

# OFFICERS' PULSE

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## COVERAGE.

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**AT A GLANCE  
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# News @ a glance

<b>POLITY</b> .....	<b>3</b>	3) Biosensors.....	28
1) Regulation of OTT platforms .....	3	4) Phishing.....	29
2) Jal Jeevan Mission .....	4	5) Marine heat waves.....	30
3) Association for Democratic Reforms Report.....	4	6) Neutrinos .....	31
<b>ENVIRONMENT</b> .....	<b>7</b>	7) Bitcoin .....	32
1) Deep Ocean Mission .....	7	<b>DEFENCE</b> .....	<b>34</b>
2) Fishing Cat Conservation Alliance .....	7	1) Sukhoi Aircraft.....	34
3) World Wetlands Day .....	8	<b>ART &amp; CULTURE</b> .....	<b>35</b>
<b>ECONOMY</b> .....	<b>10</b>	1) Risa.....	35
1) Union Budget 2021-22.....	10	<b>PIB ANALYSIS</b> .....	<b>36</b>
2) Can a 'bad bank' solve the growing NPA crisis? .....	17	1) Dudhwa National Park.....	36
3) E-commerce models in India.....	19	2) Post Matric Scholarship Scheme for SC Students.....	36
4) GST Compensations.....	20	3) Lithium.....	37
<b>INTERNATIONAL RELATIONS</b> .....	<b>22</b>	4) Dam Rehabilitation and Improvement Project (DRIP) .....	37
1) Chabahar port.....	22	5) One District One Product Scheme.....	38
2) U.K. opens special visa route for Hong Kong residents .....	23	6) Strategic Crude Oil Reserves .....	38
3) New START .....	24	7) KAPILA for patent awareness .....	39
4) International Criminal Court .....	25	8) NaiRoshni .....	39
<b>SCIENCE AND TECHNOLOGY</b> .....	<b>27</b>	9) Innovations for Defence Excellence (iDEX) Initiative.....	40
1) Corona virus and damaging lungs.....	27	10) INSPIRE Programme .....	40
2) Noise pollution.....	27	11) Key takeaways from other topics.....	41
2) Chip Crunch .....	27		

# News in Depth

## AIR NEWS ..... 42

- 1) National Recruitment agency ..... 42
- 2) COVAX facility ..... 43
- 3) Pradhan Mantri Matru Vandana Yojana .... 43

## THE HINDU EDITORIALS ..... 45

- 1) The problem of ageing dams ..... 45
- 2) Building a robust healthcare system ..... 45
- 3) Why did the Myanmar military stage a  
coup? ..... 47
- 4) Weighing in on the Biden presidency ..... 48
- 5) A year on, mind the gaps in the pandemic  
response ..... 50

- 6) Terminal declined ..... 52

## INDIAN EXPRESS EXPLAINED ..... 53

- 1) What is Stardust 1.0, the first rocket to run  
on biofuel? ..... 53
- 2) MetroNeo Technology ..... 53
- 3) Chauri Chaura, freedom struggle signpost  
from 100 years ago ..... 53
- 4) What is Square Kilometre Array, the  
world's largest radio telescope ..... 54
- 5) What is Denmark's artificial energy island  
project? ..... 55

# News @ a glance

## POLITY

### 1) Regulation of OTT platforms

#### What are OTT platforms?

- OTT stands for “over-the-top” and refers to the productized practice of streaming audio and video content to customers directly over the web.
- These platforms started out as content hosting platforms, but soon branched out into the production and release of short movies, feature films, documentaries and web-series themselves.
- Most OTT platforms generally offer some content for free and charge a monthly subscription fee for premium content which is generally unavailable elsewhere.
- Currently, 40 OTT platforms operate in India.

#### Why in News?

- Twenty-one MPs cutting across the party lines have sought an answer from the government about content on OTT platforms such as Netflix and Amazon Prime, asking the Centre whether it is aware that these platforms are full of “sex, violence, abuse, vulgarity and disrespect to religious sentiments”.
- Information and Broadcasting Minister Prakash Javadekar said his Ministry would soon come up with a regulatory code on the content on these platforms. The guidelines are expected to be made public soon.

#### Recent guidelines

- In November 2020, the Government amended the “**allocation of Business Rules**” bringing all online platforms under the **mandate of the I&B Ministry**. All platforms were told to register with the Ministry.
- Earlier, these platforms were under the purview of the Ministry of Electronics and Information Technology.

- The move is expected to give the government control over OTT platforms, which were unregulated till now.

#### What are the laws regulating OTT platforms?

- At present, the **Press Council of India** regulates the print media, the **News Broadcasters Association (NBA)** represents the news channels, the **Advertising Standards Council of India** regulates advertising, while the **Central Board of Film Certification (CBFC)** monitors films.
- However, so far, there are **no laws or rules regulating OTT platforms** as it is a relatively new medium of entertainment. Unlike television, print or radio, which follow guidelines released by governments, OTT platforms, **classified as digital media or social media**, had little to no regulation on the choice of content they offered, the subscription rates, certification for adult movies and others.
- Following pressure to regulate the content being made available on these streaming platforms, eight video streaming services had signed a **self-regulatory code** that laid down a set of guiding principles for content on these platforms.
- The proposal, however, was **rejected by the Ministry of Information and Broadcasting, which will now oversee these platforms.**

#### What happens now to the OTT platforms?

- With the government deciding to regulate films and audio-visual programmes made available by online content providers, the first challenge before the **OTT platforms would be keeping a check on their content.**
- The latest move could also mean that these platforms would have to **apply for certification and approval of the content** they wish to stream.

- This in itself could give rise to many conflicts as most OTT platforms have content that could otherwise be censored by the certification boards in India.
- OTT platforms are likely to resist any plans to censor the content being provided and streamed by them as these platforms have often chosen to produce movies and documentaries on politically sensitive but relevant topics.
- It will also have to be seen as to what guidelines, if any, does the I&B ministry put in place for regulating these OTT platforms.

### Significance

- According to reports, with a market size of nearly Rs 500 crore at the end of March 2019, the online video streaming platforms may become a Rs 4000-crore revenue market by the end of 2025.
- At the end of 2019, India had as many as 17 crore OTT platform users.

## 2) Jal Jeevan Mission

### About Jal Jeevan Mission

- Launched in 2019, the chief objective of the Mission is to provide **Functional Household Tap Connection (FHTC) to every rural household by 2024** and thereby ensuring potable water supply in adequate quantity i.e. @ **55 lpcd** (Litres per capita per day) of prescribed quality on a long-term and regular basis.
- This Mission is under the **Department of Drinking Water and Sanitation, Ministry of Jal Shakti**.
- It focuses on **integrated demand and supply-side management** of water at the local level.
- The programme also implements **source sustainability measures** as mandatory elements, such as recharge and reuse through greywater management, water conservation and rainwater harvesting.
- The Jal Jeevan Mission is based on a **community approach** to water and will include **extensive Information, Education and Communication (IEC)** as a key component of the mission.
- JJM looks to create a **Jan Andolan** (People's Movement) **for water**, thereby making it everyone's priority.

- The fund sharing pattern is 90:10 for Himalayan and North-Eastern States; 50:50 for other States and 100% for UTs.

### Why in News?

- Union Finance Minister, in the latest budget, announced that Jal Jeevan Mission (Urban) will be launched to bring safe water to 2.68 crore households through tap connection. This in line with the Centre's rural water supply project launched in 2019.

### Key Highlights

- The project will focus on **rejuvenation of water bodies** to augment sustainable fresh water supply and creating **green spaces and sponge cities** to reduce floods and **enhance amenity value** through an Urban Aquifer Management plan.
- JJM(U) will promote **circular economy of water** through development of a city water balance plan for each city focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation. **20% of water demand** to be met by reused water with development of institutional mechanisms.
- **Information, Education and Communication (IEC) campaign** is proposed to spread awareness among masses about conservation of water.
- In order to promote **Public private partnership**, it has been mandated for cities having million plus population to take up PPP projects worth minimum of 10 percent of their total project fund allocation.
- Funding Pattern :
  1. For Union Territories, there will be 100% central funding.
  2. For North Eastern and Hill States, central funding for projects will be 90%.
  3. Central funding will be 50% for cities with less than 1 lakh population, one third for cities with 1 lakh to 10 lakh population and 25% for cities with million plus population.
- Mission will be monitored through a **technology-based platform** on which beneficiary response will be monitored along with progress and output-outcome.

## 3) Association for Democratic Reforms Report

### Unrecognised political parties

- Either newly registered parties or those which have not secured enough percentage of votes in Assembly or General Elections to become a State party or those which have never contested in elections since being registered are considered **unrecognised parties**. Such parties don't enjoy all the benefits extended to the recognised parties.
- There are 2,360 political parties registered with the Election Commission of India and 2,301 or 97.50% of them are unrecognised.

### Provisions for recognised party status

- A recognised political party shall either be a National party or a State party if it meets certain laid down conditions.
- The **Election Symbols (Reservation and Allotment) Order, 1968**, lays down the criteria for declaring any registered political party as a national party or a state party.

### National Party

- As per the order, a registered political party needs to **fulfil at least one of the following three conditions** to be recognised as a national party:
  1. It needs to win a minimum **two percent** of seats in the Lok Sabha (11 seats) from at least three different states.
  2. It needs to get **at least six percent of votes in four states** in Lok Sabha and Assembly elections, in addition to **winning four Lok Sabha seats**.
  3. It needs to get **recognised as a state party in four or more states**.

### State Party

- In order to be recognised as a state party, a political party needs to **fulfil at least one of the four criteria** laid down by the Election Commission of India.
- A political party will be recognised as a state party:
  1. If it wins **three percent of the total seats** in the Legislative Assembly of the state (subject to a minimum of three seats).
  2. If it wins one Lok Sabha seat for every 25 Lok Sabha seats allotted for the state.
  3. If it gets **at least six percent of votes** in a state during a Lok Sabha or Assembly election. In addition, it also needs to win **at least one Lok Sabha or two Legislative Assembly seats**.

4. If it wins **at least eight percent votes** in a state during the Lok Sabha or Legislative Assembly elections.

### Benefits of being a recognised state party or national party

- If a party is recognised as a State Party', it is entitled for exclusive allotment of its **reserved symbol to the candidates set up by it in the State of States in which it is so recognised**, and if a party is recognised as a 'National Party' it is entitled for exclusive allotment of its **reserved symbol to the candidates set up by it throughout India**.
- The registered unrecognised political parties do not have the privilege of contesting elections on affixed symbol of their own. They have to choose from a list of '**free symbols**' issued by the Commission.
- However, the candidates set up by a political party registered with the Election Commission of India will get **preference in the matter of allotment of free symbols** vis-à-vis purely independent candidates.
- Recognised 'State' and 'National' parties **need only one proposer** for filing the nomination and are also entitled for **two sets of electoral rolls free of cost and broadcast/telecast facilities** over Akashvani/Doordarshan during general elections.
- It is to be noted that the **Election Commission cannot deregister a party**. However, it uses **Article 324 of the Constitution to "unlist" dormant political parties**.

### Why in News?

- The **Association For Democratic Reforms (ADR)**, an Indian non-partisan, non-governmental organization which works in the area of electoral and political reforms, has released its latest report.

### Highlights of the Report

- The **number of registered unrecognised political parties increased two-fold in the last 10 years**, from 1,112 in 2010 to 2,301 in 2019.
- The number of such parties increases disproportionately during the year of Parliamentary elections especially.
- The **contribution reports of only 78 (3.39%)** of the total 2,301 registered

unrecognised political parties are **available in the public domain** for 2018-19, while the **reports of only 82 such parties (3.56%)** for 2017-18 are **uploaded on the respective State Chief Electoral Officers' (CEO) websites.**

#### **ECI guidelines**

- The Election Commission of India issued guidelines on 'Transparency and Accountability in party funds and election expenditure – submission of reports by unrecognised political parties' which were applicable to all political parties w.e.f October 1, 2014.

- As per these guidelines, **all unrecognised parties are required to submit their requisite reports in the office of the respective state CEOs.**
- On receipt of the reports from the state level unrecognised political parties, scanned copies of annual audited accounts, contribution reports and statements of election expenditure shall be uploaded on the websites of CEOs of the respective states, within three days of receipt of the same for viewing by the public.

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# ENVIRONMENT

## 1) Deep Ocean Mission

### What is it?

- It is an initiative spearheaded by the **Ministry of Earth Sciences (MoES)** in collaboration with ISRO, DRDO, Department of Atomic Energy (DAE), Council of Scientific and Industrial Research (CSIR), Department of Biotechnology (DBT) and the Indian Navy.
- The Indian government wants to understand the oceans better, both as a **resource** and for the **conservation of marine biodiversity**.
- One of the main aspects of the mission will be **design, development and demonstration of human submersibles** (in the image below).



- Studies are planned at depths close to 6,000 metres under six major components —
  - Mineral exploration on the sea-bed;
  - Study and mapping of biodiversity;
  - Study of climate change;
  - Exploration of marine biology and developing allied courses,
  - Training; development and demonstration of ocean exploration
  - Off-shore technologies for future.

### What is the use of this mission?

- The mission forms a part of the **Blue Economy** envisioned to be developed by 2030, which will place India among select countries — US, France, Japan, Russia and China — to have special missions dedicated for ocean studies.
- It is a **strategic and geo-political move** in order to further strengthen India's position in the Indian Ocean region.

- Globally, **only 11 percent of marine species have been identified**. The deep ocean species are even less explored. Hence it will be helpful in identifying the species and know more about **climate change**.

### Why in the news?

- The budget of 2021-22 outlays more than Rs 4,000 crores, over the next **five years** for Deep Ocean Mission.

## 2) Fishing Cat Conservation Alliance

### About Fishing Cat



- The fishing cat is a highly elusive wild cat species found primarily in **wetland and mangrove habitats**, even been recorded in highly urbanised landscapes and montane forests.
- This unique species of wild cat is found distributed in patches across **South and Southeast Asia**. Confirmed records show fishing cat populations to be present in Sri Lanka, India, Nepal, Cambodia, Thailand, Pakistan, Bangladesh and Myanmar.
- In India, fishing cats have a patchy distribution along the Eastern Ghats, Sundarbans in West Bengal, Chilika lagoon and surrounding wetlands in Odisha, Coringa and Krishna mangroves in Andhra Pradesh.
- Protection Status:** IUCN Red List: **Vulnerable**; CITES: **Appendix II**; Wildlife Protection Act (1972): **Schedule I**.
- Unlike most felines, fishing cats love water and are known for their expert hunting skills in aquatic habitats.

- Habitat loss and fragmentation, conflict with humans over poultry and livestock, as well as the demand for bushmeat and trade for captive wildlife are causing fishing cat populations to decline.

#### The Fishing Cat Conservation Alliance

- The Fishing Cat Conservation Alliance (FCCA) is a team of conservationists, researchers and fishing cat enthusiasts working on conserving floodplains and coastal ecosystems that would ensure the survival of the fishing cat and all species with which it shares a home.

#### Why in the news?

- The FCCA has started a worldwide month-long campaign in February to raise awareness and garner support across the globe for fishing cats.
- The awareness program has been joined by **Association of Zoos and Aquariums** (a non-profit dedicated to the advancement of zoos and aquariums in the areas of conservation, education, science, and recreation) and **Fishing Cat Species Survival Plan**.
- The FCCA hopes to inspire children and adults into the conservation of this small cat.

### 3) World Wetlands Day

#### What are Wetlands?

- Wetlands are land areas that are **saturated or flooded with water either permanently or seasonally**.
- **Government of India** defines wetlands as 'areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which, at low tides, **does not exceed six meters**'.
- **Inland wetlands** include marshes, ponds, lakes, fens, rivers, floodplains, and swamps.
- **Coastal wetlands** include saltwater marshes, estuaries, mangroves, lagoons and even coral reefs. Fishponds, rice paddies, and saltpans are **human-made wetlands**.

#### Convention on Wetlands

- The Convention on Wetlands (also known as **Ramsar Convention on Wetlands**) is the intergovernmental treaty that provides

the framework for the conservation and wise use of wetlands and their resources.

- The Convention was adopted in the **Iranian city of Ramsar in 1971** and came into force in 1975. Since then, almost 90% of UN member states, from all the world's geographic regions, have acceded to become "**Contracting Parties**".
- Under the "three pillars" of the Convention, the Contracting Parties commit to:
  - Work towards the wise use of all their wetlands;
  - Designate suitable wetlands for the list of Wetlands of International Importance (the "Ramsar List") and ensure their effective management;
  - Cooperate internationally on transboundary wetlands, shared wetland systems and shared species.
- The Conference of the Contracting Parties (COP) meets every three years and promotes policies and guidelines to advance the objectives of the Convention.
- The Standing Committee, made up of Contracting Parties representing the six Ramsar regions of the world, meets each year to guide the Convention between meetings of the COP.
- The Scientific and Technical Review Panel provides guidance on key issues for the Convention.
- The Secretariat in **Gland, Switzerland**, manages the day-to-day activities of the Convention, and publishes Convention documents and the "Ramsar List" of Wetlands of International Importance. It is administratively supported by the International Union for Conservation of Nature (IUCN).

#### About Montreux record

- The Montreux Record is a register of wetland sites on the List of Ramsar wetlands of international importance where **changes in ecological character** have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference.
- It is a voluntary mechanism to highlight specific wetlands of international importance that are facing immediate challenges. It is maintained as **part of the**

**List of Ramsar wetlands of international importance.**

- Currently, Keoladeo National Park (Rajasthan) and Loktak Lake (Manipur) are being kept under the record from India for taking appropriate steps for ecological restoration.

**Why in the news?**

- World Wetlands Day was celebrated recently (February 2) to raise global awareness about the vital role of wetlands for people and our planet.
- This day also marks the date of the adoption of the **Convention on Wetlands on 2 February 1971**, in the Iranian city of Ramsar on the shores of the Caspian Sea.

- 2021 marks 50th year of convention adoption.
- This year's theme shines a spotlight on **wetlands as a source of freshwater and encourages actions to restore them and stop their loss.**
- The 2021 campaign highlights the contribution of wetlands to the quantity and quality of freshwater on our planet. Water and wetlands are connected in an inseparable co-existence that is vital to life, our wellbeing and the health of our planet.

