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We strongly endorse and believe in the fact that our faculty is our asset and one of the strong pillars of Success Mantra. This is the reason, we cherry-pick our faculties in order to fulfil the expectations of the students. Each of our faculty is the master of their subject, thus ensuring the best results across the industry.

Mahesh H Singh

Faculty - Constitutional Law (Polity)

I am a commerce graduate and belong to Mumbai. I have been teaching constitution and PSIR to Law and CSE aspirants for the last 4 years.

My role at Success Mantra is to mentor students to understand the constitution through flow charts and fine examples. I believe in 3 C's (i.e. CONTENT, CLARITY of topics and CONNECTION between students and teacher) are the key elements of effective teaching, what I ensure at success mantra.

Shivendra Pratik

Faculty - Logical Reasoning

I'm a Post Graduate Diploma in Management and a Gold Medalist in Finance and Banking. I have a comprehensive experience of around 8 years in the Corporate & Education industry. For the last 6 years, I have been teaching Logical Reasoning to various competitive entrance exam aspirants majorly CLAT, AILET, DU LLB, HM, BBA, Banking, UPSC, DSSSB etc.

Richa Jha

Faculty - Legal Aptitude

I am Advocate Richa Jha. I'm LLB, LLM from Law Faculty, University of Delhi. Law, as a subject, can be taught with the help of legal theories, their practices and applications which can be substantiated with the help of case studies.

I sincerely believe in imparting a legal education which a candidate can relate to his exam and could become a means to achieve success.

Ankit Jha

Faculty - General Knowledge | Service Aptitude

I'm a hospitality professional and a qualified manager. I've diversified experience of more than six years in different industries. I graduated from the prestigious IHM Pusa Delhi.

I mentor the aspirants of Success Mantra as a Faculty for General Awareness & Service Aptitude. I'm dedicated towards providing the best content in terms of quality & relevancy and always eager to assist the students.

Vipin Sharma

Faculty - Quantitative Techniques

I'm an MBA, LL.B. and B.Com (AMU). I have been in association with Success Mantra since 2013. Extensive knowledge of arithmatic mathematics, algebra, geometry, statistics and other areas of mathematics allows me to confidently explain concepts and processes to my students. My lesson plans engage students and help them feel confident in their mathematical abilities.

Deepak Chauchan

Faculty - English Language & Usage

I'm Deepak Chauhan. I'm PG in English. I've more than fifteen years of Experience including teaching experience of eight years. I'm committed to creating a classroom which is stimulating and highly motivated.

I'm highly professional and dedicated towards my work. I've created a huge library of competitive english which I share with my students as and when required. I've passion for English Language and my ultimate goal is to help my students to achieve their goal in life.

#STATE ASSEMBLY ELECTIONS RESULTS

On May 2, 2021, the votes of the recently held State **Assembly Elections for Assam, Kerala, Tamil Nadu and West Bengal were counted.** The Election Commission of India is yet to announce the results.

Election results

The following results were the outcomes of the counting:

Assam

- The BJP managed to beat the Assembly elections in spite of the Citizenship Amendment Act protests. The Chief Minister SarbanandaSonowal won from Majuli constitution. The star campaigner of BJP, Finance and Health Minister of Assam won from Jalukbari.

- The anti-CAA activists **Akhil Gogoi won from Sibsagar.**

- **BJP won 60 seats, Congress won 29, AIUDF won 16, 9 by AGP and 4 by BPF**. The other parties won eight seats. BPF is Bodoland Peoples Front. **The BJP led alliance in the state was called the "Mitrajot" (Alliance of friends)** and the Congress led alliance is called "Mahajot" (Grand Alliance).

- The **Mitrajot was formed by BJP, AsomGanaParishad (AGP), United People's Party Liberal (UPPL) and Gana Suraksha Party (GSP).** The Mahajot was formed by Congress, Muslim backed AIUDF (All India United Democratic Front), BTC (Bodoland Territorial Council), Bodoland People's Front (BPF).

Tamil Nadu

- This was the first election in the state without the major leaders **J Jayalalitha and M Karunanidhi. The DMK (DravidaMunnetraKazhagam)** and its allies are leading.

- The **Tamil Nadu Legislative Assembly has 234 seats.** The DMK has won 126, 64 by AIADMK, 18 by Congress, 4 by BJP and 5 by PMK (PataliMakkalKatchi). **The DMK-Congress coalition is likely to form the Government under Stalin (son of Late CM Karunanidhi).**

West Bengal

- The state has 294 seats in its Legislative Assembly. Of these seats, the **Trinamool Congress led by Mamta Banerjee** won 212 seats. BJP has won 77 seats.

Kerala

- The **Chief Minister Pinarayi Vijayan led Left Democratic Front (LDF)** is leading. It has won 99 seats. The Chief Minster is likely to form the Government in state for the second time. CPI (M) has won 62 seats, Congress has won 21 seats, 17 by CPI, IUML won 15 seats.

- BJP failed to open an account.

#MAMATA BANERJEE TAKES OATH AS WEST BENGAL CM

- **Trinamool Congress chief Mamata Banerjee** was sworn in as **West Bengal's Chief Minister** for the third consecutive time on May 5, 2021. This comes after her party, All India Trinamool Congress secured a landslide win in the state with 213 seats out of the total 292 Assembly constituencies that went to polls.

- **Mamata Banerjee** has become the **only woman Chief Minister to win three consecutive terms** in India that too each time with a bigger margin. She was administered the oath **by West Bengal Governor Jagdeep Dhankhar.**

- **After the swearing-in ceremony, the WB Governor congratulated Mamata Banerjee** on her third term. He emphasised on putting priority to bring an end to this senseless violence that has affected society at large. He added saying that he has every hope that the CM on an urgent basis will take all steps to restore rule of law in the state

Key Details

- **Mamata Banerjee's oath-taking ceremony was low profile due to the raging COVID-19 pandemic** situation in India. Her cabinet is expected to be sworn in tomorrow, on May 6th by pro-tem speaker Subrata Mukherjee. As per reports, **Biman Banerjee has been named the speaker of the house.**

- The All India Trinamool Congress won 213 seats out of the 292 constituencies that went to polls, while BJP won 77 and the Congress and the Left alliance could not win any. The elections in two seats in **Murshidabad**

were postponed due to the demise of candidates due to COVID.

- The TMC has won more seats in this election in comparison to last time when they had won 211 seats.

Nandigram Battle

Mamata Banerjee lost her battle in the **Nandigram constituency despite** winning a clear majority in the whole of West Bengal. She was up against her former aide **Suvendhu Adhikari**, whose family has had an upper hand in the constituency for years. Adhikari had switched over to the BJP this time.

#N RANGASAMY TOOK OATH AS PUDUCHERRY CM

- The **All India NR Congress (AINRC) leader N Rangasamy took oath as the CM of Puducherry** at Raj Nivas on May 7, 2021, for the fourth time.
- The **oath-taking ceremony** was administered by **Lieutenant Governor DrTamilisaiSoundararajan**. The Rangasamy-led AINRC alliance is set to form its government in the State, of which BJP will be a part of it for the first time.
- The **AINRC party won 10 seats while its alliance BJP bagged 6 seats in the Puducherry** Assembly Elections 2021. The winning majority mark was 16 seats for Puducherry.
- **All India NR Congress (AINRC) president N Rangasamy**takes oath as the **Chief Minister of Puducherry.** The oath is being administered by Puducherry Governor Tamilisai

Who is N Rangasamy?

- **N Rangasamy, born** in Puducherry, is the Chief Minister of Puducherry. He started his political career by contesting for the first time in the Thattanchavady constituency in 1990 but lost it.
- He went on to contest in this constituency in 1991 and won with a huge majority. He contested from the same constituency during 1996, 2001, 2006, 2021, and in the **Indiranagar constituency during 2011 and 2016.**
- In 1991, he got appointed as Minister of Agriculture and Co-operation after winning the assembly elections. In 2000, he got appointed as the **Minister of Tourism, Education, Public Works, Civil Aviation, and Art and Culture.**
- In 2001, he held the **Ministry of Public Works, Agriculture, and Forest. In the same year, he became the Chief Minister of Puducherry.**
- In 2008, he resigned from the Congress party and floated his own party **All India NR Congress (AINRC) in 2011.** Within three months of forming his party, he became the Chief Minister of Puducherry.
- **N Rangasamy** has become the **CM of Puducherry** in 2001, then 2006, and 2011. This will mark his fourth term as CM of Puducherry.

PINARAYI VIJAYAN TAKE OATH AS KERALA CM

- **Pinarayi Vijayan** was sworn as Kerala Chief Minister for the **second time** in the shadow of the Covid-19 crisis in the state.
- The oath ceremony took place with Covid protocols in place at the **Central Stadium in Thiruvananthapuram.**
- **Governor Arif Mohammed Khan** administered the oath of office to 76-year-old Vijayan. It is the second stint of the Marxist veteran in the top office.

- **The new Left Democratic Front (LDF)** government bucked the trends, as Kerala usually alternates between the Left and a Congress government, by registering a dominant win in the 6 April assembly polls. **The LDF won 99 of 140 seats.**

#PETROLEUM MINISTRY LAUNCHES 'SAKSHAM CAMPAIGN'

- The **Ministry of Petroleum and Natural Gas** launched a month long '**SAKSHAM' campaign** in order to create awareness among the consumers **about the fossil fuels.** The campaign will also highlight the adverse health and **environmental impacts of increasing the carbon footprints.**
- The **Secretary, Ministry of Petroleum and Natural Gas, Tarun Kapoor** launched the campaign. The idea behind it is to convince the consumers to switch to the option of cleaner fuels as well as bring in **behavioural changes to use fossil fuel intelligently.**

Sanrakshan Kshamata Mahotsav 2021

- A **Memorandum of Understanding** was also signed between the Petroleum Conservation Research Association- PCRA and **Energy Efficiency Services Limited- EECL** for the promotion of Energy Efficient PNG stove on the occasion.

About SAKSHAM Campaign

- The campaign launched by the ministry with the help of various activities such as **farmer workshops, cyclothon, painting competition, seminars, CNG vehicle driving test**, etc. will spread awareness among the people about the benefits of using clean fuels.
- **SAKSHAM campaign** will also spread awareness about 7 key drivers that were recently mentioned by **PM Modi** to help the country move towards the cleaner energy.

7 Key drivers for clean energy

• Moving towards a **gas-based economy**
• Cleaner use of **fossil fuels**
• Reliance on **the domestic sources to drive bio-fuels**
• Increasing the use of electric vehicles to **decarbonize the mobility**

• Achieving renewable targets with the set deadlines
• Increase in the use of cleaner fuels like **Hydrogen**
• **Digital Innovation** across all the energy systems

Role of energy companies in adoption of clean energy:

- While speaking on the occasion, **Tarun Kapoor** appreciated the role of the energy companies for taking steps towards the adoption of fuel conservation measures as well as diversifying into the clean and green energy ventures.
- He added **that the campaign of 2021** not only focuses on conserving the fossil fuels but it also aims at promoting the green energy. He also stressed upon the need **of energy conservation as the country's energy demand** grows and called on for the technologies and innovation for achieving the **twin goals of sustainability and energy efficiency as we move forward.**

#RATLE HYDROPOWER PROJECT

The **Union Cabinet** recently approved the **Ratle Hydropower Project of 850 MW**. The cabinet has nodded to an investment of Rs**5,281.94 crores in the project. The project is located in River Chenab.**

About the Ratle Hydropower Project

- It is a **joint venture of Jammu and Kashmir State Power Development Corporation and National Hydroelectric Power Corporation.** The share of NHPC in the project is 49% and that of Jammu and Kashmir State Power Development Corporation is 51% respectively.

- The **project is to be commissioned within sixty months**. The project is expected to provide direct and indirect employment to more than four thousand individuals.

- The project includes 133 metres tall gravity dam and two power stations. The main power station of the project will contain four **205 MW Francis Turbines**. The auxiliary power station of the project will contain **30 MW of Francis Turbine.**

- The foundation stone to construct the dam **was laid by Prime Minister Manmohan Singh in 2013.**

The **Indus Waters Treaty** is a water-distribution treaty between India and Pakistan, brokered by the **World Bank,** to use the water available in the Indus River and its tributaries. **The Indus Waters Treaty (IWT)** was signed in Karachi on 19 September 1960 by Indian Prime Minister Jawaharlal Nehru and Pakistani **President Ayub Khan**. The Treaty gives control over the waters of **the three"eastern rivers"** the Beas, Ravi and Sutlej with a mean annual flow of 33 million acre-feet (MAF) — to India, while control over the waters of the three "**western rivers"** the **Indus, Chenab and Jhelum** with a mean annual flow of **80 MAF — to Pakistan**.India was allocated about 20% of the total water carried by the Indus system while Pakistan was allocated the remainder.

