hole — it refers to a region in the stratosphere where the concentration of ozone becomes extremely low in certain months.
- The 'ozone holes' most commonly talked about are the depletions over Antarctica, forming each year in the months of September, October and November, due to a set of special meteorological and chemical conditions that arise at the South Pole, and can reach sizes of around 20 to 25 million sq km.
- Such holes are also spotted over the North Pole, but owing to warmer temperatures than the South Pole, the depletions here are much smaller in size. Before this year, the last sizable Arctic ozone hole was reported in 2011.



## Uniqueness of This Year's Ozone Layer

- This year, the ozone depletion over the Arctic was much larger. As per a European Space Agency report, cold temperatures (below  $-80^{\circ}\text{C}$ ), sunlight, wind fields and substances such as chlorofluorocarbons (CFCs) were responsible for the degradation of the Arctic ozone layer.
- Although Arctic temperatures do not usually fall as low as in Antarctica, this year, powerful winds flowing around the North Pole trapped cold air within what is known as the **polar vortex**— a circling whirlpool of stratospheric winds.

## Know! More on Polar Vortex

- A polar vortex is a low pressure area—a wide expanse of swirling cold air—that is parked in polar regions.
- During winter, the polar vortex at the North Pole expands, sending cold air southward. This happens fairly regularly and is often associated with outbreaks of cold temperatures in the United States.

## Ozone Recovery

- Scientists believe that the closing of the hole is because of the same polar vortex and not because of the lower pollution levels during the coronavirus lockdown.
- As per the Scientific Assessment of Ozone Depletion data of 2018, the ozone layer in parts of the stratosphere has recovered at a rate of 1-3 per cent per decade since 2000.
- “At these projected rates, the Northern Hemisphere and mid-latitude ozone is predicted to recover by around 2030, followed by the Southern Hemisphere around 2050, and polar regions by 2060

## Additional Relevant Information

### Montreal Protocol

- By the late 1970s, scientists were able to prove that chemical substances that were used in air conditioners, refrigerators and aerosol cans were causing damage to the ozone layer.
- In 1985, a huge hole was discovered in the ozone layer over Antarctica. This hole allowed hazardous levels of ultraviolet (UV) radiation to reach the earth's surface.
- The *Vienna Convention* for the Protection of the Ozone Layer was signed in 1985 under which UN member countries recognized the importance of curbing damage to the ozone layer.
- As per the Convention's provisions, countries agreed to adopt the Montreal Protocol to further the goals of the Vienna Convention.
- The Montreal Protocol was signed in 1987 and entered into force in January 1989. The protocol gives provisions to reduce the production and consumption of ODSs in order to protect the ozone layer.
- The Multilateral Fund for the Implementation of the Montreal Protocol was set up in 1991 to help developing countries to comply with the provision of the Protocol. This is under Article 10 mentioned above.

### Kigali Amendment to Montreal Protocol

- In the 28<sup>th</sup> meeting of the Parties to the Montreal Protocol, negotiators from 197 nations have signed a historic agreement to amend the Montreal Protocol in Kigali, a capital city Rwanda on 15<sup>th</sup> October 2016.
- As per the agreement, these countries are expected to reduce the manufacture and use of **Hydrofluorocarbons (HFCs)** by roughly 80-85% from their respective baselines, till 2045.
- This phase down is expected to arrest the global average temperature rise up to 0.5o C by 2100. Kigali agreement is an amendment to Montreal Protocol.

## Science & Technology: WIHG reveals 35 thousand-year history of river erosion in Ladakh Himalayas

**Relevance IN – Prelims (findings regarding the history of erosion + about Padam valley and Zaskar river + Indus water system and Indus water treaty) + 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

- Scientists and students from Wadia Institute of Himalayan Geology (WIHG), an autonomous institute under



the Department of Science & Technology studied rivers in Ladakh Himalaya, bringing out 35 thousand-year **history of river erosion and identified hotspots of erosion** and wide valleys that act as buffer zones.

### Benefits

- The study will help to understand river-borne erosion and sedimentation, which are the main drivers that make large riverine plains, terraces, and deltas that eventually become the cradle to evolving civilizations.

### Know! about the study (important findings)

- The study showed how rivers in drier Ladakh Himalaya operated in longer time scales and how they responded to varying climate, an understanding of water and sediment routing
- The scientists have traced where the rivers draining Himalaya and its foreland erode the most and identify the zones that receive these eroded sediments and fill up.
- The Ladakh Himalaya forms a high altitude desert between Greater Himalayan ranges and Karakoram Ranges. The Indus and its tributaries are major rivers flowing through the terrain.
- The wide valley of Padam, with an area of 48 square km, in the upper Zaskar, has stored a vast amount of sediments in these landforms.



- Zaskar river makes a deep gorge in its lower reaches with the headwaters in upper Zaskar makes wide basin called as Padam.
- The basin stores large amount of sediments in form of fans and river terrace deposits

### Zaskar River

- The Zaskar River is one of the largest tributaries of the upper Indus catchment, draining orthogonally through highly deformed Zaskar ranges.
- Two prominent tributaries of Zaskar River are the Doda and Tsrappingti Chu, which confluence at Padam village in the upper valley to form the Zaskar River.

### Factors responsible for sediment erosion

- Deglaciation and Indian Summer Monsoon derived precipitation in the headwaters despite the presence of a geomorphic barrier (the deep, narrow gorge) between the upper and lower catchments of the river, and it remained connected throughout its aggradation history.

### Know! about Indus Water System

- The Indus is one of the most important drainage systems of the subcontinent of India. It has a length of 2880 Km, of which 709 Km lies in India.
- It is the western most River system in the subcontinent.
- Jhelum, Chenab, Ravi, Beas and Satluj are its main tributaries.
- The Indus originates from the Bokhar Chu (glacier) in northern slopes of Mt. Kailash (6714m).

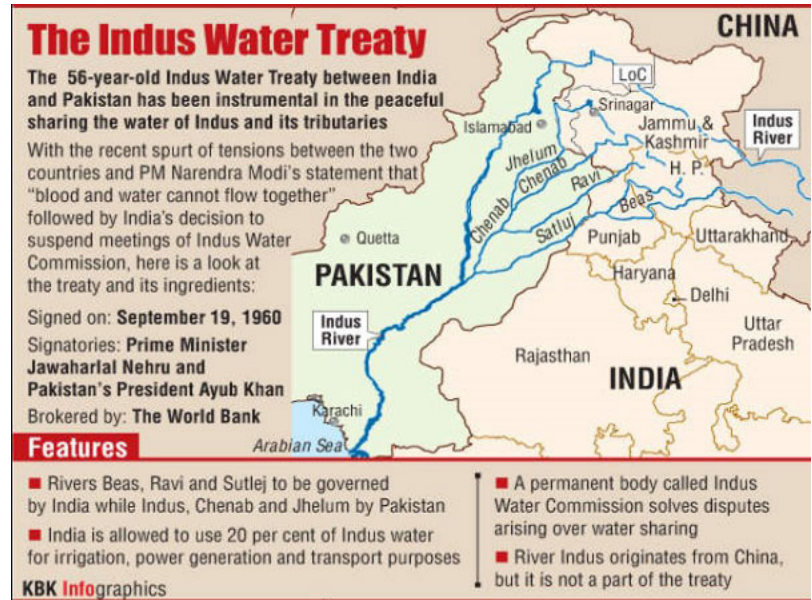




- It drains the largest number of glaciers and mountain slopes of the Karakorum, Ladakh, Zaskarand Himalayan Ranges.
- Originating from the Kailash Mountain, it flows in a constricted valley north-westward through Tibet, where it is called as Singi Khamban or Lion's mouth.
- In Ladakh it follows a long nearly straight course between the Ladakh range and the Zaskar range.
- It cuts across the Ladakh range, forming a spectacular gorge near Gilgit in Jammu and Kashmir. It enters into Pakistan near Chilar in the Dardistan region.

### Know! about Indus Water Treaty

- The Indus system comprises of main Indus River, Jhelum, Chenab, Ravi, Beas and Sutlej.
- The basin is mainly shared by India and Pakistan with a small share for China and Afghanistan.
- Under the Indus Waters Treaty signed between India and Pakistan in 1960, all the waters of three rivers, namely **Ravi, Sutlej and Beas** (Eastern Rivers) were allocated to India for exclusive use.
- The waters of Western rivers - **Indus, Jhelum, and Chenab** were allocated to Pakistan except for specified domestic, non-consumptive and agricultural use permitted to India as provided in the Treaty.
- India has also been given the right to generate hydroelectricity through run of the river (RoR) projects on the Western Rivers which, subject to specific criteria for design and operation is unrestricted.



### Additional info

#### Present Status Of Development In India

- To utilize the waters of the Eastern rivers which have been allocated to India for exclusive use, India has constructed **Bhakra Dam on Satluj, Pong and Pandoh Dam on Beas and Thein (Ranjitsagar) on Ravi**.
- These storage works, together with other works like Beas-Sutlej Link, Madhopur-Beas Link, Indira Gandhi Nahar Project etc has helped India utilize nearly entire **share (95 %) of waters of Eastern rivers**.
- However, about **2 MAF (5%)** of water annually from Ravi is reported to be still **flowing unutilized** to Pakistan below Madhopur.

*To stop the flow of these waters that belong to India for its utilization in India, following steps have been taken:*

#### Resumption of Construction of Shahpurkandi project (J&K and Punjab)

- This project will help in utilizing the waters coming out from powerhouse of Thein dam to irrigate 37000 hectares of land in J&K and Punjab and generate 206 MW of power.

#### Construction of Ujh multipurpose project (J&K)

- This project will create a storage of about 781 million cu m of water on river Ujh, a tributary of Ravi for irrigation and power generation in India

#### The 2<sup>nd</sup> Ravi Beas link below Ujh

- This project is being planned to tap excess water flowing down to Pakistan through river Ravi, even after construction of Thein Dam, by constructing a barrage across river Ravi for diverting water through a tunnel link to Beas basin.

*The above three projects will help India to utilize its entire share of waters given under the Indus Waters Treaty 1960.*



### Relevance IN – Prelims(all about Vesak- Buddha Poornima) + Mains GS I (Indian culture and heritage)

#### What's the NEWS

- Prime Minister Shri Narendra Modi addressed the virtual Vesak Global Celebrations on Buddha Purnima

#### Know! more about Vesak Global Celebrations

- Ministry of Culture, Government of India in collaboration with the **International Buddhist Confederation (IBC)**, a global Buddhist umbrella organised the Virtual Prayer Event with the participation of heads of Buddhist Sanghas from around the world.
- The program was live streamed and it was viewed by large audiences in India, Australia, Bangladesh, Bhutan, Cambodia, Czech Republic, France, Germany, Indonesia, Japan, S. Korea, Myanmar, Mongolia, Malaysia, Nepal, Russia, Sri Lanka, Singapore, Taiwan, Vietnam among others.
- Vesak- Buddha Poornima, is considered the **Triple Blessed Day** as it celebrates Tathagata Gautam Buddha's Birth, Enlightenment and Maha Parinirvana.

#### Know! all about Buddha Purnima

- Buddha Purnima or Buddha Jayanti or Ves kha is the most sacred occasion for the Buddhists.
- As per Hindu Mythology Lord Buddha is believed to be the 9<sup>th</sup> incarnation of Lord Vishnu.
- One among the most important festivals, Buddha Purnima is celebrated on the full moon day of the Vai shaaka lunar month (that corresponds to the month of April-May).
- This is a special day when Buddhists all over the world commemorate events of the birth, enlightenment and the passing away of Gautum Buddha.
- On this day the supreme light of realization dawned on Buddha and he attained Enlightenment(Nirvan) beneath the Bodhi tree at Bodha Gaya.
- Buddha passed into eternity(Maha Parinirvana) after completing his Sahasra Chandra Darshana (80<sup>th</sup> year) on the full moon day of Vaishakha.
- Initially Buddhism spread from India and gradually assimilated into many foreign cultures, therefore Buddha Purnima is celebrated in many different ways all over the world.



## Geophysical phenomena: Cyclone Amphan

**Relevance IN – Prelims (about Cyclone Amphan + about WMO/ESCAP + role of RSMCs and TCWCs + Mains GS I (Important Geophysical phenomena))**

### What's the NEWS

- The **Super Cyclonic Storm 'AMPHAN'** (pronounced as **UM-PUN**) over West central Bay of Bengal moved north-northeastwards
- It is very likely to move north-northeastwards across northwest Bay of Bengal and cross West Bengal – Bangladesh coasts between **Digha (West Bengal) and Hatiya Islands (Bangladesh)** close to Sundarbans during the Afternoon / Evening of 20<sup>th</sup> May 2020
- The Super Cyclone 'AMPHAN' is now being continuously tracked by the **Doppler Weather Radar (DWR)** at Vishakhapatnam (Andhra Pradesh).

### The Indian Meteorological Department classifies Cyclones based on their wind speeds.

- When the wind speed is around 31-50 km/hr, it is called depression.
- When the wind speed is between 51-62 km/hr, it is called Deep Depression. Beyond these speeds, the depression becomes storm.

### The wind speeds of different storms as follows

- Cyclonic Storm: 63-88 km/hr
- Severe Cyclonic Storm: 89-117 km/hr
- Very Severe Cyclonic Storm: 118-165 km/hr
- Extremely Severe Cyclonic Storm: 166-220 km/hr
- Super cyclonic Storm: greater than 220 km/hr

### Why Is The Bay of Bengal So Prone To Cyclones?

- Tropical cyclones—also called typhoons or hurricanes—are intense water-rotating systems formed by **strong winds** (of speeds **at least 62 kilometres/hour**) around **low-pressure areas**.
- They have a spiral, **anticlockwise movement**. Additional weather conditions like high sea surface temperature, vertical changes in wind speed inside the spiral, and high relative humidity help cyclones form and intensify.
- Since sea surface temperatures and humidity both directly correlate with chances of cyclone formation, the Bay of Bengal is a more likely target because it gets higher rainfall, and because the sluggish winds around it keep temperatures relatively high: about 28 degrees around the year.
- Warm air currents enhance this surface temperature and aid the formation of cyclones.
- In addition, the Bay receives higher rainfall and constant inflow of fresh water from the Ganga and Brahmaputra rivers.
- This means that the Bay's surface water keeps getting refreshed, making it impossible for the warm water to mix with the cooler water below, making it ideal for a depression.
- On the other hand, the Arabian Sea receives stronger winds that help dissipate the heat, and the lack of constant fresh water supply helps the warm water mix with the cool water, reducing the temperature.

### Know! all about Amphan

- Cyclone Amphan (pronounced as UM-PUN) is a tropical cyclone formed over Bay of Bengal that has intensified and likely to turn into a "**super cyclonic storm** (maximum wind speed is 120 knots)".
- According to the India Meteorological Department forecast, it will make landfall as a very severe cyclone **between the Sagar islands of West Bengal and the Hatiya islands of Bangladesh.**





## How tropical cyclones are named

- In 2000, a group of nations called WMO/ESCAP (World Meteorological Organisation/United Nations Economic and Social Commission for Asia and the Pacific), which comprised Bangladesh, India, the Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand, decided to start naming cyclones in the region.
- After each country sent in suggestions, the WMO/ESCAP Panel on Tropical Cyclones (PTC) finalised the list.
- The WMO/ESCAP expanded to include five more countries in 2018-Iran, Qatar, Saudi Arabia, United Arab Emirates and Yemen.
- The list of 169 cyclone names released by IMD last month, in April, were provided by these countries — 13 suggestions from each of the 13 countries.
- The new list included the **last name from the previous list (Amphan)** as it remained unused at the time of release.

## NORTHERN INDIAN OCEAN CYCLONE NAMES

Contributors	List 1	List 2	List 3	List 4	List 5	List 6	List 7	List 8
Bangladesh	Onil	Ogni	Nisha	Giri	Helen	Chapala	Ockhi	Fani
India	Agni	Akash	Bijli	Jal	Lehar	Megh	Sagar	Vayu
Maldives	Hibaru	Gonu	Aila	Keila	Madi	Roanu	Mekunu	Hikaa
Myanmar	Pyarr	Yemyin	Phyan	Thane	Nanauk	Kyant	Daye	Kyarr
Oman	Baaz	Sidr	Ward	Murjan	Hudhud	Nada	Luban	Maha
Pakistan	Fanoos	Nargis	Laila	Nilam	Nilofar	Vardah	Titli	Bulbul
Sri Lanka	Mala	Rashmi	Bandu	Viyaru	Ashobaa	Maarutha	Gaja	Pawan
Thailand	Mukda	Khai Muk	Phet	Phailin	Komen	Mora	Phethai	Amphan

- The India Meteorological Department (IMD) recently released a list of 169 names of future tropical cyclones that would emerge in the Bay of Bengal and the Arabian Sea.
- The new list of 169 names will begin after Cyclone Amphan.

## Know! the role of RSMCs and TCWCs

- Cyclones that form in every ocean basin across the world are named by the regional specialised meteorological centres (RSMCs) and Tropical Cyclone Warning Centres (TCWCs).
- There are six RSMCs in the world, including the India Meteorological Department (IMD), and five TCWCs.
- As an RSMC, the IMD names the cyclones developing over the north Indian Ocean, including the Bay of Bengal and Arabian Sea, after following a standard procedure.
- The IMD is also mandated to issue advisories to 12 other countries in the region on the development of cyclones and storms.

## Colour Coded Weather Warnings

- The IMD has issued an 'orange alert' for May 19 and 20 when heavy to very heavy rainfall is likely to take place in coastal districts.

## Know! more about colour coded weather warning

- IMD issues weather warnings using colour codes.
- These warnings are mainly meant for administrators to keep ready and position their resources to handle situations arising out of weather related disastrous events.
- The following colour codes are used by IMD to provide inputs to disaster management authorities for management of severe weather events:





Four colour codes are issued to indicate various categories of alerts.

**Green (All is well):**

- No advisory is issued

**Yellow (Be aware):**

- Severely bad weather is possible over the next few days, plan ahead thinking about possible travel delays and disruption of day-to-day activities possible.
- It indicates the weather may change or worsen in the next few days.

**Orange/Amber (Be prepared):**

- There is an increased likelihood of extremely bad weather, which could potentially cause travel delays, road and rail closures, and interruption of power supply.
- There could be risk to life and property.
- Amber means people need to be prepared to change plans and protect themselves, their family and community from the impacts of the severe weather based on the forecast from the Met Office.

**Red (Take action):**

- Extremely bad weather is expected. People need to take action to keep themselves and others safe.
- Widespread damage, travel and power disruption and risk to life are likely.
- People must avoid dangerous areas and follow the advice of the emergency services and local authorities.

**Know! about India Meteorological Department (IMD)**

- IMD was established in 1875. It is an agency of the Ministry of Earth Sciences of the Government of India.
- It is the principal agency responsible for meteorological observations, weather forecasting and seismology.

**Prelims Factoids: Heatwave: IMD issues 'red alert' for several parts of north India**





*Relevance IN – Prelims (about Heatwaves + IMD criteria to declare heatwaves and different alerts)*

**What's the NEWS**

- With temperatures surpassing the 45 degrees Celsius-mark across several parts in north India, the India Meteorological Department (IMD) issued a "red" warning for Delhi, Punjab, Haryana, Chandigarh and Rajasthan for the next two days.

**Know! about Heatwave**

- A heatwave is declared when the maximum temperature is at least 40 degrees Celsius and the departure from normal temperature is 4.5 degrees Celsius to 6.4 degrees Celsius.
- For the plains, a heatwave is declared when the actual maximum temperature is 45 degrees Celsius and severe heatwave when it is 47 degrees Celsius or above.

A WHOLE NEW LEXICON		
Key terms that have now been standardised by the India Meteorological Department		
 <b>HEAT WAVE:</b> temperatures greater than 4.5°C above what's usual for the region	 <b>SEVERE HEAT WAVE:</b> greater than or equal to 47°C	 <b>SEVERE COLD WAVE:</b> Min temp is 2°C or lower
 <b>COLD WAVE:</b> temperatures less than 4.5°C of what's usual for the region	<b>The terms 'could' or 'may' to suggest the possibility of rainfall to be replaced by:</b>	
	<ul style="list-style-type: none"><li>○ <b>Unlikely:</b> &lt;25% probability</li><li>○ <b>Likely:</b> 25-50%</li><li>○ <b>Very likely:</b> 50-75%</li><li>○ <b>Most likely:</b> 75% or greater</li></ul>	
<ul style="list-style-type: none"><li>○ <b>Normal rainfall:</b> when monsoon rains are +- 10% of the Long Period Average (a 50 year average or 89 cm)</li><li>○ <b>Below normal:</b> &lt;10% lpa</li><li>○ <b>Above normal:</b> &gt;10% lpa</li><li>○ <b>Deficient year:</b> 10% deficit spread over 20-40% of the region</li></ul>		



- The IMD issues colour-coded warnings depending on the intensity of any weather system in ascending order – green, yellow, orange and red.

#### Heat Wave Warning

Green (No action)	Normal Day	Maximum temperatures are near normal
Yellow Alert (Be updated)	Heat Alert	Heat wave conditions at district level likely to persist for 2 days
Orange Alert (Be prepared)	Severe Heat Alert for the day	(i) Severe heat wave conditions persist for 2 days. (ii) With varied severity, heat wave is likely to persist for 4 days or more
Red Alert (Take Action)	Extreme Heat Alert for the day	(i) Severe heat wave persists for more than 2 days. (ii) Total number of heat/severe heat wave days likely to exceeds 6 days.

Source: IMD – Heat wave Bulletins

#### Western Disturbances

- A western disturbance is a cyclonic storm that originates in the Mediterranean and travels across Central Asia. When it comes in contact with the Himalayas, it brings rains to the hills and plains.





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# **GENERAL STUDIES II**

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



## Government schemes: Bank of Schemes, Ideas, Innovation & Research Portal on MSMEs

**Relevance IN – Prelims (about the portal – objective + benefits) + 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 MSME Ministry has launched Bank of Schemes, Ideas, Innovation and Research portal (<http://ideas.msme.gov.in/>) on MSMEs

### Know! more about the portal (objective + benefits)

- The Portal gives access to all Schemes of Union, State and UT Governments.
- It has the provision for uploading Ideas, Innovations & Researches in the sector.
- The portal has unique features of not only crowd sourcing of Ideas, but also evaluation and rating the ideas by crowd sourcing.
- It can also facilitate inflow of venture capital, foreign collaboration etc.
- This portal will prove to be of great transformational significance to the MSMEs in particular and the economy in general.
- This portal will help the MSMEs in a big way through information sharing.
- This will help in the research activities like those in rural tribal knowledge, skills will get a chance for spreading their knowledge.
- It can assist the farmers in planning, production, storage and marketing of their produce.
- The online forms for Idea, innovation and research can be easily filled in 5-6 Minutes.
- The portal will benefit the potential entrepreneurs as One stop compendium of Ideas, innovation and research ready for commercialization.
- Venture capitalists can interact with Person and MSME having Idea or innovation.

## Bilateral Relations: India gets additional funds from the US to fight COVID-19

**Relevance IN – Prelims (about PAHAL project + about USAID + about IPE global + Mains (GS II Bilateral relations + international organisations))**

### What's the NEWS

- The United States government, through its Agency for International Development (USAID), has announced an additional assistance of USD 3 million to India to mitigate the spread of COVID-19

### Know! more about it

- The US Agency is providing these funds to the Partnerships for **Affordable Healthcare Access and Longevity (PAHAL) project**. This is an innovative financing platform of IPE Global.
- So far, the USAID has given India almost \$ 5.9 million to help fight COVID-19 and these additional funds will help in strengthening case finding and surveillance, providing care and disseminating essential public health messages.
- Through the PAHAL project, the USAID is going to support the National Health Authority to establish a financing facility.
- This facility will mobilize resources from the private sector to assist over 20,000 health facilities which have been enrolled under Pradhan Mantri Jan Arogya Yojana (PM-JAY).
- This is the government's health insurance scheme for more than 500 million poor and vulnerable people.

### Know! about PAHAL

- PAHAL (Partnerships for Affordable Healthcare Access and Longevity) is USAID and IPE's flagship innovative financing platform to promote health financing models and provide catalytic support to social enterprises (IBMs) for improving access to affordable and quality healthcare solutions for the urban poor communities, with a focus on Tuberculosis, Maternal and Child Health and WASH.



### Know! about IPE Global

- IPE Global is an international development consulting company providing expert technical assistance and solutions for equitable development and sustainable growth in developing countries.

### Know! about USAID

- The United States Agency for International Development (USAID) is an independent agency of the United States federal government that is primarily responsible for administering civilian foreign aid and development assistance.
- USAID is one of the largest official aid agencies in the world, and accounts for more than half of all U.S. foreign assistance.

### OBJECTIVE



## Government Schemes: IDEathon on 'The Future of River Management'

*Relevance IN – Prelims (about IDEathon – objective + about NMCG + NIUA) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation)*

### What's the NEWS

- The National Mission for Clean Ganga (NMCG) under the Ministry of Jal Shakti and National Institute of Urban Affairs (NIUA) organized an IDEathon on "**The future of River Management**" to explore how the COVID-19 crisis can shape River Management strategies for the future.

### Know! the objective of IDEathon

- National Mission for Clean Ganga had initiated this IDEathon to garner **more attention towards river management** and also highlight the interconnectivity of Cities with the River.
- The IDEathon examined how the social angle of rivers can be leveraged on to address other crises.
- What lessons for river management has the pandemic taught us? And what response mechanisms are needed in the event of a river crisis?
- The IDEathon sought to brainstorm the learnings from COVID-19 pandemic, the following lockdown and its impact on river management.

**GNAMAMI GANGE**

# Ideathon

**ON THE FUTURE OF River Management**

**IN PURSUIT OF CERTAINTY**

Has the Covid-19 crisis taught us any lessons for River Management?

Are there any other impending crises that can affect rivers?

**JOIN US IN THE IDEATHON ORGANISED BY:**

**NIUA** **GNAMAMI GANGE**  
National Institute of Urban Affairs

**WHICH AIMS TO ANSWER THESE QUESTIONS AND MORE.**

DATE	01 May 2020 (Friday)
TIME	11:00 AM (Indian Standard Time)/05:30 AM (GMT)
DURATION	75 minutes

During these uncertain times, let's strive for certainty in future-proofing our river management.



- The IDEathon led to a very interactive discussion on various aspects of river management.
- NIUA is collaborating with NMCG in developing the urban river management plan.

### **Know! about Namami Ganga Programme or NMCG**

- National Mission for Clean Ganga(NMCG) was registered as a society on 12<sup>th</sup> August 2011 under the Societies Registration Act 1860.
- It acted as implementation arm of National Ganga River Basin Authority(NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA),1986.
- NGRBA has since been dissolved with effect from the 7<sup>th</sup> October 2016, consequent to constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council)

*The Act envisages **five tier structure** at national, state and district level to take measures for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga as below;*

1. **National Ganga Council** under chairmanship of Hon'ble Prime Minister of India.
2. **Empowered Task Force (ETF)** on river Ganga under chairmanship of Hon'ble Union Minister of Jal Shakti (Department of Water Resources, River Development and Ganga Rejuvenation).
3. National Mission for Clean Ganga(NMCG).
4. State Ganga Committees and
5. District Ganga Committees in every specified district abutting river Ganga and its tributaries in the states.

### **Main pillars of the Namami Gange Programme are:-**

- Sewerage Treatment Infrastructure
- River-Front Development
- River-Surface Cleaning
- Bio-Diversity
- Afforestation
- Public Awareness
- Industrial Effluent Monitoring
- Ganga Gram

### **Know! about NIUA**

- The National Institute of Urban Affairs (NIUA) is an institute for research, training and information dissemination in urban development and management in New Delhi, India.
- It was established in 1976 **as an autonomous body** under the Societies Registration Act.
- The Institute is supported by the Ministry of Urban Development, Government of India, State Governments, urban and regional development authorities and other agencies concerned with urban issues

## **International Organisations: Online Summit of NAM Contact Group**





## ***Relevance IN – Prelims (about NAM) + Mains (GS II international organisations)***

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

- Prime Minister of India participated (**for the first time** since he took over six years ago) in the online Summit of Non Aligned Movement (NAM) Contact Group to discuss response to the ongoing COVID-19 pandemic crisis.

### **Know! about the online NAM Contact Group Summit**

- The online NAM Contact Group Summit on the theme of “**United against COVID-19**”. was **hosted by** the current Chairman of NAM, President of Republic of **Azerbaijan** HE Ilham Aliyev.
- The objective of the Summit was to **promote international solidarity** in the fight against the COVID-19 pandemic and to mobilise efforts of States and international organisations to address the pandemic.
- The event also commemorated the International Day of Multilateralism and Diplomacy for Peace.

### **Know! about NAM**

- The Non-Aligned Movement (NAM) had its origins in the **Bandung Conference of April 1945** In Indonesia, inspired by three world leaders: Nehru of India, Tito of Yugoslavia and Nasser of Egypt.
- Bandung formulated the concept of non-alignment based on the Third World desire not to become involved in the East-West ideological confrontation of the Cold War, and to focus instead on national independence struggles, the alleviation of poverty, and economic development.
- These principles were adopted at the founding non-aligned summit in Belgrade in 1961.
- Whereas NAM started with 25 members in 1961, it has now expanded to 115 developing member countries which constitute nearly two-thirds of the United Nations.

## **Government Schemes: The Saras Collection**

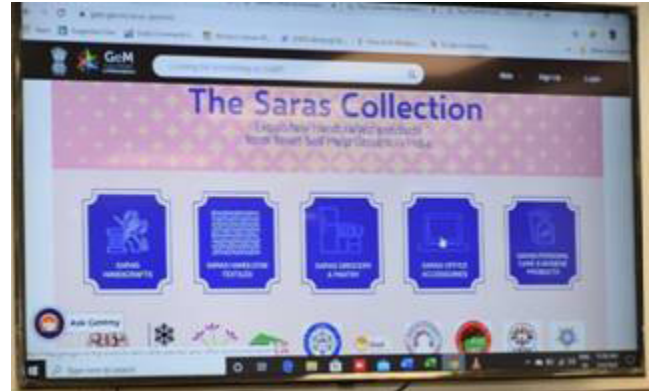
***Relevance IN – Prelims (about the Saras collection – aim and objective + about GeM + DAY-NRLM) + Mains (GS II Government policies and interventions for development in various sectors and issues arising out of their design and implementation.***

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

- The Union government has launched “The Saras Collection” on the Government e Marketplace (GeM) portal

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

- It is a unique initiative of GeM and the DeenDayalAntyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM), Ministry of Rural Development, the Saras Collection **showcases daily utility products made by rural self-help groups (SHGs)** and aims to provide **SHGs in rural areas with market access to Central and State Government buyers**.