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# ECONOMY

## 1) Union Budget 2021-22

### Summary

- Union Minister of Finance and Corporate Affairs Nirmala Sitharaman presented the **first ever digital Union Budget** for 2021-22.
- The key highlights of the Union Budget 2021-22 are as follows:

### 6 pillars of the Union Budget 2021-22:

- Health and Wellbeing
- Physical & Financial Capital, and Infrastructure
- Inclusive Development for Aspirational India
- Reinvigorating Human Capital
- Innovation and R&D
- Minimum Government and Maximum Governance

### Health and Wellbeing

- The Finance Minister said the government is expected to spend ₹2,23,846 crore in the coming year on health and well being which is a **137% increase** compared to the budgeted spending in 2020-21.
  - This includes a ₹60,030 crore outlay on **drinking water and sanitation**, a ₹2,700 crore outlay on **nutrition** — both of these are handled by separate ministries — nearly ₹49,000 crore as **Finance Commission grants** and ₹35,000 crore toward **vaccination**.
  - The budget also records a new centrally sponsored scheme called **Pradhan Mantri Atmanirbhar Swasth Bharat Yojana**, in addition to the National Health Mission, with an outlay of about Rs 64,180 crore over six years.
- It is aimed at developing capacity at the primary, secondary and tertiary healthcare levels, strengthening existing institutions and creating new ones, specifically to detect and cure emerging diseases.
  - This scheme aims to support 17,788 rural and 11,024 urban Health and Wellness Centers, establish integrated public health labs in all districts, strengthen the National Centre for Disease Control (NCDC) and 20 metropolitan health surveillance units, establish nine Bio-Safety Level III

laboratories and four regional National Institutes of Virology.

- The **Made-in-India Pneumococcal Vaccine** is to be rolled out across the country, from present 5 states – to avert 50,000 child deaths annually.
- The Pneumococcal vaccine targets the **pneumococcal bacterium**, which causes pneumonia and other serious life-threatening diseases such as meningitis and sepsis, and is estimated to cause nearly four lakh deaths in children under five years of age each year worldwide.
- The supplementary nutrition programme and the Poshan Abhiyaan under the Women and Child Development Ministry have been merged to launch **Mission Poshan 2.0** to strengthen nutritional content, delivery, outreach, and outcome.
- Mission Poshan 2.0, prioritizing 112 aspirational districts, will focus on overall health-wellbeing of the beneficiary and integrated approach in the delivery of nutrition services will reinforce the fight against malnutrition.
- Poshan 2.0 scheme is an **umbrella scheme** covering the Integrated Child Development Services (ICDS), Anganwadi Services, Poshan Abhiyaan, Scheme For Adolescent Girls and National Creche Scheme.
- Healthcare experts and NGOs have welcomed the launch of Poshan Mission 2.0, saying it will help tackle the complex issue of malnutrition which is dependent upon various factors.
- The Finance Minister also announced the **Jal Jeevan Mission (Urban)** to bring safe water to 2.86 crore households through tap connection by 2024. This in line with the Centre's rural water supply project- Jal Jeevan Mission (Rural)- launched in 2019.
- The project will focus on **rejuvenation of water bodies** to augment sustainable fresh water supply and creating **green spaces and sponge cities** to reduce floods and **enhance amenity value** through an Urban Aquifer Management plan.
- JJM(U) will promote **circular economy of water** through development of a city

water balance plan for each city focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation. **20% of water demand** to be met by reused water with development of institutional mechanisms.

- Unveiling **Urban Swachh Bharat Mission 2.0**, Finance Minister stressed on further strengthening of the 'swachhata' (cleanliness) campaign of urban India and allocated the budget of Rs. 1.41 lakh crore, which will be implemented over five years from 2021.
- ✚ The government intends to focus on complete faecal sludge management and wastewater treatment, source segregation of garbage, reduction in single-use plastic, reduction in air pollution, especially waste from construction and demolition, and bio-remediation of dumpsites.
- Ms Sitharaman also announced the **voluntary vehicle scrapping policy** to phase out old and polluting vehicles.
- ✚ The new policy will allow owners to scrap their **20-year old vehicles** and avail incentives on the purchase of new **personal vehicles**. For **commercial vehicles**, the scrappage policy will be applicable for **15-year old** commercial vehicles without a fitness certificate.
- ✚ The policy would cover an estimated 51 lakh light motor vehicles (LMVs) that are above 20 years of age, while another 34 lakh LMVs are above 15 years. It would also cover 17 lakh medium and heavy motor vehicles, which are above 15 years, and currently without valid fitness certificates. These vehicles are estimated to **cause 10-12 times more pollution than the latest vehicles**.
- ✚ It would lead to recycling of waste metal, improved safety, reduction in air pollution, lower oil imports due to greater fuel efficiency of current vehicles, and stimulate investment.

#### **Physical and Financial Capital and Infrastructure**

- The Budget has imposed an **agriculture infrastructure and development cess (AIDC)** on specified goods including alcoholic beverages, gold, silver, cotton, peas, apple, petrol, and diesel.
- ✚ The proceeds from the cess shall be used to finance the **improvement of**

#### **agriculture infrastructure and other development expenditure.**

- ✚ The AIDC is least (1.5%) for coal and most (100%) for imported liquor. The customs duty for the goods covered under AIDC have been rationalised to ensure the consumer doesn't bear the additional burden on most of these items.
- ✚ This has been done to make sure that there is a dedicated amount coming out to the Budget to improve agricultural infrastructure.
- The government has proposed to **link 1,000 more mandis into the e-NAM system** in view of the transparency and competitiveness the electronic marketing system has brought into agriculture trade.
- ✚ At present there are about 7,000 mandis in the country with about 5,000 of them being small and medium ones. The rest are either large or medium ones.
- ✚ Around 1,000 APMCs are currently on the eNAM platform.
- The government announced that the **Production Linked Incentive scheme (PLI)** implemented to boost manufacturing within India, will now **cover a total of 13 sectors** with an outlay of ₹1.97 lakh crore over five years, starting financial year 2021-22.
- ✚ This will be an addition to the ₹40,951 crore announced for the PLI for electronic manufacturing schemes. This will be a major step ahead in making India a hub for manufacturing and exports.
- ✚ Under the scheme, eligible players will receive incentives ranging from 4 per cent to 6 per cent of production value for five years, after they achieve their investment and production value target for each year.
- India will set up **seven Mega Integrated Textile Region and Apparel (MITRA) parks** over three years to position India as a fully integrated, globally competitive manufacturing and exporting hub.
- ✚ The parks to be setup over 1,000 acres of land with world class infrastructure, and plug-and-play facilities, will be in addition to the PLI scheme for technical textiles and manmade fibre.
- ✚ It aims to double the industry size to \$300 billion by 2025-26. The parks are targeted to have uninterrupted water and power

supply, common utilities and research and development labs.

- ✚ Similar parks already exist in China, Vietnam and Ethiopia where the entire textiles value chain is covered.
- ✚ India has already sanctioned 59 textile parks under the **Scheme for Integrated Textile Parks (SITP)**, of which 22 have been completed. However, their slow progress due to delays in obtaining land and other statutory clearances from state governments and tardy fund mobilisation, have prompted the government to develop MITRA parks.
- The **National Infrastructure Pipeline (NIP)**, which was launched with 6,835 projects, has now expanded to 7,400 projects in an effort to shore up economic growth as the nation recovers from the pandemic-induced recession.
- ✚ The programme will require an increase in funding from the government as well as the financial sector. For this, the government is proposing to take three concrete steps:
  - Creating institutional structure
  - Big thrust on monetisation of assets
  - Enhancing share of capital expenditure in central and state budget
- ✚ Building new roads, rail links and other social and economic infrastructure is key for attracting investments and making **India a \$5-trillion economy**.
- ✚ NIP, launched in 2019, envisages an investment of Rs 111 lakh crore on infrastructure projects by the year 2024-25. So far, around 217 projects worth Rs 1.10 lakh crore under some key infrastructure ministries have been completed.
- ✚ The NIP—jointly funded by the **central government (39%), state government (40%)** and the **private sector (21%)**—aims to invest in projects spanning across sectors such as energy, social and commercial infrastructure, communication, water and sanitation.
- The Finance Minister announced setting up of a **Development Finance Institution (DFI)** with a view to mobilise Rs 111 lakh crore required for funding of the ambitious national infrastructure pipeline.
- ✚ Infrastructure needs long-term debt financing. A professionally managed

development financial institution is necessary to act as provider, enabler and catalyst for infrastructure financing.

- ✚ A Bill to set up the DFI — which will be capitalised with Rs 20,000 crore — will be introduced in the ongoing session of Parliament.
- Ms Sitharaman also announced a **'National Monetisation Pipeline'** of potential brownfield infrastructure assets to raise finances for upcoming projects. For instance, railways will monetise **Dedicated Freight Corridor assets** for operations and maintenance, after commissioning. The next lot of **airports** will be monetised for operations and management concession.
- She also announced the launch of a new scheme to **support augmentation of public bus transport services**, at a cost of Rs 18,000 crore. The scheme will facilitate deployment of innovative PPP models to enable private sector players to finance, acquire, operate and maintain over 20,000 buses.
- Besides, two new technologies — **'MetroLite' and 'MetroNeo'** — will be deployed to provide metro rail systems at much lower cost with the same experience, convenience and safety in Tier-2 cities and peripheral areas of Tier-1 cities.
- The Finance Minister announced that the **National Hydrogen Energy Mission** will be launched in 2021-22 for generating hydrogen from green power sources.
- ✚ The Hydrogen Mission is not only essential to decarbonise heavy industries like steel and cement, it also holds the key to clean electric mobility that doesn't depend on rare-earth element-based batteries as energy storage.
- **Seven major ports** worth ₹2,000 crore will see their operations **privatised** in the year 2021-2022.
- ✚ India has **12 major ports** -- Deendayal (erstwhile Kandla), Mumbai, JNPT, Mormugao, New Mangalore, Cochin, Chennai, Kamarajar (earlier Ennore), V O Chidambaranar, Visakhapatnam, Paradip and Kolkata (including Haldia) under the control of the Centre.
- ✚ These major ports handle about 60% of the country's total cargo traffic.

- The Budget also envisages boosting the recycling of ships at **Alang** in Gujarat, the world's biggest shipyard. The Minister said the **capacity of recycling shipyards would be doubled** from 4.5 million light displacement tonne by 2024, which will generate 1.5 lakh jobs.
- ✚ India has enacted **Recycling of Ships Act, 2019** and acceded to the **Hong Kong International Convention (HKC)**. Post-enactment of the law, around 90 ship recycling yards at Alang in Gujarat have already achieved HKC-compliant certificates.
- ✚ India aspires to grab at least 50 per cent of the global ship recycling business. The country's share in the ship recycling business is around 30% at present.
- **Ujjwala Scheme** under which 8 crore poor households were provided free cooking gas connection will be extended to cover 1 crore more beneficiaries.
- Also, 100 more districts will be added in the next 3 years to the **City Gas Distribution network**.
- The Budget proposed to amend the Insurance Act, 1938 to **increase the permissible FDI limit from 49 per cent to 74 per cent in insurance companies** and allow foreign ownership and control with safeguards.
- ✚ A liberal FDI policy will attract higher amounts of foreign capital, which will aid in increasing insurance penetration in India.
- ✚ Life insurance penetration in the country is 3.6 per cent of the GDP, way below the global average of 7.13 per cent, and in case of general insurance, it is even worse at 0.94 per cent of GDP, as against the world average of 2.88 per cent.
- ✚ The government has earlier allowed 100 per cent foreign direct investment in **insurance intermediaries**.
- ✚ Intermediary services include insurance brokers, reinsurance brokers, insurance consultants, corporate agents, third party administrators, surveyors and loss assessors.
- The Finance Minister proposed setting up an **asset reconstruction company** to clean up non-performing assets in the banking sector.
- ✚ Refer “Can a ‘bad bank’ solve the growing NPA crisis?” topic
- Budget 2021 has proposed to amend the **Deposit Insurance and Credit Guarantee Corporation Act, 1961, (DICGC Act)**, to allow them to get funds if a bank is unable to fulfil its obligations.
- ✚ Keeping the interest of depositors in mind, the government had increased the deposit insurance cover from **₹1 lakh to ₹5 lakh** last year. However, the claim could be made only in dire situations—if a bank's licence was cancelled and its liquidation proceedings were started.
- ✚ With the amendments to the DICGC Act, it should be possible for depositors to withdraw funds of up to ₹5 lakh even if the bank is under stress.
- To improve credit discipline while continuing to protect the interest of small borrowers, the Budget proposed to reduce the minimum loan size eligible for debt recovery under the **Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002 from Rs. 50 lakh to Rs. 20 lakh** for NBFCs with minimum asset size of Rs. 100 crore.
- ✚ The SARFAESI Act was passed in 2002 to lay down processes to help Indian lenders recover their dues quickly. The Act essentially empowers banks and other financial institutions to directly auction residential or commercial properties that have been pledged with them to recover loans from borrowers.
- ✚ Before this Act took effect, financial institutions had to take recourse to civil suits in the courts to recover their dues, which is a lengthy and time-consuming process.
- The Finance Minister proposed **revising the definition of small companies** by enhancing the **paid-up capital base** from the existing limit of **Rs 50 lakh to Rs 2 crore**. The **turnover threshold** is also proposed to be enhanced from **Rs 2 crore to Rs 20 crore**.
- ✚ The move is likely to get more companies under the ‘small’ category and benefit them in terms of the compliance requirements under Companies Act 2013.
- The Budget incentivizes the incorporation of **One Person Companies (OPCs)** by

amending the Companies (Incorporation) Rules to allow OPCs to grow without any restrictions on paid-up capital and turnover, allowing their conversion into any other type of company at any time, reducing the residency limit for an Indian citizen to set up an OPC from 182 days to 120 days and also allow Non-Resident Indians (NRIs) to incorporate OPCs in India.

- ✚ These measures will help a number of overseas Indians establish businesses in India and benefit Startups and Innovators in the country.
- The **Ministry of Corporate Affairs (MCA)** will launch data analytics-driven **MCA 21 Version 3.0** during fiscal 2021-22 with additional modules for e-Adjudication, e-Consultation, and Compliance Management.
- ✚ Aligned with global best practices and aided by emerging technologies such as Artificial Intelligence, data analytics and machine learning, MCA 21 3.0 is envisioned to transform the corporate regulatory environment in India.
- ✚ MCA-21 is an initiative under the Ministry of Corporate Affairs storing all registered companies that file accounts online with MCA. It enables an easy and secure access of the MCA services to the corporate entities, professionals and citizens of India.
- The government budgeted a **disinvestment target of ₹1.75 lakh crore** for the next fiscal year beginning April 1.
- ✚ The amount is lower than the record ₹2.10 lakh crore which was budgeted to be raised from CPSE disinvestment in the current fiscal year. However, the COVID-19 pandemic impacted the government's CPSE stake sale programme, and the target has been lowered to ₹32,000 crore in the Revised Estimates.
- ✚ For fiscal year 2021-22, out of the total ₹1.75 lakh crore, ₹1 lakh crore is to come from selling government stake in public sector banks and financial institutions, including 2 PSU banks and one insurance company. About ₹75,000 crore would come as CPSE disinvestment receipts.
- ✚ The Finance Minister Nirmala said **four sectors** — Atomic energy, Space and Defence; Transport and

Telecommunications; Power, Petroleum, Coal and other minerals; and Banking, Insurance and financial services — would be **strategic sectors**.

- ✚ In strategic sectors, there will be **bare minimum presence of the public sector enterprises**. The remaining CPSEs in the strategic sectors will be privatised or merged or subsidiarised with other CPSEs or closed. In non-strategic sectors, CPSEs will be privatised, otherwise shall be closed.
- ✚ Strategic disinvestment of BPCL, Air India, Shipping Corporation of India, Container Corporation of India, IDBI Bank, BEML, Pawan Hans, Neelachal Ispat Nigam Ltd, among others would be completed in 2021-22.
- ✚ Also the legislative amendments required for launching the **Initial Public Offering (IPO) of the Life Insurance Corporation of India (LIC)** would be brought in the ongoing session of Parliament.
- ✚ To fast-track the disinvestment policy, **NITI Aayog** would work out on the next list of central public sector companies that would be taken up for strategic disinvestment.
- ✚ To monetise lands owned by CPSEs, a **special purpose vehicle (SPV)** would be developed.
- ✚ Besides, to ensure timely completion of closure of sick or loss making CPSEs, a **revised mechanism** would be brought in.
  - **Inclusive Development for Aspirational India**
  - The **SWAMITVA Scheme** is to be extended to all States/UTs.
- ✚ SVAMITVA (Survey of villages and mapping with improvised technology in village areas) scheme is a collaborative effort of the Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India.
- ✚ It aims to provide rural people with the **right to document their residential properties** so that they can use their property for economic purposes. The scheme is for surveying the land parcels in rural inhabited areas using Drone technology.
- ✚ Last year, the government approved the pilot phase which covers **six States** (Haryana, Karnataka, Madhya Pradesh,

Maharashtra, Uttar Pradesh and Uttarakhand).

- ✚ 1.80 lakh property-owners in 1,241 villages have already been provided cards.
- The Budget envisages expanding '**Operation Green Scheme**', currently applicable for Tomato, Onion and Potato value chains, to **22 more perishable products** to encourage value addition in agriculture and allied products.
- ✚ Announced for the first time in 2018-19 budget with an outlay of ₹500 crore, the Operation Greens scheme, on the lines of Operation Flood, was aimed at stabilizing the supply of Tomato, Onion and Potato (TOP) crops and to ensure availability of TOP crops throughout the country round the year without price volatility.
- ✚ It aimed at promoting farmer producer organisation, strengthening agri-logistics, processing facilities and professional management.
- ✚ Operations Greens is focussed on organised marketing of tomatoes, onions and potatoes by connecting farmers with consumers.
- Also, to protect the farmers from cheaper imports, Ms Sitaraman has announced the **increase in customs duty on products such as cotton, raw silk and silk yarn**. Cotton will attract customs duty of 10 per cent, while the levy on raw silk and silk yarn has been increased from 10 to 15 per cent.
- Further, to strengthen the post-harvest facilities, the Finance Minister announced that the **Agriculture Infrastructure Fund**, announced in the aftermath of the COVID Pandemic lockdown last year, would be made available for the Agriculture Produce Marketing Committee mandis to augment their infrastructure.
- **Five major fishing harbours** — Kochi, Chennai, Visakhapatnam, Paradip and Petuaghat — will be developed as **hubs of economic activity**. They will see substantial investments for modernisation and development.
- To promote seaweed cultivation, the Budget proposed a **Multipurpose Seaweed Park** to be established in Tamil Nadu. Seaweed farming is an emerging sector with potential to transform the lives of coastal communities. It will provide

large scale employment and additional incomes.