Status of the Project

- The **project did not start till 2015.**

- In 2017, the **World Bank allowed India to construct the dam**. The **Indus Water Treaty** was signed after nine years of negotiations between India and Pakistan with the help of World Bank.

- The **project received severe objections from Pakistan.**

Pakistan's Stand on the Ratle Hydropower Project

- According to Pakistan, the **Ratle Hydropower Project violates Indus Water Treaty.** According to Indus Water Treaty, the western rivers such as Indus, Chenab and Jhelum were allocated to Chenab.

- According to Pakistan, as the project is built across Chenab, it violates the treaty. However, the treaty also says that the waters can be used by India for specified domestic and agricultural use as provided by the treaty.

- The **eastern rivers such as Beas, Ravi and Sutlej are to be used by India**. Accordingly, India has constructed **Bhakra Dam on Sutlej, Thein on Ravi and Pandoh and Pong dam on Beas.**

#7TH TRADE POLICY REVIEW OF INDIA AT WTO

Recently, the final session of India's seventh **Trade Policy Review (TPR)** concluded at the **World Trade Organization (WTO)** in Geneva, Switzerland.
- The **TPR** is an **important mechanism under the WTO's monitoring function** in which member countries' trade and related policies are examined by the WTO with an aim to contribute towards **improved adherence** to WTO rules.
- India's last TPR took place in **2015.**

Appreciation for India:

- Introduction of **Goods & Services Tax** in 2016. India's efforts in the implementation of **WTO's Trade Facilitation Agreement.** Role played by India in furthering **"Ease of Doing Business"** in the country. India's improved ranking in **"Trading across Borders"** indicator under the **Ease of Doing Business Report.**
- **Trade Facilitation Agreement (TFA),** aims to speed up customs procedures and make trade easier, faster, and cheaper.
- The steps taken by India for **liberalizing its Foreign Direct Investment (FDI) regime** and India's **National Intellectual Property Rights Policy, 2016.**

Concerns for India:

- India's trade **policy remained largely unchanged** since the previous review.
- India continues to **rely on trade policy instruments** such as the **tariff, export taxes, minimum import prices, import and export restrictions, and licensing,** WTO said.
- These are **used to manage domestic demand and supply requirements,** protect the economy from wide domestic price fluctuations, and ensure conservation and proper utilization of natural resources.
- As a result, **frequent changes** are made to tariff rates and other trade policy instruments, which **create uncertainty for traders.**
- **India's Request:**
- The ongoing pandemic has again brought to the fore, the importance of food and livelihood security and **urged for a permanent solution to Public Stock Holding (PSH) for food security.**

Public Stockholding (PSH)

- It is a policy tool used by governments to procure, stockpile and distribute food when needed.
- Currently, public distribution programmes of developing countries are included under **trade-distorting Amber Box** measures **that attract reduction commitments of WTO.**
- India with the group of developing countries is **demanding that the programmes for food security purposes be exempted from subsidy reduction commitments** of WTO.
- India has repeatedly demanded a permanent solution for public stockholding issues.

Trade Policy Review Mechanism

- The **Trade Policy Review Mechanism (TPRM)** was an early result of the **Uruguay Round.**
- It is the **main transparency instrument of the WTO,** affording opportunities for a process of collective evaluation of the trade policies and practices of individual members.
- **Objectives:** Facilitating the smooth functioning of the multilateral trading system by enhancing the transparency of Members' trade policies. To examine the impact of a Member's trade policies and practices on the multilateral trading system.
- **Mechanism:** The reviews **take place in the Trade Policy Review Body** which is actually the WTO General Council — comprising the WTO's full membership — operating under special rules and procedures.

Function of the mechanism

- The trade policy review **allows members to put the overall trade and economic policies of a country under the scanner.**
- The trade policies of developing countries are taken up for review every four years while developed ones face similar scrutiny every two years.
- The mandate of the TPRM was **broadened to cover services trade and intellectual property.**
- **All WTO Members are subject to review** under the TPRM.

#COASTAL DEFENCE EXERCISE 'SEA-VIGIL-21'

Recently, the **second edition** of the **biennial pan-India coastal defence exercise 'Sea Vigil-21'** has started.

- **Launch:** The **inaugural edition** of the exercise was conducted in **January 2019.** It is billed as **India's largest coastal defence drill.**

Area of Operation:

- The 2021 exercise is **being undertaken along the entire 7516 km coastline and Exclusive Economic Zone of India.**
- The **United Nations Convention on the Law of the Sea (UNCLOS)** defines an **Exclusive Economic Zone (EEZ)** as generally **extending 200 nautical miles from shore,** within which **the coastal state has the right to explore and exploit,** and the responsibility to conserve and manage, both living and non-living resources.
- It **involves all the 13 coastal States and Union Territories** along with other maritime stakeholders, including the **fishing and coastal communities.**
- **13 Coastal States and UTs:** Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Odisha, West Bengal, Daman & Diu, Puducherry, Andaman & Nicobar Islands (Bay of Bengal) and Lakshadweep Islands (Arabian Sea).
- Assets of the Indian Navy, **Coast Guard**, Customs and other maritime agencies are participating in the Exercise.
- The **Indian Air Force**, **National Security Guard**, the **Border Security Force**, oil handling agencies and airports also participate in the exercise.

Coordinating Force:

- **Indian Navy**
- To check the **efficacy of the measures** initiated to plug gaps in coastal security following the Mumbai terror attack in 2008.
- Multiple initiatives were set forth, including the **National Committee for Coastal and Maritime Security (NCSMCS),** creation of **Joint Operations Centres** (JOC) at Mumbai, Cochin, Visakhapatnam and Port Blair, raising of **SagarPrahari Bal (SPB),** installation of the HarbourDefence Surveillance System, setting-up of **National Command Control Communication and Intelligence (NC3I) Network.**

Significance of the exercise

- The exercise is **a build up towards the major Theatre level exercise TROPEX (Theatre-level Readiness Operational Exercise)** which **Indian Navy conducts every two years.**
- Sea Vigil and TROPEX together will cover the entire spectrum of maritime security challenges, including transition from peace to conflict.

- While **smaller scale exercises are conducted in coastal states regularly,** including combined exercises amongst adjoining states, the conduct of a security exercise at national-level is aimed to serve a larger purpose.
- It provides opportunity, at the **apex level, to assess the country's preparedness in the domain of maritime security** and coastal defense.

#JANUARY 23RD TO BE CELEBRATED AS 'PARAKRAM DIWAS'

- The Indian government has decided to celebrate January 23rd as '**ParakramDiwas**' every year to commemorate the **birth anniversary of Netaji Subhas Chandra Bose** and inspire the youth of the country with his spirit.

- This year is **the 125th Birth Anniversary year of Netaji Subhas Chandra Bose** and the government of India has decided to celebrate it in a befitting manner **at the national and international level.**

- The centre has constituted a high-level committee under the chairmanship of **Prime Minister Narendra Modi** to decide the programmes and to supervise and guide the commemoration.

Objective of the day

- The centre has decided to celebrate **Netaji's birth anniversary** on January 23rd every year as **ParakramDiwas** to inspire people of the country, especially the youth, to act with fortitude when faced with adversity as Netaji did and to infuse in them a spirit of patriotic fervor.

About Netaji Subash Chandra Bose

- **Subhas Chandra Bose** was an **Indian nationalist** who was popularly known as **Netaji Subhas Chandra Bose**, whose defiant patriotism made him a hero in India.
- However, his ways had drawn criticism as he had attempted to help India get freedom from British Raj with the help of **Nazi Germany and imperial Japan during World War II.**
- The **honour of Netaji** was conferred upon the freedom fighter in Germany, in early 1942 by the Indian soldiers of the **Indische Legion** and by the **German and Indian officials** in the Special Bureau for India in Berlin.
- Bose had followed **Jawaharlal Nehru to lead the younger wing of the Indian National Congress.** He soon rose to become the **Congress President in 1938** and was re-elected in 1939.
- However, soon after that, he was ousted from Congress leadership positions following differences with **Mahatma Gandhi and the Congress high command**. He was subsequently placed under house arrest by the British before escaping from India in 1940.
- He arrived in Germany in April 1941, where the leadership offered unexpected sympathy for the cause of India's independence. Soon, a Free India Legion, comprising Indians captured by **Erwin Rommel's Afrika Korps**, was formed to aid a possible future German land invasion of India.

- Adolf Hitler, during his only meeting with Bose in late May 1942, suggested the same and offered to arrange for a submarine. Soon with the aid of Germany and Japan, Bose reached Japanese-held Sumatra in May 1943.
- He then revamped the Indian National Army also known as Azad Hind Fauj with Japanese support. The INA was composed of Indian soldiers of the British Indian army who had been captured in the Battle of Singapore.
- Soon, a provisional government of free India, presided by Bose, was formed in the **Japanese-occupied Andaman and Nicobar Islands.**
- The Indian National Army under the leadership of **Netaji Subhas Chandra Bose** was an ideal model of diversity by region, religion, gender and ethnicity
- However, his military effort was short-lived as in late 1944 and early 1945, the **British Indian Army** devastatingly reversed the Japanese attack on India and almost half the **Japanese forces** and half the participating INA contingent was killed.
- The **remaining members of the INA contingent** were driven to surrender with the recapture of Singapore. Bose had chosen not to surrender with his forces or with the Japanese and was learned to have escaped to Manchuria.
- He **reportedly died during a plane crash in Taiwan**. His death in the crash is however contested by Indians who believed that he was alive and would return to gain India's Independence.

#WOMEN AS PILOTS IN ARMY AVIATION CORPS

- The **Chief General of the Indian Army, Manoj Mukund Naravane** informed that **women will be inducted as pilots in the Army Aviation Corps from** 2022. Till now, women have only been part of **ground duties** in the Army Aviation Corps.
- The **Army Chief** also mentioned that the proposal has been cleared and **women pilots will be flying helicopters** to forward locations. They will also be a part of operations at the borders.
- The **Indian Air Force (IAF)** has **10 women fighter pilots** while in the Indian Navy women pilots have been flying the Dornier aircraft and area also observers **on P81 surveillance aircraft and board helicopters**.
- Other than the 10 women fighter pilots, IAF also **has 111 women pilots who fly choppers and transport planes.**

Proposal to recruit women in Aviation Corps

- **General Naravane** informed that in December 2020, he had initiated a proposal that women officers can be recruited for **the Army Aviation.**
- The next course which will be starting in July 2021, will induct women for training purposes in the flying branch of the Indian Army. After one year of training, they will be **able to join in the operational duties**.

Significance of Aviation Corps for Army

- The **Corps in Army** takes part in the action of evacuating injured troops during the operations or health emergencies in areas at high altitude.
- The **choppers of the Army Aviation Corps** are also generally used for observation, reconnaissance, essential road drops, casualty evacuation, and combat search and rescue.
- The helicopters have also participated in the **Humanitarian Aid and Disaster Relief- HADR** operations all over the country.
- They have also played a significant role in operations such as **Kargil** and has also been at the forefront in carrying out various tasks during the ongoing **military stand-off between India and China in Ladakh.**
- **It is a component of the Indian Army** and was formed on November 1, 1986. **The Army Aviation Corps** is headed by the Director-General at the **army headquarters.**
- The pilots for the aviation corps are drawn from other combat arms which also includes artillery officers. The **Aviation Corps** comprises of helicopters that fly in the peace and conflict zones.

#PADMA AWARDS 2021 ON THE EVE OF 72ND REPUBLIC DAY

Recently, the **Padma Awards for the year 2021** were announced on the occasion of **72nd Republic Day**.

Awardees of the Padma Awards 2021

- A total of **119 Padma awards** will be conferred, including **7 padmavibhushan, 10 padmabhushan** and **102 padmashri**.

Few Padma Vibhushan Awardees (out of 7)

- **Shri Shinzo Abe** (Japan), **Shri S P Balasubramaniam** (Posthumous), **Dr. Belle Monappa Hegde** (Medicine), **Shri Sudarshan Sahoo** (Art), etc.

Few Padma Bhushan Awardees (out of 10)

- **Ms. Krishnan Nair ShantakumariChithra, Shri TarunGogoi, Ms. Sumitra Mahajan, Shri Ram Vilas Paswan,** etc.

Few Padma Shri Awardees (out of 102)

- **Shri Gulfam Ahmed** (Art), **Ms. P. Anitha** (Sports), **Shri Rama Swamy Annavarapu** (Art), etc.