*Under this initiative, the SHG sellers will be able to list their products in 5 product categories, namely*

- (i) handicrafts
- (ii) handloom and textiles
- (iii) office accessories
- (iv) grocery and pantry, and
- (v) personal care and hygiene.

### **Know! more about Saras collection(working mechanism + benefits)**

- During the first phase, around **913 SHGs from 11 states** were registered and 442 products were added.
- GeM will provide dashboards for functionaries at the national, state, district and block level to provide them real time information about the number of products uploaded by SHGs, and value and volume of orders received and fulfilled.



- The platform will reduce human interventions in procurement and enables transparency, cost savings, inclusiveness and efficiency.
- In order to facilitate the Self Help Groups in uploading of their products, GeM portal assist the sellers in product catalogue management, order fulfilment and bid participation.
- By providing SHGs with direct access to Government buyers, the Saras Collection will do away with intermediaries in the supply chain, thus ensuring better prices for SHGs and spurring employment opportunities at the local level.

#### **Know! about DAY-NRLM:**

- DAY-NRLM aims to reduce poverty through promotion of diversified and gainful self-employment while creating skilled wage employment opportunities.
- The scheme supports building social capital and ensuring financial linkages to alleviate poverty and enhance the quality of the life of rural poor women.
- It has ambitious plans on innovations for alternate channels of financial inclusion like digital finance, creating value chains around rural products and improving market access, rural enterprise and strengthening community institutions.

#### **Know! about GeM:**

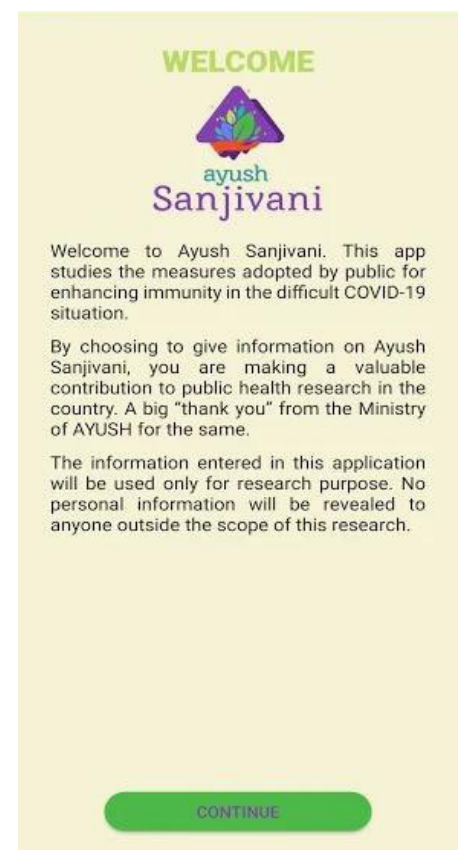
- Government e Marketplace (GeM) is a 100 percent Government owned Section 8 Company set up as the National Public Procurement Portal for procurement of goods and services required by Central and State Government organizations.
- GeM provides an online, end to end solution for procurement of goods and services for all Central Government and State Government Ministries, Departments, Public Sector Enterprises (PSEs), local bodies and autonomous organisations.
- The platform reduces human interventions in procurement and enables transparency, cost savings, inclusiveness and efficiency of faceless standardized public procurement.

## **Health: AYUSH Sanjivani App**

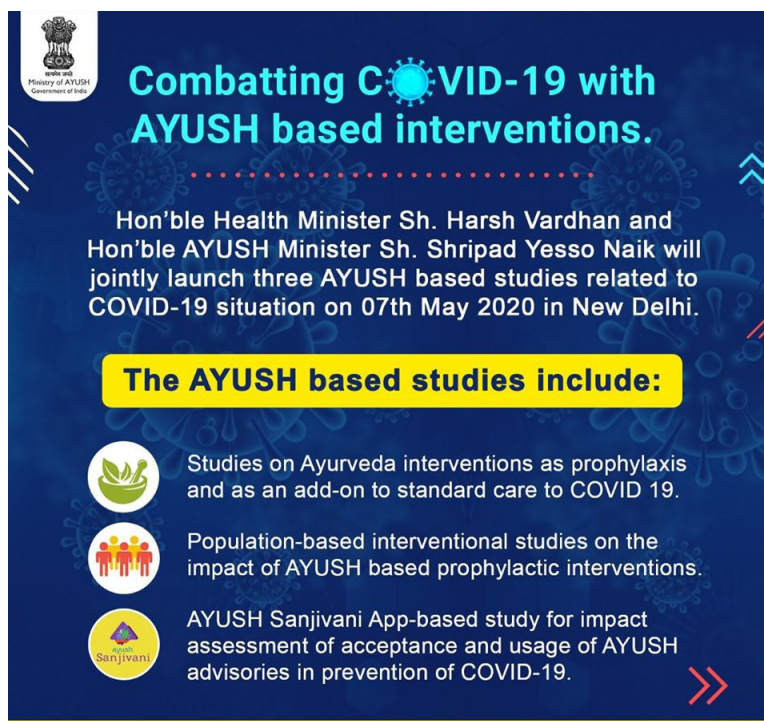
***Relevance IN – Prelims (about Sanjivani App + Ayush based study related to COVID19) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.***

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

- The Union Health & Family Welfare Ministry launched the 'AYUSH Sanjivani' App and two AYUSH based studies related to COVID-19 situation
- The 'AYUSH Sanjivani' mobile app, which has been launched, will help **to generate data on acceptance and usage of AYUSH advocacies** and measures among the population and its impact in prevention of COVID 19.
- It is developed by Ministry of AYUSH and MEITY and shall reach out to a target of 50 lakh people.
- COVID-19 management has provided a potent platform for alliance between MoHFW, MoAYUSH and technology organisations such as CSIR, ICMR, and UGC to not only develop AYUSH interventions and solutions, but also help in promoting AYUSH knowledge for the larger good of the global community.
- These organisations are joining hands and are being supported and guided by ICMR and DCGI in propagating the wholesomeness and holistic health benefits of the age-old traditional medicinal knowledge of Ayurveda.







**Combating COVID-19 with AYUSH based interventions.**

Hon'ble Health Minister Sh. Harsh Vardhan and Hon'ble AYUSH Minister Sh. Shripad Yesso Naik will jointly launch three AYUSH based studies related to COVID-19 situation on 07th May 2020 in New Delhi.

**The AYUSH based studies include:**

- Studies on Ayurveda interventions as prophylaxis and as an add-on to standard care to COVID 19.
- Population-based interventional studies on the impact of AYUSH based prophylactic interventions.
- AYUSH Sanjivani App-based study for impact assessment of acceptance and usage of AYUSH advisories in prevention of COVID-19.

## Human Resource Development: Modifications in PMRF Scheme to boost research in the country

**Relevance IN – Prelims(all about PMRF) + Mains(GS II 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 announced that, to boost research in the country various amendments have been carried out in Prime Minister's Research Fellowship Scheme.

### Know! about the amendments done

- After the amendments, **now for the students from any recognised institute/ university (other than IISc/ IITs/NITs/IISERs/IEST/CF IITs)**, the requirement of GATE Score is reduced to 650 from 750 apart from minimum CGPA of 8 or equivalent.
- Now there will be two channels of entries, **one direct entry and lateral entry.**
- In lateral entry, the students, who are pursuing PhD in PMRF granting institutions (completed 12 months or 24 months as per certain requirements) can also apply to become fellow under the scheme as per new guidelines.



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**FACILITATING DEVELOPMENT THROUGH INNOVATION**

**Cabinet approves Implementation of 'Prime Minister Research Fellows (PMRF)'**

- Best students** of B. Tech or Integrated M.Tech or M.Sc. to be offered direct admission in **PhD programme in IITs/IISc**
- Per month fellowship** of ₹ 70,000/- for first 2 years, ₹ 75,000/- for 3rd year, & ₹ 80,000/- in 4th & 5th years
- Research grant of ₹ 2 lakh** to be provided to each Fellows for 5 years
- 3000 Fellows** to be selected in 3 years
- ₹ 1650 crore** earmarked for 7 years

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- NITs, which appear in top 25 institutions as per NIRF Ranking (overall) can also become PMRF Granting institution.
- To boost research a dedicated Division is being created in the ministry with the name of “**Research and Innovation Division**”.
- This division will be headed by a director who will be coordinating research work of various institutions coming under MHRD.

### **Know! about PMRF**

- The Prime Minister’s Research Fellows (PMRF) Scheme has been designed for improving the quality of research in various higher educational institutions in the country.
- With attractive fellowships, the scheme seeks to attract the best talent into research thereby realizing the vision of development through innovation.
- The scheme was announced in the Budget 2018-19. The institutes which can offer PMRF include all the IITs, all the IISERs, Indian Institute of Science, Bengaluru and some of the top Central Universities/NITs that offer science and/or technology degrees.
- The candidates will be selected through a rigorous selection process and their performance will be reviewed suitably through a national convention.
- Starting Academic Year 2020-21, candidates can apply for PMRF through either direct entry channel or lateral entry channel.

## **Science & Technology: human monoclonal antibodies (hmAbs)**

***Relevance IN – Prelims (hmAbs project and about NMITLI program) + Mains (GS III awareness in the field of science and technology)***

### **What’s the NEWS**

- CSIR is leading the fight against Covid-19 by supporting new ideas and projects from other academic and industries through its flagship **New Millennium Indian Technology Leadership Initiative (NMITLI) program**.

### **Know! about hmAbs project**

- CSIR through NMITLI program has approved a project towards **development of human monoclonal antibodies** (hmAbs) that can neutralize SARS-CoV-2 in patients.
- This project on generation of neutralizing human monoclonal antibodies as a **therapeutic strategy** will be implemented by a multi-institutional and multi-disciplinary team.
- The project aims to generate hmAbs to SARS-CoV-2 from convalescent phase of COVID-19 patients and select high affinity and neutralizing antibodies.
- The project also aims to anticipate future adaptation of the virus and generate hmAbs clones that can neutralize the mutated virus so that could be readily used for combating future SARS-CoV infections.
- BBIL will be the commercial partner and responsible for subsequent development and commercialization of the hmAbs generated.

## **International: Stringency Index**

***Relevance IN – Prelims (about Stringency Index)***

### **What’s the NEWS**

- A Stringency Index created by Oxford University shows how strict a country’s measures were, and at what stage of the spread it enforced these.
- An index created by the University of Oxford quantifies that India imposed its strictest measures much earlier than others.
- The Stringency Index has found that India indeed had one of the strongest lockdown measures in the world — at a 100 score since March 22.



## **Know! about Stringency Index**

- It is among the metrics being used by the Oxford COVID-19 Government Response Tracker.
- The Tracker involves a team of 100 Oxford community members who have continuously updated a database of 17 indicators of government response.
- These indicators examine containment policies such as school and workplace closings, public events, public transport, stay-at-home policies.
- The Stringency Index is a number from 0 to 100 that reflects these indicators. A higher index score indicates a higher level of stringency.
- It provides a picture of the stage at which any country enforced its strongest measures.
- Oxford provides an overlay of countries' death curve and their stringency score.

## **Project CARD to push local production of testing kits**

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

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

- Niti Aayog and the Department of Biotechnology have launched the Consortium for Affordable & Rapid Diagnostics (CARD) to scale up India's capacity to make coronavirus testing kits.

### **Know! all about Project Card**

- Project CARD's first goal is to roll out at least 10 million rapid antibody tests for Covid-19 by July.
- Additionally, capacity will be expanded to make reverse transcription polymerase chain reaction (RT-PCR) and other paper-based tests for Covid-19 in the country.
- This platform will synchronise all stakeholders for a common, urgent goal towards accelerating Covid-19 diagnostics in India
- Trivetrion Healthcare, Syngene International and Reliance Industries are three companies that are working on antibody test kits in India and they will get the initial support in terms of procurement and availability of testing facilities to manufacture the kits.
- The private and public sectors will collaborate to set up test delivery and administering systems in Covid-19 hotspots, leveraging existing infrastructure, augmented by new-age technology.
- Globally, antibody tests have become vital for governments to check the spread and decide on future course of action. India has looked to buy the test kits from China, South Korea, Switzerland and the US.

## **Social Issues: Migrant Workmen Act, 1979**

### **Know! about Migrant Workmen act**

- The Act was enacted to prevent the exploitation of inter-state migrant workmen by contractors, and to ensure fair and decent conditions of employment.
- A key piece of legislation governing inter-state migrants in India is the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.
- The Act was enacted to prevent the exploitation of inter-state migrant workmen by contractors, and to ensure fair and decent conditions of employment.
- The law requires all establishments hiring inter-state migrants to be registered, and contractors who recruit such workmen be licensed.
- Contractors are obligated to provide details of all workmen to the relevant authority.
- Migrant workmen are entitled to wages similar to other workmen, displacement allowance, journey allowance, and payment of wages during the period of journey.
- Contractors are also required to ensure regular payment, non-discrimination, provisioning of suitable accommodation, free medical facilities and protective clothing for the workmen.



## Defence: Shekatkar Committee

**Relevance IN – Prelims** (about the recommendations given by shekatkar committee) + **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

- Defence Minister Rajnath Singh has approved a proposal for the abolition of 9,304 posts in the Military Engineering Service (MES)
- This is in line with the recommendations of **the Lt. Gen. D.B. Shekatkar (Retd.) Committee**, which had suggested measures **to enhance combat capability and rebalance armed forces' expenditure**.

### Know! the recommendations given by the committee

- It recommended to restructure the civilian workforce in a manner that the work of the MES could be partly done by departmentally employed staff and other works could be outsourced
- It recommended that India's defence budget should be in the range of 2.5-3% of GDP (Gross Domestic Product), in view of current and future threats.
- Establishment of a **Joint Services War College** for training of middle-level officers, with three separate war colleges at Mhow (Madhya Pradesh), Secunderabad (Telangana) and Goa, focusing on training younger officers.
- The Military Intelligence School at Pune to be converted to a tri-service intelligence training establishment.
- The recommendations on the creation of the Chief of Defence Staff post and a Department of Military Affairs have been already implemented.
- Closure of Military Farms and Army Postal Establishments in peace locations.

### Government Owned Contractor Operated (GOCO) Model

- In the model, the assets owned by the government are operated by the private industries.
- The main advantage of the model is that it is efficient and will boost competitiveness among the private entities.

### Know! about the committee

- The 11-member committee, appointed by the late Defence Minister Manohar Parrikar in 2016 with a broad mandate, had made about 99 recommendations from optimising defence budget to the need for a Chief of the Defence Staff.
- The recommendations, if implemented over the next five years, can result in savings of up to 25,000 crore in defence expenditure.
- Of these, the first batch of 65 recommendations pertaining to the Army were approved in August

## Health: National Institute of Virology develops ELISA test to detect antibodies

**Relevance IN – Prelims** (about ELISA test and how it is different from RT-PCR)

### What's the NEWS

- The Pune-based National Institute of Virology (NIV) has developed an immunological assay — **enzyme-linked immunosorbent assay (ELISA)** — to detect antibodies that the body develops in response to infection by the SARS-CoV-2 novel coronavirus

### Know! about ELISA test

- The test will **detect IgG antibodies present** in blood samples. ELISA is routinely used for detecting HIV infection.
- It has the advantage of testing 90 samples together in a single run of 2.5 hours
- NIV had transferred the technology to Zydus Cadila for mass-scale production.
- The Drug Controller General had granted commercial production and marketing permission to Zydus Cadila
- This is the first time India has developed an indigenous ELISA test for coronavirus.
- While ELISA tests for coronavirus are already available in other countries, procuring them in large numbers may be a challenge, particularly during a pandemic.



- The ELISA test will be used to screen 30,000 samples from 75 hotspot districts to understand the extent of spread of the virus in the community.

### ELISHA v/s RT-PCR

- ELISA test is based on detection of antibodies, it can only help in knowing if the **person has been previously infected** by coronavirus.
- While the **RT-PCR**, which **detects the RNA of the coronavirus**, enables detection of **current infection**, it will not be useful if the testing is carried out days after the infection clears as the virus will no longer be present.
- Antibodies developed in response to the coronavirus infection will be present in the blood for a longer duration and hence the ELISA test can help detect past infection.

## Bilateral Relations: India launches Mission Sagar to assist island nations in Eastern Indian Ocean

*Relevance IN – Prelims(about Mission Sagar and SAGAR) + Mains GS II (India and its neighbourhood- relations.)*

### What's the NEWS

- India **launched Mission Sagar** as part of the government's outreach initiative **towards five Island nations** in the Indian Ocean amidst the ongoing COVID-19 pandemic.

### Know! about the mission objectives

- Indian Naval Ship **Kesari** has departed for **Maldives, Mauritius, Seychelles, Madagascar and Comoros**, to provide Food Items, COVID related Medicines including HCQ Tablets and Special Ayurvedic Medicines with Medical Assistance Teams embarked.”
- Also, as part of Mission Sagar, Indian Naval Ship Kesari would enter the Port of Male in the Republic of Maldives, to provide them 600 tons of food provisions.
- India and Maldives are close maritime neighbours with strong and extremely cordial defence and diplomatic relations.
- COVID-19 related essential medicines including HCQ Tablets were already sent earlier to Mauritius, Maldives and Seychelles.
- A team of select **medical personnel** was also dispatched earlier to Maldives to augment their preparedness to fight this crisis.

### Know! more about Mission Sagar' and SAGAR

- This deployment as 'Mission Sagar' is in line with India's role as the **first responder in the region** and builds on the excellent relations existing between these countries to battle the COVID-19 pandemic
- The deployment is in consonance with the Prime Ministers' vision of Security and Growth for All in the Region '**SAGAR**' promulgated in March 2015.
- SAGAR highlights the importance accorded by India to relations with her neighbouring countries and further strengthens the existing bond.
- The operation is being progressed in close coordination with the **Ministries of Defence and External Affairs**, and other agencies of the Government of India.





## Governance: CHAMPIONS Portal



**Relevance IN -Prelims (about CHAMPIONS portal) + Mains (GS II Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential; citizens charters, transparency & accountability)**

### What's the NEWS

- In a major initiative Union Ministry of MSME has launched CHAMPIONS portal [www.Champions.gov.in](http://www.Champions.gov.in), a Technology driven Control Room-Cum-Management Information System.
- The system utilising modern ICT tools is aimed at assisting Indian MSMEs march into big league as National and Global CHAMPIONS.

### Know! about CHAMPIONS

- The CHAMPIONS stands here for Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength.
- The portal is basically for making the smaller units big by **solving their grievances, encouraging, supporting, helping and handholding**. It is a real one-stop-shop solution of MSME Ministry.
- **An ICT based system** would be set up to help the MSMEs in present difficult situation and also to handhold them to become national and international champions.
- It is a technology packed control room-cum-management information system. In addition to ICT tools including telephone, internet and video conference, the system is enabled by Artificial Intelligence, Data Analytics and Machine Learning.
- It is also fully integrated on real time basis with GOI's main grievances portal CPGRAMS and MSME Ministry's own other web based mechanisms.
- The entire ICT architecture is created in house with the help of NIC in no cost.

### Know! about CPGRAMS

- The Centralized Public Grievance Redress And Monitoring System, is an online web-enabled system over NICNET developed by NIC in association with the Department of Administrative Reforms and Public Grievances (DARPG) with an objective of speedy redress and effective monitoring of grievances by Ministries/Departments/Organizations of Government of India.
- This system besides providing a faster access offers the following facilities to citizens. CPGRAMS aims at capturing the real time work flow and interaction among all the participant users.

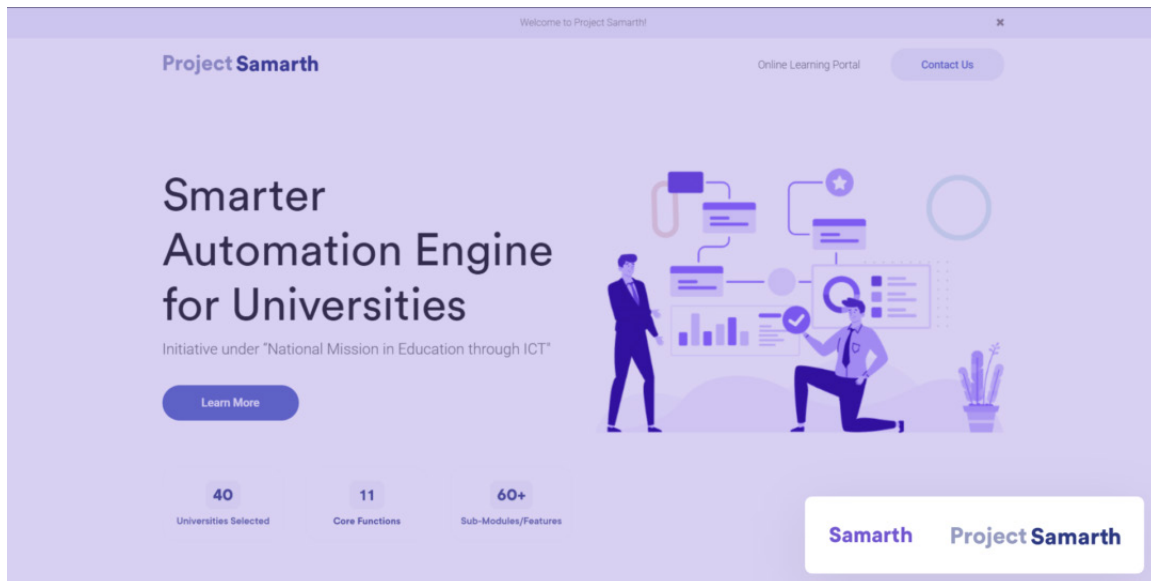
## Human Resource Development: SAMARTH

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

### What's the NEWS

- HRD has developed an e-Governance platform, **SAMARTH(Enterprises Resource Planning) ERP**, under National Mission of Education in Information and Communication Technology Scheme (NMEICT).





### Know! about SAMARTH(Enterprises Resource Planning)

- ERP, SAMARTH, is an Open Standard Open Source Architecture, Secure, Scalable and Evolutionary Process Automation Engine for **Universities and Higher Educational Institutions**.
- It caters to faculty, students and staff at a University/Higher Educational Institutions.
- Now, the ERP, SAMARTH, has been implemented at **National Institute of Technology, Kurukshetra**, a participating unit under the World Bank supported Technical Education Quality Improvement Program (TEQIP).
- The objective of this **initiative is to automate** the processes of the Institute.
- This initiative will enhance the productivity through better information management in the institute by seamless access to information, and its utilization for various purposes.

### Know! about TEQIP

- Technical Education Quality Improvement Programme(TEQIP) is a project of Government of India **assisted by World Bank**.
- The project was implemented to **improve the quality of education** in the **technical institutions of India**
- Launched by the MHRD in 2002 TEQIP aims to upscale and support ongoing efforts in improving quality of technical education and enhancing existing capacities of the institutions
- The Programme was conceived and designed as a long term project to be **implemented in 10-12 years in 3 phases** to support excellence and transformation in Technical Education in the country.

### Know! about NMEICT

- The National Mission on Education through Information and Communication Technology (NMEICT) has been envisaged as a Centrally Sponsored Scheme **to leverage the potential of ICT**, in teaching and learning process for the benefit of all the learners in Higher Education Institutions in any time any where mode.
- This was expected to be a major intervention in **enhancing the Gross Enrolment Ratio (GER) in Higher Education by 5 percentage** points during the XI Five Year Plan period.

## Health: COBAS 6800

### Relevance IN – Prelims (about COBAS 6800)

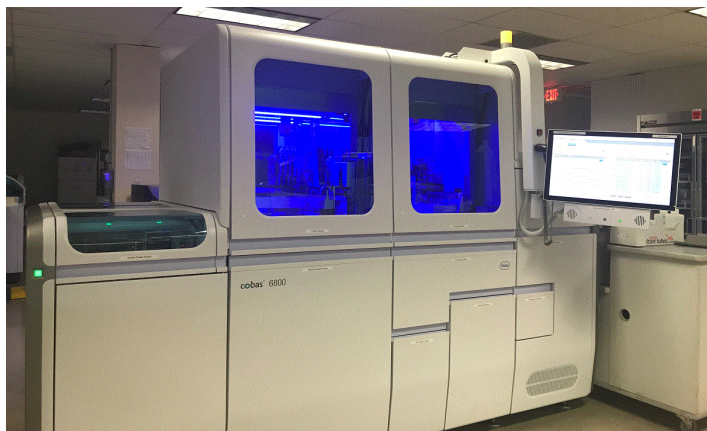
#### What's the NEWS

- The Union Minister of Health & Family Welfare dedicated the COBAS 6800 testing machine to the nation
- This is the **first such testing machine** that has been **procured** by the Government for testing of COVID-19 cases and is installed at the National Centre for Disease Control.
- The machine has been placed at the National Centre for Disease Control, Delhi



### Know! about COBAS 6800

- NCDC has been now equipped with the COBAS 6800, a **fully automated, high end machine for performing real time PCR testing COVID-19**
- COBAS 6800 will provide quality, high-volume testing with a high throughput of test around 1200 samples in 24 hours. It will largely increase the testing capacity with reduction in pendency.
- COBAS 6800 is a sophisticated machine enabled with robotics that minimizes the chance of contamination as well as the risk of infection to the health care workers since it can be operated remotely with limited human intervention.
- As the machine requires a minimum **BSL2+ containment level** for testing, it cannot be placed at just any facility.
- COBAS 6800 can also detect other pathogens like Viral Hepatitis B & C, HIV, MTb (both rifampicin and isoniazide resistance), Papilloma, CMV, Chlamydia, Neisseria etc.



### Know! about BSL-2+

- Biosafety Level 2 Plus (BSL-2+) is the **common term for laboratories** where work with microorganisms is conducted in a BSL-2 laboratory with biosafety practices and procedures that are typically found at BSL-3.
- The need for this hybrid approach is on the rise in recent years due to increased research with viral vectors, arboviruses, and other emerging infectious diseases.

### Know! about NCDC

- National Centre for Disease Control (NCDC; previously known as National Institute of Communicable Diseases) is an institute under the **Indian Directorate General of Health Services**, Ministry of Health and Family Welfare.
- It was established in July 1963 for research in epidemiology and control of communicable diseases and to reorganize the activities of the Malaria Institute of India (MII).

## Tribal Affairs: Goal programme

***Relevance IN – Prelims (about Goal Programme) + Mains (GS II Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.***

### What's the NEWS

- Union Minister for Tribal Affairs launched the “GOAL (Going Online As Leaders)” programme of the **Ministry of Tribal Affairs (MoTA)** in partnership with **Facebook (Second Phase)**
- The GOAL programme is designed **to provide mentorship to tribal youth through digital mode.**

### Know! all about GOAL programme

- The digitally enabled program envisages to act as a catalyst to explore hidden talents of the tribal youth, which will help in their personal development as well as contribute to all-round upliftment of their society.
- The program intends to upskill and empower 5,000 tribal youths in the current phase to harness the full potential of digital platforms and tools to learn new ways of doing business, explore and connect with domestic and international markets
- In this program, 5000 scheduled tribe youth (to be called as ‘Mentees’) will get an excellent opportunity to get training by experts from different disciplines and fields (to be called as ‘Mentors’). There will be 1 mentor for 2 mentees.
- The program aims to enable Scheduled Tribe (ST) youth in remote areas to use digital platforms for sharing their aspirations, dreams and talent with their mentors.



## Other Highlights

- GOAL (Going Online As Leaders), Joint initiative of Facebook India with Ministry of Tribal affairs
- 5,000 young tribal entrepreneurs, professionals, artisans and artists will be trained on digital skills under digital entrepreneurship program
- Aspiring candidates invited to apply at online portal "[goal.tribal.gov.in](http://goal.tribal.gov.in)"
- Application will be open from May 4, 2020 till midnight of July 3, 2020.
- Leaders from the industry and academia invited to register as mentors on "[goal.tribal.gov.in](http://goal.tribal.gov.in)"

## Social Issues: Global Nutrition Report

### *Relevance IN – Prelims (about the Global Nutrition Report 2020 and its findings)*

#### What's the NEWS

- India is among 88 countries that are likely to miss global nutrition targets by 2025, according to the Global Nutrition Report 2020
- It also identified the country as one with the highest rates of domestic inequalities in malnutrition.

#### Know! about the Global Nutrition targets

- In 2012, the World Health Assembly identified six nutrition targets for maternal, infant and young child nutrition to be met by 2025.

*These require governments (6 nutritional targets)*

1. to reduce stunting by 40% in children under 5
2. to reduce the prevalence of anaemia by 50% among women in the age group of 19-49 years
3. to ensure 30% reduction in low-birth weight
4. to ensure no increase in childhood overweight.
5. increase the rate of exclusive breastfeeding in the first six months up to at least 50%
6. reduce and maintain childhood wasting to less than 5%.

#### Global Nutrition Report 2020 (highlights)

*India will miss targets for all four nutritional indicators i.e.*

- stunting among under-5 children
- anaemia among women of reproductive age
- childhood overweight
- exclusive breastfeeding.

#### Other takeaways

- Between 2000 and 2016, rates of underweight have decreased from 66.0% to 58.1% for boys and 54.2% to 50.1% in girls. However, it is still high compared to the average of 35.6% for boys and 31.8% for girls in Asia
- 37.9% of children under 5 years are stunted and 20.8% are wasted, compared to the Asia average of 22.7% and 9.4% respectively.
- One in two women of reproductive age is anaemic
- The rate of overweight and obesity continues to rise, affecting almost a fifth of the adults, at 21.6% of women and 17.8% of men.

#### Know! about GNR

- The Global Nutrition Report is a report card on the world's nutrition—globally, regionally, and country by country—and on efforts to improve it.
- The Global Nutrition Report is an **independently produced** annual stock-take of the state of the world's nutrition.
- The report tracks global nutrition targets on maternal, infant and young child nutrition and on diet related Non-Communicable Diseases adopted by member states of the World Health Organization (**as WHO is a GNR partner**) as well as governments' delivery against their commitments.



- It aims to make it easier for governments and other stakeholders to make - and deliver on - high impact commitments to end malnutrition in all its forms.
- The GNR is an annual publication and the first series was published in 2014.
- It is delivered by an Independent Expert Group and guided at a strategic level by a Stakeholder Group, whose members also review the Report.
- Wasting, or low weight for height, is a strong predictor of mortality among children under five.

### ***Additional info***

#### **Stunting**

- Stunting, or low height for age, is caused by long-term insufficient nutrient intake and frequent infections.
- Stunting generally occurs before age two, and effects are largely irreversible.
- Nearly one third of children under five in the developing world are stunted.

#### **Wasting**

- Wasting, or low weight for height, is a strong predictor of mortality among children under five.
- It is usually the result of acute significant food shortage and/or disease.

#### **Overweight**

- Overweight is an increasingly important issue all over the world
- 20 developing countries have rates above 5 per cent.
- Childhood undernutrition and overweight co-exist in many countries, leading to a double burden of malnutrition.