- The government said **social security benefits will be extended to platform and gig workers**. The government also proposed setting up a **portal** to collect information on gig-workers, building and construction workers, among others, to provide them benefits like health, credit (easy financing), food and others.
- ✚ The gig and platform workers are those who are engaged by various e-commerce businesses like UBER, OLA, SWIGGY and Zomato. These workers are not paid salaries and hence deprived of social security benefits like provident fund, group insurance and pension.
- ✚ India has a total workforce of over 50 crore including 40 crore unorganised sector which include farm and rural workers.
- To further facilitate credit flow under the scheme of **Stand Up India** for SCs, STs, and women, the Finance Minister proposed to **reduce the margin money requirement from 25% to 15%**, and to also **include loans for activities allied to agriculture**.
- ✚ Stand Up India scheme facilitates loans between **10 lakh and 1 crore** to **at least one scheduled caste/scheduled tribe and one woman per bank branch** for setting up a greenfield enterprise (manufacturing, services or the trading sector).
- ✚ In case of non-individual enterprises, at least 51 per cent of the shareholding and controlling stake should be held by either an SC/ST or woman entrepreneur.
- **More than 15,000 schools will be qualitatively strengthened** to include all components of the National Education Policy (NEP). They shall emerge as exemplar schools in their regions, handholding and mentoring other schools to achieve the ideals of the policy.
- A total of **100 new Sainik Schools** will be set up in partnership with NGOs, private schools and states.
- ✚ There are 30 Sainik Schools in India at present, established and managed by Sainik Schools Society under the **Ministry of Defence**. These schools are supported by the Central and State government and

act as feeder institutions to the National Defence Academy (NDA).

- A total of **750 Eklavya Model Residential Schools (EMRSs)** will be established in tribal areas.
- ✚ The **Ministry of Tribal Affairs** has been setting up EMRSs since 1998-99 for imparting quality education to tribal children in their own environment. The objective of EMRSs is to provide quality middle and high level education to **Scheduled Tribe (ST) students in remote areas.**
- ✚ As per the budget 2018-19, **every block with more than 50% ST population and at least 20,000 tribal persons**, will have an Eklavya Model Residential School by the year 2022.
- Standards will be developed for all school teachers in the form of **National Professional Standards for Teachers (NPST)**. This will enhance the capabilities of teachers and will be followed by all 92 lakh teachers of public and private school system in the country.
- During the year, despite COVID-19 pandemic, the government trained more than 30 lakh elementary school teachers digitally, covering the whole gamut of education. Taking this further, in 2021-22, the government will enable the training of 56 lakh school teachers through the **National Initiative for School Heads and Teachers for Holistic Advancement (NISTHA)**.
- ✚ NISTHA is a national initiative for school heads and teachers' holistic advancement. It was launched in 2019 by the **Ministry of Education.**
- ✚ The aim of this training is to motivate and equip teachers to encourage and foster critical thinking in students, handle diverse situations and act as first level counsellors.
- Rs. 3000 crore has been allocated for realignment of existing **National Apprenticeship Training Scheme (NATS)** towards post-education apprenticeship, training of graduates and diploma holders in Engineering.

#### **Innovation and R&D**

- Modalities are being worked out for a **National Research Foundation** for which Rs 50,000 crore has been earmarked over

five years to strengthen the overall research ecosystem with focus on national-priority thrust areas.

- **National Language Translation Mission (NLTM)** — a new initiative is being introduced to make policy and government documents available in major Indian languages.
- ✚ The Mission will work towards creating a "voice-based internet" using artificial intelligence, machine learning and speech recognition technologies which will be accessible in popular Indian languages and not be dominated by Hindi or English.
- ✚ This is in line with the **National Education Policy 2020**, which emphasises creating content and delivery of content in regional languages.
- Finance Minister announced an allocation of over Rs 4,000 crore over the next five years for the **Deep Ocean Mission** aimed at improving understanding about oceans, its biodiversity and impact of climate change, along with development and demonstration of technology to undertake future ocean explorations.
- ✚ The Deep Ocean Mission, which is **part of the Blue Economy** envisioned to be developed by 2030, will place India among select countries — US, France, Japan, Russia and China — to have special missions dedicated for ocean studies.
- ✚ The mission will be spearheaded by the Ministry of Earth Sciences (MoES) in collaboration with an UN organisation for mineral exploration.

#### **Minimum Government, Maximum Governance**

- In the spirit of Prime Minister Narendra Modi's vision for "Minimum Government, Maximum Governance", a number of steps were taken to bring reforms in **Central Administrative Tribunals (CATs)** in the last few years for speedy delivery of justice and the budget proposes to take further measures to **rationalise the functioning of tribunals.**
- The Budget proposes to set up a **conciliation mechanism** and mandate its use for quick resolution of contractual disputes with CPSEs to instil confidence in private investors and contractors.

#### **Fiscal Position**

- Finance Minister Nirmala Sitharaman has pegged **fiscal deficit for the coming year 2021-22 at 6.8% of GDP and aims to bring it back below the 4.5% mark by 2025-26.**
- ✚ The original fiscal deficit target for 2020-21 was 3.5%. However, in reality, the deficit shot up to a high of **9.5% of GDP** due to the double impact of the COVID-19 pandemic — low revenue flows due to the lockdown and negative economic growth clubbed with high government spending to provide essential relief to vulnerable sections of society, as well as a stimulus package aimed at reviving domestic demand.
- ✚ The Centre proposes to make **amendments to the Fiscal Responsibility and Budget Management (FRBM) Act, 2003**, to reflect these changes to the fiscal consolidation roadmap.
- ✚ She added that the Centre hopes to return to the path of fiscal consolidation by **higher tax buoyancy** through improved compliance on the one hand, and increased monetisation of its assets, including Public Sector Enterprises and land, on the other hand.
- ✚ This year's fiscal deficit has been funded through government borrowings, multilateral borrowings, Small Saving Funds and short term borrowings.
- In 2021-22, the **government proposes to spend a total of ₹34.83 lakh crore**, higher than the budget estimate of ₹30.42 lakh crore in the previous year, as well as the actual expenditure of ₹34.5 lakh crore.
- ✚ The coming year's spending plan includes **₹5.54 lakh crore as capital expenditure**, an increase of 34.5% over the current year's budget estimates.
- She also proposed to **augment the Contingency Fund of India from ₹500 crore to ₹30,000 crore.**

#### Finance Commission recommendations

- The government has accepted the Fifteenth Finance Commission's recommendation to maintain the **States' share in the divisible pool of taxes to 41%** for the five-year period starting 2021-22, and given an 'in-principle' nod to the panel's suggestion to set up a **separate**

#### **non-lapsable fund for defence and internal security modernisation.**

- The Fourteenth Finance Commission had raised States' share to 42% of divisible revenues, but the Fifteenth Finance panel, headed by N.K. Singh, had reduced the share to 41% in its interim report for 2020-21, citing the conversion of Jammu, Kashmir and Ladakh into Union Territories.
- The Commission's report, which was submitted to the President in November but tabled in Parliament recently with the government's action taken report on its suggestions, has recommended **additional revenue deficit grants of ₹2.94 lakh crore** for 17 States over the next five years.
- **States are being allowed a net borrowing ceiling of 4% of GSDP in 2021-22**, and will be expected to consolidate their fiscal deficits to 3% of GSDP by 2023-24, as recommended by the Fifteenth Finance Commission.
- An **additional borrowing ceiling of 0.5% of GSDP** will also be provided based on meeting specified reforms in the power sector.
- The Commission has sought to assuage the fears of southern States about losing some share in tax transfers due to the **reliance on the 2011 Census data** instead of the 1971 census, which could penalise States that did better on managing demographics. It has done so by giving a **12.5% weightage for demographic performance** in its tax-transfer calculations.

## 2) Can a 'bad bank' solve the growing NPA crisis?

### Background

- Finance Minister Nirmala Sitharaman in her Budget speech revived the idea of a 'bad bank' by stating that the Centre proposes to set up an **asset reconstruction company** to acquire bad loans from banks.

### What is a 'bad bank'?

- A bad bank is a financial entity **set up to buy non-performing assets (NPAs), or bad loans, from banks.**

- The aim of setting up a bad bank is to help **ease the burden on banks** by taking bad loans off their balance sheets and get them to lend again to customers without constraints.
- After the purchase of a bad loan from a bank, the bad bank may later try to restructure and sell the NPA to investors who might be interested in purchasing it.
- A bad bank makes a profit in its operations if it manages to sell the loan at a price higher than what it paid to acquire the loan from a commercial bank. However, **generating profits is usually not the primary purpose** of a bad bank — the objective is to ease the burden on banks, holding a large pile of stressed assets, and to get them to lend more actively.

#### What is the extent of the crisis faced by banks?

- According to the latest figures released by the RBI, the **total size of bad loans** in the balance sheets of Indian banks at a gross level was just **around ₹9 lakh crore** as of March 31, 2020, down significantly from over ₹10 lakh crore two years ago.
- While the size of total bad loans held by banks has decreased over the last few years, analysts point out that it is mostly the **result of larger write-offs** rather than due to improved recovery of bad loans or a slowdown in the accumulation of fresh bad loans.
- The size of bad loan write-offs by banks has steadily increased since the RBI launched its **asset quality review procedure** in 2015, from around ₹70,000 crore in 2015-16 to nearly ₹2.4 lakh crore in 2019-20, while the size of fresh bad loans accumulated by banks increased last year to over ₹2 lakh crore from about ₹1.3 lakh crore in the previous year.
- Further, due to the lockdown imposed last year, the **proportion of banks' gross non-performing assets** is expected to rise sharply from 7.5% of gross advances in September 2020 to **at least 13.5% of gross advances in September 2021**.

#### Pros of setting up a bad bank

- A supposed advantage in setting up a bad bank is that it can help **consolidate all bad loans of banks under a single exclusive entity**. The idea of a bad bank has been tried out in countries such as the

United States, Germany, Japan and others in the past.

- The **troubled asset relief program**, also known as **TARP**, implemented by the U.S. Treasury in the aftermath of the 2008 financial crisis, was modelled around the idea of a bad bank. It is estimated that the Treasury through its operations earned nominal profits.

#### Cons

- **Former RBI governor Raghuram Rajan** has been one of the critics, arguing that a bad bank backed by the government will **merely shift bad assets from the hands of public sector banks, which are owned by the government, to the hands of a bad bank**, which is again owned by the government.
- There is little reason to believe that a mere transfer of assets from one pocket of the government to another will lead to a successful resolution of these bad debts, when the set of incentives facing these entities is essentially the same.
- Other analysts believe that unlike a bad bank set up by the private sector, a bad bank backed by the government is **likely to pay too much for stressed assets**. While this may be good news for public sector banks, which have been reluctant to incur losses by selling off their bad loans at cheap prices, it is bad news for taxpayers, who will once again have to foot the bill for bailing out troubled banks.

#### Will a 'bad bank' help ease the bad loan crisis?

- A key reason behind the bad loan crisis in public sector banks is the **nature of their ownership**. Unlike private banks, which are owned by individuals who have strong financial incentives to manage them well, public sector banks are managed by bureaucrats who may often not have the same commitment to ensuring these lenders' profitability.
- To that extent, bailing out banks through a bad bank does not really address the root problem of the bad loan crisis.
- Further, there is a **huge risk of moral hazard**. Commercial banks that are bailed out by a bad bank are likely to have little reason to mend their ways. After all, the safety net provided by a bad bank gives these banks more reason to lend

recklessly, and thus, further exacerbate the bad loan crisis.

### Will it help revive credit flow in the economy?

- Some experts believe that by taking bad loans off the books of troubled banks, a bad bank can help **free capital of over ₹5 lakh crore** that is **locked in by banks as provisions against these bad loans**. This will give banks the freedom to use the freed-up capital to extend more loans to their customers.
- ✚ *Provision Coverage Ratio in most of the banks is over 80 per cent, which means that the lender has made a provision of 80 per cent against NPAs.*
- This gives the impression that banks have unused funds lying in their balance sheets that they could use if only they could get rid of their bad loans. It is, however, important not to mistake banks' reserve requirements for their capital position.
- This is because what may be stopping banks from lending more aggressively may not be the lack of sufficient reserves, which banks need to maintain against their loans.
- Instead, it may simply be the precarious capital position that many public sector banks find themselves in at the moment. In fact, **many public sector banks may be considered to be technically insolvent** as an accurate recognition of the true scale of their bad loans would show their liabilities as far exceeding their assets.
- So, a bad bank, in reality, could help improve bank lending not by shoring up bank reserves, but by improving banks' capital buffers.
- To the extent that a new bad bank set up by the government can improve banks' capital buffers by freeing up capital, it could help banks feel more confident to start lending again.

## 3) E-commerce models in India

### Background

- E-commerce companies can operate under two different models in India.
- 1. **Marketplace based model** where the e-commerce firm simply acts as a platform that connects buyers and sellers. **100% FDI is allowed** in e-commerce companies in this model.

2. **Inventory based model** where the inventory of goods sold on the portal is owned or controlled by the e-commerce company and is sold to the consumers directly. **FDI is not allowed under this model**. Only in the trading of locally produced food products, up to 100% FDI is allowed in the inventory model, that, too, with prior government approval.

### Why in News?

- A U.S. lobby group that represents firms including Amazon.com and Walmart has urged India not to tighten foreign investment rules for e-commerce companies again.
- Recently, it was reported that India is considering revising the rules after traders in the country accused Amazon's Indian division and Walmart's Flipkart of creating complex structures to bypass investment regulations.

### What is the issue?

- India allows foreign e-commerce players to operate as only a marketplace but local traders say the U.S. giants promote select sellers and offer deep discounts, which hurts business for smaller local retailers.
- In 2018, India changed its foreign direct investment rules to deter foreign firms offering products from sellers in which they have an equity stake.
- The Centre is now considering tightening those rules again to **include sellers in which a foreign e-commerce firm holds indirect stake through its parent**.

### Changes made

- In 2018, the **Department for Promotion of Industry and Internal Trade (DPIIT)** issued stricter guidelines that govern FDI in e-commerce firms. As per the revised guidelines,
  1. Vendors that have **any stake** owned by an e-commerce company cannot sell their products on that e-commerce company's portal.
  2. Any vendor who purchases **25% or more** of its inventory from an e-commerce group company will be considered to be controlled by that e-commerce company, and thereby barred from selling on its portal.
  3. The e-commerce firm will not be allowed to influence the price of a product sold on

its portal by giving **incentives to particular vendors**.

- All vendors on the e-commerce platform should be provided services in a **fair and non-discriminatory manner**. Services include fulfilment, logistics, warehousing, advertisement, payments, and financing among others.

#### Context for these changes

- Large e-commerce companies such as Amazon and Flipkart, while not owning inventory themselves, have been providing a platform for their group companies such as CloudTail and WS Retail respectively.
- This kind of a relationship with vendors is the primary reason for price unfairness in the e-commerce marketplace. It may seem beneficial for end customers. Yet, it has managed to destroy the competitive ecosystem.

## 4) GST Compensations

### What is it?

- The GST regime, launched on July 1, 2017, introduced a uniform indirect tax structure across the country by merging various state and local-level levies.
- Under the **GST compensation Act 2017**, states are guaranteed full compensation for any revenue loss for the **first five years** after the introduction of the GST.
- For the purpose of calculating the compensation amount in any financial year, year **2015-16 will be assumed to be the base year**, from which revenue will be projected. The growth rate of revenue for a state during the five-year period is assumed to be **14% per annum**.
- Any shortfall has to be compensated from the receipts of **Compensation Cess** levied on luxury goods and sin products such as liquor, cigarettes, aerated water, automobiles, coal and other tobacco commodities.

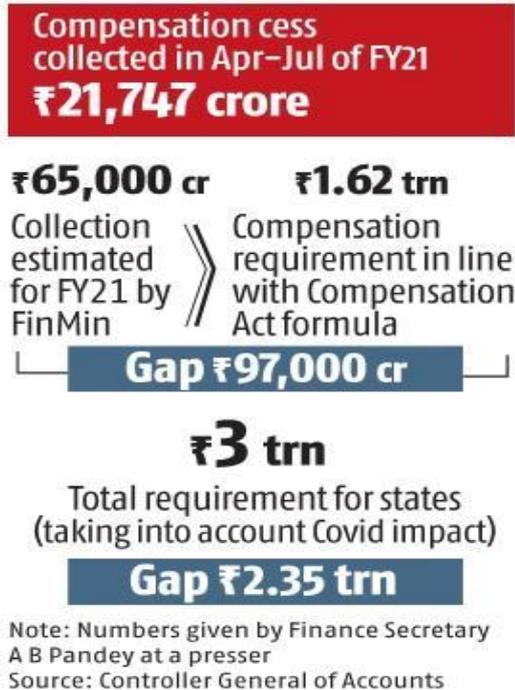
### Revenue shortfall

- The goods and services tax revenue has slowed to a trickle on account of a slowing economy, the COVID pandemic and subsequent lockdowns.
- As a result, the collections will not be enough to meet the committed 14% annual increase in states' GST revenue, as

provided in the constitutional amendment.

- The centre has computed this shortfall at an estimated **Rs 2.35 lakh crore** but determined that **only Rs 97,000 crore of that is on account of GST implementation**, the rest is due to the pandemic.

## BLEAK OUTLOOK



### Background

- Last year, the Centre presented two options before the states to bridge their estimated GST revenue shortfall in FY21, both involving the states themselves borrowing from the market in the year.
- The loans will be serviced via the proceeds of the relevant **compensation cess**, which will apply on the specified demerit goods for a **year or more beyond the current end date of FY22**.

### Key details of the two options

#### Option 1:

- The shortfall arising out of GST implementation (calculated at Rs 97,000 crore approximately) will be borrowed by States through issue of debt under a Special Window coordinated by the Ministry of Finance.
- The interest on the borrowing under the Special Window will be paid from the **Compensation cess** as and when it arises until the end of the transition period

(2022). After the transition period, principal and interest will also be paid from proceeds of the Cess, by extending the Cess beyond the transition period for such period as may be required.

- The **state will not be required to service the debt or to repay it from any other source.**
- The borrowing under this special window will not be treated as debt of the state for any other norms prescribed by the Finance Commission.

#### **Option 2:**

- The entire shortfall of Rs 2,35,000 crore (including the Covid-impact portion) may be borrowed by States through issue of market debt.
- The **interest shall be paid by the States from their resources.**
- The **centre will repay principal** on such debt from **compensation cess** proceeds collected after the transition period ends in July 2022.
- To the extent of the shortfall arising due to implementation of GST (Rs 97,000 crore), the borrowing will not be treated as debt of the state.
- The states were asked to convey their choice to the Council. All the States have given their preference for Option-I.