Background:

- The Padma Awards are announced annually on the **Republic Day** (26th January). Instituted in **1954**, it is **one of the highest civilian honours** of India.
- **Objective:** The Award seeks to recognize achievements in all fields of activities or disciplines where an **element of public service is involved**.
- **Categories:** The Awards are given in three categories:

Padma Vibhushan **(for exceptional and distinguished service),**
Padma Bhushan **(distinguished service of higher-order) and**
Padma Shri **(distinguished service).**

- Padma Vibhushan is highest in the hierarchy of Padma Awards **followed by Padma Bhushan and Padma Shri.**

Disciplines: The Awards are given in various disciplines/ fields of activities, viz.- **art, social work, public affairs, science and engineering, trade and industry, medicine, literature and education, sports, civil service** etc.

Selection Process:Padma Awards Committee: The Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year.

Awarded by President: The awards are presented by the President of India usually in the month of March/April every year.

Bharat Ratna

- **Bharat Ratna is the highest civilian award of the country.**
- It is awarded in recognition of exceptional service/performance of the **highest order in any field of human endeavour**.
- It is treated on a different footing from Padma Award. The recommendations for Bharat Ratna are **made by the Prime Minister to the President of India**.
- The number of Bharat Ratna Awards is restricted to a **maximum of three** in a particular year.

#CLIMATE ADAPTATION SUMMIT 2021

- The **Prime Minister, Narendra Modi**, in his addressed to the **Climate Adaptation Summit 2021** said that by the year 2030, India will target **450 gigawatt of renewable energy capacity.**
- He also said that **India is promoting the LED lights** and is also saving 38 million tons of carbon dioxide emissions per year.
- He also highlighted that, by **2030 India will restore 26 million hectares of degraded land**.

About Climate Adaptation Summit 2021

- The climate adaptation summit was hosted by the Netherlands government on January 25, 2021**. The summit was held online and it is being called "CAS Online".**
- The summit was built on the advances of the **UN Climate Action Summit.** The summit also showcased the pioneering solutions of the climate emergency and sustaining momentum through **UNFCCC's COP26.**
- **CAS will help in delivering the action** and inspire the change to help the **societies build back better**. The organizers of the summit also called for major new funding for agricultural research.
- They also expanded the access to **farmer advisory services, risk management and financial services**.

Aim of CAS

- The summit was organized with the **aim of realizing the transitions which is required for a climate-resilient world.**
- The summit focuses on securing the new investments in order to ensure that millions of smallholder farmers could adapt to the **impact of climate on food production.**

India's Commitment

- India has committed **to provide the clean cooking fuel to 80 millionrural households during the summit.** It also committed to connect the 64 million households with the piped water supply.

Conference of Parties (COP 26)

- The **2021 United Nations Climate Change Conference is also known as COP26**. It is the 26th United Nations Climate Change conference. It will be held in Glasgow, Scotland from November 1 to 12, 2021. The United Kingdom will chair the summit.

- The conference will incorporate the **26th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC),** third meeting of the parties to the **Paris Agreement (CMA**3) and the 16th meeting of the parties to the **Kyoto Protocol (CMP16).**

#2ND MARITIME INDIA SUMMIT 2021

- **Prime Minister Modi will inaugurate the 2nd Maritime India Summit** which will be held in a virtual mode on March 2, 2021. The event will be organized by **the Ministry of Ports, Shipping, and waterways jointly with EY as the knowledge partner and FICCI as the Industrial Partner.**
- The **event will see the participation of 20,000 delegates as well as 24 partner countries** who will join the two-day event. More than 400 projects will also be showcased in the **Maritime India Summit-2021.**
- While addressing a curtain-raiser press conference on February 11, **Mansukh Mandaviya, the Union**

Minister of Ports, Shipping, and Waterways stated that the Maritime India Summit will provide a powerful platform for international collaboration and will also bring in partner countries for the mutual exchange of opportunities and knowledge.

Significance of the summit

- The **Maritime India Summit-2021 will provide a unique platform** that will have the virtual and physical presence of prominent shipping and transport dignitaries/ministers from all over the world.
- The **maritime states of India will also be participating in the summit through the dedicated sessions.** The summit will include an **exclusive CEOs forum and various breakout/thematic sessions.**

Brochure and website of MIS launched:

- **The Union Minister Shipping launched** a brochure and the website **www.maritimeindiasummit.in** for the Maritime India Summit-2021.
- Because of the **ongoing pandemic situation,** the ministry decided that the entire summit will be held in a virtual mode on a virtual platform from March 2 to March 4, 2021. The registration for the exhibitors and the visitors has started on February 11 with the launch.

Maritime sector in Budget 2021-22:

- The **Secretary of the Ministry of Ports, Shipping and Waterway Dr. Sanjiv Ranjan** also briefly explained the Budget 2021-22 announcements that are related to shipping, ports, and maritime sector and **termed them as a pathbreaking initiatives to promote Aatmnirbhar Bharat.**
- He added that a **whole new range of opportunities** will be opening up with the **Major Ports Authorities Bill 2020**, which was passed in the Parliament on February 10.

#WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2021

- **PM Modi** will virtually inaugurate the **World Sustainable Development Summit** on February 10, 2021. The theme of the summit is **'Redefining our common future: Safe and secure environment for all'.**
- The event will be attended by the **Union Minister of Environment, Forest and Climate Change Prakash Javadekar;** President of the **Cooperative Republic of Guyana H.E.**
- **Dr. Mohamed Irfaan Ali, Prime Minister of Papua New Guinea Honourable James Marape**; Speaker of the People's Majlis, Republic of Maldives Mohamed Nasheed and **Deputy Secretary-General, United Nations Amina J Mohammed.**
- The 20th edition of the World Sustainable Summit,

The world's governments have agreed on an ambitious agenda to transform our world by 2030, adopting the **Sustainable Development Goals (SDGs)** that aim to ensure no one is left behind, and everyone benefits from development efforts. Agenda 2030 is unprecedented in scope and significance. The **SDGs are multi-dimensional and interconnected**, and the scale of the challenge at hand is vast. Realising these **17 goals** will require deep commitment, trillions of dollars in investment, and innovative ideas and approaches. The **United Nations defines sustainable development** as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Previous dialogues on sustainability have more or less focused on climate change and **environmental issues**, but the new paradigm of sustainability, as negotiated over the last three years for this summit includes all efforts towards an **inclusive, sustainable and resilient future for**

a flagship event of **The Energy and Resources Institute's (TERI),** will be held online from February 10-12.

Objective of the Summit:

- Post the **signing of the Paris Agreement and the adoption of the Sustainable Development Goals,** the summit aims at providing long-term solutions for the benefits of the **global community by bringing together** various stakeholders on a single platform and taking a step in a direction of achieving constructive action in combating issues that are significant to the future of humanity.

World Sustainable Development Summit

- The **World Sustainable Development Summit** will bring together a wide number of business leaders, governments, climate scientists, academicians, youth, and civil society in the fight against climate change.
- **Adaptation and resilience**, **energy and industry transition, climate finance, nature-based solutions**, clean oceans, circular economy, and air pollution are among the range of topics that will be discussed during the summit.
- The **Ministry of New and Renewable Energy, the Ministry of Environment, Forests and Climate Change, and the Ministry of Earth Sciences** is the key partners of the Sustainable Development Summit.

#MAJOR PORT AUTHORITIES BILL, 2020

Parliament has passed landmark Major Port Authorities Bill, 2020. The Bill seeks to provide for regulation, operation and planning of major ports in India and provide greater autonomy to these ports. It seeks to replace the Major Port Trusts Act, 1963. **Key features of the Bill include:**

- **Application of Act:** The **Bill will apply to 12 major ports** — Deendayal (erstwhile Kandla), Mumbai, JNPT, Marmugao, New Mangalore, Cochin, Chennai, Kamarajar (earlier Ennore), V O Chidambarnar, Visakhapatnam, Paradip and Kolkata (including Haldia). **These together had handled 705 million tonnes (MT) of cargo in 2019-20.**

- **Major Port Authorities Board:** The Bill provides for the creation of a Board of Major Port Authority for each major port. These Boards will replace the existing Port Trusts.

- **Composition of Board:** It will comprise of a Chairperson and a deputy Chairperson, both of whom will be appointed by the central government on the recommendation of a selection committee. **Board will include one member each from state government, Railway &Defence Ministry and Customs department.** Additionally, 2-4 independent members and two members representing interest of employees of Port authority will be part of Board.

- **Powers of the Port Board:** The Bill allows the Board to use its property, assets and funds as deemed fit for the development of the major port. To meet its capital and working expenditure requirements, the Board may raise loans from banks, financial institutions and from abroad.

- **Autonomy to Board:** They have been delegated full powers to enter into contracts, planning and development, fixing of tariff except in national interest, security and emergency arising out of inaction and default. In the **present MPT Act, 1963 prior approval of the Central Government was required in 22 instances.**

- **Push to Public Private Partnership (PPP) projects:** The Bill defines PPP projects as projects taken up through a concession contract by the Board. For such projects, the Board may fix the tariff for the initial bidding purposes but the appointed concessionaire will be free to fix the **actual tariffs based on market conditions**

- **Corporate Social Responsibility**: The Bill provides that the Board may use its funds for providing social benefits. This includes development of infrastructure in areas such as education, health, housing, and skill development.

- **Adjudicatory Board:** The Bill provides for the constitution of an Adjudicatory Board by the central government. This Board will replace the existing **Tariff Authority for Major Ports(TAMP) constituted under the 1963 Act**. This Board look into disputes between ports and PPP concessionaires and also reviews stressed PPP projects

Significance of the Bill

- **Similar to Global Institutional Structure:** It **modernizes the institutional structure of these ports**. The bill reorients the governance model in central ports to landlord port model in line with the successful global practice.
- **Decentralization**: The bill aims at decentralizing decision making and to infuse professionalism in governance of major ports.
- **Transparency**: It imparts faster and transparent decision making benefiting the stakeholders and better project execution capability.
- **Compact Board:** A **simplified composition of the Board of Port Authority will comprise of 11 to 13 Members** representing various interests **(earlier 17 to 19 Members).** A compact Board with professional independent Members will strengthen decision making and strategic planning.
- **Boost to Port Sector**: This will **empower the Major Ports** to perform with greater efficiency on account of full autonomy in decision making which in turn promotes the expansion of port infrastructure and facilitate trade and commerce. It ensures **optimum utilisation of the coastal line** in the country through competitive ports.
- **Not Privatization**: The new Act is not intended to **privatise major ports** but aimed at boosting their decision-making powers in order to compete with private ports. It is seen as the first step in the **corporatization of Ports and then enabling them to list on stock exchange.**

#PM MODI DEDICATED ARJUN MK-1A TANK TO ARMY

- **Prime Minister Narendra Modi** will dedicate the main battle Tank Arjun Mark1A to the nation on February 14, 2021. The battle tank's induction will boost the Make in India's efforts of the defence sector.
- The **Defence Ministry** had recently in a high-level meeting cleared the **induction of 118 Arjun Mark1A tanks into the Indian Army.**
- The tanks would be worth around Rs 8,400 crore and are expected to boost the strength of the force in land warfare.
- The **Defence Research and Development Organisation (DRDO)** officials stated that **PM Narendra Modi would be dedicating the latest version of the Arjun tank** to the nation on February 14 in Chennai at the tank production facility in Avadi. DRDO **Chairman Satheesh Reddy** will hand the first Arjun Mark 1A to Prime Minister Modi.

About Arjun Tank

- The **Arjun tank** has been fully designed and developed by the DRDO in close coordination with the Indian Army. The 118 tanks would be joining the fleet of the first batch of **124 Arjun tanks** that have already been **inducted into the Army and are deployed in the western desert along the Pakistan front**.
- The **118 Arjun tanks** would form two regiments in the Armoured Corps of the Indian Army like the first 124 tanks. The Army has reduced the number of tanks required for the formation of a tank regiment and hence, the present order has six lesser tanks than the previous order for two regiments.

Background

- The **DRDO has been developing the Arjun Mark 1A battle tank** for some time now and the project was fastened by both **Chief of Defence Staff Gen Bipin Rawat and DRDO chief Dr. G Satheesh Reddy** to increase the level of indigenous weapon systems in the armed forces.
- The tank has been designed by the **DRDO's Combat Vehicles Research and Development Establishment (CVRDE).**
- The tanks will be produced by the **Ordnance Factory Board's (OFB) Heavy Vehicles Factory (HVF)**Avadi and the first batch of five main battle tanks will be handed over to the army within two-and-a-half years of the signing of the contract.

#FINAL REPORT OF 15TH FINANCE COMMISSION

The **Fifteenth Finance Commission of India** have submitted its **final report fir a five-year duration**. The report has been submitted with the objective of transforming the financial governance of India's municipalities.