## **Health: 73<sup>rd</sup> World Health Assembly**

### ***Relevance IN – Prelims (about World Health Assembly)***

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

- Due to the current COVID-19 pandemic, the 73<sup>rd</sup> World Health Assembly will be virtual.
- The agenda has been reduced to fit into two days, starting on Monday 18 May and concluding no later on Tuesday 19 May.

#### **Know! about World Health Assembly**

- The World Health Assembly is the decision-making body of WHO.
- It is attended by delegations from all WHO Member States and focuses on a specific health agenda prepared by the Executive Board.
- The main functions of the World Health Assembly are to determine the policies of the Organization, appoint the Director-General, supervise financial policies, and review and approve the proposed programme budget.
- The Health Assembly is held annually in Geneva, Switzerland.

## **Health: Angiotensin-converting enzyme 2 (ACE2)**

### ***Relevance IN – Prelims (about ACE2)***

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

- ***Men have higher levels of the angiotensin-converting enzyme 2 (ACE2), which is a protein in the blood that Sars-CoV2, the virus that causes Covid-19, uses to enter human cells, according to the study.***

#### **Know! about the new study**

- Being male is a significant risk factor for severe illness and death from the coronavirus disease (Covid-19) regardless of age, according to a new study that identified **higher concentrations of a key enzyme in men's blood** as the reason for the increased risk of death they face compared to women.
- Men have higher levels of the angiotensin-converting enzyme 2 (ACE2), which is a protein in the blood that Sars-CoV2, the virus that causes Covid-19, uses to enter human cells



- Sars-CoV2 causes infection by using its crown-like spike protein, to bind to ACE2 on the surface of human cells, from where it invades the air sacs in the lungs, leading to respiratory distress.

### Know! more about ACE2

- ACE2 is found not only in lungs, but also the heart, kidneys and tissues lining blood vessels, and there are particularly high levels in the testes.
- ACE2 is a receptor on the surface of cells. It binds to the coronavirus and allows it to enter and infect healthy cells after it has been modified by another protein on the surface of the cell, called **TMPRSS2**.
- High levels of ACE2 are present in the lungs and, therefore, it is thought to play a crucial role in the progression of lung disorders related to Covid-19

## Governance: National Migrant Information System (NMIS)

*Relevance IN – Prelims (about NMIS) +Mains GS II (governance)*

### What's the NEWS

- In order to capture the information regarding movement of migrants and facilitate the smooth movement of stranded persons across States, National Disaster Management Authority (NDMA) has developed an **online Dashboard** - National Migrant Information System (NMIS).

### Know! about NMIS

- The online portal would maintain a **central repository on migrant workers** and help in speedy inter-State communication/co-ordination to facilitate their smooth movement to native places. It has additional advantages like contact tracing, which may be useful in overall COVID-19 response work.
- The key data pertaining to the persons migrating has been standardized for uploading such as name, age, mobile no., originating and destination district, date of travel etc., which States are already collecting.
- States will be able to visualize how many people are going out from where and how many are reaching destination States.
- The mobile numbers of people can be used for contact tracing and movement monitoring during COVID-19.

## Human Resource Development: Several initiatives to boost Education Sector

*Relevance IN – Prelims (aim and objectives of various initiatives launched to boost education sector) + Mains (GS II Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources).*

### What's the NEWS

- Union Finance & Corporate Affairs Minister has announced several initiatives to boost education sector

### Highlights

- The “**One nation, one digital platform**” and “**one class one channel**” will ensure that quality education material will reach the students present in farthest areas of the country.
- The initiatives will boost the access and equity in education and improve the gross enrolment ratio in the times to come.
- Due consideration is being given to the Divyang children also

### Know! the immediate set of initiatives in this direction includes

#### PM e-VIDYA

- A comprehensive initiative called **PM e-VIDYA** will be launched which unifies all efforts related to digital/online/on-air education.
- This will enable multi-mode access to education, and includes: **DIKSHA (one nation-one digital platform)** which will now become the nation's digital infrastructure for providing quality e-content in school education for all the states/UTs
- **TV (one class-one channel)** where one dedicated channel per grade for each of the classes 1 to 12 will provide access to quality educational material:
- **SWAYAM** online courses in MOOCs format for school and higher education



- **IITPAL** for IITJEE/NEET preparation
- **Air** through Community radio and CBSE Shiksha Vani **podcast**
- **Study material for the differently abled** developed on Digitally Accessible Information System (DAISY) and in sign language on NIOS website/ YouTube.
- This will benefit nearly 25 crore school going children across the country.

### Manodarpan initiative

- In this time of global pandemic, it is vital that we **provide psychosocial** support to students, teachers and families for mental health and emotional wellbeing.
- The **Manodarpan** initiative is being launched to provide such support through a website, a toll-free helpline, national directory of counselors, interactive chat platform, etc.
- This initiative will benefit all school going children in the country, along with their parents, teachers and the community of stakeholders in school education.

### Expanding e-learning in higher education

- Government is **expanding e-learning in higher education** – by liberalizing open, distance and online education regulatory framework.
- Top 100 universities will start online courses. Also, online component in conventional Universities and ODL programmes will also be raised from present 20% to 40%.
- This will provide enhanced learning opportunities to nearly 7 crore students across different colleges and Universities.

### National Curriculum and Pedagogical Framework

- There is a need to promote critical thinking, creative and communication skills, along with experiential and joyful learning for the students focussing on learning outcomes.
- It has been decided to prepare a new **National Curriculum and Pedagogical Framework** for school education, teacher education and early childhood stage to prepare students and future teachers as per global benchmarks.

### A National Foundational Literacy and Numeracy Mission

- It will be launched, for ensuring that every child in the country necessarily attains foundational literacy and numeracy in Grade 3 by 2020
- This mission will cover the learning needs of nearly 4 crore children in the age group of 3 to 11 years.

## International: India joins 61 nations to seek source of coronavirus

**Relevance IN – Prelims (about the resolution and its objective) + Mains (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**

### What's the NEWS

- India has taken a position for the first time in an international forum on the origin of the virus and the need for an independent evaluation of WHO's response to the crisis.

### Know! about the proposal

- India is among 62 countries that have moved a proposal at the World Health Assembly to “identify the zoonotic source” of the coronavirus and asked for an “impartial, independent and comprehensive evaluation” of the WHO's response to Covid-19.
- China and the US are not part of the resolution.
- The proposal is part of a seven-page draft resolution moved by 35 countries and the 27-member European Union
- The resolution is being backed by three of the five permanent members of the UN Security Council — **UK, Russia and France** — along with Japan, Australia, South Korea, New Zealand, South Africa and Turkey, among others.



- But Pakistan, Nepal, Sri Lanka, Maldives and Afghanistan are not signatories to the resolution. From the SAARC nations, only India, Bangladesh and Bhutan have signed up.
- The draft resolution asks WHO to work with the World Organisation for Animal Health to conduct scientific and collaborative field missions” and “**identify the zoonotic source** of the virus

### World Organisation for Animal Health

- The organization was formerly called the OIE (Office International des Epizooties).
- It is an inter-governmental organization that supports, coordinates and promotes animal disease control.
- The Zoonotic sources are animals from which the diseases can transmit to humans.

### Other decision to be taken at the assembly

- The Assembly will also hold a vote to determine whether to grant **observer status to Taiwan**. China is opposing the move, while the US is leading a group of powerful countries in support of Taiwan’s claim. India has not made its decision public.

### Know! about World Health Assembly

- The World Health Assembly is the decision-making body of WHO.
- It is attended by delegations from all WHO Member States and focuses on a specific health agenda prepared by the Executive Board.
- The main functions of the World Health Assembly are to determine the policies of the Organization, appoint the Director-General, supervise financial policies, and review and approve the proposed programme budget.
- The Health Assembly is held annually in Geneva, Switzerland.

## Human Resource Development: National Test Abhyas

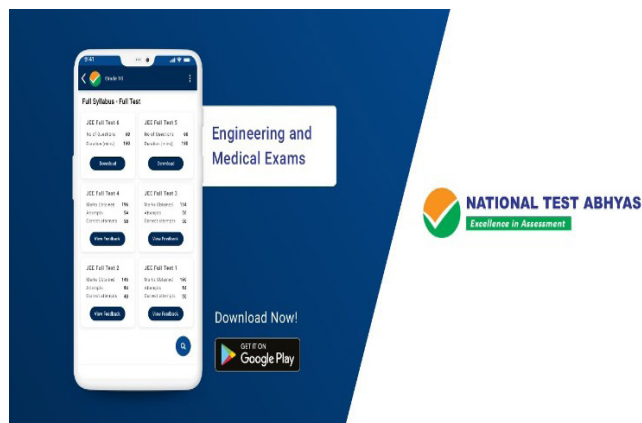
### Relevance IN – Prelims (about National Test Abhyas)

#### What’s the NEWS

- The Human Resource Development Ministry has launched a new mobile app called the ‘National Test Abhyas’.

#### Know! all about NTA

- The App has been developed by NTA to enable candidates to take mock tests for upcoming exams such as **JEE Main, NEET** under the NTA’s purview.
- The app has been launched to facilitate candidates’ access to high quality mock tests in the safety and comfort of their homes since there was a demand for making up the loss to students due to closure of educational institutions and NTA’s Test-Practice Centers (TPCs) due to the continuing lockdown.
- Students across the country can use the App to access high quality tests, free of cost, in a bid to be fully prepared for the upcoming JEE, NEET and other competitive exams. The tests can be easily downloaded
- The test report on the NTA Mock Test App comes with a detailed breakdown of students’ performance through which they can understand their personalised path to achieving better scores in their entrance examination.



## International: The Baltic Travel Bubble

### Relevance IN – Prelims (about Baltic states and Baltic travel bubble)

#### What’s the NEWS

- **Lithuania, Latvia and Estonia** opened their common borders at the stroke of midnight, creating the first “travel bubble” within The European Union in a bid to jump-start economies broken down by the coronavirus pandemic.



## Know! about the Baltic Travel bubble

- The Baltic Travel Bubble is an opportunity for businesses to reopen, and a glimmer of hope for the people that life is getting back to normal
- The Baltic states are close partners, have a similar epidemiological situation and their economies are well integrated, so the free movement of people as well as goods is very important for the region
- Lithuania, Latvia and Estonia - the three poorest members of the euro zone - expect their economies to shrink by 7-8% this year, in line with the rest of the currency union.

## Know! about Baltic States/Countries

- The Baltic countries, typically used to group the three sovereign states in Northern Europe on the eastern coast of the Baltic Sea: Estonia, Latvia, and Lithuania.
- The three countries do not form an official union, but engage in intergovernmental and parliamentary cooperation.
- The most important areas of cooperation between the three countries are foreign and security policy, defence, energy, and transportation.

## Additional info (know! about Nordic and Scandinavia Countries)

- Nordic countries include Finland, Iceland, Norway, Denmark, Sweden, and the Faroe Islands (an archipelago of islands as an autonomous country within the kingdom of Denmark).
- These countries share similar flags, languages, and many cultural traits.
- They are also the least corrupt in the world and have a low crime rate.
- They have the world's most high-rated gender equality ratio and world's highest proportion of women in senior leadership position.
- The term 'Scandinavia' is commonly used for Denmark, Norway and Sweden, the term "Nordic countries" is vaguely used for Denmark, Norway, Sweden, Finland and Iceland, including their associated territories of Greenland, the Faroe Islands and the Åland Islands.
- Svalbard and Greenland are classified as separate from both Scandinavia and the Nordics.



## Government Schemes: Star rating of garbage free cities

**Relevance IN – Prelims (about the Star Rating Protocol + about SBM-U) + 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 results of the Star Rating of Garbage Free Cities for the assessment year 2019-2020 has been announced.
- A total of six cities have been certified as 5-Star (**Ambikapur, Rajkot, Surat, Mysuru, Indore and Navi Mumbai**), 65 cities as 3-Star and 70 cities as 1-Star.

WHERE AP CITIES STAND		
<b>141</b> cities are awarded star rating on a seven-star scale	➤ The five-star rated cities include Ambikapur, Rajkot, Surat, Mysore, Indore and Navi Mumbai	
➤ No Indian city has got a seven-star rating	<b>65</b> cities have been rated as three-star	➤ Visakhapatnam has been awarded one-star
<b>6</b> cities have been rated five-star	➤ Vijayawada and Tirupati are also among the 65 three-star rated cities	➤ Apart from Vizag, three more towns from Andhra Pradesh have also got a one-star rating
	<b>70</b> cities have got a one-star rating	



## Know! about the star rating protocol

- The Star Rating Protocol was launched by the Ministry in January 2018 to institutionalize a mechanism for cities to achieve **Garbage Free status**, and to motivate cities to achieve higher degrees of cleanliness.
- **The Star Rating Protocol for Garbage Free Cities** - a comprehensive framework where each ward in every city must achieve a certain standard across 24 different components of solid waste management (SWM) and is graded based on overall marks received.
- The protocol has been devised in a holistic manner including components such as cleanliness of drains & water bodies, plastic waste management, managing construction & demolition waste, etc. which are critical drivers for achieving garbage free cities.
- This certification is not only an acknowledgement of the clean status of Urban Local Bodies and strengthened SWM systems but also a mark of trust and reliability akin to universally known standards.
- The performance of cities under the Star Rating Protocol is crucial as it carries significant weightage when it comes to their **final assessment in Swachh Survekshan**.
- The Swachh Survekshan (SS), the annual cleanliness survey for urban India was launched 5 years ago

## The revised protocol for the Star Rating Framework launched

- The new protocol will consider ward-wise **geo-mapping**, monitoring of SWM value chain through **ICT interventions** like Swachh Nagar App and zone-wise rating in cities with population of 50 lakh+”

## Swachh Bharat Mission-Urban (SBM-U)

- Since its launch in 2014, Swachh Bharat Mission-Urban (SBM-U) has made significant progress in the area of both sanitation and solid waste management.
- **Today, 4324 Urban Local Bodies (ULBs) have been declared ODF (4204 certified ODF), 1306 cities certified ODF+ and 489 cities certified ODF++.**

## Know! the difference between ODF, ODF+ and ODF++

### ODF

- Not a single person is found defecating in the open at any point of the day
- All households have constructed toilets Community toilets
- Commercial areas have public toilets within 1 km

### ODF+

- NO open defecation at any point in the day
- All community and public toilets are functional and well maintained
- Cities to be eligible must be ODF certified

### ODF++

- NO open defecation at any point in the day
- All community and public toilets are functional and well maintained
- Fecal sludge/septage and sewage is safely managed with no discharging/dumping in open areas

## Social Issues: Cabinet approves extension of ‘Pradhan Mantri Vaya Vandana Yojana’

**Relevance IN – Prelims (about PMVVY)M + Mains (GS II – Welfare scheme for the vulnerable section of population + government policies and interventions)**

### What’s the NEWS

- Pradhan Mantri Vaya Vandana Yojana (PMVVY) is a Pension Scheme announced by the Government of India exclusively for the senior citizens **aged 60 years and above** which was available from 4<sup>th</sup> May, 2017 to 31<sup>st</sup> March, 2020.
- **The scheme is now extended up to 31<sup>st</sup> March, 2023 for a further period of three years beyond 31<sup>st</sup> March, 2020.**



**The Union Cabinet, chaired by the Prime Minister, has given its approval to the following for the welfare of and to enable old age income security for Senior Citizens:**

- Extension of Pradhan Mantri Vaya Vandana Yojana (PMVVY) up to 31<sup>st</sup> March, 2023 for further period of three years beyond 31<sup>st</sup> March, 2020.
- To allow initially an **assured rate of return of 7.40 % per annum** for the year 2020-21 per annum and thereafter to be reset every year.
- Annual reset of assured rate of interest with effect from April 1<sup>st</sup> of financial year in line with revised rate of returns of Senior Citizens Saving Scheme (SCSS) **upto a ceiling of 7.75%** with fresh appraisal of the scheme on breach of this threshold at any point.

#### **Know! the features of PMVVY**

- PMVVY scheme, implemented through the **Life Insurance Corporation (LIC)**, is intended to give an assured minimum pension to senior citizens (60 years and above) based on an assured return on the purchase price/subscription amount.
- PMVVY is a **social security scheme** for senior citizens intended to give an assured minimum pension to them based on an assured return on the purchase price / subscription amount.
- The scheme was announced in Union Budget of 2017-18 and 2018-19. In 2018-19 Budget, the maximum investment limit under PMVVY was doubled to **Rs 15 lakh per senior citizen**.
- Pension is payable at the end of each period during the policy term of 10 years, as per monthly, quarterly, half-yearly, yearly frequency, as chosen by the pensioner at the time of purchase.



## **Bilateral Relations: India- Nepal Border Disputes**

**Relevance IN – Prelims (about Lipulekh, Kalapani, Limpiyadhura and their geographical locations + about Sugauli Treaty and Susta Territorial Dispute) + Mains (GS II bilateral relations – India and its neighbourhood)**

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

- India and Nepal share a unique relationship of friendship and cooperation by open borders and direct people to people contact, but Nepal has now raised rhetoric by releasing a controversial map of the country which shows **Indian territories of Lipulekh, Kalapani, Limpiyadhura as its own**.

#### **The role of China**

- The way New Delhi used to influence Nepal politics has now been replaced by China.
- In the past, Nepal never had any objection over India **constructing road till Lipulekh pass** for ensuring a smooth ride to Kailash Mansarovar.

#### **Know! the trigger point (what happened recently)**

- Fresh border tension erupted between India and Nepal after India inaugurated a new link road at **Lipulekh pass near the India- Nepal -China Junction**
- Nepal claims the area as per **1816 Sugauli Treaty** however India says that the area as its own
- India issued new maps in November that showed the adjoining Kalapani region adjoining Lipulekh within Indian territory

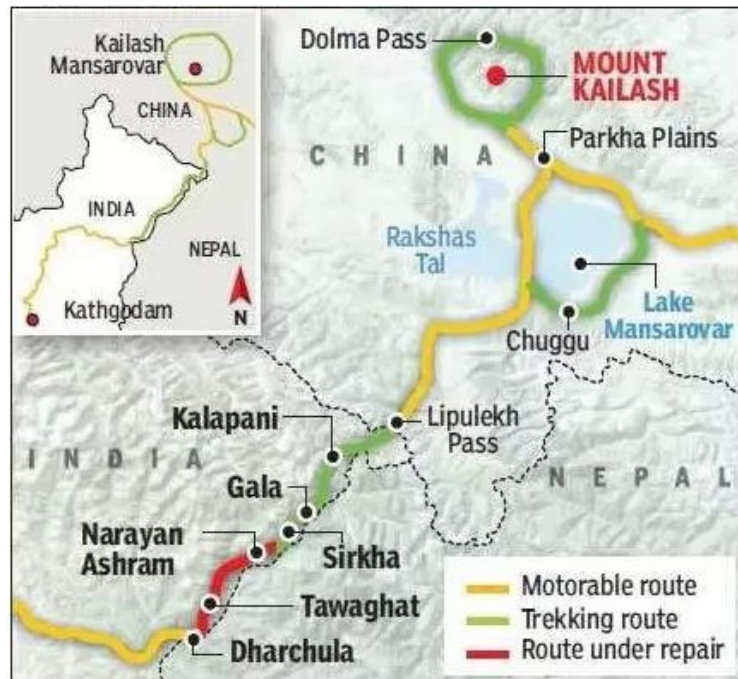
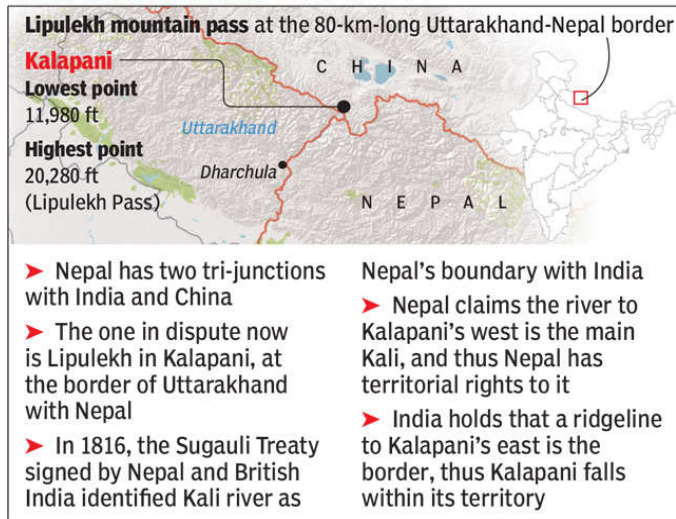




- This was protested by Kathmandu as infringing on Nepali territory

## Know! the inception of India – Nepal border demarcation and the role of Sugauli accord (1816)

### TRI-JUNCTION TROUBLE



- The East India Company and Nepal signed the Treaty of Sagauli 1816 (**conclusion of Anglo- Nepalese War**)
- Nepalese territories including Darjeeling were handed over to the British East India Company as concessions.
- Under this agreement, Nepal gave up its claim on the areas of India which it had in possession.
- The British demarcated the border between India and Nepal and they made the **Mahakali river as the western border of Nepal**
- During the 1857 War of Independence, Nepal's army helped Britain. Pleased with this, Britain had returned a lot of land to Nepal, especially the areas of the Terai region including Janakpur and Kapilvastu.
- Indo-Nepal boundaries **were re-determined in 1865**. After a silence of so many years, Nepal's recent move appears to be at the behest of China.

### Discrepancy in locating the source of the Mahakali river led to boundary disputes

#### India claims

- The **Mahakali river begins in Kalapani** as this is where all its tributaries merge.

#### Nepal claims

- Its boundary does not start from the river but from the first waterfall in the mountains.
- Nepal claims that the **river begins from Lipulekh Pass**, the origin of most of its tributaries. (all the tributaries merges at Kalapani and formed river Mahakali)
- It claims the areas to the east of the river **Kali i.e. Kalapani region Limpiyadhura and Lipulekh as parts of its territory.**

#### Know! about Kalapani Dispute

- The Kalapani territory is an area under Indian administration as part of Pithoragarh district in the **Uttarakhand state**.





- It is marked by the **Kalapani river, one of the headwaters of the Kali River** in the Himalayas at an altitude of 3600–5200 meters.
- The valley of Kalapani, with the Lipulekh Pass at the top, forms the Indian route to Kailash–Manasarovar, an ancient pilgrimage site.
- It is also the traditional trading route to Tibet for the **Bhotiyas of Uttarakhand**.
- The Kali River forms the boundary between India and Nepal in this region.
- However, India states that the **headwaters of the river are not included** in the boundary. Here the border runs along the watershed. This is a position dating back to British India (1865).

### Headwaters

- The headwaters of a river or stream is the farthest place in that river or stream from its estuary or downstream confluence with another river, as measured along the course of the river. **It is also known as a river's source.**

### Know! about Tinkar Pass

- Nepal has another pass, the Tinkar Pass close to the area.
- After India closed the Lipulekh Pass in the aftermath of the 1962 Sino-Indian War, much of the **Bhotiya trade** used to pass through the Tinkar Pass.
- The Nepalese protests regarding the Kalapani territory started in 1997, after India and China agreed to reopen the Lipulekh pass.
- Since the Indo-China war of 1962, Kalapani **has been controlled by India's Indo-Tibetan Border Police**.

### Know! about Susta Territorial Dispute

- The Susta territorial dispute has arisen as a result of the shifting of the **course of the Gandak river**.
- The **Treaty of Sagauli defined Gandak** as the international boundary between India and Nepal
- At the time of signing the treaty Susta **was on the right bank** of the river Gandak which falls in Nepal territorial control.
- But, in due course of time, the river has changed its course and **Susta now falls on the left bank of the Gandak**, which is controlled by India.

## Governance: IMD Weather Services VIA UMANG Mobile App

**Relevance IN – Prelims (about UMANG mobile app and its multiple applications) + Mains (GS II Important aspects of governance, transparency and accountability, e governance-applications)**

### Know! the benefits of UMANG app

- The **UMANG mobile app (Unified Mobile Application for New-age Governance)** is a **Government of India all-in-one single**, unified, secure, multi-channel, multi-platform, multi-lingual, multi-service mobile app, powered by a robust back-end platform providing access to high impact services of various organizations (Central and State).
- **Prime Minister of India** launched the **UMANG App** in 2017 to bring major government services on a single mobile app, with a larger goal to make the government accessible on the mobile phone of our citizens.
- About 660 services from 127 departments & **25 states** and about 180 utility bill payment services are live and more are in pipeline.
- **MeitY** has taken various initiatives in recent past to ease of lives of citizens by facilitating **online delivery of Government services**.
- To further enhance the initiatives of Digital India Programme, MeitY has brought the India Meteorological Department (IMD) services on the “**UMANG App**”.



The following 7 services hosted on <http://mausam.imd.gov.in> web site of IMD have been on-boarded on UMANG Mobile application:

1. **Current Weather** -Current temperature, humidity, wind speed, direction for 150 cities updated 8 times a day. Information on sunrise/ sunset and moonrise/ moonset is also given.
2. **Nowcast**- Three hourly warnings of localized weather phenomena and their intensity issued for about 800 stations.
3. **City Forecast** – Past 24 hours and 7 day forecast of weather conditions around 450 cities in India are given.
4. **Rainfall Information**- All India district Rainfall information daily, weekly, monthly and cumulative series are available.
5. **Tourism Forecast**- Past 24 hours and 7 day forecast of weather conditions of around 100 Tourist cities in India are provided.
6. **Warnings**- The alert issued to warn citizens of approaching dangerous weather. It is colour coded in Red, Orange and Yellow are the alert levels with Red as the most severe category.
7. **Cyclone**- Cyclone warnings and alerts provides the track of cyclonic storms along with likely time and point of crossing of coast.

## Health: Dr. Harsh Vardhan elected as Chair of Executive Board of WHO

**Relevance IN – Prelims (about the role of executive board) + Mains (GS II Effect of policies and politics of developed and developing countries on India's interests, important International institutions, agencies and fora- their structure, mandate.**

### What's the NEWS

- The Union Minister of Health & Family Welfare Dr. Harsh Vardhan has been elected as **Chair of the Executive Board of World Health Organization for the year 2020-21.**
- This took place today during the 147<sup>th</sup> session of the Executive Board, in a meeting that was virtually held.
- Dr Harsh Vardhan has also been a member of several prestigious committees of WHO like **Strategic Advisory Group of Experts (SAGE) and the Global Technical Consultative Group (TCG) on Polio Eradication. He has also served as an Advisor to the WHO.**

### Know! about the Executive Board of WHO

- The World Health Organization(WHO) is governed by two decision making bodies — **the World Health Assembly and the Executive Board.**
- The Executive Board is composed of **34 individuals technically qualified** in the field of health, each one designated by a Member State elected to do so by the World Health Assembly. Member States are elected for three-year terms.
- The Board **meets at least twice a year**; the main meeting is normally in January, with a second shorter meeting in May, immediately after the Health Assembly.
- The main functions of the Executive Board are to give effect to the decisions and policies of the Health Assembly, to advise it and generally to facilitate its work
- India is a **member state of the South East Asia Region** at the WHO. Last year, the bloc had unanimously decided that India's nominee would be elected to the executive board for a three-year term beginning May.
- The Board chairman's post is **held by rotation for one year by each of** the WHO's six regional groups: African Region, Region of the Americas, South-East Asia Region, European Region, Eastern Mediterranean Region, and Western Pacific Region.

### Know! about WHA

- The World Health Assembly (WHA) is the WHO's decision-making body, and consists of 194 Member States.
- It is the world's highest health policy setting body and is composed of health ministers from member states.
- The members of the WHA generally meet every year in May in Geneva at the Palace of Nations, the location of WHO Headquarters.



## International Relations: Open Skies Treaty

**Relevance IN – Prelims (about OST + INF treaty + SALT + START I and new START) + Mains (GS II Effect of policies and politics of developed and developing countries on India's interests, Indian Diaspora).**

### What's the NEWS

- The Trump administration announced its intention to withdraw from the Open Skies treaty (OST).

### Know! more about OST

- Signed in 1992 following the collapse of the Soviet Union and entering into force in 2002, this treaty **includes Russia, the United States and a majority of NATO allies.**
- OST allows its 34 members to engage in **unarmed monitoring flights** over the territory of other signatories, using approved sensors to collect information on military deployments.

### Know! about the Arms Control Negotiation of 1980s

- It dealt with strategic weapons, leading to the START agreement in 1991 that limited both sides to 1,600 strategic delivery vehicles and 6,000 warheads.

### Warheads - the explosive head of a missile.

### Intermediate-Range Nuclear Forces (INF) treaty

- The **U.S.'s exit last year** from another arms deal it had signed with Russia — the Intermediate-Range Nuclear Forces (INF) treaty
- It is about intermediate-range missiles.
- It Was signed in 1987 (implemented in 1991) by Ronald Reagan and Mikhail Gorbachev
- The Treaty required the United States and the Soviet Union to eliminate and permanently forswear **all of their nuclear and conventional ground-launched ballistic and cruise missiles with ranges of 500 to 5,500 kilometres.**
- As a result of the INF Treaty, the United States and the Soviet Union destroyed a total of 2,692 short-, medium-, and intermediate-range missiles
- INF Treaty was the first pact to include intensive verification measures, including on-site inspections. Associated production facilities were also closed down.

**Cruise missiles are designed to deliver a large warhead Over long distances with high precision Nuclear Warheads – The explosive head of a missile that uses nuclear energy**

### Drawbacks of INF treaty

- No nuclear war heads were dismantled.
- The air launched and sea launched missiles of similar range were not constrained.
- It was bilateral and hence, it did not restrict other countries.

### Know! Other Treaties Between US and USSR / Russia

### STRATEGIC ARMS LIMITATION TALKS (SALT)

- **It started in 1969**, it produced the **Anti-Ballistic Missile Treaty (ABM).**
- This is an Executive Agreement limiting the number of Intercontinental Ballistic Missiles and the Submarine Launched Ballistic Missiles.
- **In June, 2002**, the US unilaterally withdrew from the ABM treaty, limiting the SALT's purpose.





## STRATEGIC ARMS REDUCTION TREATY – I (START I)

- It was signed in 1991, it required the two countries to reduce their deployed strategic arsenals to 1,600 delivery vehicles and 6,000 warheads.
- The reductions were **completed in 2001**.

## NEW STRATEGIC ARMS REDUCTION TREATY

- It is **signed on April 8, 2010**, it limits each side to 1,550 warheads and 700 delivery systems.
- It limits the number of launchers to 800.
- It came into force on February 2011 and will expire in 2021.
- The Trump administration may not renew the New Start Treaty, an agreement signed by the Obama administration with Russia that caps Russian and U.S. nuclear arsenal.
- The New Start Treaty is due to expire next February.