#### **Why in News?**

- The Finance Ministry has released the 14th weekly instalment of six thousand crore

rupees to the states to meet the GST compensation shortfall.

- Till now, 76 per cent of the total estimated GST compensation shortfall has been released to the States and UTs with the Legislative Assembly.
- The Government of India had set up a **special borrowing window** in October last year to meet the shortfall in revenue arising on account of implementation of GST. The borrowings are being done through this window by the Government of India on behalf of the States and UTs. Fourteen rounds of borrowings have been completed so far starting from 23rd October last year.

#### **Additional Borrowings**

- In addition to providing funds through the special borrowing window, the Government of India has also granted **additional borrowing permission equivalent to 0.50 per cent of Gross States Domestic Product, GSDP** to the states choosing Option-I to meet GST compensation shortfall to help them in mobilising additional financial resources.
- Permission for borrowing the entire additional amount of one lakh six thousand eight hundred 30 crore rupees which is 0.50 per cent of GSDP has been granted to 28 states under this provision.

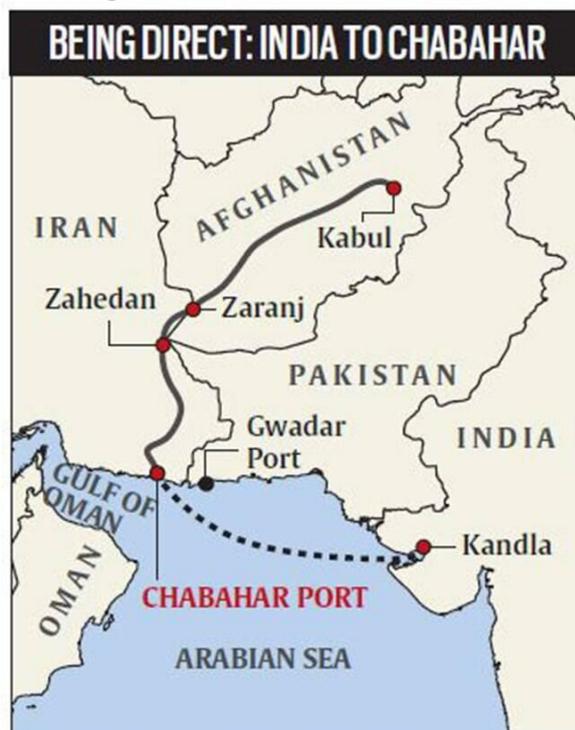
**For doubts and queries email us at: [doubts@officerspulse.com](mailto:doubts@officerspulse.com)**

# INTERNATIONAL RELATIONS

## 1) Chabahar port

### About Chabahar port

- Chabahar port, which is being jointly developed by **India, Iran and Afghanistan**, is located in south Iran on the **Gulf of Oman**.
- Pakistan's **Gwadar port** is about 70 kilometers to the west along the coast.
- Afghanistan is connected to the chabahar port through its land border with Iran, and India via the sea.
- Thus, the port is readily accessible for all three countries and acts to facilitate trade among them.
- In 2003, India, Afghanistan and Iran, under the **North-South Transport Corridor framework**, signed the Chabahar port agreement, allowing all three countries to utilize the Chabahar port as a trade hub.
- The first phase of Chabahar port was inaugurated in December 2017.



### Strategic significance of the Chabahar port

- It is an important pillar of Indian foreign policy aimed at finding shorter routes for its exports and imports, countering China's influence in the Indian Ocean region, and circumventing Pakistan's Gwadar port.

- Chabahar is the **only port outside of Pakistan that connects Afghanistan to the sea**.
- The port will also connect India to Central Asian countries that are also major energy producers in the region.

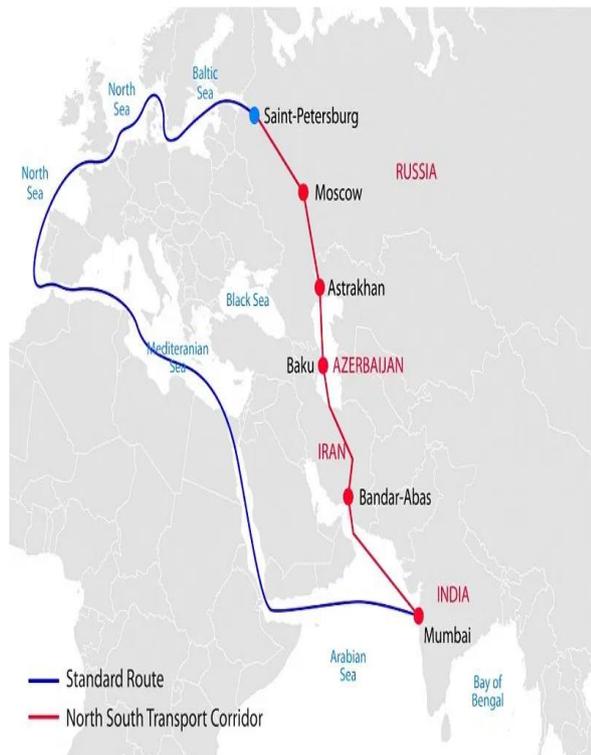
### Why in News?

- In its latest push to develop Iran's Chabahar port project, India recently handed over two 140-tonne cranes for loading and unloading equipment to the Iranian government.
- The cranes, part of a full consignment of six Mobile Harbour Cranes (MHC) worth about \$25 million were sourced from Italy and formally released at a ceremony at Chabahar's Shahid Beheshti port after official talks between India and Iran.
- The cranes delivery comes after several delays due to the impact of U.S. sanctions on various parts of the Chabahar project, which have slowed down both the procurement of equipment, as well as banking and insurance arrangements for developing infrastructure, even though India received a **sanctions waiver** from Washington for developing Chabahar port.

### Related information

#### About International North-South Transport Corridor (INSTC)

- INSTC is a land-and sea-based 7,200-km long network comprising rail, road and water routes that are aimed at reducing costs and travel time for freight transport in a bid to **boost trade between Russia, Iran, Central Asia, India and Europe**.
- It is a **joint initiative taken by India, Russia and Iran**.
- The 'Inter-Governmental Agreement on International "North-South" Transport Corridor' was signed by the three countries in St. Petersburg, Russia, in 2000.
- Since then, 11 more nations have joined the project: Armenia, Azerbaijan, Belarus, Bulgaria (observer status), Kazakhstan, Kyrgyzstan, Oman, Syria, Tajikistan, Turkey, and Ukraine.

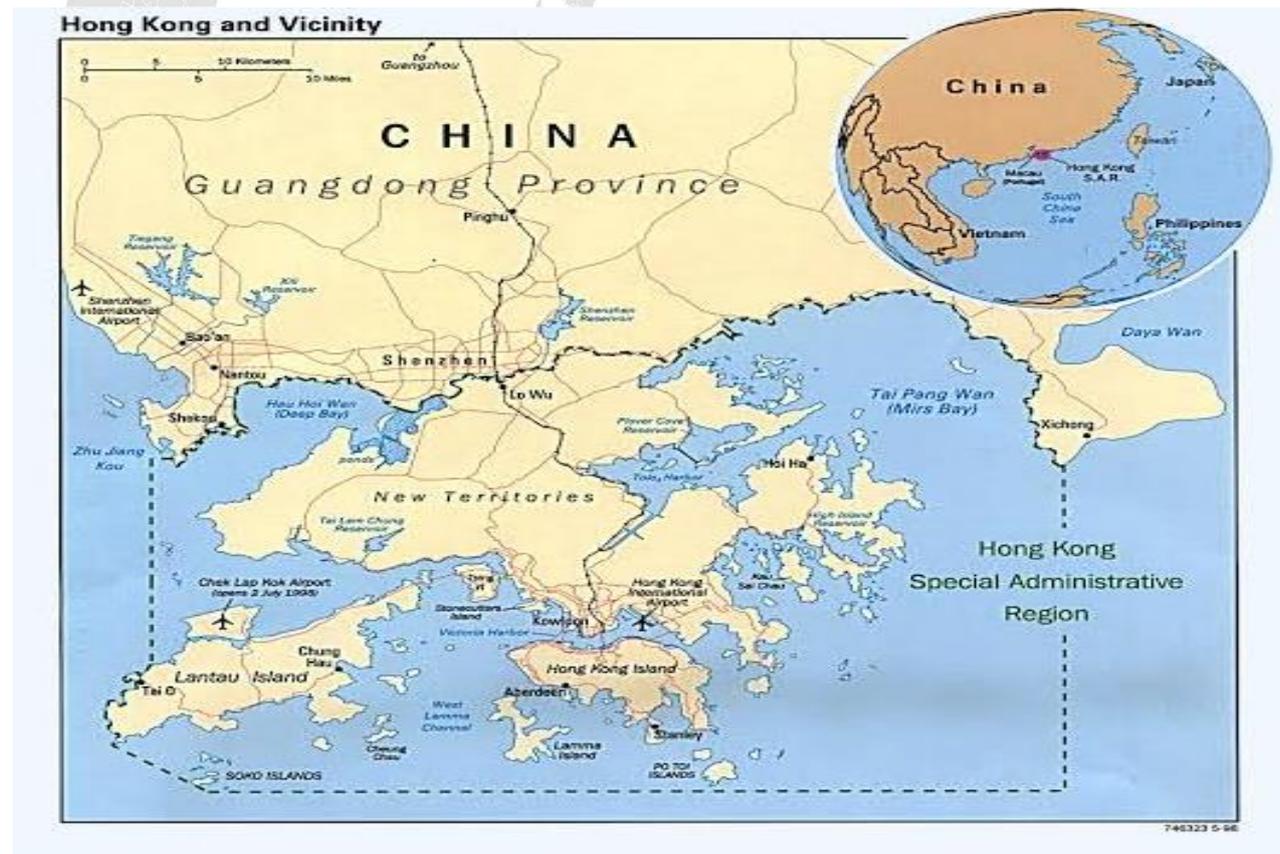


## 2) U.K. opens special visa route for Hong Kong residents

### Hong Kong and China relationship

- Hong Kong, a **former British colony**, was returned to the People's Republic of China in 1997 under a policy known as “**one country, two systems**,” which promised the territory a high degree of autonomy.
- As a **Special Administrative Region (SAR)**, Hong Kong allows freedoms not enjoyed in mainland China, including freedom to protest and an independent judiciary.
- But that autonomy, guaranteed under a mini-constitution known as the **Basic Law**, expires in 2047. The joint signed declaration does not state what will happen in 2047 after that agreement officially ends.

### Location



- Located on the southeast coast of China, Hong Kong's strategic location on the **Pearl River Delta** and **South China Sea** has made it one of the world's most thriving and cosmopolitan cities.

### Controversial law

- Last year, China's Parliament passed a new legislation for Hong Kong that will for the first time empower China to **draft national security laws** for the Special Administrative Region.
- Many sections in Hong Kong are protesting against the law who fear that it could be

the biggest blow to the territory's autonomy and personal freedoms since 1997 when it came under Chinese rule.

#### Why in News?

- Residents of Hong Kong can apply for a new visa offering them an opportunity to become British citizens as the United Kingdom opens its doors to those wanting to escape China's crackdown on dissent in the semi-autonomous city.
- Anyone with a **British National Overseas (BNO) passport and their dependents** can apply online for a visa allowing them to live and work in the UK. After five years, they can then apply for citizenship.
- The visa scheme is a response to Beijing's decision last year to impose a sweeping national security law on Hong Kong, a former British colony, to snuff out huge and sometimes violent pro-democracy protests.
- The UK said the law – which punishes subversion, collusion, terrorism and collusion with foreign forces – breaches the terms of agreements under which Hong Kong was handed back to China in 1997. London has argued it has a moral duty to the people of Hong Kong.

#### China's response

- China has reacted with fury to the visa offer. It announced BNO passports would no longer be recognised as a legitimate travel or ID document.

#### About BNO passports

- The UK introduced BNO passports in the 1980s for people who were a "British dependent territories citizen by connection with Hong Kong".
- Many residents of the city at the time wanted the UK to grant them full citizenship but China was opposed to the move. The BNO was a compromise, allowing Hong Kong people born before 1997 the right to stay in the UK for six months at a time, but with no working or settling rights.
- Now, it has become one of the few ways out for Hong Kong people hoping to start a new life overseas as authorities conduct mass arrests against democracy supporters.

### 3) New START

#### About the treaty

- The New Strategic Arms Reduction Treaty (New START) was signed in 2010 by **Russia and the United States** and entered into force in 2011.
- New START replaced the 1991 START I treaty, which expired in 2009, and superseded the 2002 Strategic Offensive Reductions Treaty (SORT).
- New START **caps the deployed strategic nuclear warheads and bombs** of the United States at Russia at 1,550 each. The Treaty includes limits on missiles, bombers, and land-based launchers for nuclear weapons.
- The Treaty also allows for verification inspections and information-sharing.
- The New Start Treaty is **due to expire this month**.

#### Why in News?

- The United States has extended the New START nuclear disarmament treaty with Russia for **five years**.
- Recently, Russian President Vladimir Putin signed off the legislation extending the accord.
- The New START treaty is the last remaining arms reduction pact between the former Cold War rivals.

#### Similar Treaties

##### Open Skies Treaty (OST)

- First proposed in **1955** by former US President Dwight Eisenhower as a means to deescalate tensions during the Cold War, the landmark treaty was eventually signed in **1992** between **NATO members and former Warsaw Pact countries** following the demise of the Soviet Union.
- It went into effect in 2002 and had **35 signatories**, including key players **US and Russia**, along with one non-ratifying member (Kyrgyzstan). **India** is not a signatory to the treaty.

##### Treaty in Detail

- The OST aims at building confidence among members through mutual openness, thus reducing the chances of accidental war. It allows countries to monitor signatories' arms development by **conducting unarmed, surveillance flights** over each other's territories.

- For each state party or group of state parties, the treaty specifies an active quota, the number of observation overflights it may conduct per year, and a passive quota, the number of overflights it must accept.
- The information gathered, such as on troop movements, military exercises and missile deployments, has to be shared with all member states. Only approved imaging equipment is permitted on the surveillance flights, and officials from the host state can also stay on board throughout the planned journey.
- Last year, **the U.S. gave notice that it will exit the Open Skies Treaty** alleging Russia had continuously and flagrantly violated the treaty.
- Recently, Russia also announced that it was pulling out of the Open Skies treaty, saying that the pact had been seriously compromised by the withdrawal of the United States.

#### Intermediate-Range Nuclear Forces treaty

- Signed in 1987, the Intermediate-Range Nuclear Forces treaty required the United States and the Soviet Union to eliminate 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 treaty, both countries destroyed a total of 2,692 short-, medium-, and intermediate-range missiles.

- In 2019, the U.S. announced its formal withdrawal from the Intermediate-Range Nuclear Forces treaty accusing Russia of breaching the terms of the deal.

## 4) International Criminal Court

### About ICC

- The International Criminal Court (ICC) is a permanent judicial body established by the **Rome Statute** of the International Criminal Court (1998).
- It is an **independent judicial body distinct from the UN**.
- ICC investigates and tries individuals charged with the gravest crimes of concern to the international community: genocide, war crimes, crimes against humanity and the crime of aggression.
- The ICC was established as a court of last resort to prosecute the most heinous offenses in cases where national courts fail to act.
- It is headquartered in **The Hague, Netherlands**.

### Membership

- Only those who ratified the Rome Statute are parties to ICC.
- 122 countries are States Parties to the Rome Statute of the ICC.
- Prominent countries that are not members include China, **India**, Iraq, Libya, Yemen, Qatar, Israel, **USA** and Russia.

### Comparison of ICC and ICJ

S.No	International Criminal Court (ICC)	International Court of Justice (ICJ)
1	Independent judicial body distinct from the UN	Principal judicial organ of the UN
2	Handles prosecutions of individuals	Hears disputes between sovereign states
3	Established by the Rome Statute in 2002	Established in 1945 by the San Francisco Conference, which also created the UN
4	Only those who ratified the Rome Statute are parties to ICC	All members of the UN are parties to the statute of the ICJ, and nonmembers may also become parties
5	The judges are elected by the Assembly of States Parties, the court's governing body.	The judges are elected by the UN General Assembly and the Security Council

6

Headquarters of both the courts are situated at The Hague, Netherlands.

**Why in News?**

- The International Criminal Court has convicted a Ugandan child soldier-turned-Lord's Resistance Army commander (LRA)- Dominic Ongwen- of war crimes and crimes against humanity.
- The LRA was founded three decades ago by self-styled prophet Kony, who launched a bloody rebellion in northern Uganda against President Yoweri Museveni.

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# SCIENCE AND TECHNOLOGY

## 1) Corona virus and damaging lungs

### Why in News?

- Scientists have decoded how coronavirus quickly damages lung cells.

### How does it infect?

- Scientists have created one of the most comprehensive maps to date of the molecular activities that are triggered inside the lung cells at the onset of the viral infection.
- In the latest research, scientists simultaneously infected tens of thousands of lab-grown human lung cells with the SARS-CoV-2 virus, and tracked what happens in these cells during the moments after infection.
- The scientists found that when **SARS-CoV-2 takes over, it completely changes the cells' metabolic processes**. The virus even damages the cells' nuclear membranes within three to six hours after infection.
- The scientists explained that the cell's nuclear membrane surrounds the nucleus, which holds the majority of the genetic information, and controls and regulates normal cellular functions.
- With the nucleus compromised by the coronavirus, things rapidly take a bad turn for the entire cell.
- The lung cells — which normally play a role in maintaining the essential gas exchange of oxygen and carbon dioxide that occurs when we breathe — die under this siege.
- The cells also **emit distress signals which boost inflammation** as they die, triggering a cascade of biological activity that accelerates more cell death.
- This eventually **leads to pneumonia, acute respiratory distress, and lung failure**.

## 2) Noise pollution

### Why in News?

- Lab experiments which were published in a scientific journal shows that vehicle traffic makes it much harder for at least

one species of bird to solve problems, and sharply compromises the ability of some crickets to mate.

### About the study

- Hearing the noises of cars driving by is enough to **inhibit cognitive performance in songbirds**.
- There is mounting evidence that traffic noise — on the rise in most parts of the world — can have serious **negative effects on animals, disrupting their ability to communicate, avoid predators, and attract mates**.
- Being exposed to **traffic noise**, for example, more than **doubled the time** it took for **these intelligent birds to remember the location of hidden food**, or to remove paper lids over morsels.
- In another study, scientists showed that — for a common species of cricket — **traffic noise interferes** with their **mating ritual**, and thus with **sexual selection and the process of evolution itself**.