Background

The **interim report for Financial Year 2020-21 was tabled in Parliament** along with Budget 2020-21. The final report for **Financial Year 2021-22 to Financial Year 2025-26 was tabled** along with the Budget 2021-22.

Key Highlights of the report

- The **15th FC has significantly raised its bar on financial governance of the India's** municipalities in the interim report.
- The **final report also maintains these four specific agendas.** The four agendas include:
- The **15th FC has tried to increase the overall outlay for municipalities**. It has set 29,000 crores for FY 2020-21.
- It has also indicated the intent to raise the share of municipalities in the total grants of local bodies from 30 per cent to 40 per cent.
- Two entry conditions have been set for any municipality in In**dia to receive FC grants namely, the publication of audited annual accounts** that would help in boosting the financial accountability and notification of floor rates for property tax that would help in raising the revenue enhancement.

The **Finance Commissions** are commissions periodically constituted by the President of India under *Article 280 of* **the Indian Constitution** to define the financial relations between the central government of India and the individual state governments. The First Commission was **established in 1951 under The Finance Commission** (Miscellaneous Provisions) Act, 1951. Fifteen Finance Commissions have been constituted since the **promulgation of Indian Constitution in 1950.** Individual commissions operate under the terms of reference which are different for every commission, and they additionally define the terms of qualification, appointment and disqualification, the **term, eligibility and powers of the Finance Commission**.As per the Constitution, the Commission is appointed every five years and consists of a chairman and four other members.

- The **15th finance commission has adopted the approach of distinguishing** between million-plus urban agglomerations and other cities.
- It also **recommends a common digital platform for municipal accounts,** a consolidated view of municipal finances and the sectoral outlays at the state level apart from digital footprint of individual transactions at source.
- These **four aspects of the interim report highlight that the 15th finance commission aims to bring the logical culmination municipal finance reforms**. However, the foundations for bringing about these reforms were also laid by thirteenth and fourteenth finance commission.

#IMPLEMENTATION OF ONE NATION ONE RATION CARD

- The **Department under Ministry of Consumer Affairs, Food & Public Distribution** in association with State/UT Governments is implementing the **'One Nation One Ration Card' (ONORC) plan** for nation-wide portability of ration cards under the **National Food Security Act, 2013 (NFSA).**
- So far, the facility has been enabled in **32 States/UTs covering almost 86% of the NFSA population of the country.**
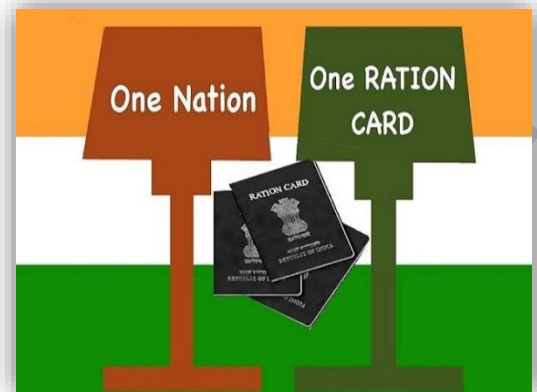
One Nation One Ration Card' (ONORC) plan

- Under ONORC, the **beneficiaries can lift their entitled foodgrains from any ePoS (electronic Point of Sale device)** enabled Fair Price Shop (FPS) of their choice by using their same/existing ration cards with biometric authentication on the ePoS device at the time of lifting the foodgrains through portability.
- No direction has been given to **States/UTs for the issuance of new ration cards to beneficiaries under ONORC.**
- However, for the sake of uniformity under ONORC operations, States/UTs **have been advised to adopt a standard bi-lingual format for ration cards** whenever they decide to issue/print new ration cards under NFSA in the future.
- The **Targeted Public Distribution System (TPDS) under NFSA** is operated under the joint responsibilities of the Central and State/UT Governments.
- **Responsibility of State/UT Governments:** Identification of eligible beneficiaries under NFSA, issuance of ration cards to them, lifting of foodgrains from the designated depots, distribution to ration cardholders as per their entitlements through FPSs, etc.
- Directions under **Section-38 of the NFSA** have been issued to all States/UTs to cover **all eligible disabled persons under the NFSA.**

Salient Features of NFSA

- **Public Distribution System (PDS)** is now governed by provisions of **the National Food Security Act, 2013 (NFSA).** Coverage under PDS is de-linked from the erstwhile 'poverty estimates'.
- The **Act provides coverage for nearly 2/3rd of the country's total population**, basis Census 2011 population estimates.
- **75% of Rural and 50% of Urban population** is entitled to receive highly subsidisedfoodgrains under two categories of beneficiaries – **Antodaya Anna Yojana (AAY) households and Priority Households (PHH).**
- State/UT-wise coverage is determined by the erstwhile **Planning Commission (now NITI Aayog)** on the basis of 2011-12 **Household Consumption Expenditure survey of NSSO.**
- The Act entitles 35 kg of **foodgrains per AAY Household per month,** whereas 5 Kg of foodgrain per PHH Person per month. Identification of beneficiaries/households under NFSA is done by respective State/UT Government, which is required to frame its own criteria.
- **Highly subsidised Central Issue Prices of Re.1, Rs.2 and Rs.3** for Coarse-grains, Wheat and Rice respectively, kept unchanged till June 2019.

- No reduction in foodgrains allocation to any **State/UT under NFSA**. Allocation gaps if any, are covered with Tide-Over allocation.
- Eldest woman of the beneficiary household **(18 years or above) is considered as 'Head of Family' for the purpose of issuing ration cards.**
- **Grievance redressal mechanism** at different levels is provisioned for Women Empowerment. Provisions for disclosure of records relating to **PDS operations for enhanced transparency.**
- **Assistance to States/UTs** for meeting expenditure on intra-State transportation & handling of foodgrains and FPS Dealers' margin.

#THIRD SCORPENE SUBMARINE: INS KARANJ

- The **Indian Navy on February 15, 2021, got its third Scorpene Submarine,** which will be commissioned as INS Karanj in March, of Project P-75. With the delivery of **INS Karanj**, India has been able to cement its position as a submarine-building nation.
- The **acceptance document was signed by the Chairman and Managing Director of Mazagaon Dock Shipbuilders Limited, Vice Admiral (Retd) Narayan Prasad**, and the Chief of Staff officer (Tech) of Western Naval Command, Rear Admiral B Sivakumar.
- **Total 6 submarines of the Indian Navy** are being **constructed under Project 75**. The number 75 refers to the unique identifier which was assigned for a program for the productions of the submarines.
- The three submarines that are delivered by **Mazagaon Dock Shipbuilders Limited- MDL including Karanj, are Khanderi and Kalvari.**

Submarines of Indian Navy:

- Apart from the three submarines **Karanj, Khanderi, and Kalvari, the fourth submarine Vela** was launched on May 6, 2019, and has already commenced the sea trials.
- **The fifth submarine which was launched on November 12, 2020**, has also started the harbour sea trials. While on the other hand, the sixth submarine is currently in an advanced stage of outfitting.
- **Two SSK submarines that were built by MDL in 1992 and 1994** are still in the service today, even after more than 25 years.

MDL achieves expertise in submarines:

- **Mazagaon Dock Shipbuilders Limited- MDL** is one the **leading shipyards of India** with the capability and capacity of meeting the aspirations and requirements of the Indian Navy.
- **MDL has now achieved expertise** in submarine refits by successfully executing the **medium-refit-cum up-gradation of the Indian Navy's 4 SSK class submarines.**
- **MDL is currently carrying out the Medium Refit** and Life Certification of the first SSK submarine, **INS Shishumar.**
- With the construction of the **Khukri Class Corvettes,** Leander and Godavari Class frigates, Delhi and Kolkata

Class destroyers, Missile Boats, the **SSK Submarines, Shivalik Class Stealth Frigates, and the Scorpene Submarine** under its belt, **Mazagaon Dock Shipbuilders Limited** has almost mapped the history of **India's indigenous warship building.**

#16ᵀᴴ EDITION YUDH ABHYAS TO BEGIN IN RAJASTHAN

- The **16th edition of 'YudhAbhyas', India-US joint military exercise,** will be held in Rajasthan between February 8 and 21, 2021. The drill has come days after the air forces of France and India held a 5-day joint exercise in Rajasthan in January 2021.
- According **to Defence Spokesperson, Lt Col Amitabh Sharma,** as part of the military to military exchange programmes, the army troops of the **United States** will be arriving in India on **February 5 for the joint military exercise with the troops of the Indian army.**
- The spokesperson also informed that the bilateral training exercise will be held at the **Foreign Training Node at Mahajan Field Firing Ranges**. The exercise between the two nations is being conducted despite the pandemic, which indicates the strength of bilateral relations and also conveys a geo-strategic message to the environment.

Objective of the exercise:

- The **joint military exercise near the India-Pakistan border aims at enhancing the interoperability and cooperation** between the two armies. It will also be focusing on counter-terrorism operations under the United Nations mandate.

Representation of Indian and US army:

- **The Indian Army in 'YudhAbhyas' will be represented by** the 11th battalion of **Jammu and Kashmir Rifles,** who are part of the South Western Command.
- The United States Army delegation will be represented by the 2nd battalion troops, **3rd Infantry Regiment of 1-2 Stryker Brigade Combat Team,** along with the respective brigade headquarters.

Why the exercise with US Army is significant?

- **According to the Defence Spokesperson**, the exercise with the United States Army is significant in terms of the security challenges that are faced by both India and the US in the backdrop of global terrorism.
- It will enhance the level of **defence cooperation between the armies** which will foster bilateral relations between both countries. The military exercise will also reiterate India's role as a key partner in the Indo-Pacific region.
- The **exercise at this time will also be significant in the backdrop of recent developments** on the Northern borders. The **military exercise between two powerful nations** will convey their strategic postures as well as an enhanced upward trajectory in India-US relations.

#INDIAN NAVY'S LARGEST EXERCISE TROPEX-21

- The **largest war game of the Indian Navy- Theatre level Operational Readiness Exercise (TROPEX-21) -** which started in early January 2021, is currently underway in the Indian Ocean.
- The exercise is seeing the participation of all operational units of the **Indian Navy including submarines, aircraft, ships as well as the units of the Indian Army, Coast Guard, and Indian Air Force.**
- **TROPEX-21 is being conducted over a vast geographical expanse in the Indian Ocean Region** including its adjunct waters. According to the press release by the Indian navy, the **exercise will culminate by the third week of February 2021.**
- The **conduct of the Indian Navy's largest exercise** is being overseen by the Naval Headquarters with the participation from all three commands of the Navy and the **tri-services command at Port Blair.**

Objective of the exercise:

- **TROPEX-21 aims at testing the combat readiness** of the **Indian Navy in a complex multi-dimensional scenario** set in the context of the current geo-strategic environment.
- The Theatre level exercise also **aims at validating the Indian Navy's offensive-defence capabilities, safeguarding national interest** in the maritime domain, and promotes peace and stability in the Indian Ocean Region.
- **Progress of TROPEX-21 over distinct phases:** TROPEX by the Indian Navy is being progressed over distinct phases testing the Navy's transition from peacetime to hostilities.

Exercise 'Sea Vigil':

- In the **first phase**, the Indian Navy **conducted coastal defence exercise 'Sea Vigil'** along with the island territories and the entire coastline of India on January 12-13, 2021. Sea vigil exercise aimed at validating the coastal defence set up of the country, which was completely **revamped after the 26/11 terror attacks of Mumbai.**
- It **witnessed large-scale participation from Coast Guard, Indian Navy, Marine Police of 13 coastal states** and the Union territories along with other stakeholders in the maritime domain.
- Valuable lessons that emerged from the naval exercise have been incorporated into the **existing procedures to further strengthen the coastal defence architecture of the country.**

Sea Vigil was then followed by a **large-scale tri-service joint amphibious exercise AMPHEX-21**. It was conducted in Andaman and Nicobar Islands from January 21 to 25, 2021. The **exercise was aimed at validating the capabilities of India** to safeguard the territorial integrity of its island territories as well as enhance the operational synergy and **joint warfighting capabilities among the three services.**

INDIA TO PARTICIPATE IN NAVDEX-21 & IDEX-21

Indian Naval Ship (INS) Pralaya arrived at Abu Dhabi, UAE to participate in the **NAVDEX 21 (Naval Defence Exhibition)** and **IDEX 21 (International Defence Exhibition),** scheduled from 20 to 25 February 2021.

- **INS Mysore** (an indigenously built guided missile destroyer deployed in the Persian Gulf) is also participating in the exhibition.