## Know! more about New START

- New START replaced the Treaty of Moscow (SORT), which was to expire in December 2012.
- It follows the START I treaty, which expired in December 2009; the proposed **START II** treaty, **which never entered into force**; and the **START III** treaty, for which **negotiations were never concluded**.

## Know! about Strategic Offensive Reductions (SORT)

- The Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions (**SORT**), **also known as the Treaty of Moscow**, was a strategic arms reduction treaty between the United States and Russia that was in force from June **2003 until February 2011** when it was superseded by the New START treaty.
- Both parties agreed to limit their nuclear arsenal to between 1,700 and 2,200 operationally deployed warheads each.
- SORT was one in a long line of treaties and negotiations on mutual nuclear disarmament between Russia (and its predecessor, the Soviet Union) and the United States, which includes
  - SALT I (1969–1972)
  - ABM Treaty (1972)
  - SALT II (1972–1979)
  - INF Treaty (1987)
  - START I (1991)
  - START II (1993)
  - New START (2010)

## Governance: Arogya Setu app open source; The bug bounty programme

**Relevance IN – Prelims (about the benefits of making the app open source + about the bug bounty programme) + Mains (GS II Important aspects of governance, transparency and accountability, e-governance- applications)**

### What's the NEWS

- The Government of India made Aarogya Setu app for Android open source.
- The iOS counterpart of the government's covid-19 tracking app will be open-sourced within two weeks.

### Know! its significance

- This means that researchers and cybersecurity experts will now be able to audit the Aarogya Setu app at their full discretion, helping find potential flaws in India's first truly comprehensive COVID-19 tracking app





- The code for the Arogya Setu Android app has been uploaded on GitHub and will be available for tinkering by developers.
- The process of supporting the open source development will be managed by National Informatics Centre (NIC).

### The bug bounty programme

- While making the code Open Source, Government of India also seeks the developer community to help identify any vulnerabilities or code improvement in order to make Aarogya Setu more robust and secure.
- The National Informatics Centre (a part of MeitY) has also announced the bug bounty programme for **developers who can find vulnerabilities in the app**.
- The bug bounty programme is aimed at encouraging the Indian developer community to find security flaws in the app and get rewarded Rs 1 lakh.
- The programme has been organised by the MyGov team, which looks after the delivery of the government's digital programmes to citizens via apps.
- There is an additional Rs 1 lakh bounty for suggesting improvements in the Aarogya Setu app.

## Health: Sero Survey

### Relevance IN – Prelims (about Sero Survey and its objective + terms associated with it)

#### What's the NEWS

- The ministry of health and family welfare decided to conduct a **population-based 'sero survey'** in select districts of the country with an aim to monitor the trend in the prevalence of SARS-CoV-2 virus which causes the Covid-19.

#### Know! about Sero- Survey

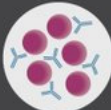
- A sero-survey involves testing of blood serum of a group of individuals and this will be used to monitor trends in prevalence of the novel coronavirus, or SARS-COV-2, infection at the district level.
- The surveillance will be conducted by **the Indian Council of Medical Research and the National Centre for Disease Control** in collaboration with key stakeholders and state health departments.
- The facility-oriented surveillance is an expansion of the testing of flu and serious respiratory cases in hospitals being carried out by the government.

#### Know! the reason behind sero-testing


- A more focused population-based **sero-survey of high and low-risk groups** in select districts will be in addition to routine testing.
- The move will not only help the government and its agencies monitor Covid-19 trends but **also check for community transmission** in any part of the country.
- The health ministry has so far maintained that there is no evidence yet of community transmission in the country.

### COVID-19 serological tests


Serological tests for SARS-CoV-2 can show a person has been exposed to the virus, but authorities are warning that such tests have limits to what they can tell us






A serological test looks at blood **serum**, the fluid part of plasma that is left after cells have coagulated



It tells us about the presence of **antibodies** which are made in response to specific virus **antigens**



Scientists are yet to confirm how effective SARS-CoV-2 antibodies or **immunoglobulins** are in protecting from a second infection

Main types of tests available or in development	Time to results	How they work	
Rapid diagnostic tests	10-30 mins	 <p>Blood sample passes over a line that detects antibodies and changes colour</p>	These tests can indicate the presence or absence of antibodies of interest but they can't tell us about the quantity of antibodies or how effective they are at stopping virus growth
Enzyme-linked immunosorbent assays	2-5 hours	 <p>Sample exposed to a plate coated with virus antigen</p>	<p>Both these tests can tell us about the quantity of antibodies present, but they cannot tell us how effective they are at stopping virus growth</p> <ul style="list-style-type: none"> <li>▶ Colour is added to react with antibodies that attach to antigen</li> <li>▶ Intensity of colour indicates presence of antibodies</li> </ul>
Chemiluminescent immunoassays	1-2 hours	 <p>Sample exposed to a plate coated with virus antigen</p>	<ul style="list-style-type: none"> <li>▶ Light-giving chemical added to react with antibodies that attach to antigen</li> <li>▶ Intensity of light indicates presence of antibodies</li> </ul>

Source: [centerforhealthsecurity.org/CDC.gov/medicinenet.com](https://www.cdc.gov/media/releases/2020/s111920-covid-serology.html)

© AFP



- There are large outbreaks in some clusters but the sharp exponential rise in cases as in community transmission has not happened.

### Know! how will it be conducted

- For the sero-survey, population groups will consist of low- as well as high-risk populations.
- The low-risk group will include outpatient attendees (non-ILI patients) and pregnant women, while healthcare workers will be surveyed among the high-risk population.
- The agencies will use a **combination of RT-PCR and Elisa antibody kits** for these surveys.
- Throat and nasal swabs will be collected for RT-PCR tests and samples tested in a one-time pool of 25.
- In addition to RT-PCR tests, blood samples will be collected for **detecting IgG antibodies for Elisa testing.**

### Elisa testing kit to replace rapid antibody test kits from China

- The Elisa testing kit has been developed by National Institute of Virology in Pune along with Zydus Cadila.
- ELISA stands for enzyme-linked immunoassay and it is commonly used in laboratory test to **detect antibodies in the blood.**
- The kit is expected to play a critical role in surveillance of a proportion of the population exposed to the infection, after rapid antibody test kits from China failed the ICMR quality tests.

## Government Schemes: ARYA scheme

**Relevance IN – Prelims (about ARYA scheme) + 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 massive reverse migration of people from urban areas to villages ever since lockdown was imposed due to COVID-19 has put focus on the Attracting and Retaining Youth in Agriculture (ARYA) scheme of the Centre.

### Know! about ARYA Scheme

- ARYA scheme is presently being implemented in 100 districts in the country on an experimental basis.
- Presently, it is being implemented in 100 districts with a target of training 10,000 rural youth over three years in various aspects.
- The scheme is being **implemented through Krishi Vigyan Kendras.**
- The Indian Council of Agricultural Research (ICAR) took up this initiative several years ago following report by a committee of experts.
- The committee looked into ways and means of wooing rural youth to agriculture and allied sectors by ensuring a dignified life for them in villages.
- The main intention of the scheme was to turn agriculture and allied sectors into attractive and profit-making proposition for the rural youth.
- The basic idea is to turn rural youth into agri entrepreneurs.

Ministry of Agriculture & Farmers Welfare,  
Government of India

**Attracting and Retaining Youth in Agriculture (ARYA)**

- Attract and empower the youth in rural areas.
- Take up various agriculture, allied and service sector enterprises for sustainable income and gainful employment.
- Emphasis on processing, value addition, marketing and networking.
- Entrepreneurship and value chain management.
- 200-300 youth per district are involved to 25 KVKs in 25 states. ARYA is to be expanded in 75 more districts.

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## International Organisations: Special Board of Governors meeting of New Development Bank

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**Relevance IN – Prelims (about NDB) + Mains (GS II important international institutions+ Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests)**

**What's the NEWS**

- Union Minister of Finance & Corporate Affairs Nirmala Sitharaman attended the Special Board of Governors meeting of the New Development Bank (NDB) through video-conference

**Know! the highlights of the meeting**

- The agenda included the election of next President of NDB, appointment of Vice-President and Chief Risk Officer and membership expansion.
- Finance Minister congratulated newly-elected President Mr. Marcos Troyjo from Brazil and newly-appointed Vice President and CRO, Mr Anil Kishora from India.
- Brazil's Marcos Troyjo succeeded India's KV Kamath as president of the New Development Bank (NDB).
- Since its establishment in 2014, the NDB has approved an amount of \$16.6 billion for 55 projects.
- The idea for setting up the bank was proposed by India to the BRICS nations at the 6<sup>th</sup> BRICS Summit in Fortaleza, Brazil in 2014 and formally came into existence in 2015 with headquarters in Shanghai.

**Know! about NDB**

- The New Development Bank (NDB), is a multilateral development bank established by the BRICS states (Brazil, Russia, India, China and South Africa).
- The Bank supports public or private projects through loans, guarantees, equity participation and other financial instruments.
- The NDB cooperates with international organizations and other financial entities, and provide technical assistance for projects to be supported by the Bank.
- The initial authorized capital of the bank is \$100 billion.
- The initial subscribed capital of the NDB is \$50 billion divided into paid-in shares (\$10 billion) and callable shares (\$40 billion).
- The initial subscribed capital of the bank was equally distributed among the founding members.
- The voting power of each member will be equal to the number of its subscribed shares in the capital stock of the bank.

**Social Issues: National Career Service portal**

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***Relevance IN – Prelims (about NCS and its objective) + 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 Ministry of Labour and Employment under its National Career Service (NCS) project has now started offering free online “**Career Skills Training**” in partnership with TCS ION for its registered job-seekers.

**Know! about National Career Service (NCS) project**

- National Career Service is a Five Year **Mission Mode Project** launched in July, 2015.
- The project is being implemented by the Directorate General of Employment, Ministry of Labour & Employment.
- National Career Service (NCS) is a one-stop solution that provides a wide array of **employment and career related services** to the citizens of India.
- It works towards bridging the gap between jobseekers and employers, candidates seeking training and career guidance, agencies providing training and career counselling.
- The NCS project reaches out to the people of this country through its three essential pillars i.e.
  1. ICT based portal (NCS portal)
  2. Model Career Centers (set up across the country)
  3. Interlinkage with all the states through employment exchanges.
- The Ministry is implementing the NCS Project for transformation of the National Employment Service to provide a **variety of employment related services** like job search, job matching, career counselling, vocational guidance, information on skill development courses, apprenticeship, internships etc through an on-line portal ([www.ncs.gov.in](http://www.ncs.gov.in)).
- There are around 1 crore active job seekers and 54 thousand active employers registered on NCS and around 73 lakh vacancies have been mobilized through the portal so far

**Tribal Affairs: Inclusion of 23 additional Minor Forest produce items in Minimum Support Price List**

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

**What's the NEWS**

- Ministry of Tribal Affairs has announced **Inclusion of 23 additional Minor Forest Produce (MFP)** items and stipulation of their Minimum Support Price (MSP)
- They include Van Tulsi seeds, Van Jeera, Mushroom, Black Rice and Johar Rice among others.

**Know! about the Scheme (The MSP for MFP scheme)**

- This has been done under the Centrally Sponsored Scheme titled “**Mechanism for Marketing of Minor Forest Produce (MFP)** through Minimum Support Price (MSP) and development of value chain of MFP”.
- The Scheme was introduced in 2011 to provide a social safety net to the underprivileged forest dwellers, and to aid in their empowerment.
- This decision enhancing the **coverage from 50 to 73 items** comes in view of the exceptional and very difficult circumstances currently prevailing in the country
- The Ministry has provided flexibility to States to fix MSP upto 10% higher or lower than MSP declared by the Government.

**Know! the role of TRIFED**

- TRIFED, as the apex national organisation involved in the improvement of the livelihood and empowerment of these tribal people, is the nodal agency for the implementation of the scheme.
- The Scheme has been a resounding success in offering basic support to the tribal gatherers and has helped in improving their lives.



- 1,126 Vandhan Kendras have been set up as Tribal start-ups onboarding over 3.6 Lakhs beneficiaries.

### **Know! about Minor Forest Produce**

Section 2(4) of the **Indian Forest Act, 1927**, describes forest produce as products found in or brought from a forest. This includes:

- Timber, charcoal, caoutchouc, catechu, wood-oil, resin, natural varnish, bark, lac, mahua flowers, mahua seeds, kuth and myrobalans.
- Trees and leaves, flowers and fruits, and all other parts or produce of trees.
- Plants, which may include grass, creepers, reeds and moss, and all parts or produce of such plants (but not trees).
- Wild animals and skins, tusks, horns, bones, silk, cocoons, honey and wax, and all other parts or produce of animals.
- Peat, surface oil, rock and minerals, and all products of mines or quarries.



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# **GENERAL STUDIES III**

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



## Focus Article/Economic Development: RBI's solution to the liquidity crunch in Mutual Funds

**Relevance IN – Prelims (facts related to the bail out package to MF and the special liquidity facility for mutual funds (SLF-MF) + about MF and bail out) + Mains (GS III economic developments)**

### What's the NEWS

- The Reserve Bank of India (RBI) announced a special liquidity window of Rs 50,000 crore to bail out mutual funds hit by the turmoil in the debt fund segment that led to the closure of six credit risk funds by Franklin Templeton Mutual Fund.

#### Mutual Fund (MF):

- A mutual fund collects money from investors and invests the money, on their behalf, in securities (debt, equity or both). It charges a small fee for managing the money.

#### Bail out:

- A bailout is the injection of money into a business or organization (here, MF) that would otherwise face imminent collapse. Bailouts can be in the form of loans, bonds, stocks, or cash.

### Know! the working of this liquidity window

- Under the **special liquidity facility for mutual funds (SLF-MF)**, the RBI will conduct repo operations of 90 days tenor at the fixed repo rate (bank will borrow money from RBI in this period).
- Funds availed under the SLF-MF will be used by banks exclusively for meeting the liquidity requirements of MFs.
- Banks can extend loans to mutual funds and undertake the outright purchase of and/or repos against the collateral of investment grade corporate bonds, commercial papers (CPs), debentures and certificates of Deposit (CDs) held by MFs.
- The SLF-MF is on-tap and open-ended, and banks can submit their bids to avail the funding till May 11 or up to utilization of the allocated amount, whichever is earlier.

The RBI says exposures under this facility will not be reckoned under the **Large Exposure Framework (LEF)**, thereby giving greater comfort for bank to borrow under this window.

The support extended to MFs under the SLF-MF will be exempted from banks' capital market exposure limits.

#### Large exposures framework:

- The large exposures framework sets prudent limits to large exposures, whereby a large exposure is defined as the sum of all exposures of a bank to a single counterparty that are equal to or above 10% of its Tier 1 capital. The limit is set at 25% of Tier 1 capital.

### Need of this Facility

Mutual Funds are facing liquidity crunch due to following reasons:

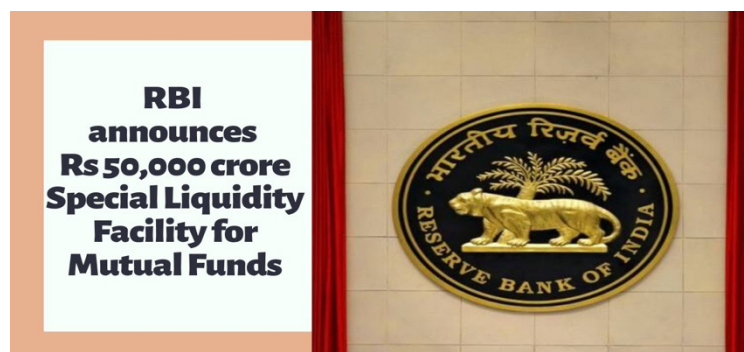
- Uncertainty associated with COVID-19
- Closure of six debt schemes of Franklin Templeton and potential contagious effects has created the redemption pressure.

#### Contagious effects:

- It refers to spread of negative market sentiment to different sectors due to the failure of one sector/institution

#### Redemption:

- It describes the repayment of any money market fixed-income security at or before the asset's maturity date. Redemption pressure is created when more number of investors start claiming back their invested amount or before the maturity date.





### Expected Benefit of this initiative

- The debt segment has witnessed outflows of Rs 1.94 lakh crore in the month of March. The RBI's liquidity offer is expected to bring some degree of comfort in the debt market which is under huge redemption pressure.

## Economy: CAIT to launch national e-commerce marketplace 'bharatmarket' for retail traders

**Relevance IN – Prelims (about bharatmarket.in – aim and objective + about CAIT) + GS III (Economic developments)**

### What's the NEWS

- Traders' body Confederation of All India Traders (CAIT) has announced to launch a **national e-commerce marketplace 'bharatmarket'** soon for all retail traders in collaboration with several technology partners.



### Know! all about bharatmarket

- The marketplace will integrate capabilities of various technology companies to provide **end-to-end services in the logistics and supply chains** from manufacturers to end consumers, including deliveries at home.
- The e-commerce portal will include a nationwide **participation by retailers** and aims to bring 95 per cent of retail traders onboard the platform, who would exclusively run the portal.
- This seems to be an effective way to get essential commodities to consumers during the lockdown period and within containment zones.
- The traders body is looking to enrol about one crore retailers on this e-marketplace in 2020 and make it the world's largest and most-unique e-marketplace ever.

### Know! about CAIT

- The Confederation of All India Traders (CAIT) is an apex body of trading community of India **comprising of prominent Trade Bodies of different States** and having an access to more than 20 thousands such Trade Federations/ Associations/Chambers across the Country.
- CAIT came into existence in 1990 with an aim and objective of the development of trade and traders in the country and has brilliantly evolved the understanding and co-ordination amongst traders throughout the Country.
- The CAIT is the true representative body of more than 6 crore business establishments operating their **activities in unorganized sector** of the Country which is rather self organised and providing livelihood to more than 25 crore people of India.

## Government Schemes: One Nation, One Ration Card plan

**Relevance IN – Prelims (about One Nation, One Ration Card Scheme) + Mains (GS II Centre-State relations + Government policies and interventions for development in various sectors and issues arising out of their design and implementation)**

### What's the NEWS

- Consumer Affairs Ministry has approved the integration of **five more States and Union Territories** with the National Cluster under the One Nation, One Ration Card plan.
- These States and UTs are Uttar Pradesh, Bihar, Punjab, Himachal Pradesh and Dadra and Nagar Haveli and Daman and Diu.



- Twelve states have already under One Nation, One Ration Card plan namely - Andhra Pradesh, Goa, Gujarat, Haryana, Jharkhand, Kerala, Karnataka Madhya Pradesh, Maharashtra, Rajasthan, Telangana and Tripura.

### National Portability of ration card holders

- The implementation of National Portability of ration card holders is under progress
- With this (inclusion of 5 more states) the facility of national and inter-state portability will be available for nearly 60 Crore beneficiaries of 17 States and UTs.
- They will now lift their entitled quota of foodgrains from any Fair Price Shop of their choice, anywhere in these 17 States and UTs by using their existing ration card under One Nation, One Ration Card plan.

### Know! about the 'one nation, one ration card' initiative

- Under the 'one nation, one ration card' initiative, eligible beneficiaries would be able to avail their entitled food grains under **the National Food Security Act (NFSA)** from any fair-price shop in the country.
- The scheme was announced in June last year.
- A standard format for ration card has been prepared after taking into account the format used by different states.
- For national portability, the states have also been told to have a 10-digit standard ration card number, **wherein first two digits will be state code and the next two digits will be running ration card numbers.**
- Andhra Pradesh, Telangana, Gujarat, Maharashtra, Haryana, Rajasthan, Karnataka, Kerala, Madhya Pradesh, Goa, Jharkhand and Tripura are 12 states where ration card portability has been implemented.

## Easy access

Under the 'One nation, one ration card' system, beneficiaries can buy subsidised foodgrains from a ration shop in any part of the country

**Ration card-Aadhaar linkage must to access the portability scheme**

**The scheme will be rolled out across the country on: July 1, 2020**



A migrant will be allowed to buy a maximum of 50% of the family quota. This is to ensure that the individual, after shifting to another place, does not buy the entire family quota in one go

### States providing portability of PDS entitlements:

▪ Andhra Pradesh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Rajasthan, Telangana and Tripura

▪ A person will only be eligible for the subsidies supported by the Centre, which include rice sold at ₹3/kg and wheat at ₹2/kg

▪ Even if a beneficiary moves to a State where grains are given for free, he/she will not be able to access those benefits

## Science & Technology: Kisan Sabha App

**Relevance IN – Prelims (about Kisan Sabha App and about Kisan Rath Mobile app) + Mains (GS III transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers)**

### What's the NEWS

- Kisan Sabha App developed by **CSIR-Central Road Research Institute (CSIR-CRRI)**, New Delhi to connect farmers to supply chain and freight transportation management system was remotely launched

### Kisan Sabha App (Objective and benefits)

- It aims to provide the most economical and timely **logistics support to the farmers** and increase their profit margins by minimizing interference of middlemen and directly connecting with the institutional buyers.
- The **portal connects** the farmers, transporters, Service providers (like pesticides/ fertilizer/ dealers, cold store and warehouse owner), mandi dealers, customers (like big retail outlets, online stores, institutional buyers) and other related entities for timely and effective solution.





- ## Connect the Dots: Kisan Rath Mobile App (18 April Current Capsules)

- Know! more about the app**

- ## Space Awareness: Russia to launch first Arktika-M satellite for monitoring Arctic climate





## Relevance IN–Prelims (about Arktika-M satellite) + Mains (GS III awareness in the field of space)

### What's the NEWS

- Russia will launch its first Arktika-M satellite for monitoring **the Arctic climate and environment** at the end of the year,

### Know! about Arktika-M satellite (objective + benefits)

- As of now, the number **one Arktika-M** spacecraft has been developed and is undergoing radio-electronic testing and the **second Arktika-M** satellite is still under development and will be launched in 2023.
- The first Arktika-M satellite from the Baikonur space center will be launched using a Soyuz-2.1b carrier rocket with the Fregat booster.
- Russia's Arktika-M remote-sensing and emergency communications satellites will **gather meteorological data** in the polar regions of the Earth, which will allow **to improve weather forecasts** and will enable scientists to better **study climate change**.

## Environment Conservation: Namdapha Tiger Reserve

### Relevance IN – Prelims (about Namdapha Tiger Reserve + about NBWL + river Noadihing + Lisu community) + Mains (GS III Environment conservation)

### What's the NEWS

- The National Board for Wild Life (NBWL) recommended for a realigned road **through Namdapha Tiger Reserve**
- The Standing Committee of the NBWL in its 57<sup>th</sup> meeting discussed the proposal for approving the realignment at two stretches of the Road.

### Know! the reason behind this (benefits of having a road)

- It is seen as a necessary evil to connect a strategic settlement on the border with Myanmar.
- The road could help save the banks of the **river Noadihing** used as a shortcut by locals and porters to move through the Namdapha Tiger Reserve in **Changlang district of Arunachal Pradesh**.
- The road could improve patrolling in the reserve, 90% of which is inaccessible and thus not monitored
- The proposed realignment will also reduce the length of the road by 11.88 km to 88.62 km, and increase the area under protection by 7.616 hectares.
- The entire stretch of the proposed road should have wildlife crossing structures every 4-5 km, and underpass for elephant corridors every 10 km.

### Know! about the road

- The foundation stone for a two-lane road was laid in 2013 following a proposal by the Ministry of Road Transport and Highways.
- The total length of the road is 156 km with 100.5 km passing through the reserve.
- The project did not progress as ecologists flagged the road as a bad idea for Namdapha, which is a **meeting point of Himalayan, Indo-Burmese and Indo-Chinese flora and fauna**.

### Know! about the Lisu community

- The proposed alignment will provide the opportunity for creating anti-poaching **camp and watchtower facilities** nearby the habitations of Lisu community residing in the reserve so that necessary check can be kept on poaching till the relocation of this community outside
- A majority of the Lisu people, called Yobin in India, live in Myanmar. They have traditionally survived on hunting.





## Namdapha Tiger Reserve

- The Namdapha Tiger Reserve was declared in 1983 as the 15<sup>th</sup> Tiger Project of the country with a core area of 1808 sqkm and a buffer area of 177 sqkm.
- Namdapha is in fact the name of a river which originates from Daphabum (Dapha is the name of hill, Bum means peak of hill) and meets Noa-Dehing river.
- This river flows right across in a North-South direction of the National Park and hence the name Namdapha has been given.
- The Namdapha Protected area is located in the Changlang district of Arunachal Pradesh.

## 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.

## Infrastructure Development/Defence/Bilateral Relations: Ghatiabgarh-Lipulekh road - a new and faster road route through Uttarakhand to reach Kailash Mansarovar

*Relevance IN – Prelims (about Kailash-Mansarovar yatra route – geographical locations)*

### What's the NEWS

- The Border Roads Organisation (BRO) has completed construction of 80 km road stretch that connects **Dharchula (Uttarakhand) to Lipulekh (China Border)**, popularly known as Kailash-Mansarovar yatra route.

### Know! more about the new road link

- **The Darchula-Lipulekh road is an extension of Pithoragarh-Tawaghat-Ghatiabgarh road.**
- It originates from Ghatiabagarh and terminates at Lipulekh Pass, the gateway to Kailash Mansarovar.
- In this 80 kilometre road, the altitude rises from 6,000 to 17,060 feet.
- Now with the completion of this road link, the yatra could be completed in one week compared to 2-3 weeks it took earlier.

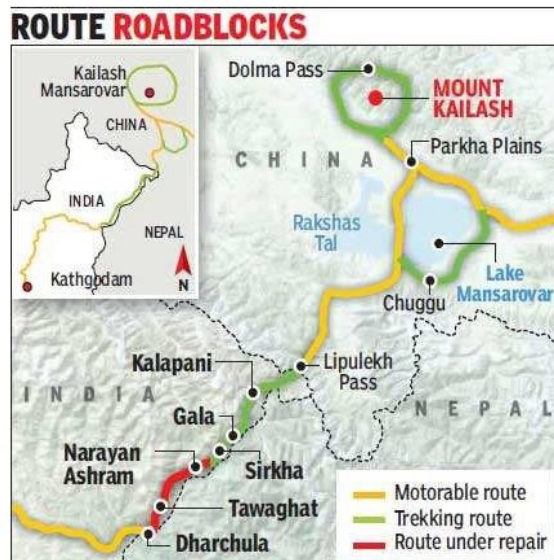




- With the completion of this project, the arduous trek through treacherous high-altitude terrain can now be avoided by the pilgrims of Kailash-Mansarovar Yatra.
- At present, the travel to Kailash-Mansarovar takes around two to three weeks through Sikkim or Nepal routes.
- Lipulekh route had a trek of 90 Km through high altitude terrain and the elderly yatris faced lot of difficulties.

### Know! more about the Kailash-Mansarovar

- The Kailash-Mansarovar road alignment is **along the Kali river**, which is the boundary between India and Nepal.
- The end point of road is at Lipulekh Pass, a tri-junction of India, China and Nepal.
- To access Kailash through Sikkim, China and India opened the Nathu La border point in 2015.
- Through here, pilgrims travel by bus from the border without the ordeal of trekking and travelling on horse back.
- Thousands of pilgrims in various batches undergo the Kailash Mansarovar yatra through different routes.
- The yatra is organised by the Ministry of External Affairs and the journey beyond the International Border is overseen by Chinese authorities.
- The other two road ways via Sikkim and Nepal are along. They entailed approximately 20 per cent land journeys on Indian roads and 80 per cent land journeys in China.
- With the opening of Ghatiabgarh-Lipulekh road, this ratio has been reversed.
- Now Pilgrims to Manasarovar will traverse 84 per cent land journeys on Indian Roads and only 16 per cent land Journeys in China.



## Infrastructure Development: National Land Management Corporation

**Relevance IN – Prelims (about National Land Management Corporation + other recommendations given by the task force) + Mains (GS III infrastructure development)**

### What's the NEWS

- The task force on National Infrastructure Pipeline (government panel on boosting infrastructure investment) has recommended setting up a National Land Management Corporation, which would help in monetising state-owned surplus land assets in a systematic and specialised way.
- Such a corporation should be set up under Companies Act to function as the facilitator for land monetisation and an asset manager for lands owned by government of India and Central Public Sector Enterprises.

### Know! about the role of National Land Management Corporation (NLMC)

- The Corporation can raise capital from the equity market, based on the value of its leased assets
- A chief executive officer (CEO) and a technical team be hired at market-linked compensation to carry out land monetisation.
- It can work with various government departments including Railways and Defence Ministry to utilise their surplus land assets.
- Apart from a CEO and technical team, it has been proposed that the Corporation have representation from senior officials of the Finance Ministry, Department of Public Enterprises, Ministry of Housing and Urban Affairs as well as independent directors from finance and real estate industry.



## NLMC (areas of functioning)

- monetisation of land assets
- maintaining an inventory of public land,
- to develop model concession agreements for land development and sale,
- legal management of litigation/encumbrances relating to land,
- development planning, design and bid process management.
- Operational requirements like change of land usage and revenue management

## Other suggestive measures by the task force on National Infrastructure Pipeline

- strengthening of the municipal bond market
- deepening of corporate bond markets
- setting up Development Financial Institutions for infrastructure sector.

*The task force pegged the total expected capital expenditure for infra sector at Rs 111 lakh crore in the next five years.*

## Know! about REITs and InvITs.

- The Corporation may adopt different models for land monetisation, including securitising a pool of assets through structures like REITs and InvITs.
- Real estate investment trusts (REITs) and infrastructure investment trusts (InvITs) are innovative vehicles that allow developers to monetise revenue-generating real estate and infrastructure assets, while enabling investors or unit holders to invest in these assets without actually owning them.
- Such monetisation benefits developers by allowing them to release capital for funding new infrastructure/real estate projects, and provides liquidity to investors or unit holders as the units of the trust are listed on exchanges.

## Environment: Early locusts

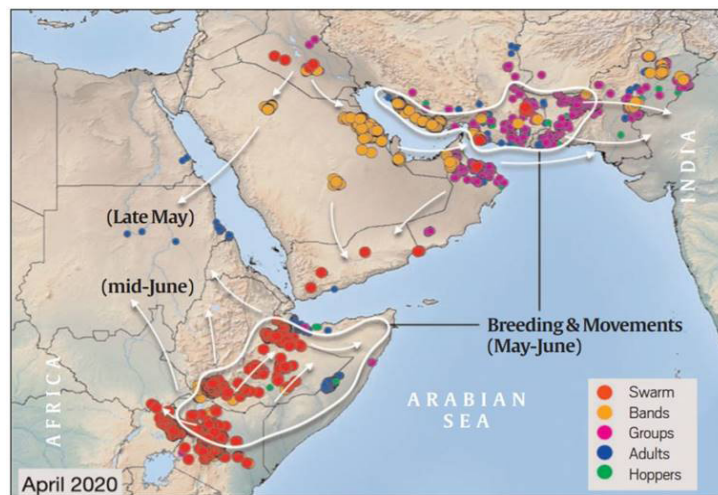
### Relevance IN – Prelims (about locusts + about LWO + PPQ) + Mains (GS III Environment conservation)

#### What's the NEWS

- Locusts normally arrive during July-October, but have already been spotted in Rajasthan.
- Scientists at the Locust Warning Organisation (LWO) observed groups of grasshoppers at Sri Ganganagar and Jaisalmer districts of Rajasthan.
- But far from ordinary hoppers, these **were desert locusts** — the same destructive migratory pests currently devouring acres of maize, sorghum and wheat crops in East Africa.