## 2) Chip Crunch

### What is an auto chip?

- A monolithic integrated circuit (IC) also known as microchip, silicon chip, computer chip or chip is basically a **miniaturized electronic circuit** that consists mainly of semiconductor devices, as well as passive components.
- Automotive semiconductor ICs with different functionalities are used in various automotive products, like **navigation control, infotainment systems, and collision detection systems**.
- The electrification and automation of automobiles have led to increased demand in semiconductor wafers.

### Why is there a shortage?

- **Soaring demand** for smartphones, gaming consoles, tabs and other electronics by homebound consumers has prompted semiconductor makers to divert capacity away from the auto industry, leaving car parts suppliers struggling to keep their customers supplied.
- After the global auto industry shut down in the early phase of the coronavirus crisis

and the resulting abrupt drop in demand, **automobile manufacturers across all regions increased their production volumes** much faster than expected by market experts. This **resulted in large scale supply shortages** for semiconductors.

#### Why in News?

- A shortage of auto chips could impact 672,000 units of global light vehicle production in the first quarter, said data firm IHS Markit, warning that the disruption could extend into the third quarter.

#### Top semiconductor companies

- Corporations and consumers globally use semiconductors—small conductors of electricity also known as semis or chips—in millions of devices, including space vehicles, car computers, smartphones, medical equipment, appliances, and more.
- In **2019**, the semiconductor industry in the **United States accounted for 47 percent** of the global semiconductor market.
- Korean manufacturers are second in the world with about 19 percent of the market, with companies from Japan and the European Union (EU) each accounting for ten percent of the market.

#### India and IC production

- The Indian electronics sector is tremendously growing with the demand expected **to cross USD 400 billion by 2023-24**.
- Domestic production has grown from USD 29 billion in 2014-15 to nearly USD 70 billion in 2019-20 (Compounded Annual Growth Rate of 25%).
- **Microchip production** will help India move up from an **assembler to a manufacturer**, with considerable multiplier effect on the economy.
- Most of this production takes place in the final assembly units (**last-mile industries**) located in India and focussing on them would help **develop deep backward linkages**, thus **inducing industrialisation**. This was an idea propounded by economist **Albert O Hirschman in his theory of 'Unbalanced Growth'**.
- The **Economic Survey 2019-20** also promoted this idea and suggested **"assembly in India for the world"**, in a

bid to create four crore well-paid jobs by 2025 and eight crore jobs by 2030.

- The government **recently unveiled three schemes** (Production Linked Incentive, Component Manufacturing Scheme and Modified Electronics Manufacturing Clusters Scheme) with an outlay of about ₹48,000 crore to promote electronics manufacturing in India.

#### Obstacles faced

- Huge **Investments** involved
- Semiconductor Fabrication will require **cheap but skilled labor**
- Requirement of very specific **raw materials**
- **Hazardous Waste**
- **Infrastructure** Requirement
- Absence of **Foundries**

### 3) Biosensors

#### What is a Biosensor?

- Biosensors are devices used to **detect the presence or concentration of a biological analyte**, such as a biomolecule, a biological structure or a microorganism.
- Biosensors consist of **three parts**: a component that recognizes the analyte and produces a signal, a signal transducer, and a reader device.

#### Why in News?

- Scientists have developed **new protein-based biosensors** that **glow** when mixed with components of the novel coronavirus or specific COVID-19 antibodies, a breakthrough that could enable **faster and more widespread testing for the disease**.

#### Current technique

- Current coronavirus diagnosis relies mostly on a technique called **RT-PCR**, which **amplifies genetic material** from the virus so that it can be seen.
- This technique **requires specialised staff and equipment**, and also consumes lab supplies that are now in high demand all over the world.
- **Antibody testing** can reveal whether a person has had COVID-19 in the past. It is being **used to track the spread of the pandemic**, but it too requires complex laboratory supplies and equipment.

#### About the new technique

- When mixed with fluid from a nasal swab or blood sample, these **protein sensors emit light within minutes**.
- In order to directly detect coronavirus in patient samples without the need for genetic amplification, researchers used computers to design new biosensors.
- These protein-based devices, **recognise specific molecules** on the surface of the virus, bind to them, **then emit light** through a **biochemical reaction**.
- The researchers also created **biosensors** that **glow** when mixed with **COVID-19 antibodies**.

#### 4) Phishing

##### What is phishing?

- Phishing is a **cybercrime** in which a target or **targets** are contacted **by email, telephone or text message by someone posing as a legitimate institution** to lure individuals into **providing sensitive data** such as personally identifiable information, banking and credit card details, and passwords.
- The information is then used to access important accounts and can result in **identity theft and financial loss**.

##### The common purposes of Phishing

- **Financial Access**
- **Identity theft**
- Installing **malware** – virus, worm, trojan horse, spyware, ransomware
- Spreading **misinformation** and disinformation
- Psychological Warfare
- **Sexual exploitation** of minors

##### Phishing and India

- About **Rs 195 crore, totalling 2,678 cases**, was lost in frauds related to **cards and internet banking in 2019-2020**, as against Rs 71 crore (1,866 cases) reported a year ago, according to the **RBI data**.
- Recently, India's official cybersecurity agency **CERT-in** warned of a large-scale cyber-attack targeting 2 million individual email IDs belonging to users in India.
- The warning is based on the activities of the notorious North Korea backed cybercrime group- **Lazarus Group**. The attackers planned to send fake emails, social media posts or text messages related to COVID-19 to the targets, in order to

steal their credentials, financial information or compromise their computers.

##### Concerned laws in India

- Information Technology Act (**IT Act**) **2000**
- **Information Technology Act (Amendment) 2008** – It empowers the Indian government to intercept, monitor and decrypt computer systems, resources and communication devices.
- **National Cyber Security Strategy 2020**

##### Initiatives started

- The Computer Emergency Response Team (**CERT-in**) as the nodal agency for coordination of all cyber security efforts, emergency responses, and crisis management
- **e-BAAT** (Electronic Banking Awareness And Training) programmes by RBI
- Organising **campaigns** on safe use of digital payment modes

##### Why in News?

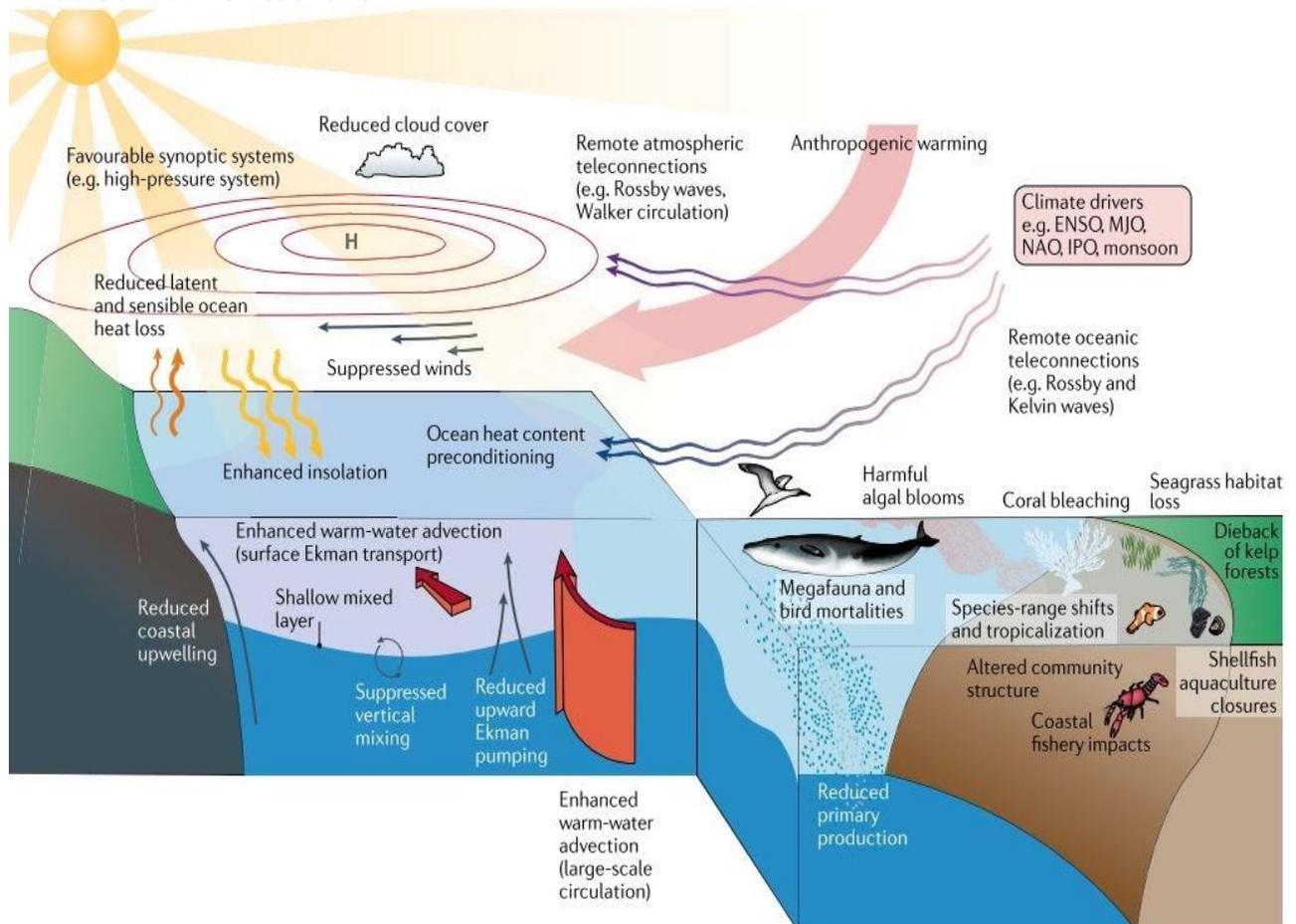
- A library movement developed in a short span of time in Jharkhand's Jamtara district is receiving a steady flow of students and helping them reduce phishing activities.
- The district's love for books assumes huge significance as it has the dubious distinction of being the "phishing capital of India". Many youth, mostly drop-outs in the 15-35 years age group, have been turning to cybercrime to earn a few quick bucks.
- Studies of students preparing for Class X and Class XII exams were disrupted during the COVID-19 infection period. But the community library proved to be a boon for such students. The State government is conducting classes for mathematics and science at these campuses..
- Earlier, the Jamtara police administration had launched an **IEC (information education communication) campaign** educating cyber fraudsters and warning them about the repercussions of being caught.
- *For more details about cybercrimes:*
- <https://officerspulse.com/cybercrimes/>
- <https://officerspulse.com/secure-application-for-internet/>

## 5) Marine heat waves

### What is a heatwave?

- **Heatwave** is a period of prolonged abnormally high surface temperatures relative to those normally expected.
- Heat waves may span several days to several weeks and are significant causes of weather-related mortality, affecting developed and developing countries alike.
- Globally, the increasing frequency and intensity of heat waves observed since the 1950s has been associated with climate change.
- Such weather phenomena may be characterized by low humidity, which may exacerbate drought, or high humidity, which may exacerbate the health effects of heat-related stress, which include heat exhaustion, dehydration, and heatstroke.

### What is a marine heatwave?



### Why in News?

- The mixed layer of the ocean which blankets the top 20 to 200 metres is becoming thinner each year, says a new

- **Heatwaves** can also occur **in the ocean** and these are known as marine heatwaves, or **MHWs**.
- These marine heatwaves, when ocean temperatures are extremely warm for an extended period of time can have **significant impacts on marine ecosystems and industries**.
- Marine heatwaves **can occur in summer or winter** - they are defined based on differences with expected temperatures for the location and time of year.
- The most common drivers of marine heatwaves include **ocean currents** which can build up areas of warm water and air-sea heat flux, or warming through the ocean surface from the atmosphere.
- **Winds can enhance or suppress the warming** in a marine heatwave, and climate modes like El Niño can change the likelihood of events occurring in certain regions.

study published in the journal *Bulletin of the American Meteorological Society* which warns that the continued loss of this buffer may lead to more frequent and

destructive warming events such as marine heat waves.

#### About the new study

- Researchers from the University of Colorado at Boulder in the U.S. said the **thickness of this top layer of the ocean is responsible for marine heat events.**
- The **thicker this mixed layer**, researchers said the more **it can act as a buffer to shield the waters below from incoming hot air.**
- Scientists found that **this armour is thinning**, causing the oceans to become more susceptible to rapid swings in temperature.
- They found that **over the last 40 years, the layer has thinned by nearly three metres** in some regions of the North Pacific.
- By **2100**, the researchers believe the mixed layer could be four metres thinner which is about **30% less than what it is today.**
- This thin mixed layer combined with warmer global temperatures could set the stage for **drastic swings in ocean temperatures**, leading to much more frequent and extreme heating events.
- The researchers also warned that as the climate continues to warm and the mixed layer continues to thin, **scientists might lose the ability to predict** annual ocean surface temperatures.
- **Fisheries and other coastal operations** could be **in danger** without this ability to accurately forecast ocean temperatures, the researchers warned.

#### How will it affect India?

- Marine heat waves hit sea life the hardest. **Coral reefs** occupy only 0.1% of the planet's surface, but are home to 25% of all the animals found in the ocean.
- Corals have a specific range of temperatures that they can survive in, and frequent occurrence of marine heat waves **could kill them and the ecosystem around them.**
- Due to these heat waves, **aquaculture industries along the Indian Ocean-rim** have suffered severe damage due to fish mortality in recent years.
- Along with the marine heat waves, the temperature, **sea level and acidity are**

**increasing**, while **oxygen is decreasing in the Indian Ocean.**

- All these changes have heavily **impacted coastal wetlands, resulting in increased mortality of vegetation, loss of habitats, changes in community and ecosystem structure.**
- An Intergovernmental Panel on Climate Change (IPCC) report also points out a **loss of coastal blue carbon habitat**—seagrasses, mangroves and marshes which assist in carbon sequestration. **Potential fisheries catch in the Indian Ocean** have already been hit by the effects of warming and changing primary production on growth, reproduction and survival of fish stocks.
- With a **rapidly warming Indian Ocean, severe cyclones are projected** to increase in number and we cannot overlook the possibility of them making landfall over the west coast of India.

## 6) Neutrinos

#### What is a neutrino?

- A **neutrino** is a **subatomic particle** that is very similar to an electron, but has **no electrical charge and a very small mass.**
- Neutrinos are one of the **most abundant particles** in the universe. Because they have very little interaction with matter, however, they are **incredibly difficult to detect.**

#### Why in News?

- A team from IIT Guwahati has come up with new insights into the part played by neutrinos in this dramatic death of massive stars.

#### About the study

- Many **stars**, towards the end of their lifetimes, **form supernovas** - massive explosions that send their outer layers shooting into the surrounding space. Most of the energy of the supernova is carried away by neutrinos - tiny particles with no charge and which interact weakly with matter.
- All stars burn nuclear fuel in their cores to produce energy.
- The **heat generates internal pressure** which pushes outwards and prevents the

star from collapsing inward due to the action of gravity on its own mass.

- But when the **star ages and runs out of fuel** to burn, it **starts to cool inside**. This causes a lowering of its internal pressure and therefore the force of gravity wins; the star starts to collapse inwards.
- This builds up **shock waves** because it happens very suddenly, and the shock wave sends the outer material of the star flying. This is what is perceived as a **supernova**. This happens in very massive stars.
- In **stars that are more than eight times as massive as the Sun**, the **supernova** is accompanied by a collapsing of the inner material of the dying star – this is also known as core collapse supernova or Type II supernova.
- The collapsing core may form a black hole or a neutron star, according to its mass.
- As they spew out of the raging supernova, the neutrinos can change from one flavour to another in a process known as **neutrino oscillations**.

## 7) Bitcoin

### What are Bitcoins?

- **Bitcoin** is a **digital currency** that was created in January 2009. It follows the ideas set out in a whitepaper by the pseudonymous **Satoshi Nakamoto**.
- Bitcoin is a type of **cryptocurrency**. There are no physical bitcoins, only balances kept on a **public ledger** that everyone has transparent access to.
- The **public ledger** is used as a **record-keeping system** that maintains participants' identities in secure and (pseudo-)anonymous form, their respective cryptocurrency balances, and a **record book of all the genuine transactions** executed between network participants.
- Bitcoin is a **decentralized digital currency, without a central bank or single administrator** that can be sent from user to user on the **peer-to-peer bitcoin network** without the need for intermediaries.
- Transactions are verified by network nodes through cryptography and recorded in a public distributed ledger called a

blockchain. **Cryptography** is a method of **protecting** information and communications through the **use of codes**, so that only those for whom the information is intended can read and process it.

- Bitcoins are **created** as a reward for a process known as **mining**.

### Why in News?

- The government plans to introduce a law to ban private cryptocurrencies such as bitcoin and put in place a framework for an official digital currency to be issued by the central bank.

### About the government's move

- In mid-2019, a **government panel** recommended banning all private cryptocurrencies.
- The panel has, however, asked the government **to consider the launch of an official government-backed digital currency** in India, to function like bank notes, through the Reserve Bank of India.
- Governments around the world have been looking into ways to regulate cryptocurrencies but no major economy has taken the drastic step of placing a blanket ban on owning them, even though concern has been raised about the misuse of consumer data and its possible impact on the financial system.

### Supreme Court on cryptocurrency

- Recently, the **Supreme Court struck down a circular of the Reserve Bank of India**, which banned financial institutions from enabling deals in digital or cryptocurrencies.
- The Supreme Court held that an outright ban on virtual currencies would be a disproportionate measure by the government
- The Supreme Court also held that the ban was unconstitutional as it is in violation of the freedom to carry on trade guaranteed by **Article 19(1)(g)**.
- *To know more about Cryptocurrency, Cryptography & blockchain :*
- <https://officerspulse.com/quantum-cryptography/>
- <https://officerspulse.com/cryptocurrency-and-blockchain/>

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# DEFENCE

## 1) Sukhoi Aircraft

### Why in News?

- The Hindustan Aeronautics Limited (HAL) has manufactured the last two Su-30MKIs of the 272 aircraft contracted from Russia and is all set to deliver them to the Indian Air Force (IAF).

### About the Sukhoi Deal

- India had contracted the Su-30s from Russia in batches of which 222 were assembled by HAL at its Nasik plant under Transfer of technology (ToT) since 2004.
- Of the 272 fighters, 40 are being modified to carry the air launched version of the supersonic cruise missile BrahMos.



### How will this help India?

- Sukhoi jets have been modified to carry **BrahMos air-to-surface missiles** which gives the army to aim for **long-range precision strikes**.
- **Air and maritime dominance** in the Indian Ocean Region (IOR).

### About the Integration

- The **Sukhoi Su-30MKI is a twinjet** multirole air superiority fighter developed

by Russia's Sukhoi and built under license by India's Hindustan Aeronautics Limited (HAL) for the IAF.