About NAVDEX 21 and IDEX 21:

- **IDEX** and **NAVDEX,** and the **International Defence Conference** are **organised by the Abu Dhabi National Exhibitions Company (ADNEC),** in cooperation with the Ministry of Defense and the General Command of the UAE Armed Forces.
- IDEX/NAVDEX **takes place biennially.** The exhibitions **showcase the latest technologies and innovation** in the global defence sector, support the growth of UAE's defence industry, and forge new relationships between major international companies.
- **IDEX** is the only international defence exhibition and conference in the **MENA region** demonstrating the latest technology across land, sea and air sectors of defence.
- **MENA Region:** MENA is an acronym for the **Middle East and North Africa region** and includes **approximately 19 countries.**
- The MENA region accounts for approximately 6% of the world's population, 60% of the world's oil reserves, and 45% of the world's natural gas reserves.
- Countries are Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, and Yemen.

INS Pralaya:

- INS Pralaya, **a ship of the indigenously built** Prabal Class Missile Vessels, **was commissioned in the Indian Navy in 2002.**

- **The ship,** built indigenously at Goa Shipyard Limited**, bears testimony to capabilities of the Indian shipbuilding industry and is a versatile platform capable of performing a wide variety of surface warfare missions.**

India and UAE Defence Relations:

- Defence relations between **India and UAE** have been steadily growing since the upgradation of bilateral relations to a **'Comprehensive Strategic Partnership'** in 2017.
- Sheikh Mohamed bin Zayed Al Nahyan, the **Crown Prince of Abu Dhabi** (capital of UAE), was a **Chief Guest at India's Republic Day celebrations** in 2017.
- Towards enhancing interactions between the two navies, the inaugural edition of **Indian & UAE Navy bilateral exercise GULF STAR-1** was conducted in March 2018. The **next edition** of the exercise is likely to be conducted in **2021.**

India's Defence Exhibitions

- **DefExpo:** The **11th edition of DefExpo** was held for the first time in Lucknow (Uttar Pradesh) in 2020.
- It's a flagship biennial event of the Ministry of Defence.
- **Aero India:** The **13th edition of the Aero India** show was held at Bengaluru's Yelahanka Air Force Station (Karnataka).
- **Aero India is a biennial international military and civil airshow.**
- It is a premier event that draws international and Indian military and civil aircraft makers, their support industries, military brass and government dignitaries, and business visitors.

#INDIA TO SUPPLY BRAHMOS MISSILE TO PHILIPPINES

- The **Government of India on March 2, 2021**, signed a **key pact with the Philippines for the supply of defence material and equipment** which are also likely to include BharhMos Cruise Missiles.

- **Delfin Lorenzana, the Defence Secretary of the Philippines**, who also attended the agreement signing ceremony in Manila has stated that the Philippines will be buying BrahMos Missiles from India.

- According to a Facebook post of the Philippine **Department of National Defence, Raymundo Elefante,** the Defence Undersecretary and India's Ambassador to the Philippines Shambu S. Kumaran have signed an implementing arrangement for the procurement of defence material and equipment.

BrahMos Missile: Indo-Russian Joint venture

- **Both India and Russia** have been planning to export **the BrahMos Supersonic Cruise Missile** to the Philippines and several other countries.

- The **missile has been produced by Joint Venture of India and Russia**. It can be launched from ships, submarines, land platforms, or aircraft. Various countries, including in the Gulf region have also shown interest in the procurement of the missile.

- The **Indian government has already deployed a sizeable number of the original BrahMos Missiles as** well as other key assets in several strategic locations along the LAC with China in **Arunachal Pradesh and Ladakh.**

Test-Firing of BrahMos Missile:

- A **naval version of the BrahMos missile** was successfully test-fired, on October 18, 2020, from an

indigenously built stealth destroyer of the Indian Navy in the Arabian Sea.

- After few days, the Indian Air Force also test-fired an air-launched version of the missile from a Sukhoi fighter jet in the **Bay of Bengal**. The **IAF has also been integrating** the missile on over **40 Sukhoi fighter jets of the air force in order to bolster the overall combat capability of the force.**

#INDIA'S BIGGEST FLOATING SOLAR POWER PLANT

India's **biggest floating solar power plant** by generation capacity (100MW) is being developed by the **National Thermal Power Corporation Limited (NTPC)** at **Ramagundam in Peddapalli district of Telangana.**

- The project is in line with India's commitment to attain the target of 175 GW of installed **renewable energy** capacity by 2022 including 100 GW of solar installed capacity.
- **Floating Solar Plants:** It refers to the **deployment of photovoltaic panels on the surface of water bodies.** They are **a viable alternative to land-based solar arrays** with applications in India.
- There are **a large number of major reservoirs in the Southern Region** which provides a huge opportunity to go for renewable energy in the floating solar method.

Projects Coming up in India:

- The thermal plant at **Ramagundam** would be one of the renewable (solar) energy plants being developed by NTPC with an installed capacity of 447MW in the Southern Region and the entire capacity would be commissioned by March 2023.
- The renewable energy plants that are likely to be commissioned in the next three months are 25MW floating solar plant at **Simhadri thermal power plant** near **Visakhapatnam** and 92MW floating solar plant at **Kayamkulam** in **Kerala.**

Advantages of the project

- **Address Land Acquisition Issues:** The key challenges that face renewable energy plant owners are land acquisition, grid connectivity, regulations and off-take.
- Floating solar plants balance high population density and competing uses for available land. The land can be used for other purposes, such as farming or construction.
- **Cooling Effect:** The bodies of water exert a **cooling effect,** which improves the performance of solar photovoltaic panels by 5-10%.
- Over time, this translates into **significant cost savings.**
- **Other Advantages:** Reduced grid interconnection costs, reduced water evaporation, improved water quality, and reduced **algal blooming**.

Challenges related to the project

- **Increased Cost:** Engineering and construction costs are usually higher than those of a ground-mounted solar farm.
- **Safety Issues:** Since floating solar involves water and electricity, more consideration must be given to cable management and insulation testing than on land, especially when cables are in contact with water.

- **Degradation and Corrosion:** A floating solar plant has moving parts that are subject to constant friction and mechanical stress.
- Systems that are poorly designed and maintained could suffer from catastrophic failures.
- The installation is at risk of degradation and corrosion due to moisture, especially in more aggressive coastal environments.
- **Understanding of Water-bed Topography:** Developing floating solar projects requires a thorough understanding of water-bed topography and its suitability for setting up anchors for floats.

Other Solar Energy Initiatives:

- National Solar Mission: **Solar energy has taken a central place in India's** National Action Plan on Climate Change **with the** National Solar Mission **as one of the key Missions.**
- INDCs target: **It targets installing 100 GW grid-connected solar power plants by the year 2022.**
- **This is in line with India's** Intended Nationally Determined Contributions (INDCs) **target to achieve about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources and to reduce the emission intensity of its GDP by 33 to 35% from 2005 level by 2030.**
- Launch of ISA: **The launch of the** International Solar Alliance (ISA) **was announced by the Prime Minister of India and the President of France in 2015, at the** 21st session of the United Nations Climate Change Conference of the Parties (COP-21) **in Paris, France.**
- **One Sun One World One Grid:** India has an ambitious cross-border power grid plan **'One Sun One World One Grid'** that seeks to transfer solar power generated in one region to feed the electricity demands of others.

#FIRST INDIAN FENCER TO QUALIFY FOR OLYMPICS

- **Bhavani Devi** created history on March 14, 2021 by becoming the **first Indian fencer to qualify for the Olympics.**
- The 27-year-old reserved her spot in the **Tokyo Olympics through the Adjusted Official Ranking (AOR) method.**
- **The much-awaited tournament** will go on floors from July 23rd and will conclude on August 8, 2021.
- **Union Sports Minister Kiren Rijiju**took to Twitter to congratulate the Indian fencer. He stated that she has become the first-ever Indian fencer to achieve the feat.
- **Bhavani Devi** has become the **first-ever fencer from India to qualify for the Olympics in women's individual sabre.** She has been trained by **SAI coach SagarLagu in SAI Training Center, Thalassery**.

Tokyo Olympics

- The **Tokyo Olympics** were originally scheduled to be held last year but they were postponed to this year due to the **COVID-19 pandemic.**
- **While Tokyo Olympics** will take place from July 23-August 28, 2021, the **Paralympics will take place from August 24 to September 5.**

- **International Olympic Committee (IOC) President Thomas Bach** assured earlier this week that the Tokyo Olympics will definitely take place. He said that the "question is not whether the Olympics will take place, the question is how."
- He further stated **that "Tokyo remains the best prepared Olympic city ever and at this moment, we have no reason to doubt that the Opening Ceremony will take place on July 23rd."**

#MUNICIPAL BUDGET OR PARTICIPATORY BUDGET

Union Budget and State Budget receives attention and coverage that is not the case with **Municipal Budget.**

Significance of Municipal Budget

- **Impacts Large number of people**: A **staggering 4,500+ municipalities in which over 300 million people live** present their budgets every year during the budget season.
- **Concerns with everyday matters**: Municipal budgets deal with clean air, clean drinking water, clearing of garbage properly and on time, access to clean toilets at home and in public spaces, wastewater treatment and safe disposal, children and old-age friendly public places etc.
- **Substantial Financial Resource involved**: We don't yet have accurate data, estimates suggest that taken together, these 4,500+ city budgets aggregate to an amount in the range of Rs 1,50,000-1,80,000 crore annually.

Challenges with Municipal Budgets

- **Lacks Citizen Participation**: Most municipal laws don't provide for citizen participation in budgets or transparency in civic works and tenders.
- **Not People Friendly**: Budget documents themselves are not easy to read and understand for an average citizen.
- **Issue of Transparency & Accountability**: Substantial expenditure in the city happens through parastatal agencies such as development authorities, transport corporations and water supply boards, which have separate budgets which are never discussed in the city council or covered in the media.

What is Participatory Budgeting?

- **"Participatory Budgeting"** is a concept that was pioneered in the **Brazilian city of Porto Alegre** in the mid-1980s. It is now practised in one form or other in thousands of cities around the world.
- Participatory budgeting (PB) is a process of democratic deliberation and decision-making, in which ordinary people decide how to allocate part of a municipal or public budget.
- More recently the '**My City My Budget' campaign, first launched in 2015**, is gathering traction in **Bengaluru, Mangaluru and Visakhapatnam**, as a collaborative effort between respective city corporations and neighbourhood communities.
- In these cities, over 85,000 budget inputs have been crowdsourced from over 80,000 citizens in over 350 wards on a wide range of civic issues. These inputs will be **reviewed and incorporated into the city budget.**

Merits of Participative Budgeting

- **First Step towards responsive governance:** This is significant because in the government system, allocating budgets is the first step towards getting any piece of work done.
- **Local Solutions**: It facilitates a targeted, hyperlocal focus on budgeting and problem-solving.
- **Enhances Political & Public Trust:** It makes citizens feel like they have a voice in civic governance and thereby builds trust.
- **Improves Efficiency:** It addresses inefficiencies arising from **misplaced prioritisation of civic works relative to citizen needs.**
- **Increased Accountability:** Finally, it improves accountability for civic works at the last mile **(as citizens would monitor budget execution).**
- **Inclusive Governance:** Children, women, senior citizens, the differently-abled and several interest groups would be able to make a case for their causes and aspirations in Municipal Budget through direct representations and have them fulfilled.
- **Helps in better maintenance of assets**: This would foster far greater ownership in communities for civic assets and amenities, thereby resulting in better maintenance and upkeep. At the local level, it is a win-win for communities, elected councillors and the city administration.
- **Strengthens Grassroots Democracy**: Unlike the Union budget, the municipal budget is not just a financial or legal document. It can be an enabler of grass roots democracy in cities and tangible change for communities particularly children, women and the urban poor.

Conclusion: We need greater degrees of citizen engagement and media engagement **on Municipal budgets for them** to become instruments of real change at a **street, neighbourhood and ward level.**

#INDIA & UZBEKISTAN MILITARY EXERCISE: DUSTLIK II

- The **joint military exercise of India and Uzbekistan 'DUSTLIK II'** commenced on March 10, 2021, in Ranikhet (Uttarakhand).

- This is the **2nd edition of the annual bilateral joint exercise of the armies of India and Uzbekistan** and it will continue till March 19. The first edition of the exercise took place in Uzbekistan in November 2019.

- In order to participate in the exercise, the **Uzbek soldiers arrived in New Delhi on March 8**. The joint army exercise is mainly based on **counter-terrorist operations and aims at enhancing the military cooperation between the two countries.**

Significance of the exercise

- The **joint army exercise between India and Uzbekistan** will provide a push to the ever-growing military and diplomatic ties between the two countries. It will also reflect the strong resolve of the two nations to counter-terrorism.