#### Know! all about locusts

- The desert locust (*Schistocerca gregaria*) is a short-horned grasshopper that is innocuous while it is in a “solitary phase” and moving about independently.
- These winged insects differ from normal hoppers, and become dangerous only when their populations build up rapidly and the close physical contact in crowded conditions triggers behavioural changes.
- They, then, enter the “gregarious phase”, by grouping into bands and forming swarms that can travel great distances (up to 150 km daily), while eating up every bit of vegetation on the way.
- If not controlled at the right time, these insect swarms can threaten the food security of countries.
- Kenya is already reporting its worst locust outbreak in 70 years, while Ethiopia and Somalia haven't seen one this bad in quarter of a century.
- Locusts are polyphagous, i.e. they can feed on a wide variety of crops. Secondly, they have an ability to multiply rapidly.

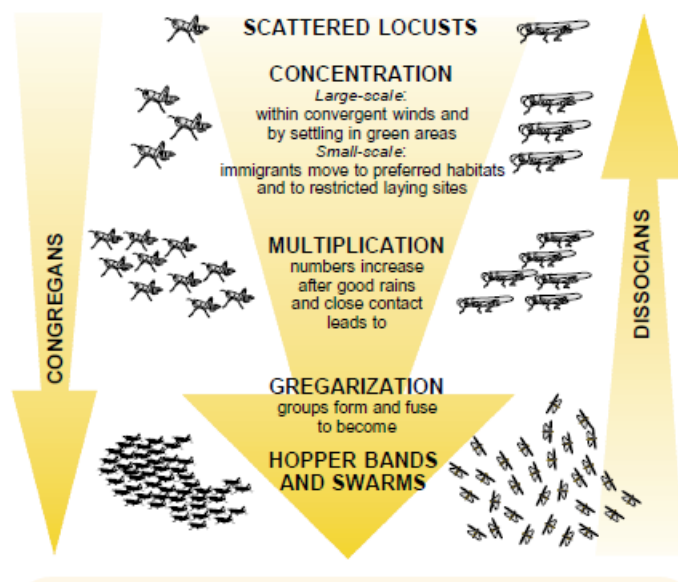




- A single female desert locust lays 60-80 eggs thrice during its roughly 90-day life cycle.
- There are 10 important species of locusts in the world. Only four species viz. Desert locust (*Schistocerca gregaria*), Migratory locust (*Locusta migratoria*), Bombay Locust (*Nomadacris succincta*) and Tree locust (*Anacridium sp.*) are found in India.

### Know! about Locust Warning organization (LWO)

- In India, the scheme Locust Control and Research (LC&R) is responsible for control of Desert Locust and is being implemented through Organisation known as “Locust Warning Organisation (LWO)” established in 1939 and later amalgamated with the Directorate of Plant Protection Quarantine and Storage in 1946.
- Locust Warning organization (LWO) is responsible to monitor and control the locust situation in Scheduled Desert Area (SDA) mainly in the States of Rajasthan and Gujarat while partly in the States of Punjab and Haryana by way of intensive survey, surveillance, monitoring and control operations where required



### Know! about PPQs

- Directorate of Plant Protection Quarantine & Storage was established in the year 1946 on the recommendation of Woodhead Commission as an apex organization for advising the Government of India and state governments on all the matter related to Plant Protection.
- Plant protection activities encompasses activities aimed to minimizing crop losses due to pests through integrated pest management, plant quarantine, regulation of pesticides, locust warning & control and training in desert areas besides training and capacity building in plant protection.
- It is an attached Office of Ministry of Agriculture and Farmers Welfare.

## Environment: World Migratory Bird Day

### What's the NEWS

- World Migratory Bird Day observed on May 9 every year is celebrated to raise awareness about conservation and ecological importance of such birds in the global ecosystem.
- The theme of World Migratory Bird Day 2020 is “Birds Connect Our World”.
- This year's theme was chosen in order to highlight the importance of conservation and restoration of ecological connectivity and integrity of ecosystems that support the movement of these birds.
- The day was first introduced in 2006 after the Secretariat of Convention on the Conservation of Migratory Species of Wild Animals and the Secretariat of Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) came up with a proposal.

## Science & Technology: SwasthVayu

**Relevance IN – Prelims (about BiPAP Non-Invasive ventilator) + Mains GS III Achievements of Indians in science & technology; indigenization of technology and developing new technology.)**

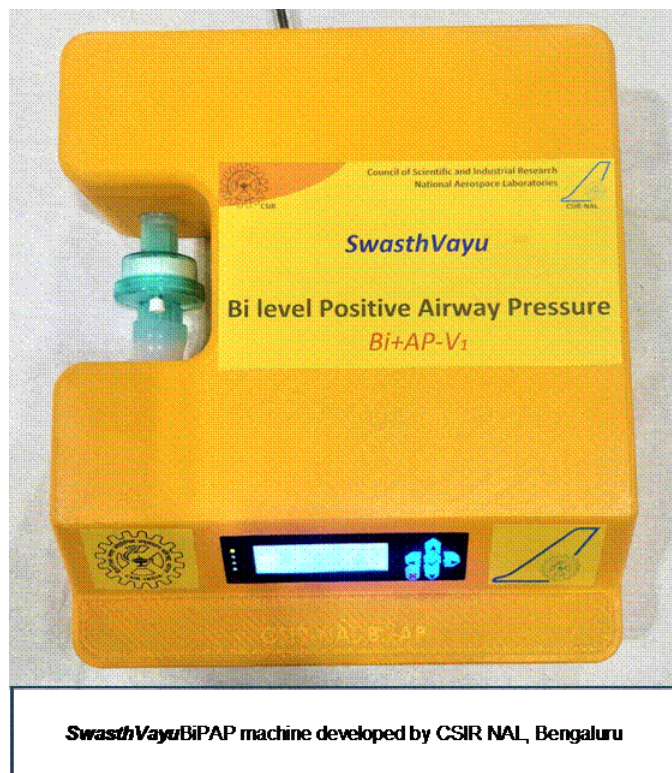
### What's the NEWS

- CSIR - National Aerospace Laboratories (NAL) Bangalore, a constituent of lab of CSIR has developed a **Non Invasive BiPAP Ventilator**



## Know! all about BiPAP Non-Invasive ventilator

- BiPAP Non-Invasive ventilator is a microcontroller-based precise closed-loop adaptive control **system with a built-in biocompatible** “3D printed manifold & coupler” with HEPA filter (Highly Efficient Particulate Air Filter).
- These unique features help to alleviate the fear of the virus spread. It has features like Spontaneous, CPAP, Timed, AUTO BIPAP modes with provision to connect Oxygen concentrator or Enrichment unit externally.
- The system has been certified for safety and performance by NABL accredited agencies.
- The system has undergone stringent biomedical tests and beta clinical trials at NAL Health Centre.
- The major advantage of this machine is that it is simple to use without any specialized nursing, cost effective, compact and configured with majority of indigenous components.
- This is ideal for treating COVID -19 patients in Wards, Make shift Hospitals, dispensaries and home in current Indian COVID 19 scenario
- CSIR-NAL developed BIPAP Non Invasive Ventilator with externally connected Oxygen concentrator which will be **ideal to treat moderate or mid-stage severe COVID-19 patients** who do not require intubation and invasive ventilation.



SwasthVayu BiPAP machine developed by CSIR NAL, Bengaluru

## Agriculture & Farmers Welfare: e-NAM platform

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

### What's the NEWS

- The Union Minister of Agriculture and Farmers Welfare, launched integration of 177 new mandis with the National Agriculture Market (e-NAM) to strengthen agriculture marketing and facilitate farmers to sell their harvested produce through the online portal.
- The total number of eNAM mandis across country is now 962.

### Know! about e-NAM

- National Agriculture Market (e-NAM) networks the existing APMC mandis to create a **unified national market for agricultural commodities** with a vision to promote uniformity in agriculture marketing by streamlining of procedures across the integrated markets, removing information asymmetry between buyers and sellers and promoting real time price discovery based on actual demand and supply.
- National Agriculture Market (eNAM), a **pan-India electronic trading portal** with the **objective of integrating the existing Mandis to “One Nation One Market”** for agricultural commodities in India, was launched on 14<sup>th</sup> April 2016, by the Prime Minister
- Small Farmers Agribusiness Consortium (SFAC) is the lead agency for implementing eNAM under the aegis of Ministry of Agriculture and Farmers' Welfare
- The NAM portal provides a **single window service** for all APMC related information and services which includes commodity arrivals, quality & prices, provision to respond to trade offers and electronic payment settlement directly into farmers' accounts and helping them for **better market access**.





## Government Scheme: ATAL PENSION YOJANA (APY) – Completion of 5 years

**Relevance IN – Prelims (all about APY) + Mains (GS III Economic development – financial inclusion)**

### What's the NEWS

- The flagship social security scheme of Government of India 'Atal Pension Yojana' (APY) has completed five years of successful implementation.
- As per official data, over these five the total enrolment under the APY scheme stood at 2,23,54,028.

### Know! about Atal Pension Yojana' (APY)

- Launched on 9<sup>th</sup> May 2015 with an objective of delivering old age income security particularly to the workers in the unorganised sector and Government providing guarantee of **minimum pension after 60 years of age**
- APY can be subscribed by any Indian citizen in the age group of **18-40 years** having a bank account and its uniqueness is attributable to three distinctive benefits.
- First, it provides a minimum guaranteed pension **ranging from Rs 1000 to Rs 5000 on attaining 60 years of age**
- Secondly the amount of pension is **guaranteed for lifetime to spouse** on death of the subscriber
- Third, in the event of death of both the subscriber and the spouse, entire pension corpus is **paid to the nominee**.

### Other highlights of APY

- APY is a government scheme administered by **PFRDA through NPS architecture**.
- Under APY, the Central Government would co-contribute 50 percent of the subscriber's contribution or Rs 1000 per annum (whichever is lower) to each eligible subscriber account, for a period of 5 years, i.e., from 2015-16 to 2019-20, who join the NPS before 31<sup>st</sup> December, 2015.

### Know! about PFRDA

- Pension Fund Regulatory and Development Authority (PFRDA) is the statutory Authority established by an enactment of the Parliament
- The objective of PFRDA is to regulate, promote and ensure orderly growth of the National Pension System (NPS) and pension schemes to which this Act applies.
- NPS was initially notified for central government employees recruits wef 1<sup>st</sup> Jan 2004 and subsequently adopted by almost all State Governments for its employees.
- NPS was extended to all Indian citizens (resident/non-resident/overseas) on a voluntary basis and to corporates for its employees.

## Science and Technology: Science for Equity Empowerment and Development (SEED)

**Relevance IN – Prelims (about SEED and TIDE)**

### What's the NEWS

- The Department of Science and Technology has taken several initiatives to mitigate the impact of COVID-19 among **Divyangjan and Elderly** and identified various challenges faced by them for finding technological solutions.







### Know! about SEED and TIDE

- The organizations supported by Science for Equity Empowerment and Development(SEED) Division of DST have been instrumental in developing various assistive tools, technologies and techniques, that are affordable and adaptable to the Indian milieu through its programme on **Technology Interventions for Disabled and Elderly (TIDE)**, for creating inclusiveness and universal accessibility for Divyangjan and Elderly.
- Under this programme **an e-Tool to create awareness** and impart health and hygiene related information along with education and entertainment to overcome loneliness of the persons with intellectual disabilities, due to COVID-19 pandemic has been developed by Rajalakshmi Engineering College, Chennai.
- This will help the persons with Intellectual Disability to learn with fun through Tabs and mobiles.
- The e-Tool can also be converted to other vernacular languages and the Beta Version of the e-tool is being used by 200 specially-abled children.

### Economy: Atma-Nirbhar Bharat or self-reliant India

**Relevance IN – Prelims (all about Self-Reliant India economic package) + Mains (GS III economic development + 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 Prime Minister announced a Special economic and comprehensive package of Rs 20 lakh crores - equivalent to 10% of India's GDP. (The package includes earlier announcements made by the RBI and the government which together is equivalent to **around 10% of India's GDP**.)
- He gave a clarion call for आत्मनिर्भर भारत अभियान or Self-Reliant India Movement by promoting business, attracting investment, cutting down import dependence and by strengthening Make in India.





- ## Announcements Made by the Finance Minister (Day 1)

# #AatmanirbharBharat

A summary of measures announced (2/2)

- ₹ 30,000 crores Liquidity Facility for NBFC/HCs/MFIs
- ₹ 45,000 cr Partial Credit Guarantee Scheme 2.0 for NBFC
- ₹ 90,000 cr Liquidity Injection for DISCOMs
- Up to 6 months extension to construction and goods and services contractors
- Advisory to States/UTs to extend Registration and Completion Date of real estate projects under RERA
- ₹ 50,000 cr liquidity through TDS/TCS reductions
- Due date of income tax return for FY 2019-20 extended from 31st July 2020 and 31st October, 2020 to 30th November, 2020
- Period of Vivad se Vishwas Scheme to be extended to 31st December, 2020


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- Rs 3 lakh crore Emergency Working Capital Facility for Businesses, including MSMEs
- Rs 20,000 crore Subordinate Debt for Stressed MSMEs
  - Provision made for Rs. 20,000 cr subordinate debt for two lakh MSMEs which are NPA or are stressed.
  - Government will support them with Rs. 4,000 Cr. to Credit Guarantee Trust for Micro and Small enterprises (CGTMSE).
- Rs 50,000 crores equity infusion through MSME Fund of Funds
- New definition of MSME
- Definition of MSME will be revised by raising the Investment limit. An additional criteria of turnover also being introduced. The distinction between manufacturing and service sector will also be eliminated.
- No Global tenders for Government tenders of up to Rs 200 crores.
- Employees Provident Fund Support for business and organised workers
  - The government has extended the EPF support of up to Rs 2,500 crore for another three months.
  - Under the PM Garib Kalyan Yojana, payment of 12 percent of employer and 12 percent employee contribution was made into the EPF accounts of eligible establishments.
  - This support was offered till May. Now the same is being extended for June, July and August.
- EPF Contribution to be reduced for Employers and Employees for 3 months
  - Statutory PF contribution of both employer and employee reduced to 10% each from existing 12% each for all establishments covered by EPFO for next 3 months.

### Earlier and Revised Definition of MSMEs

#### Earlier MSME Classification



**Criteria:** Investment in Plant & Machinery or Equipment

Classification	Micro	Small	Medium
Manufacturing Enterprises	<b>Investment</b> < ₹ 25 lac	<b>Investment</b> < ₹ 5 cr.	<b>Investment</b> < ₹ 10 cr.
Services Enterprise	<b>Investment</b> < ₹ 10 lac	<b>Investment</b> < ₹ 2 cr.	<b>Investment</b> < ₹ 5 cr.

#### Revised MSME Classification

**Composite Criteria:** Investment and Annual Turnover

Classification	Micro	Small	Medium
Manufacturing & Services	<b>Investment</b> < ₹ 1 cr. & <b>Turnover</b> < ₹ 5 cr	<b>Investment</b> < ₹ 10 cr. & <b>Turnover</b> < ₹ 50 cr.	<b>Investment</b> < ₹ 20 cr. & <b>Turnover</b> < ₹ 100 cr.

Source: Ministry of Finance

## Earlier and Revised Definition of MSMEs

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Source: Ministry of Finance

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**KBK**



9. Rs 30,000 crores Special Liquidity Scheme for NBFC/HFC/MFIs
  - Government will launch Rs 30,000 crore Special Liquidity Scheme, liquidity being provided by RBI.
10. Rs 45,000 crores Partial credit guarantee Scheme 2.0 for Liabilities of NBFCs/MFIs
11. Rs 90,000 crore Liquidity Injection for DISCOMs
12. Relief to Contractors
  - All central agencies like Railways, Ministry of Road Transport and Highways and CPWD will give extension of up to 6 months for completion of contractual obligations, including in respect of EPC and concession agreements
13. Relief to Real Estate Projects
  - State Governments are being advised to invoke the Force Majeure clause under RERA.
  - The registration and completion date for all registered projects will be extended up to 6 months and may be further extended by another 3 months based on the State's situation.

## Extension of Registration and Completion Date of Real Estate Projects under RERA

- Adverse impact due to COVID and projects stand the risk of defaulting on RERA timelines. Time lines need to be extended.
- Ministry of Housing and Urban Affairs will advise States/UTs and their Regulatory Authorities to the following effect:
  - Treat COVID-19 as an event of 'Force Majeure' under RERA.
  - Extend the **registration and completion date** suo-moto by 6 months for all registered projects expiring on or after 25<sup>th</sup> March, 2020 without individual applications.
  - Regulatory Authorities may extend this for another period of upto 3 months, if needed
  - Issue **fresh 'Project Registration Certificates'** automatically with revised timelines.
  - Extend timelines for various statutory compliances under RERA concurrently.
- These measures will de-stress real estate developers and ensure completion of projects so that homebuyers are able to get delivery of their booked houses with new timelines.



## Economy: Atma-Nirbhar Bharat or self-reliant India

**Relevance IN – Prelims (all about Self-Reliant India economic package) + Mains (GS III economic development + 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 **2<sup>nd</sup> Tranche of measures** to ameliorate the hardships faced specifically by migrant labours, street vendors, migrant urban poor, small traders self-employed people, small farmers and housing

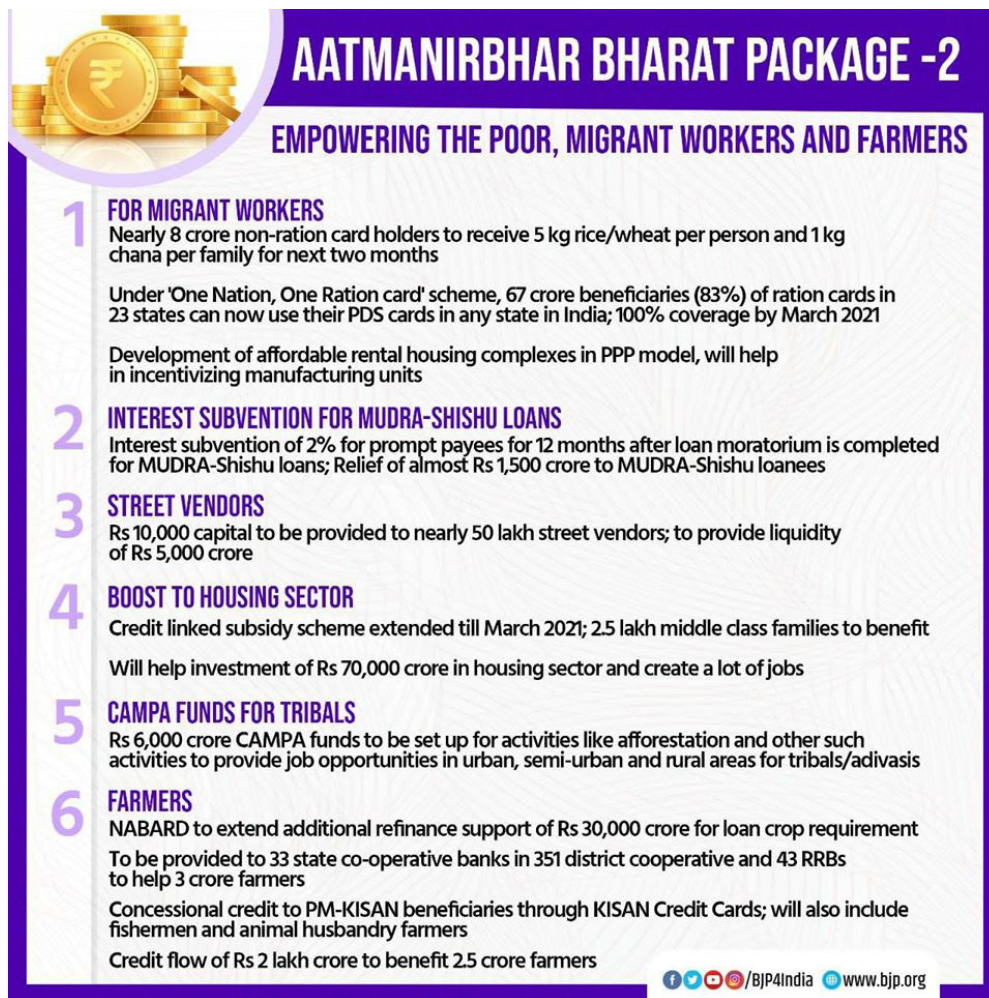
*The short term and long-term measures for supporting the poor, including migrants, farmers, tiny businesses and street vendors.*

### Free food grains supply to migrants for 2 months

- Additional food grain to all the States/UTs at the rate of **5 kg per migrant labourer and 1 kg Chana per family per month for two months** i.e. May and June, 2020 free of cost shall be allocated.



- Migrant labourers **not covered** under National Food Security Act or **without a ration card** in the State/UT in which they are stranded at present will be eligible.



**AATMANIRBHAR BHARAT PACKAGE -2**  
EMPOWERING THE POOR, MIGRANT WORKERS AND FARMERS

- 1 FOR MIGRANT WORKERS**  
Nearly 8 crore non-ration card holders to receive 5 kg rice/wheat per person and 1 kg chana per family for next two months  
  
Under 'One Nation, One Ration card' scheme, 67 crore beneficiaries (83%) of ration cards in 23 states can now use their PDS cards in any state in India; 100% coverage by March 2021  
  
Development of affordable rental housing complexes in PPP model, will help in incentivizing manufacturing units
- 2 INTEREST SUBVENTION FOR MUDRA-SHISHU LOANS**  
Interest subvention of 2% for prompt payees for 12 months after loan moratorium is completed for MUDRA-Shishu loans; Relief of almost Rs 1,500 crore to MUDRA-Shishu loanees
- 3 STREET VENDORS**  
Rs 10,000 capital to be provided to nearly 50 lakh street vendors; to provide liquidity of Rs 5,000 crore
- 4 BOOST TO HOUSING SECTOR**  
Credit linked subsidy scheme extended till March 2021; 2.5 lakh middle class families to benefit  
  
Will help investment of Rs 70,000 crore in housing sector and create a lot of jobs
- 5 CAMPA FUNDS FOR TRIBALS**  
Rs 6,000 crore CAMPA funds to be set up for activities like afforestation and other such activities to provide job opportunities in urban, semi-urban and rural areas for tribals/adivasis
- 6 FARMERS**  
NABARD to extend additional refinance support of Rs 30,000 crore for loan crop requirement  
To be provided to 33 state co-operative banks in 351 district cooperative and 43 RRBs to help 3 crore farmers  
  
Concessional credit to PM-KISAN beneficiaries through KISAN Credit Cards; will also include fishermen and animal husbandry farmers  
  
Credit flow of Rs 2 lakh crore to benefit 2.5 crore farmers

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- The entire outlay of Rs. 3500 crore will be **borne by Government of India.**

### **Technology system to be used enabling Migrants to access PDS (Ration) from any Fair Price Shops in India by March, 2021-One Nation one Ration Card**

- Pilot scheme for portability of ration cards (**One Nation one Ration Card**) will be extended to 23 states. By that, 67 crore beneficiaries covering 83% of PDS population will be covered by National portability of Ration cards by August, 2020.
- 100% National portability will be achieved by March, 2021.
- This scheme will enable a migrant worker and their family members to access PDS benefits from any Fair Price Shop in the country.
- This will ensure that the people in transit, especially migrant workers can also get the benefit of PDS benefit across the country.

### **Scheme for Affordable Rental Housing Complexes for Migrant Workers and Urban Poor to be launched**

- Central Government will launch a scheme for migrant workers and urban poor to provide ease of living at affordable rent.
- **Affordable Rental Housing Complexes** will provide social security and quality life to migrant labour, urban poor, and students etc.
- This will be done through converting government funded houses in the cities into **Affordable Rental Housing Complexes (ARHC)** under PPP mode



## **2% Interest Subvention for 12 months for Shishu MUDRA loanees- Relief of Rs. 1,500 crore**

- Government of India will provide **Interest subvention of 2% for prompt payees for a period of 12 months** to MUDRA Shishu loanees, who have loans below Rs 50,000.

## **Rs 5,000 crore Credit facility for Street Vendors**

- A **special scheme will be** launched within a month to facilitate easy access to credit to Street vendors enabling them to restart their businesses.
- Under this scheme, bank credit facility **for initial working capital up to Rs. 10,000 for each enterprise** will be extended.
- This scheme will cover urban as well as rural vendors doing business in the adjoining urban areas.

## **Rs 70,000 crore boost to housing sector and middle income group through extension of Credit Linked Subsidy Scheme for MIG under PMAY(Urban)**

- The Credit Linked Subsidy Scheme for Middle Income Group (annual Income between Rs 6 and 18 lakhs) will be extended up to March 2021.

## **Rs 6,000 crore for Creating employment using CAMPA funds**

- Approximately Rs 6,000 crore of funds under Compensatory Afforestation Management & Planning Authority (CAMPA) will be used for **Afforestation and Plantation works, including in urban areas**
- This will create job opportunities in urban, semi-urban and rural areas and also for Tribals (Adivashis).

## **Rs 30,000 crore Additional Emergency Working Capital for farmers through NABARD**

- NABARD will extend additional re-finance support of **Rs 30,000 crore** for meeting crop loan requirement of **Rural Cooperative Banks and RRBs**.

## **Rs 2 lakh crore credit boost to 2.5 crore farmers under Kisan Credit Card Scheme**

- A special drive to provide concessional credit to PM-KISAN beneficiaries through Kisan Credit Cards.
- Fisherman and Animal Husbandry Farmers will also be included in this drive.
- This will enable such farmers to gain access to institutional credit at concessional interest rate

## **MGNREGS support to returning Migrants**

- Drive being undertaken to enroll returning migrants
- States/UTs advised to provide works to migrant workers as per the provisions of the Act

## **Labour Codes – Benefits for Workers**

- **Universalization of right of minimum wages** and timely payment of wages to all workers including unorganized workers – presently minimum wages applicable to only 30% of workers.
- Statutory concept of **National Floor Wage** introduced: will reduce regional disparity in minimum wages.
- Fixation of minimum wages simplified, leading to less number of rates of minimum wages and better compliance.
- Appointment letter for all workers-this will promote formalization.
- Annual Health Check-up for employees.
- **Occupational Safety & Health(OSH) Code** also applicable to establishments engaged in work of **hazardous nature** even with threshold of **less than 10 workers**.
- Definition of inter-state migrant worker modified to include migrant workers employed directly by the employer
- Extension of **ESIC coverage** pan-India to all districts and all establishments **employing 10 or more employees** as against those in notified districts/areas only.
- Extension of ESIC coverage to employees working in establishments with **less than 10 employees** on voluntary basis.
- **Mandatory ESIC coverage** through notification by the Central Government for employees in **hazardous industries** with less than 10 employees.
- Social Security Scheme for Gig workers and Platform workers.
- Re-skilling fund introduced for retrenched employees.
- All occupations opened for women and permitted to work at night with safeguards.
- Provision for Social Security Fund for unorganised workers.



- Gratuity for Fixed Term Employment - Provision of gratuity on completion of **one year service as against 5 years.**

## Economy: Atma-Nirbhar Bharat or self-reliant India(Part – III)

**Relevance IN – Prelims (all about Self-Reliant India economic package) + Mains (GS III economic development + 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 Finance & Corporate Affairs Minister **announced the 3<sup>rd</sup> Tranche of measures to strengthen Infrastructure Logistics, Capacity Building, Governance and Administrative Reforms for Agriculture, Fisheries and Food Processing Sectors.**

**Measures to strengthen Infrastructure Logistics and Capacity Building for Agriculture, Fisheries and Food Processing Sectors:**


- Rs 1 lakh crore Agri Infrastructure Fund for farm-gate infrastructure for farmers**
  - Financing facility of Rs. 1,00,000 crore will be provided for funding Agriculture Infrastructure Projects at **farm-gate & aggregation points** (Primary Agricultural Cooperative Societies, Farmers Producer Organizations, Agriculture entrepreneurs, Start-ups, etc.).
  - Impetus for development of farm-gate & aggregation point, affordable and financially viable Post Harvest Management infrastructure. **Fund will be created immediately.**
- Rs 10,000 crore scheme for Formalisation of Micro Food Enterprises (MFE)**
  - A Scheme promoting 'Vocal for Local with Global outreach' will be launched to help 2 lakh MFEs who need technical upgradation to attain FSSAI food standards, build brands and marketing.
  - Existing micro food enterprises, Farmer Producer Organisations, Self Help Groups and Cooperatives to be supported.
  - The focus will be on women and SC/ST owned units and those in Aspirational districts and a **Cluster based approach** (e.g. Mango in UP, Tomato in Karnataka, Chilli in Andhra Pradesh, Orange in Maharashtra etc.) will be followed.
- Rs 20,000 crore for fisherman through Pradhan Mantri Matsya Sampada Yojana (PMMSY)**
  - The Government will launch the PMMSY for integrated, sustainable, inclusive development of marine and inland fisheries.
  - Rs 11,000 crore for activities in Marine, Inland fisheries and Aquaculture and Rs. 9000 crore for Infrastructure - **Fishing Harbours, Cold chain, Markets** etc shall be provided.
  - Cage Culture, Seaweed farming, Ornamental Fisheries as well as New Fishing Vessels, Traceability, Laboratory Network etc. will be key activities.
  - There will be provisions of Ban Period Support to fishermen (during the period fishing is not permitted), Personal & Boat Insurance.
- National Animal Disease Control Programme**
  - To ensure **100% vaccination** of cattle, buffalo, sheep, goat and pig population (total 53 crore animals) for Foot and Mouth Disease (FMD) and for brucellosis.
- Animal Husbandry Infrastructure Development Fund - Rs. 15,000 crore**

**#AatmanirbharBharatAbhiyanPackage** Part-3

Focus on Agriculture and Allied Sectors (1/2)

**Measures to strengthen Infrastructure Logistics and Capacity Building**

- Agri Infrastructure Fund for farm-gate infrastructure: **₹1 lakh crore**
- Formalisation of Micro Food Enterprises: **₹10,000 crore**
- Pradhan Mantri Matsya Sampada Yojana: **₹20,000 crore**
- National Animal Disease Control Programme launched: **₹ 13,343 crore**
- Animal Husbandry Infrastructure Development Fund: **₹15,000 crore**
- Promotion of Herbal Cultivation: **₹4000 crore**
- Beekeeping initiatives: **₹500 crore**
- Operation Greens to be extended from Tomatoes, Onion and Potatoes to all fruits and vegetables



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- An Animal Husbandry Infrastructure Development Fund of Rs. 15,000 crore will be set up, with an aim **to support private investment in Dairy Processing**, value addition and cattle feed infrastructure.
- Incentives will be given for establishing plants for export of niche products.