- It will give the **IAF more advantage** during its missions in the Indian Ocean Region as the BrahMos stand-off distance is around 300 km and the Su-30 MKI is 3000 km, which also has the capability of being **refuelled** during a mission.

### BrahMos Missile

- **BrahMos** missile is a **supersonic** cruise missile which features Indian propulsion system, airframe, power supply, and other major indigenous components. It is named on the Indian river **Brahmaputra** and **Russian river Moskva**.
- It is one of the fastest cruise missiles with a speed of **Mach 2.8**, which is about 3 times the speed of sound.
- ✚ **Mach** is used as a unit of measurement in stating the speed of a moving object in relation to the speed of sound. For example, if an aircraft is traveling at Mach 1, it is traveling at exactly the speed of sound.
- It is a **two-stage** (solid propellant engine in the first stage and liquid ramjet in second) air to surface missile with a **flight range of around 300 km** (efforts are also on to extend this to **400-500 km**).
- Brahmos can be **launched from land, air, and sea** and multi capability missiles with pinpoint accuracy and operates on the "**Fire and Forget**" principle.

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## **ART & CULTURE**

### **1) Risa**

#### **Why in News?**

- Tripura have been promoting the traditional risa, a handwoven cloth used by the state's indigenous communities, as a signature identity of the state.

#### **What is Risa?**

- The traditional Tripuri female attire comprises three parts — risa, rignai and rikutu.
- Risa is a handwoven cloth used as a female upper garment, and also as headgear, a stole, or a present to express respect.
- Rignai is primarily worn as the lower garment and literally translates into 'to wear'. It can be understood as an indigenous variety of the sari of mainland India.
- Rituku is mainly used as a wrap, or like a 'chunri' or a 'pallu' of the Indian saree. It is also used to cover the head of newly married Tripuri women.
- These garments were traditionally handwoven. Handloom remains an integral part of the Tripuri household, even with the advent of powerloom-manufactured garments.

- Tripuri girls are first given a risa to wear in an event called Risa Sormani, at age 12 to 14.
- The risa is used in religious festivals such as Garia Puja by tribal communities
- The complete Tripuri attire is claimed to have originated even before the time of the Manikya kings, who ruled Tripura for over 500 years starting from the 15th century.

#### **Manikya dynasty**

- The Manikya dynasty was the ruling house of the Twipra Kingdom and later the princely Tripura State, what is now the Indian state of the same name.
- Ruling since the early 15th century, the dynasty at its height controlled a large swathe of the north-east of the Indian subcontinent.
- After coming under British influence, in 1761 they transitioned from feudal monarchs into rulers of a princely state, though the Manikyas maintained control of the region until 1949, when it ascended in union with India.

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## PIB ANALYSIS

### 1) Dudhwa National Park

#### About the Park

- **Location:** The Dudhwa Tiger Reserve is a protected area in **Uttar Pradesh** that stretches mainly across the Lakhimpur Kheri and Bahraich districts.
- It shares the north-eastern **boundary with Nepal**, which is defined to a large extent by the Mohana River.
- It comprises the **Dudhwa National Park, Kishanpur Wildlife Sanctuary and Katarniaghat Wildlife Sanctuary**. The three Protected Areas, being the last viable home of the **Royal Bengal Tiger** in the state, have been jointly constituted into Dudhwa Tiger Reserve under Project Tiger.

#### Vegetation:

- **Moist Deciduous** type, containing some of the finest examples of Sal forests in India, as well the most extensive tracts of **moist grasslands** that remain in this region.

#### Rivers flowing through:

- The **Sharda River** flows by the **Kishanpur Wildlife Sanctuary**, the **Geruwa River** flows through the **Katarniaghat Wildlife Sanctuary** and the **Suheli and Mohana** streams flow in the **Dudhwa National Park**, all of which are tributaries of the mighty **Ghagra River**.

#### Wildlife:

- **Tiger, Rhinoceros**, Elephant, Swamp deer, Sambar, Cheetal, Hog deer, Kakar, Wild pig, Blue bull, Rhesus monkey, Langur, Sloth bear, Porcupine, Otter, Monitor lizard, Turtles, Python, Mugger, Gharial, etc.
- Of the nearly 1300 birds found in the Indian subcontinent, over 450 species can be seen in the Reserve. These include Hornbill, Red Jungle Fowl, Peafowl, Bengal Florican, Fishing eagle, Serpent eagle, Osprey, Woodpeckers, Shama, Indian Pitta, Paradise flycatcher, Orioles, Emerald dove etc.

#### Why in the news?

- Women weavers residing around Dudhwa Tiger Reserve profit from technological interventions for their looms. They have been largely benefited by associating

themselves with the Tharu Hath Karga Gharelu Udyog – a Self Help Group (SHG).

#### News in detail:

- These technological interventions were realized with **funding support under the TARA Scheme** of Science for Equity, Empowerment & Development (SEED) Division, Department of Science & Technology (DST).

#### About TARA Scheme:

- **Technological Advancement for Rural Areas (TARA)** scheme under SEED Division is essentially
  1. To provide long term Core Support to Science and Technology (S&T) based NGOs to promote and nurture them as “S&T Incubators” / “Active Field Laboratories” in rural and other disadvantaged areas
  2. To work and provide technological solutions and effective delivery of technologies for livelihood generation & societal benefits.
- It is implemented by the **Ministry of Science and Technology**.

### 2) Post Matric Scholarship Scheme for SC Students

#### About the Programme

- Post Matric Scholarship scheme is a **Centrally Sponsored Scheme** and implemented through State Government and UT administration.
- It is implemented by the **Ministry of Social Justice and Empowerment**.
- The Scheme provides **financial assistance to the Scheduled Caste students studying at post matriculation** or post-secondary stage to enable them to complete their education.
- These scholarships are available for studies in India only and are awarded by the government of the State/Union Territory to which the applicant actually belongs i.e. permanently settled.

#### Why in the news?

- The Government has **revised the funding pattern** of the Post Matric Scholarship scheme for SC students and has adopted a ratio of **60:40 sharing** between the Centre and States/UTs (90% in case of North

Eastern States) of the average demand for the scheme for three years period 2017-18 to 2019-20.

#### News in detail

- The Central share in the scheme would be released in **Direct Benefit Transfer mode** directly into the bank accounts of the students, which will minimise frauds starting from 2021-22.
- The scheme is based on the principles of **timely delivery, comprehensive accountability, continuous monitoring and total transparency** and shall be run through an online platform with robust cyber security measures eliminating any chance of misappropriation of the funds.
- **Awareness drives** shall also be undertaken by the State Governments/UT Administrations about the scheme through the Gram Panchayats' notice boards, school committees, discussions in the parent- teacher association meetings and other public awareness measures which will also prevent misuse.

### 3) Lithium

#### About Lithium

- Lithium is a chemical element with the symbol **Li** and atomic number **3**.
- It is a soft, silvery-white alkali metal.
- Lithium is **highly reactive and flammable**, and must be stored in mineral oil.
- It **never occurs freely in nature**, but only in (usually ionic) **compounds**, such as **pegmatitic minerals**, which were once the main source of lithium.
- Due to its solubility as an ion, it is present in **ocean water** and is commonly obtained from **brines**.

#### Applications of Lithium

- Lithium is a key element for new technologies and finds its use in **ceramics, glass, telecommunication and aerospace industries**.
- The well-known uses of Lithium are in
  1. Lithium ion **batteries**
  2. **Lubricating grease**
  3. High energy **additive to rocket propellants**
  4. **Optical modulators** for mobile phones and

5. As a **converter to tritium** used as a raw material for thermonuclear reactions i.e. fusion.

#### Why in the news?

- Preliminary surveys by Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of Department of Atomic Energy, have shown **presence of Lithium resources** of 1,600 tonnes (inferred category) in the **pegmatites of Marlagalla - Allapatna area, Mandya district, Karnataka**.
- Lithium is a **"Prescribed substance"** under the **Atomic Energy Act, 1962** which permits AMD for exploration of Lithium in various geological domains of the country.
  1. "Prescribed Substance" means any substance including any mineral which the Central Government may, by notification, prescribe, being a substance which in its opinion is or may be used for the **production or use of atomic energy or research** into matters connected therewith and includes **uranium, plutonium, thorium, beryllium, deuterium** or any of their respective derivatives or compounds or any other materials containing any of the aforesaid substances.
  2. Atomic Minerals Directorate for Exploration and Research and Geological Survey of India are two agencies which are involved in mineral exploration.
  3. AMD has the mandate of surveying, prospecting and development of resources of uranium, thorium, niobium, tantalum, lithium, beryllium and Rare Earth Elements (REE) as these minerals are required for supporting the Nuclear Power Programme of the country.

### 4) Dam Rehabilitation and Improvement Project (DRIP)

#### What's in the news?

- The Cabinet Committee on Economic Affairs chaired by the Prime Minister has approved the Dam Rehabilitation and Improvement Project (DRIP) Phase II & Phase III under the **Ministry of Jalshakti** with the **financial assistance of the**

## World Bank (WB), and Asian Infrastructure Investment Bank (AIIB).

### About the Project

- The aim of the project is to **improve the safety and operational performance of selected dams** across the whole country, along with institutional strengthening with a system wide management approach.
- The Project will be implemented over a **period of 10 years** duration in two Phases, each of six years duration with two years overlapping from April, 2021 to March, 2031.
- DRIP Phase II & Phase III envisages the following **objectives**:-
  1. To **improve the safety and performance of selected existing dams** and associated appurtenances in a sustainable manner.
  2. To **strengthen the dam safety institutional setup** in participating states as well as at central level, and
  3. To explore the alternative incidental means at few of selected dams to **generate the incidental revenue** for sustainable operation and maintenance of dams
- To achieve the above objectives, DRIP Phase II & Phase III has following **components**
  1. Rehabilitation and improvement of dams and associated appurtenances,
  2. Dam safety institutional strengthening in participating States and Central agencies,
  3. Exploration of alternative incidental means at few of selected dams to generate the incidental revenue for sustainable operation and maintenance of dams, and
  4. Project management.
- The Scheme envisages comprehensive rehabilitation of 736 existing dams located across 19 states of the country.

## 5) One District One Product Scheme

### About the scheme

- One District One Product scheme was launched by the **Ministry of Commerce and Industry**.
- The objective is to **convert each District of the country into an Export Hub** by
  1. Identifying products with export potential in the District,
  2. Addressing bottlenecks for exporting these products,

3. Supporting local exporters/manufacturers to scale up manufacturing, and
4. Find potential buyers outside India with the aim of promoting exports,
5. Promoting the manufacturing & services industry in the District and generating employment in the District.
  - To increase exports and take export promotion to the District level, Department of Commerce through the Director General of Foreign Trade (DGFT) is engaging with State / UT Governments to implement the said initiative in all districts of the country in a phased manner, with the objective of mobilizing the potential of each district of the country to achieve its potential as an export hub.
  - Under the initial phase of the ODOP programme, **106 Products have been identified from 103 districts across 27 States**.

### Significance of the initiative

- One District One Product (ODOP) is seen as a transformational step forward towards realizing the true potential of a district, fuel economic growth and generate employment and rural entrepreneurship, taking us to the goal of AtmaNirbhar Bharat.

### Why in the news?

- This information was given by the Minister of State in the Ministry of Commerce and Industry in a written reply in the Lok Sabha.

## 6) Strategic Crude Oil Reserves

### What are SPRs?

- Strategic Petroleum Reserves (SPR) are **huge stockpiles of crude oil** stored in the **underground rock caverns** to tackle emergency situations and allow a country to tide over short-term supply disruptions.
- They represent a **defence against any event of downfall in future oil production**, including physical or economic actions which disrupt any part of the production process from exploration and development through refining
- **The Indian Strategic Petroleum Reserve (ISPR)** refers to the emergency fuel storage maintained by **Indian Strategic Petroleum Reserves Limited**, a Special Purpose Vehicle - wholly owned subsidiary

of Oil Industry Development Board under the Ministry of Petroleum & Natural Gas.

- Strategic crude oil storages are at **Mangalore (Karnataka), Visakhapatnam (Andhra Pradesh) and Padur (Karnataka)** as per Phase I of India's SPR programme. They have fuel storage of total 5.33 MMT (Million Metric Tonnes). As per the consumption pattern of 2019-20, the total capacity is estimated to provide for about **9.5 days of crude oil requirement**.
- The government of India is planning to set up two more such caverns at **Chandikhol (Odisha) and Udupi (Karnataka)** as per phase II through Public-Private Partnership. This will give an additional 6.5 million tons of the oil reserves. As per the consumption pattern of 2019-20, 6.5 MMT SPR capacity is estimated to provide for about **additional 12 days of India's crude oil requirement**. The **global practice** is to maintain strategic reserves of at least 90 days of oil imports.
- Crude oil from **underground rock caverns (considered safest for storage of Hydrocarbons)** can be supplied to refineries through pipelines and ships.
- In addition, Oil Marketing Companies (OMCs) in the country have storage facilities for crude oil and petroleum products for 64.5 days, thus the current total national capacity for storage of crude oil and petroleum products currently is 74 days.

#### Why in the news?

- This information was given by the Union Minister for Petroleum and Natural Gas in a written reply in the Rajya Sabha recently.

## 7) KAPILA for patent awareness

### About

- '**KAPILA: Kalam Program for Intellectual Property (IP) Literacy and Awareness**' was launched by the **Ministry of Education** in 2020.
- It is proposed to create appropriate **awareness regarding the need of IP filing, mechanism and methodology involved** in filing IP in India and globally, especially amongst students and faculty of higher education institutions.

- KAPILA will help in establishing the much required IP filing ecosystem in a large number of education institutions and thus create a culture of systematically protecting new ideas, research and innovation having national and global relevance.

### The objective of KAPILA is to

1. Recognise, facilitate and felicitate the Intellectual Property, innovations and best practices in Higher Education Institutions,
2. Enabling of IP protection of inventions originating from faculty and students of HEIs,
3. Development of Credit Course on IPR,
4. Training program on IPR for faculty and students of HEIs and sensitization and
5. Development of vibrant IP filing system.

### Why in News?

- This information was given by the Union Education Minister in a written reply in the Rajya Sabha.

## 8) NaiRoshni

### About the programme

- "**NaiRoshni**", is a scheme for **Leadership Development of Minority Women** is being implemented across India by the **Ministry of Minority Affairs**.

### Aim:

- The aim of the scheme is to **empower and instill confidence in women** by providing knowledge, tools and techniques for interacting with Government systems, banks and other institutions at all levels.
- This includes empowerment of the trainee women so that they become independent and confident members of the society.

### Objective:

- The overall objective of the scheme is to **embolden the minority women** to move out of the confines of their homes and community and assume leadership roles in society.
- The scheme provides for a **six days training programme** followed by handholding for a period of one year.
- The training is provided on various pre-designed Training modules covering issues relating to women viz.
  1. Leadership of Women through participation in decision making

2. Educational Programmes for women, Health and Hygiene
  3. Legal rights of women
  4. Financial Literacy
  5. Digital Literacy
  6. Swachh Bharat
  7. Life Skills
  8. Advocacy for Social and Behavioural change.
- The Scheme is being **implemented through Non-Governmental Organisations** empanelled under the NaiRoshni Scheme as per scheme guidelines in force.

#### Why in the news?

- This information was given by the Union Minister for Minority Affairs in the Lok Sabha recently.

## 9) Innovations for Defence Excellence (iDEX) Initiative

### About

- The iDEX initiative of the Department of Defence Production under the **Ministry of Defence** was launched in April 2018.
- iDEX aims at
- **Creation of an ecosystem to foster innovation** and technology development in Defence and Aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes & academia.
- Provide them **grants/funding** and other support to carry out R&D which has good potential for future adoption for Indian defence and aerospace needs.
- Provide the **latest technological innovations** for specific challenges experienced in operational environments through co-development and co-production of innovative solutions.
- iDEX will be funded and managed by a '**Defence Innovation Organization (DIO)**' which has been formed as a 'not for profit' company as per Section 8 of the Companies Act 2013 for this purpose.
- iDEX initiative is a decisive step towards achieving Self-reliance and is one of the most effective and well-executed defence Start-up ecosystems in the true spirit of the Atma Nirbhar Bharat.

### Why in the news?

- iDEX – Start-up Manthan was organised to promote innovation in defence at Aero India 2021.

## 10) INSPIRE Programme

### About the Programme

- Innovation in Science Pursuit for Inspired Research (INSPIRE) is an innovative programme sponsored and managed by the **Department of Science & Technology** for **attraction of talent to Science**.
  - The basic objective of INSPIRE is to
1. Communicate to the youth of the country the excitements of creative pursuit of science,
  2. Attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the science & technology system and r&d base.
- A striking feature of the programme is that it **does not believe in conducting competitive exams** for identification of talent at any level.
  - It believes in and relies on the efficacy of the **existing educational structure for identification of talent**.
  - INSPIRE has three components:
    1. **Scheme for Early Attraction of Talent (SEATS)**
    2. **Scholarship for Higher Education (SHE)**
    3. **Assured Opportunity for Research Careers (AORC)**

### INSPIRE Award MANAK

- In order to seed and experience the joy of innovation, every year two lakh school children in the age-group of 10 to 15 years i.e., 6th to 10th standards are being identified for the INSPIRE Award MANAK (Million Minds Augmenting National Aspiration and Knowledge).
- Each INSPIRE Award envisions an **investment of Rs. 5,000/- per child**. The scheme plans to reach at least two students per secondary school during the next five years.

### Why in the news?

- During the last three years, close to 1,23,024 young students of class 6 - 10 from recognized schools across the country, received the INSPIRE Award MANAK.

## 11) Key takeaways from other topics

### Turmeric

- Turmeric is mainly grown in Telangana, Andhra Pradesh, Tamil Nadu, Karnataka, Kerala, Maharashtra, Odisha, West Bengal and the North Eastern states.
- **Telangana is the largest producer** of the spice in the country in which four districts viz. Nizamabad, Karimnagar, Warangal and Adilabad account for around 90 percent of the production of turmeric in the State.

### India-China Trade deficit

- The trade deficit between India and China is witnessing a decreasing trend for the past 5 years.

### Government initiatives in this regard

- Bilateral engagements to **address the non tariff barriers** on Indian exports to China.
- **Extend support to exporters** by facilitating Buyers Seller Meets between potential importers of China and the Indian exporters to increase exports.
- **Policies to promote domestic manufacturing** through ease of doing business and creating an enabling physical environment for manufacturing, through provision of developed land and infrastructure.
- Initiative to sensitize the Export Promotion Councils /Trade Bodies to enhance export of Indian goods.