Key Highlights

- **45 soldiers each from the army of India and Uzbekistan** will be participating in the exercise.In **the joint military exercise, the Rezangla Battalion 13 Kumaon** will be representing the Indian Army.
- The contingents of both the armies will be sharing their skills and expertise in the **field of counter-terrorist operations** in rural/urban/mountainous scenarios under the UN mandate.
- The **military exercise between India and Uzbekistan** will lead up to a 36 hours joint validation exercise which is scheduled from March 17 to 18.
- The validation exercise will also be a testbed for the soldiers as they will be undergoing the challenges of actual operations in such a scenario.

First edition of DUSTLIK exercise:

- The **first-ever joint military exercise** between India and Uzbekistan **took place in 2019 in Uzbekistan.** The **Defence Minister Rajnath Singh and Defence Minister of Uzbekistan** had chaired the curtain raiser of the joint military drill.

- The exercise focused on **counter-terrorism and continued till November 13, 2019.** The Indian Army contingent trained along with the Uzbekistan army. The exercise enabled sharing of experiences and best practices **between the armed forces of two nations for greater operational effectiveness.**

#IAF TO PARTICIPATE IN EXERCISE DESERT FLAG-VI

For the first time, the **Indian Air Force (IAF)** is participating in the **Exercise Desert Flag-VI, hosted by the United Arab Emirates (UAE) Air Force.**
- **About:** Ex Desert Flag is an **annual multinational large force employment warfare exercise** hosted by the **UAE Air Force.**
- **Aim:** To provide operational exposure to the participating forces while training them to undertake simulated air combat operations in a controlled environment.

Exercise Desert Flag-VI:

- **Duration:** Itis about **three week long exercise** scheduled from 3rd - 27th March 2021 at **Al-Dhafra air base, UAE.**
- **Participants:** The air forces of the UAE, India, **United States of America, France, Saudi Arabia, South Korea** and **Bahrain**.
- **India's Participation:** The IAF is participating with six **Su-30 MKI**, two **C-17 Globemasters** and one IL-78 tanker aircraft.

Joint Military Exercises with the UAE:

- **With the UAE, India has** In-UAE BILAT **(bilateral** naval **exercise) as well as** Desert Eagle-II **(bilateral** air force **exercise).**

- Recent Engagements: **India participated in the** NAVDEX 21 (Naval Defence Exhibition) and IDEX 21 (International Defence Exhibition).

- **The exhibitions showcase the latest technologies and innovation in the global defence sector, support the growth of UAE's defence industry, and forge new relationships between major international companies.**

Examples of Other Multinational Exercises:

- **Pitch Black:** Biennial, multilateral air combat training exercise of **Australia.**
- **Red Flag:** Multilateral air exercise of **USA.**

#ICGS VAJRA COMMISSIONED INTO INDIAN COAST GUARD

- The **Indian Coast Guard Ship 'Vajra'** was formally commissioned on March 24, 2021, into the service in Chennai. It will be the sixth offshore vessel which will aim at enhancing coastal security.

- The **Chief of Defence Staff, General Bipin Rawat**, to mark the commissioning of the ship, formally unveiled a plaque and the ship's board name **'Vajra' at the Chennai Port Trust**. The name **Vajra means 'Thunderbolt'.**
- The ship has been indigenously designed and developed by Larsen and Toubro Shipbuilding Limited**. Vajra** is the sixth in the series of **seven Offshore Patrol Vessels** which has benefitted with the high communication and navigation systems.
- **In the wake of the Coronavirus pandemic**, the commissioning ceremony of the ship was held following the Standard Operating Procedures announced by the Central Government.

What are the features of 'Vajra'?

- An integrated bridge system
- Bow Thruster
- High Power External Fighting System
- Automated Power Management System

Indian Coast Guard vessel 'Vajra':

- The **ship has been designed to carry one twin-engine helicopter** with night flying capabilities as well as four high-speed boats. It will also be able to carry two rigid hull inflatable boats to take up maritime patrolling, law enforcement, and search and rescue.
- The **ICG ship has a 30 mm gun** as the **main armament**. It is also equipped with two **FCS-controlled 12.7 mm SRCG for enhanced fighting efficiency.**
- **Pollution** response equipment for containing oil spills at sea has been fitted in the ship. The equipment is propelled by twin MTU 8000series engines which are **capable of achieving 26 knots of top speed** as well as the endurance of 5,000 nautical miles.
- **Alex Thomas, Deputy Inspector Gene**ral is the commanding officer of the ship, which will have 88 men and 14 officers. **Vajra** will be based at **Tuticorin under the operational** control of the easter region coast guard.

#PM MODI INAUGURATED RAISINA DIALOGUE

- **Prime Minister Modi** inaugurated the **6th edition of the Raisina Dialogue** on April 13, 2021. The inaugural session of the dialogue was also joined by the **Prime Minister of Denmark, Mette Frederiksen, and the President of Rwanda, Paul Kagame.**

- **Raisina Dialogue 2021** will be held in a virtual mode from April 13 to April 16. The Dialogue is India's flagship conference on geoeconomics and geopolitics and is held annually since 2016. The Dialogue is jointly organised by the **External Affairs Ministry and Observer Research Foundation.**

- One of the subsequent session was also **joined by the Prime Minister of Australia, Scott Morrison**. Because of the exceptional circumstances due to the Coronavirus pandemic, the dialogue is being conducted in a virtual mode.

PM Modi addresses Raisina Dialogue 2021:

- As the world sees the second **wave of Coronavirus,** PM Modi while **addressing the 6th edition of Raisian Dialogue 2021** stated that the event is taking place at a watershed moment in human history. He added that a **global pandemic has been ravaging the world.** The last such global pandemic was almost a century ago.

- He further mentioned that even though humanity has faced many infectious diseases, the world today is still **unprepared to face and handle the Coronavirus pandemic.**

- **PM Modi** added that our researchers, scientists, and industry have answered some of the questions. Many solutions have emerged and many more are yet to come.

- Prime Minister during his address also **highlighted India's struggles during the pandemic**. He mentioned that in our own humble way, within our own limited resources, we in India have tried to walk the talk. **India tried to protect its own 1.3 billion people** and at the same time also tried to support the pandemic response efforts of others.

- **PM Modi** emphasized that the pandemic will not be defeated unless all of us, regardless of the color of our passports, come out of it. This is why **despite many constraints**, India supplied Coronavirus vaccines to over 80 countries.

Theme of Raisina Dialogue 2021:

- According to the statement released by the **Ministry of External Affairs, the theme of Raisina Dialogue 2021 is '#ViralWorld: Outbreaks, Outliers, and Out of Control'**.

Raisina Dialogue 2021

- The event will be seeing the presence of Former PM of Sweden, Carl Bildt; Former Prime Minister of Australia, Anthony Abbott and Former Prime Minister of New Zealand, Helen Clark.

- The **Foreign Ministers of Slovenia, Portugal, Singapore, Romania, Nigeria, Italy, Sweden, Japan, Kenya, Australia, Chile, Iran, Maldives, Bhutan, and Qatar** will also be participating in the event.

- The **6th edition of the dialogue will have 50 sessions** with the participation of 150 speakers from 50 different countries as well as multilateral organisations.

- More than **2000 attendees from over 80 countries have already pre-registered**. A large number of participants are likely to join the dialogue through various social media platforms.

About Raisina Dialogue:

- It is a **multilateral conference which is held every year in New Delhi, India**. The Dialogue by India is designed on the lines of the **Shangri-La Dialogue of Singapore.**

- **Raisina Dialogue was first held in 2016** and since its inception, it has emerged as India's flagship conference on geoeconomics and geopolitics.

- It is structured as a **cross-sectoral discussion, multi-stakeholder**, which involves a variety of global policymakers including Cabinet Ministers, heads of state as well as local government officials. Apart from it, the dialogue also welcomes major sector executives, as well as the members of academia and media.

- The **name Raisina Dialogue comes from Raisina Hill.** It is an elevation in **New Delhi, the seat of the Government of India and the Presidential Palace of India, RashtrapatiBhavan.**

- **What is the goal of the Raisina Dialogue?**

- **Raisina Dialogue is India's contribution** to the global efforts for discovering solutions, providing stability, and identifying opportunities to a century that has already witnessed an eventful two decades.

The Conference addresses the most challenging issues faced by the international community. The global leaders, during the dialogue, discuss cooperation on a wide range of significant international policy matters.

- Since its inception in 2016, the dialogue has been able to attract leading minds from the global strategic and **policy-making community** for discussing broader foreign policy as well as strategic issues facing the world.

#GOI LAUNCHED MANAS APP FOR MENTAL WELL BEING

Recently, the government of India launched a mobile app, **MANAS (Mental Health and Normalcy Augmentation System)** to **promote mental wellbeing across age groups.**

- MANAS was endorsed as a national program by the **Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC).**

- **PM-STIAC:** It is an overarching Council that **facilitates the Principal Scientific Adviser's Office to assess the status in specific science and technology domains**, comprehend challenges in hand, formulate specific interventions, develop a futuristic roadmap and advise the Prime Minister accordingly.

About:

- It is a **comprehensive, scalable, and national digital wellbeing platform** and an app **developed to augment mental well-being of Indian citizens.**

- It **integrates the health and wellness efforts of various government ministries**, scientifically validated indigenous tools with gamified interfaces developed/researched by various national bodies and research institutions.

- It is **based on life skills and core psychological processes**, with **universal accessibility**, delivering **age-appropriate methods** and promoting positive attitude focusing on wellness.

Developed By:

- National Institute of Mental Health and Neuro Sciences (NIMHANS) **Bengaluru, Armed Forces Medical College (AFMC) Pune and** Centre for Development of Advanced Computing(C-DAC) **Bengaluru.**

- Beneficiaries: **Catering to the overall wellbeing of people of** all age groups, **the** initial version of MANAS focuses on promoting positive mental health in the age group of 15-35 years.

- Aim: **To build a healthier and happier community, to empower it to nurture its innate potential for building a** Swasth and Atmanirbhar Bharat.

- Motto of MANAS:**Uttam Mann, Saksham Jan.**

Mental Health in India

- **Data Analysis:** A report published in **The Lancet Psychiatry** in February 2020 indicates that in 2017, there were **197.3 million people with mental disorders in India.**
- The **top mental illnesses were depressive disorder** (45.7 million) and **anxiety disorder** (44.9 million).
- The contribution of mental disorders to the total **Disability-Adjusted Life Years (DALYs)** in India increased from 2.5% in 1990 to 4.7% in 2017.
- Depressive disorder and anxiety disorder contributed the most the total mental disorders DALYs.
- **DALYs:** The burden of disability associated with a disease or disorder can be measured in units called DALYs.
- DALYs **represent the total number of years lost** to illness, disability, or premature death within a given population.
- **Other Indian Initiatives to Improve Mental Health:**

The Mental Health Care Act (MHCA) 2017:

- The **Mental Health Care Act (MHCA) 2017** came into force in 2018 to meet the requirements of the **United Nations Convention on the Rights of Persons with Disabilities** which India ratified in 2007.

- **KIRAN:** The Ministry of Social Justice and Empowerment has launched a **24/7 toll-free helpline** to provide support to people facing anxiety, stress, depression, suicidal thoughts and other mental health concerns.

Manodarpan Initiative:

- **Manodarpan** is an initiative of the Ministry of Education under Atmanirbhar Bharat Abhiyan.

- It is aimed to provide psychosocial support to students, family members and teachers for their mental health and well-being during the times of **Covid-19.**

- **NIMHANS RAAH APP:** It is a **one-stop source of data on mental health centres and professionals.** It is developed by the **NIMHANS.**

#SUPPLY CHAIN RESILIENCE INITIATIVE

The Trade Ministers of **India, Japan** and **Australia** have formally launched the **Supply Chain Resilience Initiative (SCRI).**

- The **SCRI aims** to create **a virtuous cycle of enhancing supply chain resilience** with a view to eventually attaining strong, sustainable, balanced and **inclusive growth in the Indo-Pacific region.**

- **The trio** (India, Japan and Australia) **along with the US** makes **Quad grouping.**

Supply Chain Resilience (Concept):

- **Meaning:** In the context of international trade, supply chain resilience is an approach that **helps a country to ensure that it has diversified its supply risk across a clutch of supplying nations** instead of being dependent on just one or a few.

- **Importance:** In **unanticipated events** -whether natural, such as volcanic eruptions, **tsunamis**, **earthquakes** or even a pandemic; or manmade, such as an armed conflict in a region — that **disrupt supplies from a particular country** or even intentional halts to trade, **could adversely impact economic activity in the destination country.**

Supply Chain Resilience Initiative:

- **Background:** The **Covid-19 pandemic was having an unprecedented impact in terms of lives lost, livelihoods and economies affected,** and that the pandemic had **revealed supply chain vulnerabilities globally** and in the region.