## 6. Promotion of Herbal Cultivation: Outlay of Rs. 4,000 crore

- The National Medicinal Plants Board (NMPB) has supported 2.25 lakh hectare area under cultivation of medicinal plants.
- 10,00,000 hectare will be covered under Herbal cultivation in next two years with outlay of Rs. 4,000 crore.
- There will be network of regional *Mandis* for Medicinal Plants.
- NMPB will bring 800-hectare area by developing a corridor of medicinal plants along the banks of Ganga.

## 7. Beekeeping initiatives – Rs 500 crore

*Government will implement a scheme for:*

- Infrastructure development related to **Integrated Beekeeping Development Centres**, Collection, Marketing and Storage Centres, Post Harvest & value Addition facilities etc;
- Implementation of standards & Developing traceability system
- Capacity building with thrust on women;
- Development of quality nucleus stock and bee breeders.

## 8. From 'TOP' to TOTAL - Rs 500 crore

- **“Operation Greens” run by Ministry of Food Processing Industries (MOFPI) will be extended** from tomatoes, onion and potatoes **to ALL fruit and vegetables.**
- **The Scheme would provide** 50% subsidy on transportation from surplus to deficient markets, 50% subsidy on storage, including cold storages and will be launched as pilot for the next 6 months and will be extended and expanded.
- This will lead to better price realisation to farmers, reduced wastages, affordability of products for consumers.

## Measures for Governance and Administrative Reforms for Agriculture Sector:-

### 1. Amendments to Essential Commodities Act to enable better price realisation for farmers

*The Government will amend Essential Commodities Act.*

- Agriculture food stuffs including cereals, edible oils, oilseeds, pulses, onions and potato shall be deregulated.
- Stock limit will be imposed under very exceptional circumstances like national calamities, famine with surge in prices.
- Further, No such stock limit shall apply to processors or value chain participant, subject to their installed capacity or to any exporter subject to the export demand.

### 2. Agriculture Marketing Reforms to provide marketing choices to farmers

*A Central law will be formulated to provide -*

- adequate choices to the farmer to sell their produce at remunerative price;
- barrier free Inter-State Trade;
- a framework for e-trading of agriculture produce.

## #AatmanirbharBharatAbhiyanPackage Part-3

### Focus on Agriculture and Allied Sectors (2/2)

#### Governance and Administrative Reforms

**Amendments to Essential Commodities Act**

- Agriculture food stuffs like cereals, edible oils, onions etc. to be deregulated
- Stock limit to be imposed under very exceptional circumstances
- No such stock limit shall apply to processors or value chain participant



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**Agriculture Marketing Reforms**

*A Central law will be formulated to provide for :-*

- Farmer to sell produce at attractive price
- Barrier-free Inter-State Trade
- Framework for e-trading of agriculture produce

Facilitative legal framework for engaging with processors, aggregators, large retailers, exporters etc

Risk mitigation for farmers, assured returns and quality standardisation



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### 3. Agriculture Produce Pricing and Quality Assurance:

- The Government will finalise a **facilitative legal framework** to enable farmers to engage with processors, aggregators, large retailers, exporters etc. in a fair and transparent manner.
- Risk mitigation for farmers, assured returns and quality standardisation shall form integral part of the framework.

## Economy: Aatmanirbhar Bharat (Overall Stimulus Package)

Part-1		5,94,550	Part-3		1,50,000
Emergency W/C Facility for Businesses, including MSMEs	3,00,000		Food Micro enterprises	10,000	
Subordinate Debt for Stressed MSMEs	20,000		Pradhan Mantri Matsya Sampada Yojana	20,000	
Fund of Funds for MSME	50,000		TOP to TOTAL: Operation Greens	500	
EPF Support for Business & Workers	2,800		Agri Infrastructure Fund	100,000	
Reduction in EPF rates	6,750		Animal Husbandry Infrastructure Development Fund	15,000	
Special liquidity Scheme for NBFC/HFC/MFIs	30,000		Promotion of Herbal Cultivation	4,000	
Partial credit guarantee Scheme 2.0 for Liabilities of NBFCs/MFIs	45,000		Beekeeping Initiative	500	
Liquidity Injection for DISCOMs	90,000				
Reduction in TDS/TCS rates	50,000				
Part-2		3,10,000	Parts-4 & 5		48,100
Free Food grain Supply to Migrant Workers for 2 months	3,500		Viability Gap Funding	8,100	
Interest Subvention for MUDRA Shishu Loans	1,500		Additional MGNREGS allocation	40,000	
Special Credit Facility to Street Vendors	5,000				
Housing CLSS-MIG	70,000				
Additional Emergency Working Capital through NABARD	30,000				
Additional credit through KCC	200,000				
			<b>Total</b>	<b>11,02,650</b>	
			(Parts 1+2+3+4+5)		
			<b>Earlier Measures</b>	<b>1,92,800</b>	
			including PMGKP		
			<b>RBI Measures</b>	<b>8,01,603</b>	
			(Actual)		
			<b>Grand Total</b>	<b>20,97,053</b>	

## Economy: Aatma Nirbhar Bharat Abhiyaan (4<sup>th</sup> Tranche)

**Relevance IN – Prelims (all about Self-Reliant India economic package) + Mains (GS III economic development + 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 Finance Minister announced following policy reforms to fast track investment in an effort towards **Aatma Nirbhar Bharat**:
  - There will be **fast tracking of investment clearance** through Empowered Group of Secretaries.
  - Project Development Cell** will be constituted in each Ministry to prepare investible projects, coordinate with investors and Central/State Governments.



- c. There will be ranking of States on investment attractiveness to compete for new investment.
- d. Incentive schemes for promotion of new **champion sectors** will be launched in sectors such as solar PV manufacturing; advanced cell battery storage etc.

**Structural reforms in the eight sectors of Coal, Minerals, Defence production, Civil Aviation, Power Sector, Social Infrastructure, Space and Atomic energy**

## 1. COAL SECTOR

### Introduction of Commercial Mining in Coal Sector

*The Government will introduce competition, transparency and private sector participation in the Coal Sector through:*

- a. A **revenue sharing mechanism** instead of regime of fixed Rupee/tonne. Any party can bid for a coal block and sell in the open market.
- b. Entry norms will be liberalised. Nearly 50 Blocks will be offered immediately. There will not be any eligibility conditions, only upfront payment with a ceiling will be provided.
- c. There will be **exploration-cum-production regime** for partially explored blocks against earlier provision of auction of fully explored coal blocks. This will allow private sector participation in exploration.

### Diversified Opportunities in Coal Sector

- Coal Gasification / Liquefaction will be incentivised through rebate in revenue share.
- Infrastructure development of Rs. 50,000 crore will be done for evacuation of enhanced Coal India Limited's (CIL) target of 1 billion tons coal production by 2023-24 plus coal production from private blocks.

### Liberalised Regime in Coal Sector

- Coal Bed Methane (CBM) extraction rights will be auctioned from Coal India Limited's (CIL) coal mines.
- Ease of Doing Business measures, such as Mining Plan simplification

## 2. MINERAL SECTOR


### Enhancing Private Investments in the Mineral Sector

- Introduction of a seamless composite exploration-cum-mining-cum-production regime.
- 500 mining blocks would be offered through an open and transparent auction process.


### Policy reforms in Mineral Sector

- The distinction between **captive and non-captive mines** to allow transfer of mining leases and sale of surplus unused minerals, leading to better efficiency in mining and production shall be removed.
- Ministry of Mines is in the process of developing a **Mineral Index** for different minerals.
- There will be rationalisation of stamp duty payable at the time of award of mining leases.


**Reforms Drive**  
Structural reforms in coal, minerals, defence production, civil aviation, space and atomic energy




**COAL**  
Govt monopoly in mining to go  
**Commercial mining through revenue share**  
Liberal entry norms, upfront payment  
**50 blocks up for bidding**  
₹50k cr infra development for transporting mined coal  
**Auction of coal-bed methane extraction rights**




**CIVIL AVIATION**  
Policy for better utilisation of Indian airspace  
**Measure to make India an MRO services hub**  
6 more airports to be privatised



**POWER**  
Discoms in UTs to be privatised  
**Model for other utilities**  
Tariff reform policy to back privatisation



**SOCIAL INFRASTRUCTURE**  
Viability gap funding scheme for social projects  
**Funding increased to 30% of total project cost by Centre & state**  
₹8,100 crore allocation made for this



Aatmanirbhar Bharat

**Policy Reforms – Mineral Sector**

- Remove distinction between captive and non-captive mines to allow transfer of mining leases and sale of surplus unused minerals, leading to better efficiency in mining and production
- Ministry of Mines is in the process of developing a **Mineral Index** for different minerals
- Rationalisation of stamp duty payable at the time of award of mining leases



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### 3. DEFENCE SECTOR

#### Enhancing Self Reliance in Defence Production

- **Make in India for Self-Reliance in Defence Production** will be promoted by notifying a list of weapons/platforms for ban on import with year wise timelines
- Indigenisation of imported spares, and separate budget provisioning for domestic capital procurement. This will help reduce huge Defence import bill.
- Improve autonomy, accountability and efficiency in Ordnance Supplies by Corporatisation of Ordnance Factory Board.

#### Policy Reforms in Defence Production

- **FDI limit in the Defence manufacturing under automatic route will be raised from 49% to 74%.**
- There will be time-bound defence procurement process and faster decision making will be ushered in by setting up of a **Project Management Unit (PMU)**.
- Realistic setting of **General Staff Qualitative Requirements (GSQRs)** of weapons/platforms and overhauling Trial and Testing procedures.



### 4. CIVIL AVIATION SECTOR



#### Efficient Airspace Management for Civil Aviation

- Restrictions on utilisation of the Indian Air Space will be eased so that civilian flying becomes more efficient.
- This will lead to optimal utilization of airspace; reduction in fuel use, time and will have positive environmental impact.

#### More World-Class Airports through PPP

- 6 more airports have been identified for 2<sup>nd</sup> round bidding for Operation and Maintenance on Public-Private Partnership (PPP) basis.

#### India to become a global hub for Aircraft Maintenance, Repair and Overhaul (MRO)

- Aircraft component repairs and airframe maintenance to increase from Rs 800 crore to Rs 2,000 crore in three years.



- It is expected that major engine manufacturers in the world would set up engine repair facilities in India in the coming year.
- Convergence between Defence sector and the civil MROs will be established to create economies of scale. This will lead to maintenance cost of airlines to come down.

## 5. POWER SECTOR

### Tariff Policy Reform

Tariff Policy laying out the following reforms will be released:

#### (i) Consumer Rights

- DISCOM inefficiencies not to burden consumers
- Standards of Service and associated penalties for DISCOMs
- DISCOMs to ensure adequate power; load-shedding to be penalized

#### (ii) Promote Industry

- Progressive reduction in cross subsidies
- Time bound grant of open access
- Generation and transmission project developers to be selected competitively

#### (iii) Sustainability of Sector

- No Regulatory Assets
- Timely payment of Gencos
- DBT for subsidy; Smart prepaid meters

### Privatization of Distribution in UTs

- Power Departments / Utilities in Union Territories will be privatised.
- This will lead to better service to consumers and improvement in operational and financial efficiency in Distribution.

## 6. Social Infrastructure: Boosting Private Sector Investment Through Revamped Viability Gap Funding Scheme

- The Government will enhance the quantum of Viability Gap Funding (VGF) upto 30% each of Total Project Cost as VGF by the Centre and State/Statutory Bodies.
- For other sectors, VGF existing support of 20 % each from Government of India and States/Statutory Bodies shall continue.
- Projects shall be proposed by Central Ministries/ State Government/ Statutory entities.

## 7. Space Sector: Boosting Private Participation In Space Activities

**Boosting private participation in Space activities (1/2)**

- Indian private sector will be a co-traveller in India's space sector journey
- Will provide **level playing field for private companies** in satellites, launches and space-based services
- Will provide **predictable policy and regulatory environment** to private players

**Boosting private participation in Space activities (2/2)**

- Private sector will be allowed to **use ISRO facilities** and other relevant assets to improve their capacities
- **Future projects** for planetary exploration, outer space travel, etc, to be **open for private sector**
- **Liberal geo-spatial data policy** for providing remote-sensing data to tech-entrepreneurs

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- Private sector will be allowed to use ISRO facilities and other relevant assets to improve their capacities.
- Future projects for planetary exploration, outer space travel etc shall also be open for private sector.
- There will be liberal geo-spatial data policy for providing remote-sensing data to tech-entrepreneurs.



## 8. Atomic Energy Related Reforms

- Research reactor in PPP mode for **production of medical isotopes** shall be established to promote welfare of humanity through affordable treatment for cancer and other diseases.
- Facilities in PPP mode to use **irradiation technology for food preservation** – to compliment agricultural reforms and assist farmers shall also be established.
- India's robust **start-up ecosystem will be linked to nuclear sector** and for this, Technology Development-cum-Incubation Centres will be set up for fostering synergy between research facilities and tech-entrepreneurs.

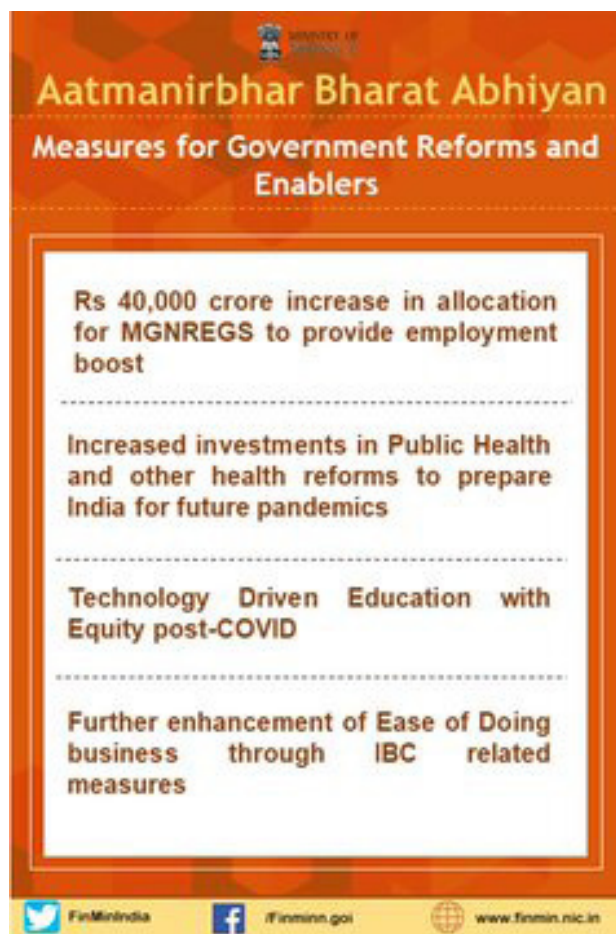


## Aatma Nirbhar Bharat Abhiyaan (5<sup>th</sup> Tranche)

**Relevance IN – Prelims (all about Self-Reliant India economic package) + Mains (GS III economic development + 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 5<sup>th</sup> and last Tranche of measures towards Government Reforms and Enablers**
- Seven measures for providing employment, support to businesses, Ease of Doing Business, and State Governments as well sectors such as Education and Health.





## 1. Rs 40,000 crore increase in allocation for MGNREGS to provide employment boost

**Aatmanirbhar Bharat Abhiyan**  
Rs 40,000 crore increase in allocation for MGNREGS to provide employment boost

- Government will now allocate an additional Rs 40,000 crore under MGNREGS
- Will help generate nearly 300 crore person days in total
- Address need for more work including returning migrant workers in Monsoon season as well
- Creation of larger number of durable and livelihood assets including water conservation assets
- Will boost the rural economy through higher production.

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## 2. Health Reforms & Initiatives

**Aatmanirbhar Bharat Abhiyan**  
**Health Reforms & Initiatives**

**Increased investments in Public Health –**

- Public Expenditure on Health will be increased.
- Investments in grass root health institutions
  - Ramp up Health and Wellness Centres in rural and urban areas

**Preparing India for any future pandemics –**

- Infectious Diseases Hospital Blocks – all districts
- Strengthening of lab network and surveillance –
  - Integrated Public Health Labs in all districts & block level Labs & Public Health Unit to manage pandemics.
- Encouraging Research–National Institutional Platform for One health by ICMR
- National Digital Health Mission: Implementation of National Digital Health Blueprint

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- Public Expenditure on Health will be increased by investing in grass root health institutions and ramping up Health and Wellness Centres in rural and urban areas.
- Setting up of Infectious Diseases Hospital Blocks in all districts and strengthening of lab network and surveillance by Integrated Public Health Labs in all districts & block level Labs & Public Health Unit to manage pandemics.
- National Institutional Platform for One health by ICMR will **encourage research**.
- Implementation of National Digital Health Blueprint under the **National Digital Health Mission**.

## 3. Technology Driven Education with Equity post-COVID

- **PM eVIDYA**, a programme for multi-mode access to digital/online education to be launched immediately.
- **Manodarpan**, an initiative for psycho-social support for students, teachers and families for mental health and emotional well-being to be launched immediately as well.
- **New National Curriculum and Pedagogical framework** for school, early childhood and teachers will also be launched.
- **National Foundational Literacy and Numeracy Mission** for ensuring that every child attains Learning levels and outcomes in grade 5 by 2025 will be launched by December 2020.

## 4. Further enhancement of Ease of Doing Business through IBC related measures

- Minimum threshold to initiate insolvency proceedings has been raised to Rs. 1 crore (from Rs. 1 lakh, which largely insulates MSMEs).
- Special insolvency resolution framework for MSMEs
- Suspension of fresh initiation of insolvency proceedings up to one year, depending upon the pandemic situation.
- Empowering Central Government to exclude COVID 19 related debt from the definition of “default” under the Code for the purpose of triggering insolvency proceedings.


**Aatmanirbhar Bharat Abhiyan**  
**Technology Driven Education with Equity post-COVID**

- **PM eVIDYA**- A programme for multi-mode access to digital/online education to be launched immediately; consisting of:
  - DIKSHA for school education in states/UTs: e-content and QR coded Energized Textbooks for all grades (one nation, one digital platform)
  - One earmarked TV channel per class from 1 to 12 (one class, one channel)
  - Extensive use of Radio, Community radio and Podcasts
  - Special e-content for visually and hearing impaired.
  - Top 100 universities will be permitted to automatically start online courses by 30th May, 2020.
- **Manodarpan**-An initiative for psychosocial support of students, teachers and families for mental health and emotional wellbeing to be launched immediately.
- **New National Curriculum and Pedagogical framework** for school, early childhood and teachers will be launched: integrated with global and 21st century skill requirements
- **National Foundational Literacy and Numeracy Mission** for ensuring that every child attains Learning levels and outcomes in grade 5 by 2025 will be launched by December 2020

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## 5. Decriminalisation of Companies Act defaults

**Aatmanirbhar Bharat Abhiyan** 

**Further enhancement of Ease of Doing Business through IBC related measures**

- Minimum threshold to initiate insolvency proceedings raised to Rs. 1 crore (from Rs. 1 lakh, which largely insulates MSMEs).
- Special insolvency resolution framework for MSMEs under Section 240A of the Code to be notified soon.
- Suspension of fresh initiation of insolvency proceedings up to one year depending upon the pandemic situation.
- Empowering Central Government to exclude COVID 19 related debt from the definition of "default" under the Code for the purpose of triggering insolvency proceedings.

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**Aatmanirbhar Bharat Abhiyan** 

**Decriminalisation of Companies Act defaults**

- Decriminalization of Companies Act violations involving minor technical and procedural defaults (shortcomings in CSR reporting, inadequacies in board report, filing defaults, delay in holding AGM).
- Majority of the compoundable offences sections to be shifted to internal adjudication mechanism (IAM) and powers of RD for compounding enhanced (58 sections to be dealt with under IAM as compared to 18 earlier).
- The Amendments will de-clog the criminal courts and NCLT
- 7 compoundable offences altogether dropped and 5 to be dealt with under alternative framework

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- Decriminalisation of Companies Act violations involving minor technical and procedural defaults such as shortcomings in CSR reporting, inadequacies in Board report, filing defaults

## 6. Ease of Doing Business for Corporates

### Key reforms include:

- Direct listing of securities by Indian public companies in permissible foreign jurisdictions.
- Private companies which list NCDs on stock exchanges not to be regarded as listed companies.
- Including the provisions of Part IXA (Producer Companies) of Companies Act, 1956 in Companies Act, 2013.
- Power to create additional/ specialized benches for NCLAT
- Lower penalties for all defaults for Small Companies, One-person Companies, Producer Companies & Start Ups.

## 7. Public Sector Enterprise Policy for a New, Self-reliant India

Government will announce a **new policy** whereby -

- List of strategic sectors requiring presence of PSEs in public interest will be notified
- In strategic sectors, **at least one enterprise will remain in the public sector but private sector will also be allowed**
- In other sectors, **PSEs will be privatized** (timing to be based on feasibility etc.)
- To minimise wasteful administrative costs, **number of enterprises in strategic sectors will ordinarily be only one to four; others will be privatised/ merged/ brought under holding companies**

## 8. Support to State Governments

- Centre has decided to **increase borrowing limits of States from 3% to 5% for 2020-21 only**.
- This will give States extra resources of Rs. 4.28 lakh crore.
- Part of the borrowing will be linked to specific reforms (including recommendations of the Finance Commission).
- Reform linkage will be in **four areas**: universalisation of 'One Nation One Ration card', Ease of Doing Business, Power distribution and Urban Local Body revenues.



## Science & Technology: NIF's Challenge COVID-19 Competition (C3)

**Relevance IN – Prelims (about NIF and C3)**

### What's the NEWS

- The National Innovation Foundation – India (NIF), an autonomous body of the Department of Science and Technology (DST) has identified several S&T based innovative solutions through the **Challenge COVID-19 Competition (C3)**, a campaign which was running from 31<sup>st</sup> March to 10<sup>th</sup> May 2020 for engaging innovative citizens **to come up with ideas and innovations to tackle the pandemic**.
- NIF is providing incubation and mentoring support for further dissemination to the generator of the ideas.
- A foot-operated device for hand sanitization and washing and an innovative sprayer for sanitization are the two recently supported innovations under the campaign.
- A large number of citizens have participated in the Challenge COVID-19 Competition (C3) and helping the country come out of this crisis through Science and Technology based innovative solutions.

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

- 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).
- All interested innovators participated with their creative ideas and innovations for problems or issues like reducing transmission of Corona virus through original creative ideas, innovations, which can supplement the efforts of the government in slowing or eliminating the spread further.

## Infrastructure Development: Damodar Valley Command Area (DVCA)

**Relevance IN – Prelims (about DVCA and about Damodar river) + Mains (GS III infrastructure development)**

### What's the NEWS

- The Government of India, the Government of West Bengal and the World Bank signed a loan agreement for a \$145 million project to improve **irrigation services and flood management in the Damodar Valley Command Area (DVCA)** in West Bengal.

### Know! more about the project

- This project will assist in improving irrigation and agriculture in the Damodar Valley Command Area, by optimizing the use of surface and groundwater and strengthening flood management, which will help boost agricultural productivity and increase incomes in rural areas.
- The DVCA is over 60 years old, and in need of modernization.
- The **Lower Damodar basin** area is historically flood-prone. This downstream part of the project area lacks the infrastructure to protect against recurrent flooding.
- The project will invest in measures to reduce flooding, including strengthening of embankments and desilting.

### AIIB also signed agreement with the Government of India

- The Government of India, the Government of West Bengal and the Asian Infrastructure Investment Bank (AIIB) signed a loan agreement for a US\$145 million project to improve irrigation services and flood management in the Damodar Valley Command Area (DVCA) in West Bengal.
- The **total value of the project is \$413.8 million**, co-financed between IBRD (\$145 million), the Asian Infrastructure Investment Bank (\$145 million) and the Government of West Bengal (\$123.8 million).

### Know! about DVCA

- The Damodar Valley Command Area (DVCA) is located downstream of Durgapur on the Damodar river in the districts of East and West Bardhaman, Howrah, Bankura and Hooghly.





- The scheme covers 393,964 ha and provides an important source of livelihoods for 2.68 million people.
- The canals are fed via headworks at Durgapur Barrage. Flow in the Damodar River to Durgapur is regulated by five upstream dams located in the neighboring state of Jharkhand.
- Irrigation water is supplied from these dams during three seasons: Kharif (25 July to 31 October), Rabi (25 December to 5 February), and Boro (25 January to 30 April).
- Key challenges include degradation of infrastructure and inadequate irrigation management, including poor quality of service delivery, inefficient irrigation and absence of a monitoring system.
- As a result of the degradation of the system, surface water no longer reaches the middle and tail parts of the canal network.

### Know! about DVC

- Damodar Valley Corporation (DVC) is an Indian governmental organization which operates in the Damodar River **area of West Bengal and Jharkhand states** of India.
- The corporation operates both thermal power stations and hydel power stations under the Ministry of Power, Govt of India. DVC is headquartered in the city of Kolkata, West Bengal, India
- The **valley** is called “the Ruhr of India”. **Damodar Valley** Corporation, popularly known as DVC, came into being on July 7, 1948, by an Act of the Constituent Assembly of India as the **first multipurpose river valley project of independent India**.

### Know! about Damodar river

- The Damodar River is a tributary of the Hugli River. It flows more or less in the west to east direction through Jharkhand and West Bengal.
- Its total length from its source in the hills of Chota Nagpur plateau in Jharkhand to its confluence with Hugli in West Bengal is about 541 km, half of which is in Jharkhand and the remaining half is in West Bengal.



- It takes a southerly turn from Bardhaman town and joins river Hugli about 50 km upstream from Kolkata.
- The Damodar valley covers an area of 24,235 sq km in Jharkhand and West Bengal.
- Bokaro, Barakar and Konar are its important tributaries.

## Defence: Indian Coast Guard Ship ‘Sachet’ and two interceptor boats commissioned



### Relevance IN – Prelims(about ICGS and IBs + role of ICG)

#### What's the NEWS

- Defence Minister commissioned **Indian Coast Guard Ship (ICGS) Sachet** and two interceptor boats (IBs) C-450 and C-451 in Goa via video conference
- The ICGS Sachet, the first in the series of five offshore patrol vessels (OPVs) has been designed & built indigenously by Goa Shipyard Limited (GSL) and is fitted with state-of-the-art navigation and communication equipment.
- It is for the first time in Indian maritime history that a ship was commissioned through digital medium.

#### Know! about Sachet

- The 105 metre long ship 'Sachet' displaces approximately 2,350 tons and is propelled by two 9,100 KW diesel engines designed to attain a maximum speed of 26 knots, with an endurance of 6,000 nautical miles.
- It has the capability to perform the role of a command platform and undertake tasks to fulfill the ICG charter.
- The ship is designed to carry a twin-engine helicopter and four high speed boats and one inflatable boat for swift boarding and search & rescue operations.
- The ship is also capable of carrying limited pollution response equipment to undertake oil spill pollution response at sea.

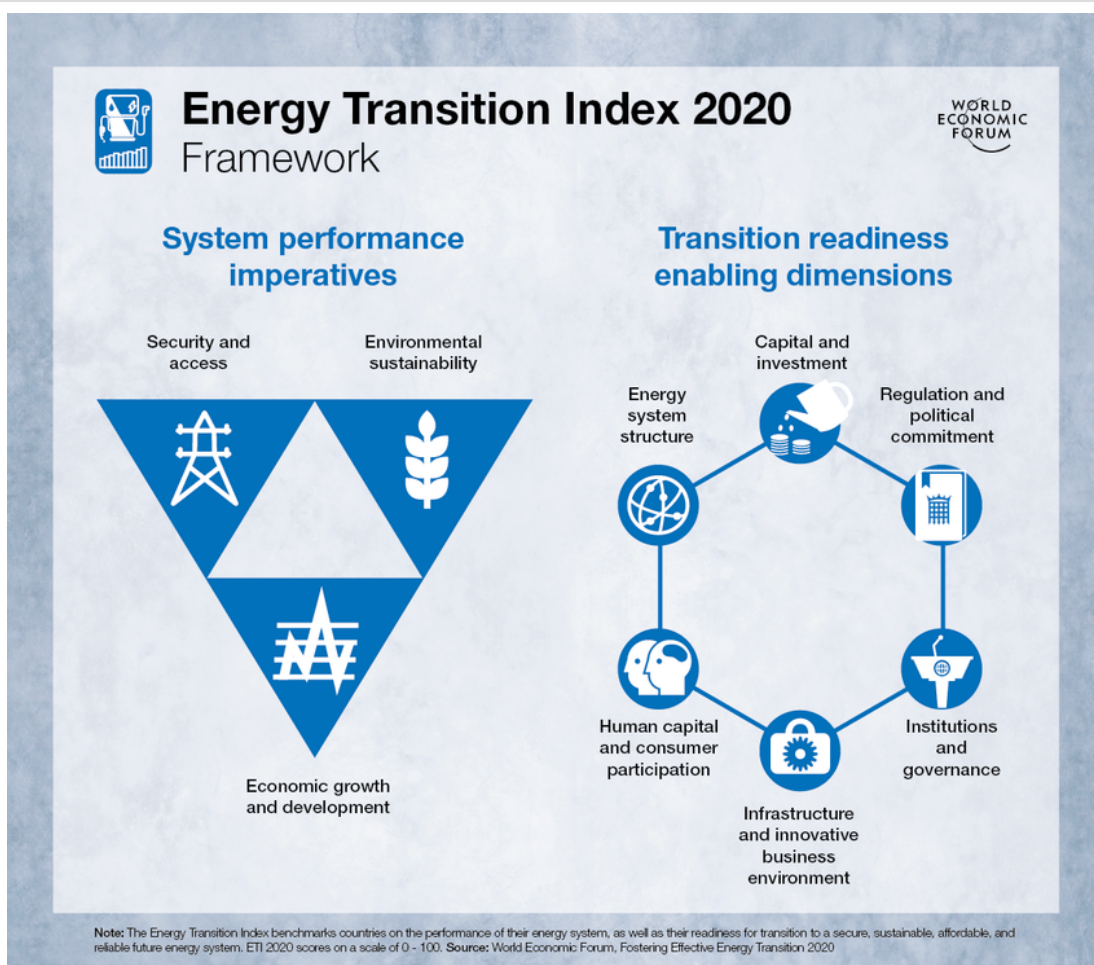
#### Know! about interceptor boats (IBs)

- The IBs C-450 and C-451 are indigenously designed & built by Larsen & Toubro Shipyard Hazira, and fitted with latest navigation and communication equipment.
- The two 30 metre long boats are capable of achieving speeds in excess of 45 knots and designed for high speed interception, close coast patrol and low intensity maritime operations.
- The quick response capability of the IBs makes it an ideal platform to respond and thwart any emerging maritime situation.
- The ships, on joining the Coast Guard fleet, will be deployed extensively for Exclusive Economic Zone (EEZ) surveillance, coastal security and other duties

#### Role of ICG guarding the coastline

- As the fourth largest Coast Guard in the world, it has established itself as a reliable force.
- It not only protects our coastline and coastal community, but also protects economic activities, and maritime environment in the Exclusive Economic Zone (EEZ).