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# News in Depth

## AIR NEWS

### 1) National Recruitment agency

#### About NRA

- Last year, the central government decided to set up a common recruitment body called National Recruitment Agency (NRA).
- The Agency aims to conduct a single online '**Common Eligibility Test**' or **CET**, the scores of which will be used for various central government recruitment.
- Initially, the Agency will conduct exams for Group B and C (non-technical) posts. There is a proposal to expand the purview of the exams.
- Currently, the Group B and C recruitment is done by Staff Selection Commission (SSC), Railway Recruitment Board (RRB), and Institute of Banking Personnel Selection (IBPS).

#### Mandate

- NRA will conduct a **common preliminary exam** and based on the scores received by the candidates, IBPS, SSC and RRB will conduct the Tier II and Tier III examinations. This means that these agencies **will remain in place**; however, the preliminary exams will be conducted by the NRA.
- NRA aims to conduct separate exams for graduate candidates, 12th pass candidates, and 10th pass candidates. The scores received in these exams will be **valid for 3 years** which can be used to apply for Tier II recruitment.
- There is **no restriction on the number attempts** a candidate can make but there will be an **upper age limit for candidates**. The best valid score will be considered as the current score.
- Initially candidates will have an option to appear for the exams in **12 languages**. There are plans to expand the number of languages in which the exam will be conducted in the future.

- The examination will be conducted based on a **common curriculum**.
- Special focus would be given on creating examination infrastructure in the **Aspirational Districts**.

#### Why is the NRA needed?

- As of now, aspirants have to take different exams that are conducted by various agencies for central government jobs. Currently, around 2.5 crore candidates appear for these exams for around 1.25 lakh vacancies.
- The Agency aims to streamline the process of recruitment for various central government positions.
- NRA will have representatives from the Ministry of Railways, Ministry of Finance/Department of Financial Services, the SSC, RRB & IBPS.

#### Advantages

##### For Students

- Candidates applying for these recruitments will **no longer have to pay repetitive fees** to multiple agencies.
- The CET score would be generated immediately and shall be made available for both the candidate and the recruitment agency. This would help in ensuring better **transparency**.
- Every district across states will have at least one CET exam centre to help disadvantageous sections, rural candidates and women.
- The exam will be **conducted twice a year**, for different educational levels and in multiple Indian languages.

##### For Government

- **Reduction in cost** of conducting the examination.
- Better **Transparency**- Currently, the recruitment cycle takes at least 18 months and is often marred by clashing dates, leaked papers and examination scams.
- **Standardized exam pattern**

- **Faster recruitment cycle**

#### Why in News?

- Government has dismissed the fake news circulated in social media that the National Recruitment Agency has announced direct recruitment for more than 8 lakh posts without any examination.

## 2) COVAX facility

#### What is it?

- The COVAX facility seeks to accelerate the development and production of coronavirus vaccines through pooling in resources from the member countries, and then ensure that it is equitably distributed amongst them.
- COVAX is led by the **World Health Organization (WHO), the Coalition for Epidemic Preparedness Innovations (CEPI) and GAVI**, the Vaccine Alliance.
- COVAX supports research and development of new vaccines by investing in them and negotiating prices with pharmaceutical companies. The goal of COVAX is to have 2 billion doses to distribute by the end of 2021, which should be enough to help countries vaccinate 20% of their populations and end the acute phase of the pandemic.

#### Why in News?

- The COVAX initiative has announced that Bangladesh will receive 12.79 million doses of the Oxford University-AstraZeneca vaccine by June this year.
- The vaccine is being provided to countries in proportion to their population. Apart from Bangladesh, in South Asia, **India** will get 97.2 million, Pakistan 17.2 million, Nepal 2.2 million, Sri Lanka 1.6 million, and Bhutan and Maldives 1.08 lakh doses of vaccine each.
- COVAX will distribute 337.2 million doses of the vaccine all over the world. The first deliveries are expected to begin in early February. The COVAX aims to reach at least 3 per cent of population coverage in all countries in the first half of the year to protect the most vulnerable groups such as health care workers.

#### Related information

##### About CEPI

- The Coalition for Epidemic Preparedness Innovations (CEPI) is a global partnership

between public, private, philanthropic, and civil society organisations to **develop vaccines to stop future epidemics.**

- It was launched in Davos in 2017.

#### About GAVI Alliance

- The GAVI Alliance (formerly the Global Alliance for Vaccines and Immunisation) is a global health partnership of public and private sector organizations dedicated towards creating **equal access to new and underused vaccines for children living in the world's poorest countries.**
- GAVI's strategy supports its mission to save children's lives and protect people's health by increasing access to immunisation in poor countries.
- Its partners provide funding for vaccines and intellectual resources for care advancement. They contribute, also, to strengthening the capacity of the health system to deliver immunisation and other health services in a sustainable manner.

## 3) Pradhan Mantri Matru Vandana Yojana

#### About PMMVY

- Pradhan Mantri Matru Vandana Yojana (PMMVY) is a **Maternity Benefit Programme** that is implemented in all the districts of the country in accordance with the provision of the National Food Security Act, 2013.
- The scheme is implemented by the **Ministry of Women and Child Development.**
- It is a centrally sponsored scheme launched in 2016.
- It is a **direct benefit transfer (DBT) scheme** under which cash benefits are provided to pregnant women in their bank account directly to meet enhanced nutritional needs and partially compensate for wage loss.
- Under the scheme, Pregnant Women and Lactating Mothers (PW&LM) receive a cash benefit of **Rs. 5,000 in three installments** on fulfilling the respective conditionality, viz. early registration of pregnancy, ante-natal check-up and registration of the birth of the child and completion of the first cycle of vaccination for the first living child of the family.

- The scheme covers pregnant and lactating mothers for the **birth of the first child.**

#### **Why in News?**

- Minister for Women and Child Development Smriti Irani informed the Parliament that the Pradhan Mantri Matru Vandana Yojana has crossed 1.75 crore eligible women till financial year 2020.

- A total sum of ₹5,931.95 crore was paid to 1.75 crore eligible beneficiaries between financial year 2018 and 2020. Apart from that, ₹2,063.70 crore was disbursed in the current fiscal to 65.12 lakh women.

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## THE HINDU EDITORIALS

### 1) The problem of ageing dams

#### GS-3 Irrigation; Government policies and interventions

##### NEWS

- Dams and reservoirs are believed to secure our water needs for the future. However, data and studies show that they can **threaten our water security**.

##### DAMS IN INDIA

- India is ranked third in the world in terms of building large dams.
- Of the over 5,200 large dams built so far, about 1,100 large dams have already reached 50 years of age and some are older than 120 years.
- The number of such dams will increase to 4,400 by 2050. This means that 80% of the nation's large dams face the prospect of becoming obsolete as they will be 50 years to over 150 years old.
- The situation with hundreds of thousands of medium and minor dams is even more precarious as their shelf life is even lower than that of large dams.

##### CHALLENGES WITH AGEING OF DAMS

- As dams age, soil replaces the water (technically known as **silt or sediment**) in the reservoirs. Therefore, the storage capacity cannot be claimed to be the same as it was in the 1900s and 1950s.
- Studies show that the design of many of our reservoirs is flawed. In a paper, '**Supplieside Hydrology: Last gasp**', published in 2003 in Economic & Political Weekly, it is observed that the siltation rate in India's iconic Bhakra dam is 139.86% higher than originally assumed.
- At this rate, the Bhakra dam is now expected to function for merely 47 years, virtually halved from the original estimate of 88 years. Similarly, the actual siltation rate observed for the Hirakud, Maithan and Ghod dams are way higher at 141.67%, 808.64% and 426.59%, respectively.
- Various studies show that Indian reservoirs are designed with a poor understanding of sedimentation science, thus underestimate the rate of siltation

and overestimate live storage capacity created.

##### CONSEQUENCES

- When soil replaces the water in reservoirs, supply gets choked.
- The cropped area begins receiving less and less water as time progresses.
- The net sown water area either shrinks in size or depends on rains or groundwater, which is overexploited.
- **Crop yield gets affected severely and disrupts the farmer's income.** In fact, the farmer's income may get reduced as water is one of the crucial factors for crop yield along with credit, crop insurance and investment.
- No plan on climate change adaptation will succeed with sediment packed dams.
- The flawed siltation rates demonstrated by a number of scholarly studies reinforce the argument that the **designed flood cushion** within several reservoirs across many river basins may have already **depleted substantially** due to which **floods have become more frequent downstream of dams.**
- The flooding of Bharuch in 2020, Kerala in 2018 and Chennai in 2015 are a few examples attributed to downstream releases from reservoirs.
- The nation will eventually be unable to find sufficient water in the 21st century to feed the rising population by 2050, grow abundant crops, create sustainable cities, or ensure growth.
- Therefore, it is imperative for all stakeholders to come together to address this situation urgently. Water policymakers, planners, and water managers need to think of alternative plans for large storage structures with sustainable decommissioning of present dams and simultaneously building sustainable structures to recharge, store underground water.

### 2) Building a robust healthcare system

#### GS-2: Issues relating to development and management of Social Sector/Services

relating to Health, Education, Human Resources.

#### NEWS

- In the wake of the COVID19 pandemic, there have been vociferous demands to strengthen the country's public health system so that we are better prepared to handle such emergencies in the future.

#### HOW CAN PUBLIC HEALTH SYSTEM CAN BE JUDGED?

- The efficacy of the public health system varies widely across the country since it is a State subject. A good public health system can easily be judged just by looking at certain health parameters such as Infant Mortality Rate, Maternal Mortality Ratio and Total Fertility Rate for which annual surveys are conducted through the Sample Registration System.

### Some key health parameters in select States

State	Infant Mortality Rate	Under Five Mortality	Maternal Mortality Ratio	Total Fertility Rate	% deliveries by untrained personnel
Bihar	32	37	149	3.2	19.0
M.P.	48	56	173	2.7	7.2
Rajasthan	37	40	164	2.5	1.6
U.P.	43	47	197	2.9	14.0
T.N.	15	17	63	1.6	0.2
Kerala	7	10	42	1.7	0.1
India	32	36	113	2.2	7.8

SOURCE: SRS DATA FOR 2018

#### INDIA'S PERFORMANCE

- With the numbers given in the chart, it is doubtful whether India will be able to achieve **Goal 3 (good health and well being) of the Sustainable Development Goals (SDGs)** set by the United Nations General Assembly in 2015.
- We have already **failed to achieve the earlier Millennium Development Goals** because of the poor performance of the northern States.

#### PERFORMANCE OF NORTHERN Vs SOUTHERN STATES

- The Northern States are performing very poorly in these vital health parameters.
- In Madhya Pradesh, the number of infant deaths for every 1,000 live births is as high as 48 compared to seven in Kerala. In U.P. the Maternal Mortality Ratio is 197 compared to Kerala's 42 and Tamil Nadu's 63.
- The percentage of deliveries by untrained personnel is very high in Bihar, 190 times that of Kerala.

- Another vital parameter that has an impact on poverty, Total Fertility Rate, is very high in Bihar (3.2) against the stabilisation rate of 2.1.
- **Tamil Nadu and Kerala** have done so well that their population will decline over the years. This has been made possible due to effective Maternal and Child Health and Family Welfare services provided by these States.
- Some of these States are performing so poorly that they are comparable to the poorest countries in the world, pulling down the average for India.

#### WHAT NEEDS TO BE DONE?

- Unless all the States perform well, there will be no dramatic improvement in the health system .
- **Funds allocation by the Finance Commissions** should be done **based on performance** unlike the present method in use.
- Clear focus and better governance are required to address the situation.

- Taking examples from the southern states, the Government of India needs to focus on public and preventive health by **holding the district health administrations accountable to the SDGs.**
- Ensuring better primary and preventive health care services.

#### TAKING EXAMPLE FROM TAMIL NADU

- The Southern States made these significant strides in healthcare because of the will of the political leadership which was interested in the health and well being of the people.
- The district administration was spearheading these health initiatives because of the government's focus and drive.
- The government encouraged a **healthy competition among the districts** by giving prizes to the well performing ones.
- By the 1990s, family planning drives were no longer necessary, and all that was needed was some finetuning of the Maternal and Child Health programme.
- The result is that the **Total Fertility Rate of Tamil Nadu is among the lowest in the country (1.6)** comparable to that of Germany (1.57) and Japan (1.43). In addition to it, good administrative structure helped to deliver the demands of the political executive, benefiting the people of the State.
- Unless we invest in human capital, FDI will not help. It will only increase the wealth of the already wealthy and accentuate income disparity. Thus, investing in health and education is the primary responsibility of any government. It is time the governments — both at the Centre and States — gave health its due importance. Improving health of such a large population requires concerted efforts over years.

### 3) Why did the Myanmar military stage a coup?

**GS: 2 India and its neighbourhood-relations.**

#### NEWS

- On February 1, the Myanmar army seized power, turning a partial democracy into a full fledged military rule and detained State Counsellor Suu Kyi, President Win

Myint and other top leaders of the government in power.

#### BACKGROUND

- The army declared an emergency, transferring all powers to Commander-in-Chief Min Aung Hlaing. To explain its actions, the military is pointing out the allegations made by the Army-backed Union Solidarity and Development Party (USDP).
- (USDP is the party which faced humiliating defeat while Daw Aung San Suu Kyi's National League for Democracy (NLD) won the polls by almost 80% of the votes.)
- It is being alleged that there was **“terrible fraud in the voter list”** in the parliamentary elections held in November 2020, and even the Election Commission “failed to settle the matter.”
- Similar drastic actions to overthrow a democratic government took place in the year 1962, 1988 and 1990, by then military generals.
- Only 10 years ago, after decades of brutal military dictatorship, the fragile transition to democracy was started in Myanmar.

#### WHY THE TRANSITION FAILED?

- In 2008, the military had written a new Constitution ensuring then Generals' interests even if there would be a transition.
- Elections were conducted under this new Constitution. The NLD, did not recognise the Constitution and boycotted the 2010 election, while the army backed party-USDP won it.
- In the next five years, the Army loosened its grip on the government and society. Political prisoners, including Ms. Suu Kyi, were released, media censorship was eased.
- Ms. Suu Kyi's party also changed its earlier position and accepted the Army-written Constitution. In 2015 elections, the country's first free and fair election were conducted, participated by multiple parties and NLD came up as victorious.
- But the 2008 Constitution has enough clauses to prevent such a change. According to the Constitution, the **President must have military experience** and the **President himself, his spouse or children “shall not be subject to a foreign power or citizen of a**

**foreign country**". Hence, Ms. Suu Kyi, whose two sons are British citizens, cannot become President.

- The Constitution also mandates that the **Defence and Interior Ministries would be controlled by the military**. Also, **25% of the total seats in Parliament were reserved for the military, giving it a veto over any move to change the Constitution**.

#### WHAT DOES THE ARMY WANT?

- Military did not want the result of the elections to be constitutionally endorsed with the convening of the newly elected parliament.
- Tensions have been rising between the NLD and the military ever since the November election. The 2015 and 2020 election results showed the growing popularity of Ms. Suu Kyi and the unpopularity of the military. This set the alarm bells ringing in the headquarters of the Myanmar military.

#### WHAT NEXT?

- The Army has promised elections, without offering any time frame. But the NLD has called for protests against the coup. The U.S., which under President Obama helped the transition, has reacted harshly, while India has expressed "deep concern".
- Also possibility is that if China wants Myanmar under military rule could circumvent pressure from the U.S., even economic sanctions, by moving closer to China, which is already making huge investments in Myanmar. But Suu Kyi's popularity and an energised NLD would be an impediment for them.

## 4) Weighing in on the Biden presidency

**GS-2: International relations: Effect of policies and politics of developed and developing countries on India's interests, Indian Diaspora.**

#### CONTEXT

- Dispelling the existing concerns about disruption of the Inauguration ceremony of the 46<sup>th</sup> President of the United States, after the unprecedented event that the country witnessed in the Capitol building, finally democracy triumphed in the states of America.

- The current President of the United States tends to be idealistic, multilateralist and is deeply committed to democratic values, unlike his predecessor, Donald Trump.

#### POLICY RESET

- There exists the fair possibility that the new President would very soon come to realise that the global environment today is very different from the one that he knew as Vice President. A return to erstwhile Obama era policies may, hence, **prove inadequate**.
- The world has moved on and several policies will need a reset. Hence, one can expect the U.S. to rescind the 'militarisation' of foreign policy **reverting to erstwhile traditional diplomacy**.
- A fresh look at many contentious foreign policy issues could result in incorporation of elements like competition and cooperation.

#### CHINA

- The acid test of the present presidency would be how to deal with China. Rising China is not merely the single most serious challenge the U.S. faces at present, but it poses a diplomatic, economic and technological threat to U.S. preeminence.
- Persisting with old time remedies such as devising an inclusive security architecture in Asia to check an expanding China threat in East Asia could prove counterproductive.
- As in present times, only few countries in Asia are willing to line up against neighbouring China.
- This raises the question, **whether the U.S. should persist with confrontation or attempt conciliation**.
- If the latter, it would require the U.S. to soft pedal its present antagonistic posture towards China. This could well have global implications.

#### RUSSIA

- The depth of antagonism between the two countries, the U.S. and Russia, remains unchanged, aggravated further by the **growing strategic harmony between Russia and China**.
- Initial reactions seem to point that U.S. relations with Russia would continue to remain cold. But as Russia flexes its muscles in Eurasia, the U.S. will need to

come up with new policy directives, rather than surrender the initiative to the former.

### EUROPE AND WEST ASIA

- Repairing the ties with Europe, West Asia will pose President Biden an uphill task, as the days of mutual congruency in the policies are over, and Europe is no longer likely to give in to U.S. diktats.
- **Germany** is possibly emerging as Europe's new centre of gravity, dictating Europe's relations with countries such as China and Russia.
- Germany, while being highly critical of Russia's human rights record, including the most recent incident of Kremlin critic Alexei Navalny, is not hesitating to go ahead with **Nord Stream 2**, the Russia led gas pipeline project, despite the U.S.'s objections.
- The **EU-China Comprehensive Agreement on Investment**, again despite the U.S.'s objections, is another indication of Europe's new independent thinking.
- European leaders seem more inclined to heed Chinese President Xi Jinping's warning to global leaders, at the virtual World Economic Forum at Davos, this January, against 'starting a new Cold War', than listen to the U.S.'s Biden.
- **Problems abound for the new U.S. Administration in West Asia as well.**
- With the civil wars in Syria and Yemen not having ended, the U.S.'s efforts to find a political settlement here will prove difficult.
- How to deal with **Saudi Arabia**, adds to the complexity of dealing with West Asia.
- The '**Abraham Accords**', forged during the dying days of the Trump Administration, have further complicated the situation for the incoming government.
- Other majors in the region would be finding ways and means to deal with the Iran problem, including Iran's capacity and potential for nuclear mischief. Return to the **Joint Comprehensive Plan of Action (JCPOA)**, or the Iran nuclear deal framework, may not be a realistic option in the wake of the 'Abraham Accords', which have imparted a new dynamic and given a sharper edge to the existing Israel-Iran divide.