About:

- **Objectives:** To **attract foreign direct investment** to turn the Indo-Pacific into an "economic powerhouse".
- To build a mutually **complementary relationship among partner countries.**
- To work out a plan to **build on the existential supply chain network.** Japan and India, for example, have an India-Japan competitiveness partnership dealing with locating the Japanese companies in India.
- **Features:** The SCRI, first **proposed by Japan, aims to reduce dependence on China** amid a likelihood of rechurning of supply chains in the Indo-Pacific region amid the Covid-19 pandemic.
- **Initially,** SCRI will **focus on sharing best practices on supply chain resilience and holding investment promotion events** and buyer-seller matching events to provide opportunities for stakeholders to explore the possibility of diversification of their supply chains.
- Joint measures may include **supporting the enhanced utilisation of digital technology and trade and investment diversification.**

- **Expansion of the SCRI may be considered based on consensus,** if needed, in due course. The **ministers have decided to convene at least once a year** to provide guidance to the implementation and development of the SCRI.
- This **assumes significance in the wake of Japan's keenness to onboard the ASEAN in the initiative,** something that **India has opposed.**
- **India wants to safeguard its interests from China's indirect influence through the bloc (ASEAN)** as it builds on its self-reliance through reduced dependence on imports.

Significance to India:

- Following the **border tensions with China,** partners such as Japan have sensed that India may be ready for dialogue on alternative supply chains.
- **China still remains a large source of critical imports for India,** from mobile phone components to pharmaceutical ingredients. An internal push to suddenly cut links with China would be impractical.
- Over time, **if India enhances self-reliance or works with exporting nations other than China,** it **could build resilience into the economy's supply networks.**
- Way Forward
- It will help boost India's manufacturing competitiveness and increase its share in world trade. In this pursuit, there is **a need to create an infrastructure** that raises the competitiveness of India's exports.
- While India appears an attractive option for potential investors both as a market and as a manufacturing base, it **needs to accelerate progress in ease of doing business and in skill building.**

NITI AAYOG'S DRAFT NATIONAL MIGRANT LABOUR POLICY

Spurred by the exodus of 10 million migrants (as per government estimates) from big cities during the Covid-19 lockdown, NITI Aayog, along with a working subgroup of officials and members of civil society, has prepared a Draft **National Migrant Labour policy.**

Positives of Draft Policy

- **Due Recognition:** Intent to better recognise migrants' contribution to the economy and support them in their endeavours.

- **Radical Ideas:** It puts forward several radical ideas, including the adoption of a rights-based approach and establishing an additional layer of institutions to create a more enabling policy environment for migrants.

- **Dedicated Unit**: It proposes a new National Migration Policy and the formation of a special unit within the Labour Ministry to work closely with other ministries.

- **Helps bring Convergence across departments**: The new structure would bring about much-needed convergence across line departments and would be a huge step towards a universal understanding of the causes and effects of migration as well as the interventions needed.

- **Focus on implementation**: The draft policy calls for improving the record on the implementation of the country's many labour laws that have, by and large, failed to make a difference to the lives of labour migrants.

- **Multiple laws considered**: It discusses at length the provisions under the Equal Remuneration Act, The Bonded Labour Act, the Building and Other Construction Workers Act and the Interstate Migrant Workmen Act, among others.

- **International Responsibilities addressed:** It invokes the ILO's Decent Work Agenda as well as the Sustainable Development Goals which aim to protect labour rights.

- **Significance of data realized**: It acknowledges the challenges of welfare provision to a highly fragmented migrant workforce due to recruitment patterns and the lack of data. It refers to the importance of collective action and unions and there are detailed plans for improving the data on short-term migration, especially seasonal and circular migration.

Issues associated

- The policy does not delve deeper into the causes underlying the poor implementation of labour laws that are linked to the **political economy** of recruitment and placement. It does not talk about **gender differences** in employment.

- **Domestic workers** are one of the most important occupations for migrant women. They have been ignored.

- **Controlling tribal migration** goes against the objective of recognising migrant agency to help tribal migrants to access the opportunities offered by migration.

#SANKALP SE SIDDHI DRIVE: TRIFED

The **Tribal Cooperative Marketing Development Federation of India (TRIFED)**, under the **Ministry of Tribal Affairs,** has launched **"Sankalp se Siddhi"** - **Village and Digital Connect Drive.**

- The **main aim** of this drive is to **activate the Van DhanVikasKendras (VDVKs) in the villages.**

About Sankalp se Siddhi Drive:

- The drive will entail 150 teams (10 in each region from TRIFED and State Implementation Agencies/Mentoring Agencies/Partners) visiting ten villages each.
- Thus, 100 villages in each region and 1500 villages in the country will be covered.
- The visiting teams will also **identify locations and shortlist potential Van DhanVikasKendras** for clustering as **TRIFOOD,** and **SFURTI** units as larger enterprises.
- **Scheme of Fund for Regeneration of Traditional Industries (SFURTI)** is a scheme of the **Ministry of Micro, Small & Medium Enterprises (MSME).**
- **Rs. 200 crore Sales during the next 12 months is targeted** as a result of this initiative once the VDVKs are activated in these 1500 villages.
- The teams will **also identify tribal artisans and other groups** and empanel them as suppliers so that they can have access to larger markets through the **Tribes India network –** both **physical outlets and TribesIndia.com.**

Other Involvements of the TRIFED:

- **Village and Digital Connect Initiative:** To **ensure that existing schemes and initiatives reach the tribals,** TRIFED's regional officials across the country have been visiting identified villages with a significant tribal population.

- **Schemes for Ensuring Fair Prices to Tribals:** Schemes such as **Mechanism for Marketing of Minor Forest Produce (MFP) Through Minimum Support Price (MSP)** and **Development of Value Chain for MFP** provide **MSP to gatherers of forest produces.**

- The schemes **ensure sustainability of the resource base** by addressing the problems that tribals face such as perishable nature of the produce, lack of holding capacity, lack of marketing infrastructure, exploitation by middlemen, etc.

Tech ForTribals:

- Tech For Tribals program aims to **transform 5 crore Tribal Entrepreneurs** by capacity building and imparting entrepreneurship skills to tribal forest produce gatherers enrolled under the **Pradhan Mantri Van Dhan Yojana (PMVDY).**
- The Van DhanVikas Yojana is an initiative of the **Ministry of Tribal Affairs and TRIFED.** It was launched to improve tribal incomes through value addition of tribal products.

- The program will ensure higher success rate of the Tribal Entrepreneurs by enabling and empowering them to run their business with marketable products with quality certifications.

Van DhanVikasKendras:

- **Van DhanVikasKendras have been provided by** Van DhanVikas Yojana.

- **Van DhanVikas Kendra (VDVKs) are for providing** skill upgradation and capacity building training **to tribals and setting up of primary processing and value addition facilities.**

- **Tribals are trained here and then provided with working capital to add value to the products, which they collect from the jungle.**

- TRIFOOD Scheme: **It is a** joint initiative of the Ministry of Food Processing Industry, Ministry of Tribal Affairs and TRIFED **and it promotes value addition to MFP.**

#ATTACK OF MAOIST IN SUKMA, CHHATTISGARH

A team of security forces was attacked by a **People's Liberation Guerilla Army (PLGA)** unit in the Tarrem area near the **Sukma-Bijapur district border, Chhattisgarh**. Several security personnel were killed and many were injured.
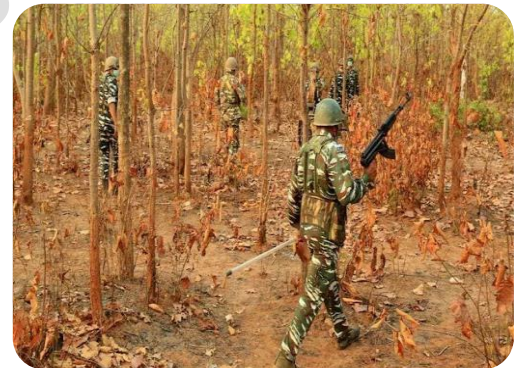
- PLGA was founded in 2000. It has been declared as a terrorist organisation and banned under the **Unlawful Activities (Prevention) Act-1967 (UAPA)**.

About the Sukma District:

- Located in the **southern tip of the state of Chhattisgarh,** the district was carved out of Dantewada in the year 2012. It is covered with the **semi-tropical forest** and is a mainland of tribal community **Gond**.
- One major river that flows through the district is **Sabari (a tributary of Godavari river).**
- Over a few decades, this region has become a fostering ground for **Left Wing Extremism (LWE)** activities.
- Uneven terrains and the tricky geographic locations made this region a safer hideout for the LWE activists.

Left Wing Extremism in India:

- **Left-wing extremists,** popularly known as Maoists worldwide and as Naxalites in India.
- The **term Naxalism** derives its name from the village **Naxalbari of West Bengal.** It **originated as a rebellion against local landlords** who bashed a peasant over a land dispute.
- The rebellion was **initiated in 1967,** with an objective of rightful redistribution of the land to working peasants under the leadership of KanuSanyal and Jagan Santhal.
- The movement has **spread across the Eastern India in less developed areas** of states such as Chhattisgarh, Odisha and Andhra Pradesh.

- It is considered that **Naxals support Maoist political sentiments and ideology.**
- Maoism is **a form of communism developed by Mao Tse Tung.** It is a doctrine to capture State power through a combination of armed insurgency, mass mobilization and strategic alliances.

Reasons for Left Wing Extremism:

- **Tribal Discontent:** The **Forest (Conservation) Act, 1980** has been used to target tribals, who depend on forest produce for their living.
- **Massive displacement of tribal population** in the naxalism-affected states due to development projects, mining operations and other reasons.

Gaps in the Socio-Economic system of the Country:

- Government measures its success on the basis of the number of violent attacks rather than the development done in the naxal-affected areas. Absence of strong **technical intelligence to fight** with naxalites.
- **Infrastructural problems,** for instance, some villages are not yet connected properly with any communication network.
- **No Follow-Up from Administration:** It is seen that even after police take hold of a region, administration fails to provide essential services to the people of that region.

Government Initiatives to Fight LWE:

- **Greyhounds:** It was raised in 1989 as an elite anti-naxal force.
- **Operation Green Hunt:** It was started in 2009-10 and massive deployment of security forces was done in the naxal-affected areas.
- **LWE Mobile Tower Project:** To improve mobile connectivity in the LWE areas, the Government in 2014, approved installation of mobile towers in LWE affected States.
- **Aspirational Districts Programme:** Launched in 2018, it **aims to rapidly transform the districts** that have shown relatively lesser progress in key social areas.
- **SAMADHAN:** It stands for
- S- Smart Leadership,
- A- Aggressive Strategy,
- M- Motivation and Training,
- A- Actionable Intelligence,
- D- Dashboard Based KPIs (Key Performance Indicators) and KRAs (Key Result Areas),
- H- Harnessing Technology,
- A- Action plan for each Theatre, and
- N- No access to Financing.
- This doctrine is the **one-stop solution for the LWE problem.** It encompasses the entire strategy of government from **short-term policy to long-term policy** formulated at different levels.

Conclusion

- Though the **number of incidents of LWE violence has come down** in the recent past, **continued efforts and focus are needed** in eliminating such groups.

- Government needs to ensure two things; **security of the peace-loving people and the development of the naxalism-affected regions.**
- **Centre and states** should continue with their **coordinated efforts in development and security** both where Centre should play a supportive role with state police forces taking the lead.
- Government needs to undertake **technological solutions** such as the **use of drones** to minimize loss of lives of security personnel.

#INDIA & FRANCE NAVAL EXERCISE 'VARUNA'

- The **19th edition of the Indian and French Navy bilateral exercise 'Varuna-2021' has started in the Arabian Sea** on April 25, 2021.

- According to the official release, the exercise will also showcase the increased level of coordination, synergy and **interoperability between the friendly navies of India and France.**

- The **three-days exercise between the navies of two countries** will be seeing high tempo-level operations at the sea, which will include advanced anti-submarine and air defence exercises, tactical manoeuvres, intense fixed and rotary wing **flying operations, underway replenishment, surface and anti-air weapon firings and other maritime security operations.**

- The **19th edition of the Indian and French Navy bilateral exercise 'VARUNA-2021'** is scheduled to be conducted in the Arabian Sea from 25th to 27th April 2021.

Objective:

- The units of the two navies in the **Varuna bilateral naval exercise** will endeavor to enhance their war fighting skills in order to demonstrate their ability as an integrated force to promote security, peace and stability in the maritime domain.