## ***Relevance IN – Prelims (about energy transition index and its important takeaways) + Mains (GS III infrastructure development – energy sector)***

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

- India has **moved up two positions to rank 74<sup>th</sup>** on a global 'Energy Transition Index' with improvements on all key parameters of economic growth, energy security and environmental sustainability
- **Sweden has topped** the Energy Transition Index (ETI) for the third consecutive year and is followed by Switzerland and Finland in the top three.
- The index **benchmarks 115 economies** on the current performance of their energy systems across economic development and growth, environmental sustainability and energy security and access indicators and their readiness for transition to secure, sustainable, affordable and inclusive energy systems.

### **Know! the findings of ETI (World Specific)**

- The energy systems have **globally become less affordable and less environmentally sustainable** than they were five years ago, though access to energy has improved with less than 1 billion now living without access to electricity.
- Only 11 out of 115 countries have **made steady improvements in ETI** scores since 2015. Argentina, China, India and Italy are among the major countries with consistent annual improvements.
- The results for 2020 show that **75% of countries** have improved their environmental sustainability.
- It is a result of multifaceted, incremental approaches, including pricing carbon, retiring coal plants ahead of schedule and redesigning electricity markets to integrate renewable energy sources.
- Its study measuring readiness for clean energy transition in 115 economies showed that 94 have made progress since 2015.



- The greatest overall progress is observed among emerging economies.

### **Know! the findings of ETI (India Specific)**

*India has moved up two positions to rank 74<sup>th</sup> with improvements in all three dimensions of the energy triangle namely:*

1. Economic development and growth.
  2. Energy access and security.
  3. Environmental sustainability.
- For India, gains have come from a government-mandated renewable energy expansion programme i.e. to add 275 GW by 2027.
  - India has made significant strides to improve energy access in recent years, and currently scores well in the area of regulation and political commitment towards energy transition,
  - India has also made significant strides in energy efficiency through bulk procurement of LED bulbs, smart meters and programs for labelling of appliances. Similar measures are being experimented to drive down the costs of electric vehicles (EVs).

### **Know! about World Economic Forum**

- The World Economic Forum is the International Organization for Public-Private Cooperation.
- The Forum engages the foremost political, business, cultural and other leaders of society to shape global, regional and industry agendas.
- It was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland.
- It is independent, impartial and not tied to any special interests. The Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance.

*The World Economic Forum publishes a comprehensive series of reports which examine in detail the broad range of global issues it seeks to address with stakeholders as part of its mission of improving the state of the world.*

- The Global Competitiveness Report
- The Global Risks Report
- The Global Gender Gap Report
- The Global IT Report
- The Global Travel and Tourism Report

## **Environment: 40 gharials released in Ghaghara river amid lockdown**



### **Relevance IN – Prelims (all about gharials and its conservation programme)**

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

- Forty gharials (*Gavialis gangeticus*) were released in the Ghaghara river for the conservation and protection in natural habitat.
- The animals were brought from the Kukrail Gharial Rehabilitation Centre in Lucknow after being tagged.



## Know! all about Gharials

- Gharials are **critically endangered** in the International Union for Conservation of Nature Red List of Species.
- The species is also listed under Schedule I of the Wild Life (Protection) Act, 1972.
- A major chunk of gharials in India is found in the Chambal river, which has about 1,000 adults.
- The primary habitat of gharials is the **Chambal Wildlife Sanctuary**.
- Ghaghra and Gandak river, Girwa river (Katarniaghat Wildlife Sanctuary in Uttar Pradesh), the Ramganga river in Jim Corbett National Park and the Sone river are the **secondary habitat of Gharials**
- Gharials are a good indicator of clean river water
- Gharials prefer sandbanks as suitable habitats.
- Like Uttar Pradesh, Bihar too is releasing gharials in the Valmiki Tiger Reserve as part of restocking the wild population.
- Unlike crocodiles, gharials do not pose any danger to humans.

### India has three species of Crocodilians namely:

- Mugger crocodile : IUCN- Vulnerable
- Saltwater crocodile : IUCN- Least Concern
- Gharial : (IUCN)- Critically Endangered.
- Breeding centres were established in Lucknow, Uttar Pradesh (Kukrail Gharial Rehabilitation Centre) in Lucknow, and in Madhya Pradesh (National Chambal Sanctuary, Gharial Eco Park) as a conservation efforts

## Know! about Chambal river

- The Chambal River is a **tributary of the Yamuna River** in central India, and thus forms part of the greater Gangetic drainage system.
- The river flows north-northeast through Madhya Pradesh, running for a time through Rajasthan, then forming the boundary between Rajasthan and Madhya Pradesh before turning southeast to join the Yamuna in Uttar Pradesh state (in Etawah District of UP)
- The Chambal originates at the Singar Chouri peak in the northern slopes of the Vindhya mountains situated near Indore, Madhya Pradesh
- Banas, Kali Sindh, Parbati are the tributaries of Chambal river
- The National Chambal Sanctuary is located along river Chambal on the tri-junction of Rajasthan, Madhya Pradesh and Uttar Pradesh.
- It is known for critically endangered gharials, the red-crowned roof turtle, and the endangered Ganges river dolphin.

## Defence: Defence Testing Infrastructure Scheme

**Relevance IN – Prelims (about Defence Testing Infrastructure Scheme (DTIS) + Mains (GS III Achievements of Indians in science & technology; indigenization of technology and developing new technology.**

### What's the NEWS

- Defence Minister approved a Defence Testing Infrastructure Scheme (DTIS) with an outlay of Rs 400 crore to provide private sector defence and aerospace companies **affordable facilities to test and validate weaponry they are designing**.

### Facilities now for private sector also

- Over decades, the Defence Research & Development Organisation (DRDO), the 41 Ordnance Factories (OFs) and eight Defence Public Sector Undertakings (DPSUs) have created sophisticated and costly testing facilities for firearms, ammunition, electronics and radar at government expense.
- The private sector will have access to such facilities too.
- This is directed towards promoting indigenous defence capability, specifically amongst micro, small and medium enterprises (MSMEs) and start-ups.



## Know! the role of Defence Testing Infrastructure Scheme

- Defence Testing Infrastructure is often capital intensive requiring continuous upgradation, and it is not economically viable for individual defence industrial units to set up in-house testing facilities.
- The Scheme aims at setting up of Greenfield Defence Testing Infrastructure... **as a common facility** under private sector with government assistance, mainly in DICs (Defence Industrial Corridors).
- While majority of test facilities are expected to come up in the two DICs (one in Tamil Nadu and the other in Uttar Pradesh), the scheme is not limited to setting up test facilities in the DICs only
- The DTIS scheme, **which will run for five years**, envisages setting up six to eight test facilities in partnership with private industry.
- Each such project will receive **75 per cent of its cost as government** funding, while the remaining **25 per cent** will be borne by a Special Purpose Vehicle (SPV) composed of Indian private entities and concerned state governments.
- The SPVs, which will be registered under the Companies Act 2013, will be mandated to operate and maintain all the testing facilities, in a self-sustainable manner by collecting user charges. The equipment/systems tested will be certified as per appropriate accreditation.

## Infrastructure Development: Indian Railways - 6<sup>th</sup> country in the world to join the elite club of producing high horse power locomotive indigenously.

**Relevance IN – Prelims**(about WAG12 the first 12000 HP locomotive) + **Mains (GS III indigenisation of technology and developing new technology)**

### What's the NEWS

- First 12000 HP made in India Locomotive, manufactured by Madhepura Electric Loco Factory situated in Bihar, was put into operation by Indian Railways from Pt Deen Dayal Upadhyaya Jn Station

### Know! more about the locomotive

- The loco is **named WAG12** consisting of **118 wagons** which travelled from Pt DeenDayalUpadhyayaJn to Barwadih via Dehri-on-Sone, Garhwa Road.
- Indian Railways, became 6<sup>th</sup> country in the world to join the elite club of producing high horse power locomotive indigenously.
- It is the first time, high horse power locomotive has been operationalised on broad gauge track in the world.
- The locomotive has been produced under Make in India programme.
- The Madhepura factory is the largest integrated Green Field facility built to the highest standards of quality and safety with production capacity of 120 locomotives and spread across a massive 250 acres.



## Science and Technology: Agappe Chitra Magna

**Relevance IN – Prelims (about Agappe Chitra Magna -RNA extraction kit)**

### What's the NEWS

- The commercial launch of Agappe Chitra Magna

### Know! all about Agappe Chitra Magna

- It is a **magnetic nanoparticle-based RNA extraction kit** for use during testing for detection of COVID-19 developed by Sree Chitra Tirunal (SCTIMST) - Trivandrum, an Institute of National Importance of the Department of Science and Technology (DST) along with Agappe Diagnostics Ltd



- The Chitra Magna, an innovative RNA extraction kit has been independently validated at National Institute of Virology for Covid19 RNA isolation.
- Central Drugs Standard Control Organisation (CDSCO) has given approval for the commercialization of this kit.
- The kit can be **used for RNA extraction** for RT-LAMP, RT-qPCR, RT-PCR and other isothermal and PCR based protocols for the detection of SARS-COV-2.
- It uses an innovative technology for isolating RNA **using magnetic nanoparticles** to capture the RNA from the patient sample.
- The magnetic **nanoparticle beads bind to the viral RNA** and, when exposed to a magnetic field, give a highly purified and concentrated RNA.
- As the sensitivity of the detection method is dependent on getting an adequate quantity of viral RNA, this innovation enhances the chances of identifying positive cases.

#### **Know! about RNA -extraction**

- Isolation of intact RNA is essential for many techniques used in gene expression analysis (eg. RT-PCR). The RNA extraction kit enables the total RNA extraction from tissues.

## **Food Processing: Cabinet approves “Scheme for formalisation of Micro Food Processing Enterprises (FME)”**

***Relevance IN – Prelims (all about the FME scheme) + Mains (GS III Food processing and related industries in India- scope and significance, location, upstream and downstream requirements, supply chain management.)***

#### **What’s the NEWS**

- The Union Cabinet, chaired by the Prime Minister has given its approval to a new **Centrally Sponsored Scheme** - “Scheme for Formalisation of Micro food processing Enterprises (FME)” for the **Unorganized Sector** on All India basis with an outlay of Rs.10,000 crore.
- The expenditure will be shared by GOI and the States in ratio of 60:40.

#### **Know! the Highlights**

- 2,00,000 micro-enterprises are to be assisted with credit linked subsidy.
- Scheme will be implemented **over a 5 year period** from 2020-21 to 2024-25.
- Micro enterprises will get credit linked subsidy @ 35% of the eligible project cost with ceiling of Rs.10 lakh
- Beneficiary contribution will be minimum 10% and balance from loan.
- On-site skill training & Handholding for DPR and technical upgradation.
- Grant for backward/ forward linkages, common infrastructure, packaging, marketing & branding.
- Cluster approach.
- Focus on perishables.

#### **Know! the Objectives**

- Increase in access to finance by micro food processing units.
- Increase in revenues of target enterprises.
- Enhanced compliance with food quality and safety standards.
- Strengthening capacities of support systems.
- Transition from the unorganized sector to the formal sector.
- Special focus on women entrepreneurs and Aspirational districts.
- Encourage Waste to Wealth activities.
- Focus on minor forest produce in Tribal Districts.



## The role of National Portal & MIS

- A National level portal would be set-up wherein the applicants/ individual enterprise could apply to participate in the Scheme.
- All the scheme activities would be undertaken on the National portal.

## Know! the Impact and employment generation

- Nearly eight lakh micro- enterprises will benefit through access to information, better exposure and formalization.
- Credit linked subsidy support and hand-holding will be extended to 2,00,000 micro enterprises for expansion and upgradation.
- It will enable them to formalize, grow and become competitive.
- The project is likely to generate nine lakh skilled and semi-skilled jobs.
- Scheme envisages increased access to credit by existing micro food processing entrepreneurs, women entrepreneurs and entrepreneurs in the Aspirational Districts.
- Better integration with organized markets.
- Increased access to common services like sorting, grading, processing, packaging, storage etc.

## Know! the present status of food processing enterprise and the need of such schemes

- There are about **25 lakh unregistered food processing enterprises** which constitute 98% of the sector and are unorganized and informal. Nearly 66 % of these units are located in rural areas and about 80% of them are family-based enterprises.
- This sector faces a number of challenges including the inability to access credit, high cost of institutional credit, lack of access to modern technology, inability to integrate with the food supply chain and compliance with the health & safety standards.
- Strengthening this segment will lead to reduction in wastage, creation of off-farm job opportunities and aid in achieving the overarching Government objective of doubling farmers' income.

## Government Schemes: Cabinet approves 'Pradhan Mantri Matsya Sampada Yojana

**Relevance IN – Prelims (about PMMSY scheme and its implementation) + Mains (GS III Farmers' welfare + 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 Union Cabinet, chaired by the Prime Minister has given its approval for implementation of the **Pradhan Mantri Matsya Sampada Yojana (PMMSY)**

### Know! more about PMMSY

- The scheme is to bring about Blue Revolution through sustainable and responsible development of fisheries sector in India under two components namely-
  - Central Sector Scheme (CS) and
  - Centrally Sponsored Scheme (CSS)
- The Scheme will be implemented during a period of 5 years from FY 2020-21 to FY 2024-25.

20 MAY 2020  
CABINET DECISIONS

**A Big Impetus to Blue Revolution**  
Implementation of Pradhan Mantri Matsya Sampada Yojana Approved (1/3)

Total estimated investment of ₹20,050 crore comprising

- Central share - ₹9,407 crore
- State share - ₹4,880 crore
- Beneficiaries' share - ₹5,763 crore

Scheme to be implemented during a period of 5 years from FY 2020-21 to FY



To augment fish productivity at a sustained average annual growth rate of 9% to achieve target of 22 MMT



## Know! the Funding Pattern of PMMSY

20 MAY 2020  
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मेरे सरकार







### A Big Impetus to Blue Revolution

Implementation of Pradhan Mantri Matsya Sampada Yojana Approved (3/3)

**Funding Pattern under CS:**



-  The entire project cost to be borne by Central govt
-  For direct beneficiary oriented activities, assistance on project cost upto 40% for General & 60% for SC/ST/Women

**Funding Pattern under CSS:** Project cost for both Beneficiary & Non-beneficiary oriented subcomponents to be shared between Centre & State as:

-  North Eastern & Himalayan States- 90:10%
-  Other States - 60% : 40% State  UTs - 100% Central share
-  For Beneficiary oriented subcomponents, Govt. to provide financial assistance on project cost upto 40% for General & 60% for SC/ST/Women





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CABINET DECISIONS

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### A Big Impetus to Blue Revolution

Implementation of Pradhan Mantri Matsya Sampada Yojana Approved (2/3)

-  To create critical infrastructure including **modernisation & strengthening of value chain**
-  Will generate direct employment to about **15 lakh fishers, fish farmers, fish vendors etc**
-  Doubling of fishers, fish farmers and **fish workers incomes by 2024**
-  To be implemented under **Central Sector Scheme(CS)** & Centrally Sponsored Scheme (CSS), the latter having Beneficiary & Non-beneficiary oriented subcomponents

### Central Sector Scheme (CS):

- The entire project/unit cost will be borne by the Central government (i.e. 100% central funding).
  - Direct beneficiary oriented i.e. individual/group activities are undertaken by the entities of central government including National Fisheries Development Board (NFDB)
- The central assistance will be up to 40% of the unit/project cost for General category and 60% for SC/ST/Women category.

### Centrally Sponsored Scheme (CSS):

*The Non-beneficiary orientated sub-components / activities under CSS component to be implemented by the States / UTs, the entire project / unit cost will be shared between Centre and State as*

- North Eastern & Himalayan States: 90% Central share and 10% State share.
- Other States: 60% Central share and 40% State share.
- Union Territories (with legislature and without legislature): 100% Central share.

### Know! the benefits

- Address the critical gaps in the fisheries sector and realize its potential.
- Augmenting fish production and productivity at a sustained average annual growth rate of about 9% to achieve a target of 22 million metric tons by 2024-25 through sustainable and responsible fishing practices.
- Improving availability of certified quality fish seed and feed, traceability in fish and including effective aquatic health management.
- Creation of critical infrastructure including modernisation and strengthening of value chain.
- Boost to investments in fisheries sector and increase of competitiveness of fish and fisheries products.
- Doubling of fishers, fish farmers and fish workers incomes by 2024.



# Economy: Cabinet approves Rs 3 lakh crore emergency credit line for MSME

**Relevance IN – Prelims (about ECLGS and its role + about GECL facility and NCGTC) + Mains (GS III economic development)**

20 MAY 2020  
CABINET DECISIONS



## Supporting MSMEs, Boost to Economy

Additional Funding of up to ₹3 Lakh Crore through Emergency Credit Line Approved (1/2)

-  The scheme is applicable to **eligible MSMEs & MUDRA borrowers**
-  **100% credit guarantee coverage** to be provided by National Credit Guarantee Trustee Company Limited (NCGTC) to Member Lending Institutions (MLIs)
-  **Guaranteed Emergency Credit Line (GECL)** facility to eligible MSME borrowers, including interested MUDRA borrowers
-  A corpus of **₹41,600 crore** to be provided by GoI in the current & the next 3 FYs
-  Applicable to all loans sanctioned under GECL Facility till 31.10.2020, or till an amount of **₹3,00,000 crore** is sanctioned

20 MAY 2020  
CABINET DECISIONS



## Supporting MSMEs, Boost to Economy

Additional Funding of up to ₹3 Lakh Crore through Emergency Credit Line Approved (2/2)

-  MSME borrowers with outstanding credit of upto ₹25 crore as on 29.2.2020 with turnover of upto ₹100 crore to be eligible for GECL funding
-  Amount of GECL funding to eligible MSME borrowers to be upto 20% of their entire outstanding credit upto ₹25 crore as on 29th Feb. 20
-  **Tenor of loan to be 4 years** with moratorium period of 1 year on the principal amount
-  **No Guarantee Fee to be charged** by NCGTC from the Member Lending Institutions
-  Interest rates capped at **9.25% for banks and FIs**, and at 14% for NBFCs

## What's the NEWS

- The Union Cabinet approved additional funding of up to Rs 3 lakh crore at a concessional rate of 9.25 per cent through the **Emergency Credit Line Guarantee Scheme (ECLGS)** for the MSME sector and MUDRA borrowers
- The ECLGS was the second-biggest component of Rs 21 lakh crore comprehensive package announced last week.

## Know! about the Scheme

- Under the scheme, 100 per cent guarantee coverage will be provided by National Credit Guarantee Trustee Company (NCGTC) for additional funding of up to Rs 3 lakh crore to eligible MSMEs and interested MUDRA borrowers, in the form of a **guaranteed emergency credit line (GECL) facility**
- The ECLGS has been formulated **as a specific response** to the unprecedented situation caused by COVID-19 and the consequent lockdown, which has severely impacted manufacturing and other activities in the MSME sector
- The scheme aims at **mitigating the economic distress** being faced by about **45 lakh MSMEs** by providing them additional funding of up to Rs 3 lakh crore in the form of a fully guaranteed emergency credit line.
- The main objective of the scheme is **to provide an incentive** to member lending institutions (MLIs) like banks, financial institutions (FIs) and non-banking financial companies (NBFCs) to increase access to, and enable availability of additional funding facility to MSME borrowers, by providing them **100 per cent guarantee for any losses suffered by them due to non-repayment of the GECL funding by borrowers.**
- Eligibility - All MSME borrower accounts with outstanding credit of up to Rs 25 crore as on February 29 and with an annual turnover of up to Rs 100 crore would be eligible for GECL funding under the Scheme.



- The entire funding **provided under GECL** shall be provided with a 100 per cent credit guarantee by NCGTC to MLIs under ECLGS
- Tenor of loan under Scheme will be **four years** with moratorium period of one year on the principal amount.
- **No Guarantee Fee** shall be charged by NCGTC from the member Lending Institutions (MLIs) under the scheme and interest rates under the scheme will be capped at 9.25 per cent for banks and FIs, and at 14 per cent for NBFCs.

### **National Credit Guarantee Trustee Company(NCGTC)**

- It is a private limited company incorporated under the Companies Act 1956 on March 28, 2014, **established by the Department of Financial Services, Ministry of Finance**, as a wholly owned company of the Government of India, to act as a **common trustee company for multiple credit guarantee funds**.
- Credit guarantee programmes are designed to share the lending risk of the lenders and in turn, facilitate access to finance for the prospective borrowers.
- The common architecture of NCGTC has been designed to handle multiple guarantee programmes under a single umbrella organization

### **Revised MSME definition**

- According to the revised definition, any firm with investment up to Rs 1 crore and turnover under Rs 5 crore will be classified as **“micro”**.
- A company with investment up to Rs 10 crore and turnover up to Rs 50 crore will be classified as **“small”**
- A firm with investment up to Rs 20 crore and turnover under Rs 100 crore will be classified as **“medium”**.

## **Environment: Oil India to drill in Dibru-Saikhowa National Park from outside**

### ***Relevance in – Prelims (about ERD technology + about Dibru-Saikhowa National Park)***

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

- PSU major Oil India Ltd (OIL) claimed it will drill seven wells inside the Dibru-Saikhowa National Park from about 1.5 km distance **outside the boundary of the forest** with the help of advanced technology.

#### **Extended Reach Drilling (ERD) technology**

- This is a state of the art technology, where drilling will take place around at an average more than 1.5 kilometres outside the demarcated area of the national park where OIL already is carrying out **hydrocarbon exploration** since last 15 years
- The company will be able to accomplish this task of exploring hydrocarbon reserves under the Dibru-Saikhowa National Park by use of the Extended Reach Drilling (ERD) technology.
- ERD techniques are extensively **used to intersect hydrocarbon targets** far from the surface or areas of the reservoir which otherwise are difficult to access.
- By using this technology, wells can be drilled up to a depth of approximately four km from the existing well plinth without entering the protected area.
- The Ministry of Environment, Forest and Climate Change (MoEF&CC) accorded environmental clearance for extension drilling and testing of hydrocarbons at seven locations under Dibru-Saikhowa National Park

#### **Know! about Dibru-Saikhowa National Park**

- Dibru-Saikhowa is a National Park as well as a Biosphere Reserve situated in the south bank of the river Brahmaputra in the extreme east of Assam state in India.
- Situated in the flood plain of Brahmaputra, Dibru-saikhowa is a safe haven for many extremely rare and endangered species of Wildlife.
- The park is bounded by the Brahmaputra and Lohit Rivers in the north and Dibru river in the south.
- The forest type of Dibru-Saikhowa comprises of semi-evergreen forests, deciduous forests, littoral and swamp forests and patches of wet evergreen forests.
- Famed for Ferral horses, a total 36 species of mammals and above 400 species of birds have so far been recorded from the Dibru-Saikhowa National Park.





**22 MAY 2020**  
**INTERNATIONAL DAY FOR  
BIOLOGICAL DIVERSITY**  
**Our solutions are in nature**

**Relevance IN – Prelims (about International Day for Biological Diversity + about CBD + launch of key initiatives + role of UNDP and UNEP + WWF + aichi targets +NBA) +Mains (GS III Environment conservation)**

### What's the NEWS

- In a virtual celebration of the International Day for Biological Diversity 2020, the Ministry of Environment, Forest and Climate Change launched key initiatives towards conservation of biodiversity.
- Theme - OUR SOLUTIONS ARE IN NATURE

### Know! about the launch of key initiatives

#### 1. Biodiversity Samrakshan Internship Programme

- The Environment Ministry launched the National Biodiversity Authority (NBA) and United Nations Development Programme (UNDP) 'Biodiversity Samrakshan Internship Programme
- It proposes to engage 20 students with postgraduate degrees **for a period of one year** through an open, transparent, online competitive process.
- Objective - to engage dynamic and creative students, who are willing to **learn about natural resource management and biodiversity conservation** and to support the projects of NBA in various State and Union Territories and to technically assist the State Biodiversity Boards/UTs Biodiversity Council in discharge of their mandates. an open, transparent, online competitive process.

#### 2. Campaign on Illegal Trafficking of Endangered Species

- The Ministry also launched UNEP Campaign on Illegal Trafficking of Endangered Species: 'Not all Animals Migrate by Choice'.
- The campaign Not all Animals Migrate by Choice, launched by the **Wildlife Crime Control Bureau**, with UNEP, seeks to address these environmental challenges, to raise awareness, and to advocate solutions.

#### 3. Webinar Series (WWF Model Conference of Parties)

- A Webinar Series on '**Biodiversity Conservation and Biological Diversity Act, 2002**' was launched along with the **WWF Model Conference of Parties (MCoP)**, an **initiative which involves the younger generation** so they can usher in a new beginning and engage in conversations around impact of humanity's footprint on biodiversity

### Know! about International Day for Biological Diversity

- The United Nations has proclaimed May 22 The International Day for Biological Diversity (IDB) to increase understanding and awareness of biodiversity issues.
- It was created by the UN General Assembly in late 1993, 29 December to mark the **adoption of the text of the Convention of Biological Diversity(CBD)**.



## Know! about CBD

- The **Convention on Biological Diversity** is an international agreement adopted at the Earth Summit, in Rio de Janeiro, in 1992.

*It has three main objectives*

1. to conserve biological diversity
  2. to use its components in a sustainable way
  3. to share fairly and equitably the benefits arising from the use of genetic resources.
- The CBD was negotiated under the guidance of the United Nations.
  - It was signed by more than 150 government leaders at the **Rio Earth Summit** (which official denomination is the 'United Nations Conference on Environment and Development').
  - The Convention is now one of the most widely ratified international treaties on environmental issues, with 194 member countries.

## Know! about Aichi targets

- The 'Aichi Target' adopted by the Convention on Biological Diversity (**CBD**) at its Nagoya conference.

*A set of 20 global targets under the Strategic Plan for Biodiversity 2011-2020. They are grouped under five strategic goals:*

- A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- B. Reduce the direct pressures on biodiversity and promote sustainable use.
- C. Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
- D. Enhance the benefits to all from biodiversity and ecosystem services.
- E. Enhance implementation through participatory planning, knowledge management and capacity building.

## Know! about The National Biodiversity Authority (NBA)

- It was established by the Central Government in 2003 **to implement India's Biological Diversity Act (2002)**.
- The NBA is a **Statutory Body** and it performs facilitative, regulatory and **advisory functions for the Government of India** on issues of conservation, sustainable use of biological resources and fair and equitable sharing of benefits arising out of the use of biological resources.

## Know! about UNDP

- It is the United Nations' global development network.
- It advocates for change and connects countries to knowledge, experience and resources to help people build a better life for themselves.
- It provides expert advice, training and grants support to developing countries, with increasing emphasis on assistance to the least developed countries.
- It promotes technical and investment cooperation among nations.
- UNDP works in about 170 countries and territories, helping to achieve the eradication of poverty, and the reduction of inequalities and exclusion.
- It works with local governments to meet development challenges and develop local capacity. It works internationally to help countries achieve the **Sustainable Development Goals (SDGs)**.
- The UNDP Human Development Report Office also publishes an annual **Human Development Report** (since 1990) to measure and analyse developmental progress.

## Know! about UNEP

- The United Nations Environment Programme(HQ-Nairobi-Kenya) is responsible for coordinating the UN's environmental activities and assisting developing countries in implementing environmentally sound policies and practices.

## Know! about WWF

- The World Wide Fund for Nature (WWF) **is an international non-governmental organization** founded in 1961, working in the field of wilderness preservation, and the reduction of human impact on the environment.



- WWF is the world's largest conservation organization with over five million supporters worldwide, working in more than 100 countries,
- WWF is a foundation with 55% of funding from individuals and bequests, 19% from government sources (such as the World Bank, DFID, USAID) and 8% from corporations
- WWF aims to "stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature
- The Living Planet Report has been published every two years by WWF

### **Know! about Wildlife Crime Control Bureau**

- It is a statutory multi-disciplinary body established by the Government of India under the Ministry of Environment and Forests, **to combat organized wildlife crime in the country.**
- Under Section 38 (Z) of the **Wild Life (Protection) Act, 1972**, it is mandated **to collect and collate intelligence related to organized wildlife crime activities** and to disseminate the same to State and other enforcement agencies for immediate action

### **Know! about SUPER YEAR FOR BIODIVERSITY 2020**

- The year 2020 which is also the "SUPER YEAR FOR BIODIVERSITY", as the Strategic Plan for Biodiversity with 20 global Aichi targets adopted in 2010 ends in 2020 and all the countries together are in the process of preparation of Post-2020 Global Biodiversity Framework.

### **Additional info**

*2020 will witness:*

- The final period for the 2011-2020 Strategic Plan on Biodiversity and its 20 Aichi Biodiversity Targets;
- The end of the 2011-2020 **United Nations Decade on Biodiversity**, leading to the transitional phase for the start of other new pivotal biodiversity- related decades 2021-2030

### **2021-2030:**

- **The UN Decade of Ocean Science for Sustainable Development and the UN Decade on Ecosystem Restoration**

## **Economy: General Financial Rules**

**Relevance IN – Prelims (about General Financial Rules (GFR) + Mains (GS III Economic developments)**

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

- The government has notified amendments to General Financial Rules (GFR) to ensure that goods and services valued **less than Rs 200 crore** are being procured from domestic firms, a move which will benefit MSMEs.
- Under the new amendment, **global tenders henceforth will be disallowed in government procurement that are of value Rs 200 crores.**
- This was announced in Atma Nirbhar Bharat Abhiyan.

### **Know! about General Financial Rules**

- GFRs are a compilation of rules and orders of Government of India to be followed by all while dealing with matters involving public finances.
- These rules and orders are treated as executive instructions to be observed by all Departments and Organisations under the Government
- General Financial Rules were issued for the first time in 1947 bringing together in one place all existing orders and instructions pertaining to financial matters.
- These have subsequently been modified and issued as GFRs 1963 and GFRs 2005.
- The GFR are set of rules that deal with matters that involve public finances.
- The GFR 2017 was revised in 2017 to make sure an organization manages its business without compromising its flexibility.