### THE OUTLOOK FOR INDIA

- India hopes that the Biden Administration to be even **more favourable to it** than the preceding Republican Administration. This may, however, turn out to be like the proverbial curate's egg — **good in parts**.
  - As Mr. Biden as the Vice President, played a critical role as Chairman of the Senate Foreign Relations Committee in pushing through the iconic **U.S.India civil nuclear agreement**, and also as a firm proponent of the **India-U.S. strategic partnership**.
  - Hence, under a Biden Administration, defence and security cooperation between India and the U.S. are likely to be further stepped up. Regional security cooperation is also likely to be further enhanced, at least till such time as U.S.-China relations improve.
  - However, a Biden Administration will be far less supportive of India on several issues such as: issue in Kashmir, Muslim minority in India, treatment of non-governmental organisations and the like.
  - Mr. Biden's commitment to human rights is, by far, much stronger than that of many recent U.S. Presidents. He can be expected to satisfy his traditional constituency even at the risk of upsetting partners such as India.
  - Analysing the statements and views of U.S. Secretary of State Antony John Blinken and U.S. National Security Advisor Jake Sullivan is more disconcerting for India, that is while the emphasis on a free and open Indo-Pacific region will continue, countries such as Japan, South Korea and Taiwan are likely to have a far more critical role to play than India in achieving security in the Indo-Pacific.
  - This implies the U.S. could also be less forthcoming in its open support to India and in its ongoing confrontation with China in Eastern Ladakh.
- ### THE AFGHAN PLAN
- Unsatisfactory again from an Indian standpoint are the implications of Mr. Biden's Afghanistan policy.
  - From positions taken by U.S. National Security Advisor, Mr. Sullivan, it would appear that there is little room for India in the latest plans for Afghan issue.
  - Mr. Biden is an ardent advocate of ending the war in Afghanistan and he is likely to implement this with vigour, not excluding

a deal with the Taliban, the possible exit of elected President Ashraf Ghani, and giving Pakistan an even bigger role in acting as the mid-wife of any new arrangement.

- This would mean that India's efforts of the past two decades to restore democracy in Afghanistan would come unstuck, but also Pakistan would gain a degree of legitimacy that had been denied to it by the Trump Administration, encouraging it to act with still greater impunity in carrying out terror strikes on India.
- From a restricted standpoint, if India were to balance the positive with the negative, and compare the incoming Biden Administration with the previous Trump Administration, the balance sheet could be marginally negative.

## 5) A year on, mind the gaps in the pandemic response

### GS-2 Governance

#### NEWS

- January 30, 2021 marked one year since India detected its first case of Covid-19 in Kerala.

#### CONTEXT

- Analysing the country's response to the novel coronavirus pandemic so far reveals a **mix of successes and failures** along with the possibilities of more to be looming ahead, that urgently need to be addressed to limit damage and get back to the path of economic and social recovery.

#### SITUATION TILL NOW

- Till date the country has recorded 1,07,90,183 cases and 1,54,703 deaths due to COVID19 — the second largest in the world in terms of cases, after the United States, and fourth in terms of deaths.

#### ANALYSIS- INDIA Vs THE WORLD

- **FATALITY-** Official statistics reveals that India has **fared better on rates of infections and deaths than many higher income countries.**
- For example, India's case fatality ratio on February 3 stood at 1.4% compared to 2.8% in the United Kingdom or 3.1% in South Africa, while India's deaths per million is 112, compared to 1,362 in the United States, 1,486 in Italy or 1,831 in Belgium.

- However, it has **not done so well compared to countries of similar income and demography in South Asia.** For example, while India's case fatalities ratio was lower than Bangladesh (1.5%) and Pakistan (2.1%) it was significantly higher than Bhutan (0.1%), Nepal (0.7%), the Maldives (0.3%) and Sri Lanka (0.5%).
- Deaths due to COVID19 per million population in Bangladesh was 50, Pakistan was 54 and Sri Lanka was just 16, lower than in India.
- **POLITICAL COMMITMENT-** India's initial response was marked by political commitment at the highest level, with several steps taken early in screening international travellers, restricting inbound traffic from severely affected countries, and preparing quarantine facilities for those testing positive.
- However, like many other countries, India too has not been able to figure out till now what the best way to open its borders to normal travellers is while keeping out those carrying COVID19 infection, particularly the new more virulent strains.
- **LOCKDOWN-** India was among the few countries to announce a **stringent nationwide lockdown** much before it had a significant number of cases, while developed countries like, U.K. and the U.S. hesitated to impose a lockdown, costing many lives due to their late response.
- However, the Indian lockdown was imposed at very short notice without stating the strategy or specific objectives. No evidence based justification was provided for such a sudden imposition of the lockdown without any lead time, nor was its purpose clearly communicated to the public leaving behind many questions, like:
  1. Was the lockdown meant to eliminate the epidemic through contact treatment, isolation and case management? Was the valuable time gained to be used to strengthen the health system and prepare for the expected rise in cases?

#### AFTER LOCKDOWN

- As the result of the hasty and unplanned decision, when the lockdown was lifted up, the number of confirmed cases were already on rapid rise and continued to rise till late December, 2020.

- The lockdown was marked by **excessive dependence on security forces** to ensure enforcement of physical distancing measures and quarantine related restrictions.
- An unintended offshoot of the lockdown was the **large scale exodus of migrants**. Families were forced to walk hundreds of kilometres back to their homes in the countryside. Dozens died in this exodus and horrific road accidents. Also, there were deaths due to lack of sufficient food, drinking water and the shear stress of travelling.
- These incidents highlighted the plight of poor workers due to the **lack of a social safety net**.

#### LESSONS LEARNT

- First, in the context of the country's federal structure: **no public health response can be successful without ownership at the state level**. The lack of consultation with State governments resulted in the hesitant implementation of COVID-19 response policies without much initiative or innovation. Hence, there is a need for a **rethink of the top-down approach** towards States at the national level for public health response policies.
- Second, in all epidemic responses, **generation and use of strategic information** plays a crucial role. Given India's global reputation as a software superpower, the pandemic would have been an ideal staging ground for fast tracking plans to create an integrated digital health information system to improve the efficiency and transparency of the COVID-19 response.
  - But, the **Integrated Disease Surveillance Programme (IDSP)**, India's national disease surveillance framework, was not visible throughout the response.
  - The surveys conducted were **limited in coverage and periodicity**, as a result, it is still unclear to what percentage of India's population have been infected with the virus — an indicator of herd immunity.

#### IDSP

- The Integrated Disease Surveillance Program (IDSP) was initiated in assistance with the World Bank in 2004.

- The scheme aimed to **strengthen disease surveillance for infectious diseases to detect and respond to outbreaks immediately**.
- The IDSP constitutes State Surveillance Units (SSU) at all state/UT headquarters, District Surveillance Units (DSU) at the districts and Central Surveillance Unit (CSU) in Delhi.
- The surveillance data is collected on three specified reporting formats, namely "S" (suspected cases), "P" (presumptive cases) and "L" (laboratory confirmed cases) filled by Health Workers, Clinicians and Laboratory staff respectively.
- State/District Surveillance Units analyses this data weekly, to interpret the disease trends and seasonality of diseases.
- The CSU at the National Centre for Disease Control (NCDC), receives disease outbreak reports from the States/UTs on a weekly basis.

#### Objective

- To strengthen/maintain decentralized laboratory-based IT enabled disease surveillance systems for epidemic-prone diseases to monitor disease trends.
- To detect and respond to outbreaks in the early rising phase through trained Rapid Response Teams (RRTs).

#### ROLE OF CIVIL SOCIETY

- Earlier occasions such as polio eradication and AIDS response, were marked by an **important preventive and promotional role played by civil society** in bringing the infections under control.
- On the contrary, this response was marked by a **lack of involvement** of civil society organisations as partners with state agencies.
- Even in the present when the vaccination programme has been launched, the end game strategy for it remains unclear, raising questions about sustainability of its benefits in the long term.

#### WIDENING DIVIDE

- Another critical unknown in India's COVID19 response is over its plans to revive the economy and restore livelihoods of millions of people, who are today in danger of starvation and for whom even basic health care has become unaffordable.

- The pandemic period has exacerbated **existing social inequalities and the poor face a 'lost decade' ahead**, a challenge which needs to be addressed on priority.
- Thus, there is an urgent need to examine all these critical gaps and implement the lessons learnt in the response to the pandemic. Without an open inquiry and widespread debate, India will miss yet another chance to learn the right lessons and ensure a more robust, well thought out and humane response to similar crises in future.

## 6) Terminal declined

### GS- 2 Regional and global groupings and agreements

#### NEWS

- Sri Lanka government has decided to overturn its tripartite agreement with India and Japan to develop **Colombo's East Container Terminal (ECT)**. As per the agreement signed by the former Maithripala Sirisena-Ranil Wickremesinghe administration, India and Japan together were to hold 49% stake in ECT.

#### SRI LANKA'S REASON FOR SUCH WITHDRAWAL

- The ostensible reason for the Rajapaksa government's decision is growing pressure from port union groups which have opposed any foreign participation, and threatened a **"worktorule" agitation** if ECT operations were handed to the Adani group, as proposed.

#### SIGNIFICANCE OF THE PROJECT

- The project, worth an estimated \$500-\$700 million, was a key marker for infrastructure investment in the island nation where Chinese projects are most prominent.
- **More than two thirds of transshipment at this port is tied to India**, making it an important trade and connectivity link.
- As a joint venture for India and Japan to invest in, the ECT project was also expected to showcase how the two Indo-Pacific partners, and also Quad members,

could provide South Asia with viable, transparent and sustainable alternatives for financing and development.

- Also, over the past year, the Indian government has invested much time and resources to India-Sri Lanka ties, including a new credit line, currency swap agreement, and COVID-19 assistance and vaccines.
- India has also set much store by its partnership with Japan, which could be a template for similar projects, as a **counter to China's Belt and Road Initiative**.

#### INDIA'S REACTION

- New Delhi along with Tokyo have reflected its deep disappointment and suspicions about the motivations.
- Similar commitments made by former PM Ranil Wickremesinghe during a visit to Delhi when he signed an MoU for developing the Eastern city of Trincomalee through oil and infrastructure projects also appear to have fallen by the wayside.
- New Delhi has said it continues to engage Sri Lanka on the ECT issue, although it remains cold to Colombo's alternative offer of developing the West Container Terminal.

#### SUSPICION OVER CHINA'S ROLE

- The possible question of Chinese role in the ECT decision also hangs over the decision, given that other terminal projects at the Colombo Port such as the Colombo International Container Terminal, have not faced similar pushback.
- It is also curious that given its financial difficulties, Sri Lanka felt confident in taking a decision guaranteed to upset such important donors.
- There is much at stake for all three countries to derail the partnership. It is in all their interest, but primarily Colombo's, to find a compromise formula to salvage a deal that has far reaching consequences for the region.

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## INDIAN EXPRESS EXPLAINED

### 1) What is Stardust 1.0, the first rocket to run on biofuel?

#### Why in the news

- Stardust 1.0, a commercial rocket powered by bio-derived fuel took off from a former military base in Maine (US state). It flew one mile into the sky before parachuting back to Earth.
- It is the first time a rocket is using biofuel to engage in its mission.

#### About Stardust 1.0

- The rocket is manufactured by **bluShift**, an aerospace company based in Maine that is developing rockets that are powered by bio-derived fuels.
- It is a launch vehicle suited for student and budget payloads. The rocket is 20 feet tall and has a mass of roughly 250 kg. The rocket can carry a maximum payload mass of 8 kg.
- These rockets will help to launch small satellites called **cubesats** into space in a way that is **relatively cheaper** than using traditional rocket fuel and is **less toxic** for the environment.

#### Biofuel

- Biomass can be converted directly into liquid fuels, called "biofuels," to help meet transportation fuel needs. The two most common types of biofuels in use today are **ethanol and biodiesel**, both of which represent the first generation of biofuel technology.

#### What are the uses of this invention?

- It will provide **easier and cheaper access to space** to laypeople and also to make access to space cost-effective for purposes of academic research, corporate technology development and entrepreneurial ventures among others.

### 2) MetroNeo Technology

#### Why in the news?

- Central government is pushing for **MetroNeo Technology** in the tier 2 and tier 3 cities in the recent budget.
- **Nashik** of Maharashtra will be the first city to adopt MetroNeo project.

#### What is MetroNeo technology?

- The MetroNeo service consists of **electric bus coaches** – their lengths varying from 18 to 25 metres – with a carrying capacity of 200 to 300 passengers at a time.

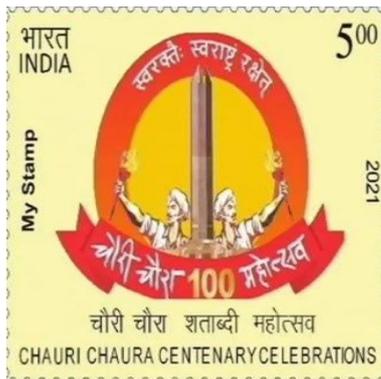


- MetroNeo is a comfortable, rapid, energy-efficient and less noisy transport medium.
- The buses will have rubber tyres and draw power from an overhead electric wire with 600-750 V DC supply, similar to railways or trams.
- The buses will be air-conditioned, with automatic door closing system, level boarding, comfortable seats, passenger announcement system, and an information system with electronic display.
- The system has been designed in such a way that there will be a train service after every two minutes.
- A Feeder Bus of 12-metre length will be battery-powered and run on the existing road on the two feeder routes.
- The feeder bus batteries will get charged while operating on the main corridors that will enable seamless travel with a wider coverage. No separate charging facility will be required.

### 3) Chauri Chaura, freedom struggle signpost from 100 years ago

#### Why in the news?

- The Prime Minister has inaugurated Chauri Chaura Centenary Celebrations by a video link, and released a postage stamp to mark the centenary of the event.



- Let us understand what the Chauri Chaura Incident is and its relevance.

#### About Chauri Chaura incident

- Chauri chaura are twin villages in the Gorakhpur district of **Uttar Pradesh**.
- On August 1, 1920, Gandhiji had launched the **Non-Cooperation Movement** against the government, which involved a boycott of foreign goods, especially machine-made cloth, and legal, educational and administrative institutions, “refusing to assist a ruler who misrules”.
- This movement gained momentum for another year and half. During such time a group of volunteers organised into a **national volunteer corps**. They were performing different roles for the movement, one such was **picketing of shops**.
- Few days before the incident of Chauri Chaura, a few policemen cracked upon a group of volunteers, severely hurting Bhagwan Ahir, who was one of the volunteers.
- On February 4, 1922, supporters of the **Khilafat movement** and the **Indian National Congress** clashed with local police. Initially the police fired and 3 civilians died. This made the mob angry and subsequently they set the local police station on fire, killing 22 Indian policemen who had taken shelter inside.
- A lot of police property, including weapons, was destroyed. The volunteers saw the “abolition of the thana(police station)” as a sign of the arrival of “Gandhi raj”.

#### Consequences of the incident

- A large number of suspects were rounded up. A sessions court quickly sentenced as many as 172 of the 225 accused to death. Ultimately, 19 of those convicted were hanged.

- Mahatma Gandhi, who was strictly against violence, **halted the Non-cooperation Movement** on the national level on 12 February 1922.
- The halt in the movement disappointed many young freedom fighters, who further diverted from Gandhian philosophy and became revolutionaries in the coming days. Some of them are Jogesh Chatterjee, Ramprasad Bismil, Sachin Sanyal, Ashfaqulla Khan, Jatin Das, Bhagat Singh, Bhagwati Charan Vohra, Masterda Surya Sen, and many others.

#### 4) What is Square Kilometre Array, the world’s largest radio telescope

##### Why in the news?

- The Square Kilometre Array Observatory (SKAO) Council held its maiden meeting and approved the establishment of the world’s largest radio telescope.

##### About SKAO

##### Radio telescopes:

- A radio telescope is a specialized antenna and radio receiver used to detect radio waves from astronomical radio sources in the sky. They are one of the most important tools for making astronomical observations since World War II.
- Unlike optical telescopes, radio telescopes can be used in the daytime as well as at night. Radio telescopes can detect invisible gas and, therefore, they can reveal areas of space that may be obscured by cosmic dust.
- SKAO is an intergovernmental organisation which is **dedicated to radio astronomy** and is headquartered in the Jodrell Bank Observatory, UK.
- At the moment, organisations from ten countries are a part of the SKAO. These include Australia, Canada, China, **India**, Italy, New Zealand, South Africa, Sweden, the Netherlands and the UK.
- The SKA is not a single telescope but will be an **array of antennas strategically designed and set up in South Africa and Australia**.
- SKA will allow astronomers to look deeper into the universe and unravel secrets about its evolution.

### What is the relevance of the new SKA telescope?

- The new telescope proposed to be the **largest radio telescope in the world**, will be **located in Africa and Australia** whose operation, maintenance and construction will be overseen by SKAO. It is **about to be completed by 2030**.
- The new telescope will try accomplish functions and to address questions such as:
  - The beginning of the universe, how and when the first stars were born,
  - The life-cycle of a galaxy,
  - Exploring the possibility of detecting technologically-active civilisations elsewhere in our galaxy and
  - Understanding where gravitational waves come from.
  - Accurately timing the signals from pulsars in the Milky Way
  - Measuring neutral hydrogen over cosmic time
- It will also coordinate a telescope called Australian Square Kilometre Array Pathfinder (ASKAP) in its work.

### 5) What is Denmark's artificial energy island project?

#### Why in the news?



- Denmark has approved plans to build the world's first artificial energy island in the middle of the **North Sea**.
- Located 80 kilometres west of the Jutland Peninsula of Denmark, it will initially have an area of 120,000 square kilometres or the size of 18 football pitches. The island will be linked up to hundreds of wind turbines providing power to several European countries like Germany, Netherlands and Belgium.
- Its primary purpose is to provide **large-scale offshore wind power**. It can provide **electricity to over 3 million households in the European Union region**.
- The floating energy island could also be used to fuel ships, planes and trucks using renewable electricity. **Wind power would be converted into hydrogen** which can then be turned into liquid fuels.

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