## Economy: Cabinet approves Special Liquidity Scheme for NBFCs/HFCs to address their Liquidity Stress

**Relevance IN – Prelims (about the special liquidity scheme and its provisions + about NBFC + HFCs) + Mains (GS III Economic developments)**

### What's the NEWS

- The Union Cabinet, chaired by the Prime Minister has given its approval to the proposal of the Ministry of Finance to launch a **new Special Liquidity Scheme for Non-Banking Financial Companies (NBFCs) and Housing Finance Companies (HFCs)** to improve liquidity position of the NBFCs/HFCs.

### Know! more about the Scheme:

- A Special Liquidity Scheme for addressing the liquidity constraints of Non-Banking Financial Companies (NBFCs) and Housing Finance Companies (HFCs)
- An SPV would be set up to manage a Stressed Asset Fund (SAF) whose special securities would be guaranteed by the Government of India and purchased by the Reserve Bank of India (RBI) only.
- The proceeds of sale of such securities would be used by the SPV to acquire short-term debt of NBFCs/HFCs.
- The Scheme will be administered by the **Department of Financial Services**, which will issue the detailed guidelines.
- The SPV would issue securities as per requirement subject to the total amount of securities outstanding **not exceeding Rs. 30,000 crore** to be extended by the amount required as per the need.
- The securities issued by the SPV would be purchased by RBI and proceeds thereof would be used by the SPV to acquire the debt of at least investment grade of **short duration (residual maturity of upto 3 months)** of eligible NBFCs / HFCs.

### Non-Banking Financial Company (NBFC)

- A Non-Banking Financial Company (NBFC) is a company registered under the Companies Act, 1956 engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by Government or local authority or other marketable securities

*NBFCs lend and make investments and hence their activities are akin to that of banks; however there are a few differences as given below:*

- NBFC cannot accept demand deposits;
- NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself;
- deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

### Know! about National Housing Bank (NHB)

- It is a Government of India owned entity, was set up on 9 July 1988 under the National Housing Bank Act, 1987.
- NHB is an apex financial institution for housing.
- NHB has been established with an objective to operate as a principal agency to promote housing finance institutions both at local and regional levels and to provide financial and other support
- The Finance Act, 2019 has amended National Housing Bank Act, 1987.
- The amendment confers the powers of regulation of housing finance companies to Reserve Bank of India.
- NHB registers and supervises Housing Finance Company (HFCs), keeps surveillance through On-site & Off-site Mechanisms and co-ordinates with other Regulators.
- Housing Finance Companies (HFCs) are entities set up under a license by the National Housing Board (NHB), to provide home loans as per the NHB's guidelines.



## Science & Technology: RT-LAMP based test for Coronavirus

**Relevance IN – Prelims (about RT-LAMP test and its comparison with RT-PCR test) + Mains (GS III Achievements of Indians in science & technology; indigenization of technology and developing new technology.)**

### What's the NEWS

- CSIR-IIIM, Jammu a constituent laboratory of CSIR has partnered with Reliance Industries Limited (RIL) to develop and scale-up a **new Reverse Transcriptase-Loop Mediated Isothermal Amplification (RT-LAMP)** based COVID-19 diagnostic kit for which a formal MOU has also been signed between CSIR-IIIM, Jammu and RIL.

### Know! about COVID-19 RT-LAMP test

- Reverse Transcription Loop-Mediated Isothermal Amplification (RT-LAMP) is a potentially effective tool for COVID-19 on-the-spot detection by using swabs or saliva – addressing the community need for simple surveillance.
- It is a **nucleic acid based test** carried out from nasal/throat swab sample from patients.
- The test recipe has been developed and successfully demonstrated using synthetic templates.
- It is rapid (45-60 min), cost effective and accurate test.
- It has been tested with a small number of patients samples and validating the kit on more number of patient samples is planned and will be done together with RIL.

### Know! the Benefits of RT-LAMP

- The advantage of this test is that the RT-LAMP based COVID-19 kit components are **easily available** and these can be completely manufactured in India.
- The RT-LAMP test **can be done in a single tube** with minimal expertise in a very basic lab setup
- The end detection of the test is a simple colored reaction, which is easily visible in UV light, and now is being modified such that it can be detected in regular light.

### RT-PCR (challenges)

- Reverse Transcription Polymerase Chain Reaction(RT-PCR) is a **nuclear-derived method** for detecting the presence of specific genetic material from any pathogen including a virus.
- The current COVID-19 testing is done by real-time PCR their components are mostly imported.
- These tests are expensive
- It require highly trained manpower, costly instruments and a relatively high-end lab and cannot be deployed at remote locations in quarantine centers, airports and railway stations, etc.

## Defence: IAF operationalises second squadron of Tejas fighter jets

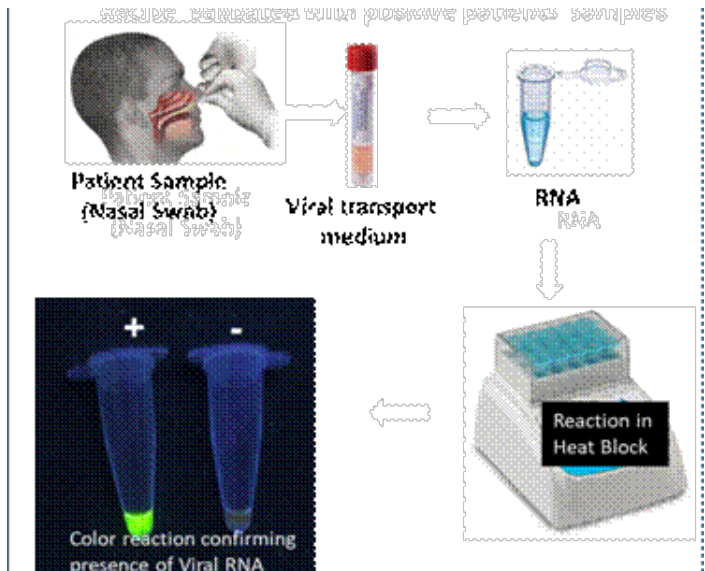
**Relevance IN – Prelims (about Tejas Mk-1 FOC aircraft)**

### What's the NEWS

- The Indian Air Force (IAF) inducted Tejas Mk-1 FOC aircraft into the recently resurrected No 18 Sqn, the “Flying Bullets”

### Know! more about it (The No. 18 Squadron)

- The No. 18 Squadron is known as ‘Flying Bullets’.
- The Squadron is armed with newly-inducted, indigenous fighter aircraft LCA Tejas in fully operational capability (FOC).

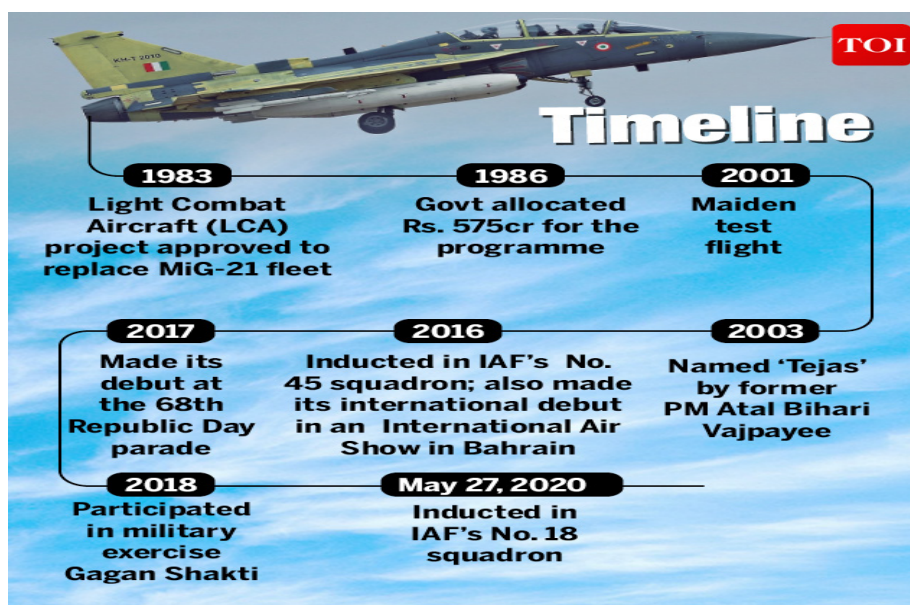
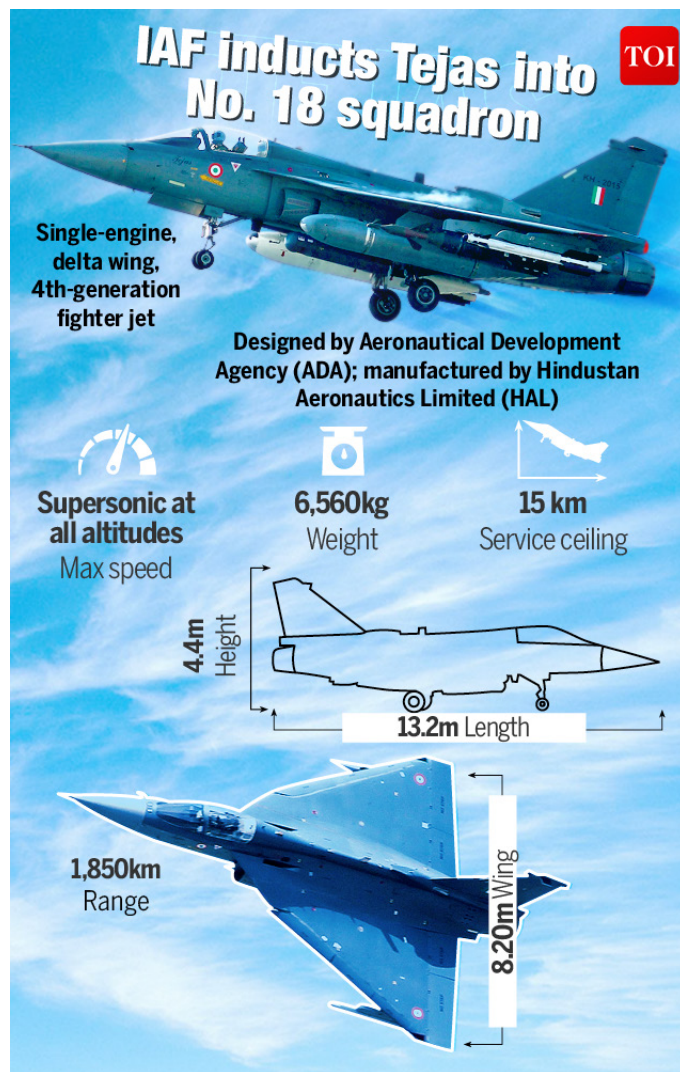




- This is the second IAF squadron to be equipped with the Tejas fighter jets.
- The Squadron is based at Sulur airbase near Coimbatore.
- No. 45 squadron 'Flying Daggers' at the station was the first squadron armoured with Tejas.
- No 18 Sqn was raised at Ambala on 15 Apr 1965 with the Folland Gnat Aircraft.
- The Squadron also has the unique distinction of having operated two HAL made aircraft, **the Tejas and the Ajeet** which it also operated from the same station.
- The Squadron falls under the operational control of Southern Air Command which is responsible for integrating the Squadron into the IAF Concept of Operations.

### Know! about Tejas

- Tejas Mk-1 FOC is a **single engine**, light weight, highly agile, all weather multi role fighter aircraft capable of air-to-air refueling thus making it a truly versatile platform.
- In 2016, Tejas became a part of the IAF after it was formally inducted in **No. 45 Squadron**.  
The fourth-generation fighter aircraft is developed by Aeronautical Development Agency and Hindustan Aeronautics Limited for the IAF and Indian Navy.
- The Initial Operational Capability (IOC) aircraft are armed with close combat air-to-air missiles, helmet-mounted display and precision-guided weapons like laser-guided bombs.
- These aircraft are also capable of dropping unguided bombs with greater accuracy due to highly advanced indigenous mission computer.
- Aircraft with Final Operational Clearance (FOC) would incorporate beyond visual range (BVR) missiles, improved and better stand-off weapons and air-to-air refuelling capability.





## Science and Technology: NGC 3895

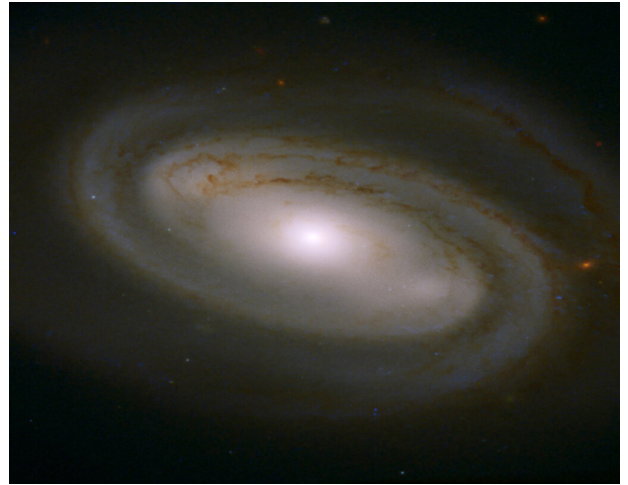
### Relevance IN – Prelims (about NGC 3895 + about hubble telescope)

#### What's the NEWS

- The NASA/ESA Hubble Space Telescope has captured this vivid image of a barred spiral galaxy called NGC 3895.
- The galaxy, located at a distance of over 161 million light-years, **is a part of Ursa Major**. (one light-year is equal to the distance covered by light in one year, or 6 million miles)

#### Know! more about NG 3895

- It was discovered by German-born British astronomer William Herschel on March 18, 1790. The galaxy has a diameter of approximately 45,000 light-years.
- The new color image of NGC 3895 was made from separate exposures taken in the visible and infrared regions of the spectrum with Hubble's Wide Field Camera 3 (WFC3) instrument.



#### Hubble Telescope

- Hubble's orbit high above the Earth's distorting atmosphere allows us to make the very high resolution observations that are essential to opening new windows on planets, stars and galaxies
- The image is one of the several images captured by Nasa's Hubble Telescope.
- The telescope is positioned approximately 570 km (354 miles) above the ground, where it whirls around Earth at 28,000 km/h (17,400 mph) and takes 96 minutes to complete one orbit.

#### Know! more about Hubble Telescope

- The Hubble Space Telescope is a large telescope in space. NASA launched Hubble in 1990.
- The Hubble telescope was built by the United States space agency NASA with contributions from the European Space Agency.
- Hubble faces toward space. It takes pictures of planets, stars and galaxies.
- Hubble has seen stars being born. Hubble has seen stars die.
- It has seen galaxies that are trillions of miles away. Hubble also has seen comet pieces crash into the gases above Jupiter.

#### James Webb Space Telescope

- NASA is building another space telescope. It is called the James Webb Space Telescope. It will be bigger than Hubble.
- Webb will not orbit Earth as Hubble does. Webb will orbit the sun in a spot on the other side of the moon.
- The Webb telescope will be able to see a different kind of light than the light Hubble sees. Webb will help NASA see even more of the universe.

#### Know! about Galaxy

- A **galaxy** is a huge collection of gas, dust, and billions of stars and their solar systems. A **galaxy** is held together by gravity.
- Our **galaxy**, the Milky Way, also has a supermassive black hole in the middle. When you look up at stars in the night sky, you're seeing other stars in the Milky Way.

#### Know! about Ursa Major

- **Ursa Major** is the **largest** northern constellation and third **largest** constellation in the sky.
- Its brightest stars form the Big Dipper asterism, one of the most recognizable shapes in the sky, also known as the Plough.
- **Ursa Major** is well-known in most world cultures and associated with a number of myths



## Economy: Financial Stability and Development Council (FSDC)

**Relevance** IN–Prelims (about FSDC–aim and objectives) + Mains (GS III Economic development)

### What's the NEWS

- The Union Minister for Finance & Corporate Affairs chaired the 22<sup>nd</sup> Meeting of the **Financial Stability and Development Council (FSDC)**
- The meeting reviewed the current global and domestic macro-economic situation, financial stability and vulnerabilities issues, major issues likely to be faced by banks and other financial institutions as also regulatory and policy responses, Liquidity / Solvency of NBFCs/HFCs/ MFIs and other related issues.



### Know! all about FSDC

- Financial Stability and Development Council (FSDC) is an apex-level body (non- statutory body) constituted by the government of India.
- The idea to create such a super regulatory body was first mooted by the Raghuram Rajan Committee in 2008.
- It was constituted in December, 2010.
- No funds are separately allocated to the council for undertaking its activities.


### Know! the Members of FSDC

- Governor Reserve Bank of India (RBI),
- Finance Secretary and/ or Secretary, Department of Economic Affairs (DEA),
- Secretary, Department of Financial Services (DFS),
- Secretary, Ministry of Corporate Affairs,
- Secretary, Ministry of Electronics and Information Technology,
- Chief Economic Advisor, Ministry of Finance,
- Chairman, Securities and Exchange Board of India (SEBI),
- Chairman, Insurance Regulatory and Development Authority (IRDA),
- Chairman, Pension Fund Regulatory and Development Authority (PFRDA),
- Chairman, Insolvency and Bankruptcy Board of India (IBBI)
- Additional Secretary, Ministry of Finance, DEA, will be the Secretary of the Council
- The Chairperson may invite any person whose presence is deemed necessary for any of its meeting(s).
- The ministry of electronics and information technology (MeitY) secretary has also been included in the FSDC in view of the increased focus of the government on digital economy.


### Know! the Responsibilities of FSDC

- Financial Stability
- Financial Sector Development
- Inter-Regulatory Coordination (**regulators i.e. RBI, IRDA, SEBI, PFRDA**)
- Financial Literacy
- Financial Inclusion
- Macro prudential supervision of the economy including the functioning of large financial conglomerates
- Coordinating India's international interface with financial sector bodies like the Financial Action Task Force (FATF), Financial Stability Board (FSB) and any such body as may be decided by the Finance Minister from time to time.

### Bigger Spread



Revenue secretary also included with rollout of GST




**Govt expands FSDC**

MoS for economic affairs part of FSDC now

Secretary of dept of electronics and IT included

Digital economy and data privacy to get more attention

Chairperson of insolvency board also part of FSDC



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## Environment: Charru mussel

**Relevance IN – Prelims (about invasive species + role of ballast water) + Mains (GS III Environment conservation)**

### What's the NEWS

- An invasive mussel **native to the South and Central American** coasts is spreading quickly in the backwaters of Kerala, elbowing out other mussel and clam species and threatening the livelihoods of fishermen engaged in molluscan fisheries.
- The rapid spread of the **Charru mussel (*Mytella strigata*)** may have been triggered by **Cyclone Ockhi** which struck the region in 2017
- In all probability, the mussel reached the Indian shores attached to ship hulls or as larval forms in ballast water discharges.
- Cyclone Ockhi may have simply sped up their invasion of inland waters.



### Know! the role of Ballast water

- Cruise ships, large tankers, and bulk cargo carriers use a huge amount of ballast water, which is often taken on in the **coastal waters in one region after ships discharge wastewater or unload cargo, and discharged at the next port of call**, wherever more cargo is loaded.
- Ballast water discharge typically contains a variety of biological materials, including plants, animals, viruses, and bacteria.
- These materials often include non-native, nuisance, exotic species that can cause extensive ecological and economic damage to aquatic ecosystems, along with serious human health issues including death.

### Know! about Invasive Species

- An invasive species can be any kind of living organism—an amphibian (like the cane toad), plant, insect, fish, fungus, bacteria, or even an organism's seeds or eggs—that is not native to an ecosystem and causes harm.
- They can harm the environment, the economy, or even human health. Species that grow and reproduce quickly, and spread aggressively, with potential to cause harm, are given the label "invasive."

## Science and Technology: Antarctic Impulsive Transient Antenna (ANITA)

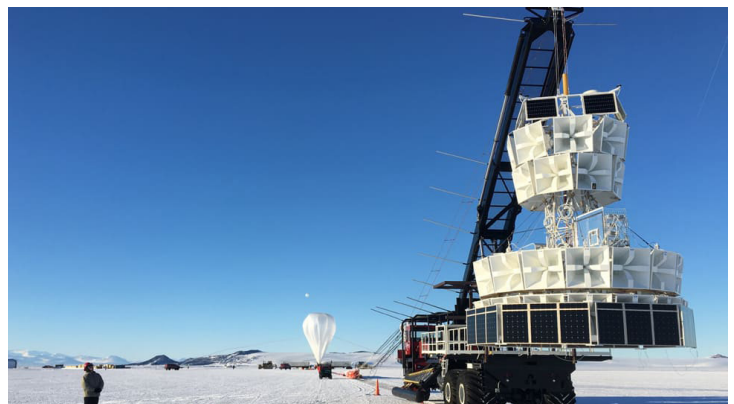
**Relevance IN – Prelims (about ANITA + Askaryan effect + Neutrinos)**

### What's the NEWS

- A team of researchers have succeeded in finding **"a fountain of high-energy particles erupting from the ice"** in Antarctica which according to the researchers could be proof of a parallel universe.

### Know! about the recent development

- ANITA succeeded in detecting the 'fountain' of high-energy particles in 2006 and 2014 but the researchers initially thought them as background noise or glitches.





- ANITA succeeded in detecting the **‘fountain’ of high-energy particles** in 2006 and 2014 but the researchers initially thought them as background noise or glitches.

### **NASA’s Antarctic Impulsive Transient Antenna (ANITA).**

- Designed by world’s premier space agency NASA, the ANITA instrument is a **radio telescope** which is used to **detect ultra-high energy cosmic-ray neutrinos** from a scientific **balloon flying over Antarctica**.
- ANITA is the first NASA **observatory for neutrinos** of any kind.
- The neutrinos have energies on the order of 10<sup>18</sup> eV and they are capable of producing radio pulses in the ice because of the **Askaryan effect**.
- ANITA instrument detects these ultra-high energy neutrinos by use of the Askaryan effect.
- ANITA can help in explaining the origin of these cosmic rays.
- ANITA has made **four flights of Antarctica** continent and managed to detect numerous cosmic rays coming from the sky within the field of view of the experiment (four major cosmic ray detections)
- These radio waves are created by cosmic ray air showers and they are reflected off the ice before they reach ANITA.
- However, two of these detections have proofs that they are generated from the ice below.

### **Know! about Askaryan effect.**

- A phenomenon where a particle travelling at a velocity faster than light in a dense electric medium (such as salt, ice or the lunar regolith), produces shower of secondary charged particles.
- It predicts the production of a coherent radio emission from the cascade of particles produced in a high-energy particle interaction

### **Neutrinos**

- They are subatomic particles with no electric charge and with a very small mass.
- They are considered to be the second most abundant particle in the universe after photons or light particles.

### **Additional Info**

#### **The Indian Antarctic Programme**

- India officially acceded to the Antarctic Treaty System on 1<sup>st</sup> August 1983.
- On 12 September 1983, India became the fifteenth Consultative Member of the Antarctic Treaty.
- The Indian Antarctic program is bound by the rules of the Antarctic Treaty System,

#### **Research stations set up by India in Antarctica**

- Under the environmental protocol of the Antarctic Treaty (1959), India has set up three research stations up till now.

#### **Dakshin Gangotri (1984)**

- The first Indian scientific research base

#### **Maitri**

- Maitri is the gateway for Indian scientists to venture into interior Antarctic mountains

#### **Bharati**

- It was established in 2015 (newest base commissioned)
- Bharati made India an elite member of the club of 9 nations that have multiple stations in the region
- In line with the Antarctic Treaty System, Bharati can be completely disassembled and removed without leaving even a brick behind

#### **National Centre for Polar and Ocean Research (NCPOR)**

- It is India’s premier R&D institution responsible for the country’s research activities in the polar and Southern Ocean realms.
- It was established as an autonomous Research and Development Institution of the Ministry of Earth Sciences (formerly Department of Ocean Development), Government of India on the 25<sup>th</sup> May 1998.
- It is responsible for the country’s research activities in the Polar and Southern Ocean realms.



- It is responsible for administering the Indian Antarctic Programme and maintains the Indian government's Antarctic research stations, Bharati and Maitri and the Indian Arctic base "Himadri".

### The NCPOR operates in different fields or tasks:

- storing ice core samples, from Antarctica and the Himalayas.
- operating the **Himadri and IndARC Arctic** research stations in Svalbard, Norway.
- managing the oceanic research vessel ORV Sagar Kanya, the flagship of India's fleet of oceanographic study vessels.

## Environment: Saharan cheetah

### Relevance IN – Prelims (about cheetah and its different subspecies) + Mains (GS III Environment conservation)

#### What's the NEWS

- Naturalists in Algeria have filmed a Saharan cheetah, a subspecies listed as critically endangered on the IUCN Red List, for the first time in a decade

#### Know! about Saharan cheetah

- The Northwest African cheetah (*Acinonyx jubatus hecki*), also known as the Saharan cheetah, is a cheetah subspecies native to the Sahara and the Sahel.
- It is listed as **Critically Endangered** on the IUCN Red List.
- The most elusive wild cat in the world - the Sahara cheetah - was spotted after a decade in Algeria.
- The Saharan cheetah's range is now limited to isolated pockets across the Sahara and Sahel from Mali in the west to the Central African Republic in the east.
- The main countries where it is found include Algeria, Chad, Mali, Benin, Burkina Faso and Niger. However, it is now extinct from most of the countries in wild.
- In 2012, the International Union for Conservation of Nature estimated the remaining population in Algeria at just 37 individuals.



#### Know! about Cheetah

- The cheetah, *Acinonyx jubatus*, is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- It is a large cat native to **Africa and central Iran**.
- The cheetah is also the world's fastest land mammal, an icon of nature. With great speed and dexterity, the cheetah is known for being an excellent hunter, its kills feeding many other animals in its ecosystem—ensuring that multiple species survive.
- In 2016, the global cheetah population was estimated at around 7,100 individuals in the wild; it is listed as **Vulnerable** on the IUCN Red List.

#### Know! more about African cheetah

- **Northwest African cheetah** (*Acinonyx jubatus hecki*) is a subspecies of Cheetah endemic to Sahara and the Sahel regions of Africa.
- IUCN Status – **Vulnerable**
- Today, the cheetah is found only in the arid regions of eastern Iran in Asia and in Botswana, Namibia and South Africa.
- **Saharan Cheetah is different from other Cheetah species in Africa** because of shorter coat and nearly white colour. Its face has few or no spots and tear stripes are almost absent.



## Know! about Asiatic cheetah

- The Asiatic cheetah (*Acinonyx jubatus venaticus*), also known as Iranian or Persian cheetah
- This subspecies is confined to central Iran, and is the only surviving cheetah population in Asia.
- As of 2016, only 43 individuals were estimated to survive in three subpopulations scattered in Iran's central plateau.
- It is listed as **Critically Endangered** on the IUCN Red List.

## Connect to the Past (FEB 2020)

- The Supreme Court allowed the introduction of African Cheetahs to a suitable habitat in India.
- The National Tiger Conservation Authority (NTCA) told a bench of the Supreme Court that African cheetahs would be translocated in India from Namibia and would be kept at **Nauradehi wildlife sanctuary** in Madhya Pradesh.
- India's last spotted cheetah died in 1947 and the animal was declared extinct in the country in 1952.

## Additional info

- **African Cheetah** - IUCN Status - Vulnerable
- **Asian Cheetah** - IUCN Status - Critically Endangered
- **Saharan Cheetah** - IUCN Status - Critically Endangered

## Environment: World Dugong Day 2020



## Relevance IN – Prelims (all about Dugong)

### What's the NEWS

- The 'World Dugong Day' is being celebrated on May 28, 2020
- Theme – Save dugong Save livelihood
- The dugong, commonly known as the sea cow

### Know! about World Dugong Day on May 28, 2020.

- Dugong are an endangered marine species like sea turtles, seahorses, sea cucumbers and others.
- They are protected in India under Schedule I of the Wild (Life) Protection Act, 1972. + **IUCN Status:** Vulnerable
- There were **just 250 dugongs** in the Gulf of Mannar in Tamil Nadu, the Andaman and Nicobar Islands and the Gulf of Kutch in Gujarat according to the 2013 survey report of the Zoological Survey of India (ZSI).
- The dugongs are an important part of the marine ecosystem and their depletion will have effects all the way up the food chain

### Know! the threats to dugongs

- Dugongs **graze on seagrass**, especially young shoots and roots in shallow coastal waters.
- The loss of seagrass beds due to ocean floor trawling was the most important factor behind dwindling dugong populations in many parts of the world
- **Human activities** such as the destruction and modification of habitat, pollution, rampant illegal fishing activities, vessel strikes, unsustainable hunting or poaching and unplanned tourism are the main threats to dugongs.



## Dugongs Habitat

- Hundreds of dugongs inhabited waters off the **Odisha, West Bengal and Andhra Pradesh coasts two centuries back**. But they are extinct in these areas now
- Seagrass in Odisha's **Chilika lake** is a proper habitat for dugongs.

## Connect to the Past (Feb 2020)

- The 13<sup>th</sup> Conference of Parties (CoP) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), an environmental treaty under the aegis of the United Nations Environment Programme, was hosted by India from February 17-22, 2020 at Gandhinagar in Gujarat.
- The Government of India is a signatory to the CMS since 1983.
- India has signed non-legally binding Memorandums of Understanding with CMS on the conservation and management of **Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016)**,

## Way Forward

- Proper conservation is the only way to save dugongs from extinction. Conservation in other places like Australia has seen their population crossing 85,000

## Economy: NPCI launches AI virtual assistant Pai

**Relevance IN – Prelims (about Pai + about NPCI and its role in financial inclusion) + Mains (GS III Economic development)**

### What's the NEWS

- National Payment Corporation of India (NPCI) has launched an artificial intelligence (AI) based chatbot, Pai
- The objective is to create awareness around its products like FASTag, RuPay, UPI, AePS on a real time basis.
- This is yet another NPCI's initiative to improve digital financial inclusion in India.
- The AI virtual assistant, PAi is available round the clock helping users with access to accurate information on NPCI products.
- Customers can ask their queries in English and Hindi, via text or voice on the websites of NPCI, RuPay, and UPI Chalega.
- Through PAi, users get verified automated responses to their queries on all NPCI's products.



### Know! about NPCI

- NPCI was incorporated in 2008 as an umbrella organization for operating retail payments and settlement systems in India.
- It is an initiative of **Reserve Bank of India (RBI) and Indian Banks Association (IBA)** under the provisions of the Payment and Settlement Systems Act, 2007.
- It has been incorporated as a **Not for Profit Company** under the provisions of Companies Act 2013.
- NPCI has created a robust payment and settlement infrastructure in the country.
- It has changed the way payments are made in India through a **bouquet of retail payment products** such as RuPay card, Immediate Payment Service (IMPS), Unified Payments Interface (UPI), Bharat Interface for Money (BHIM), BHIM Aadhaar, National Electronic Toll Collection (NETC Fastag) and Bharat BillPay.





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