Key Highlights:

- The Indian navy will be led by the Flag Officer Commanding Western Fleet Rear Admiral Ajay Kochhar. While, the French navy will be led by the Commander Task Force 473, Rear Admiral Marc Aussedat.

- From the Indian side, **guided-missile frigates INS Talwar and INS Tarkarsh, guided-missile stealth destroyer INS Kolkata, Fleet Support Ship INS Deepak, with Chetak Integral Helicopters, P81 Long Range Maritime Patrol Aircraft and a Kalvari Class Submarine** will be participating in the exercise.

- From the French Navy side, E2C Hawkeye aircraft and helicopters Dauphin and Caiman M embarked, aircraft carrier Charles-de-Gaulle with Rafale M Fighter, Aquitaine-class multi missions frigate FNS Provence with Caiman M Helicopter embarked, Horizon-class air defence destroyer Chevalier Paul, and command and supply

ship Var.

- On **the completion of the Varuna exercise, the guided-missile frigate INS Tarkash**of the Indian Navy will continue to exercise with the Carrier Strike Group of the French Navy from April 28 to May 1, 2021, for best practices and enhance interoperability.

- During this time, the ship will also be taking part in the advanced **anti-submarine, surface, and air-defence operations with the French Navy.**

#PROJECT DANTAK: BORDER ROADS ORGANIZATION

Recently, **Project DANTAK** which is one of the oldest Projects of the **Border Roads Organisation (BRO)** commemorated its **Diamond Jubilee in Bhutan.**

- Over 1,200 DANTAK personnel laid down their lives while constructing important infrastructure in Bhutan.
- **About:** Project DANTAK was **established on 24th April1961.** It was a result of the visionary leadership of **the third King of Bhutan and then Prime Minister of India Jawahar Lal Nehru.**
- DANTAK was tasked **to construct the pioneering motorable roads.**

Achievements:

- **Road Connectivity:** Over the years, the Project has completed approximately 1600 km of blacktopped roads and 120 km of tracks in Bhutan with 5000 meters of bridges over them.
- **Other Projects Executed:** Include the construction of Paro Airport, Yonphula Airfield, Thimphu – Trashigang Highway, Telecommunication & Hydro Power Infrastructure, Sherubtse College, Kanglung and India House Estate.
- **Medical and Education Facilities:** The medical and education facilities established by DANTAK in far flung areas were often the first in those locations.
- **Food Outlets:** The food outlets along the road introduced the Bhutanese to Indian delicacies and developed a sweet tooth in them.

Indo-Bhutan Relationship:

- **Indo-Bhutan Treaty of Peace and Friendship, 1949:** The Treaty provides for, among other things, **perpetual peace and friendship, free trade and commerce and equal justice** to each other's citizens.
- In **2007**, the **treaty was re-negotiated**, and provisions were included to encourage Bhutan's sovereignty, abolishing the need to take India's guidance on foreign policy.
- **Multilateral Partnership:** Both of them share multilateral forums such as **South Asian Association for Regional Cooperation (SAARC), BBIN (Bangladesh, Bhutan, India, and Nepal), BIMSTEC (Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation)** etc.

- **Economic Partnership:Mutually beneficial hydro-power cooperation** with Bhutan forms the core of bilateral economic cooperation.
- The **720 MW Mangdechhu** was commissioned in August 2019. HEPs namely, 1200 MW Punatsangchhu-I, 1020 MW Punatsangchhu-II and Kholongchhu HEP (600 MWs) are under various stages of implementation.
- **India is Bhutan's largest trading partner.**

Border Roads Organisation

- BRO was **conceived and raised in 1960 by Pandit Jawaharlal Nehru** for coordinating the speedy development of a network of roads in the North and the North Eastern border regions of the country.
- It works **under the administrative control of the Ministry of Defence.**
- It has diversified into a large spectrum of construction and development works comprising airfields, building projects, defence works and tunneling and has endeared itself to the people.

Some Recent Achievements:

- **Atal Tunnel:** It is located in Himachal Pradesh's Rohtang pass. It connects Solang Valley near Manali to Sissu in Lahaul and Spiti district.
- **Nechiphu Tunnel:** Foundation stone was laid on the Balipara-Charduar-Tawang (BCT) road in West Kameng district of Arunachal Pradesh.
- **Daporijo Bridge:** It is over Subansiri river in Arunachal Pradesh.
- **Kasowal Bridge:** It is over Ravi river. It connects Kasowal enclave in Punjab along the India - Pakistan border to the rest of the country.
- **Darbuk-Shyok-Daulat Beg Oldie Road:** It connects Leh via the villages of Darbuk and Shyok at southern Shyok River Valley, with the Daulat Beg Oldi (DBO) post near the northern border.
- **Barsi Bridge (longest bridge on Manali–Leh highway):** It is built on Bagga river, which joins with Chandra river at Tandi in Lahaul to flow down into Jammu & Kashmir as the Chenab.

#E9 INITIATIVE: SACLING UP DIGITAL LEARNING

- **Minister of State for Education Sanjay ShamraoDhotre attended a consultation meeting of Education Ministers of E9 countries on the theme 'E9 initiative: Scaling up digital learning to accelerate progress towards SDG4'** on 6 April 2021.

- Education Minister of Bangladesh, Dipu Moni, Deputy Secretary-General, United Nations, Amina Mohammed, Education Ministers from the E9 countries and officials from the United Nations, UNICEF and UNESCO attended the meeting.

- **One Nation-One Digital Platform -DIKSHA, One Nation-One Channel programme of -SWAYAM PRABHA, SWAYAM MOOCS and radio broadcasting** were used **to ensure education in the remotest parts of India.** He underscored that now is the time to work collectively and in solidarity to create an efficient ecosystem for digital education.

- The consultation was the **first of a three-phased process to co-create an initiative on digital learning and skills, targettingmarginalised children and youth, especially girls.**

- It aims to accelerate recovery and advance the Sustainable Development Goal 4 agenda by driving rapid change in education systems in three of the 2020 Global Education Meeting priorities-- **support to teachers, investment in skills and narrowing the digital divide.**

- The ongoing COVID-19 pandemic highlighted the **condition of the education system worldwide, prompting the deployment of digital learning.** Amid the COVID-19 pandemic, the **2020 Global Education Meeting Declaration identified five key areas which required urgent action.** These are as follows:

  - Education financing
  - Safe school reopening
  - Supporting teachers as frontline workers
  - Investment in skills
  - Narrowing the digital divide

About E9 countries

- **E9 is a forum of nine countries,** namely **Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan** that **aims at achieving the goals of UNESCO's Education For All (EFA) initiative.** These countries **represent more than half of the world's population and 70% of the world's illiterate adults.**

- At the EFA Summit in New Delhi, the **E9 initiative was launched in 1993.** The partnership is aimed at **working towards the achievement of SDG4-Education 2030.**

What is the SDG4 Agenda?

In 2015, the United Nations (UN) member states adopted the **2030 Agenda for Sustainable Development and Sustainable Development Goals (SDGs) to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.** 17 goals and 169 targets are listed to be achieved by the year 2030. It is to be noted that SDGs are not legally binding.

Education For All (EFA)

- It is an international initiative that was **first launched at the World Conference on Education for All by international organizations-- UNESCO, UNDP, UNFPA, UNICEF and the World Bank-- in Thailand in the year 1990.**

- The nations endorsed an 'expanded vision of learning' and pledged to universalize primary education and reduce illiteracy by the end of the decade. However, many countries were still lagging behind in achieving the said goal.

- Therefore, **a broad coalition of governments, civil society groups, and development agencies met again in Dakar, Senegal, and affirmed the commitment to achieving EFA by the year 2015.** Also, six key education goals were identified to meet the learning needs of all children, youth and adults by 2015.

#MoWCD SET UP ONE STOP CENTRES

The **Ministry of Women and Child Development** will set up **One Stop Centres (OSCs)** across **10 countries** to provide assistance to Indian women who are survivors of gender-based violence.

- The missions where the OSCs will come up are **Bahrain, Kuwait, Qatar, Oman, UAE, Jeddah and Riyadh in Saudi Arabia, Australia, Canada and Singapore.**
- It will also set up **300 OSCs in the country** in addition to the nearly **700 existing** ones across all districts.

About the scheme:

- It is a **centrally sponsored scheme** for addressing the **problem of violence against women. It was launched in April 2015.**
- It is a subscheme of the umbrella scheme for **National Mission for Empowerment of Women** including **Indira Gandhi MattritavSahyaog Yojana.**
- One stop centre will be established **across the country** and **at least one OSC in every mission around the world** to **provide integrated support and assistance** under one roof to women affected by violence.
- **Indian missions** represent an important form of contact between the Indians around the world and the government of India.
- **Objectives:** To support **women affected by the violence** that they may face **within the family or at the workplace or within the community**, in private or public places.
- Specially for women who face **sexual, physical, psychological, emotional and economic abuse**, irrespective of their caste, creed, race, class, education status, age, culture, or marital status.
- **Funding:** It is funded through **Nirbhaya Fund** and the **central government provides 100% financial assistance** to the state governments /Union Territories administrations.

Nirbhaya Fund

- The **Nirbhaya Fund** Framework provides for a **non-lapsable corpus fund for safety and security of women.**
- It was **established in 2013.**
- It is administered by the **Department of Economic Affairs (DEA)** of the Ministry of Finance (MoF) of the Government of India.
- It can be utilized **for projects and initiatives related to women safety.**
- **Auditing:** Audit will be done as per **Comptroller & Auditor General of India** norms and social audit will also be undertaken by civil society groups.

Services:

- **Emergency response and rescue services.**
- **Medical assistance.**
- **Assistance to women in lodging the FIR.**
- **Psycho-social support and counselling.**
- **Legal aid and counselling.**
- **Shelter.**
- **Video conferencing facility.**

Indian Legislative Framework to Prevent Violence Against Women:

- The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013.

- The Protection of Children from Sexual Offences (POCSO), 2012.

- Protection of Women from Domestic Violence Act, 2005.

- The Dowry Prohibition Act, 1961.

Some Other Initiatives for Women:

- **Pradhan Mantri Ujjwala Yojana (PMUY):** PMUY was launched in 2016 and is implemented by the Ministry of Petroleum and Natural Gas through its Oil Marketing Companies.
- Through PMUY, initially, 5 crores below poverty line (BPL) households were targeted for providing deposit free LPG connections to BPL households by 31st March, 2019. This target has been achieved.
- PMUY aims at providing clean-cooking fuel to the poor households and bringing in qualitative charges in the living standards.
- The scheme provides a financial support of Rs 1600 for each LPG connection to the BPL households.

BetiBachaoBetiPadhao (BBBP) Scheme

- The trend of decline in the Child Sex Ratio (CSR), defined as the number of girls per 1000 of boys between 0-6 years of age, has been unabated since 1961.
- The decline from 945 in 1991 to 927 in 2001 and further to 918 in 2011 is alarming.
- The decline in the CSR is a major indicator of women disempowerment.
- CSR reflects both, pre-birth discrimination manifested through gender-biased sex selection, and post-birth discrimination against girls.
- Two most prominent reasons for the decline in child sex ratio are:
- Social construct discriminating against girls , Easy availability, affordability and subsequent misuse of diagnostic tools

- The government has announced the **BetiBachaoBetiPadhao initiative** to ensure **survival, protection, and empowerment of the girl child.**
- This is being implemented through a national campaign and focussed multisectoral action in 100 selected districts low in CSR, covering all States and UTs.
- This is a joint initiative of **the Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource Development.**
- The objectives of this initiative are:
- Prevention of gender-biased sex-selective elimination, Ensuring survival & protection of the girl child, Ensuring education and participation of the girl child

Kiran Scheme:

- The **Knowledge Involvement in Research Advancement through Nurturing (KIRAN) Scheme** is one of the several pioneering initiatives started by the **Department of Science and Technology (DST)** for promoting women in science.
- The Department of Science and Technology (DST) is implementing 'Knowledge Involvement in Research Advancement through Nurturing (KIRAN)' Scheme to provide various career opportunities to women scientists and technologists.
- It is primarily aimed to **bring gender parity in the Science & Technology sector** by inducting more women talent in the research & development domain through various programmes.
- It also provides **fellowship support ranging from Rs 25000 to 55000 to women ranging in the age group 27 to 57 years** for continuing higher education in Science and Technology **after a break in career**.

#CYCLONE TAUKTAE HITS INDIA

Recently, **Cyclone Tauktae** made landfall in **Gujarat.**

- The cyclone has left a trail of destruction as it swept through the coastal states of **Kerala, Karnataka, Goa and Maharashtra.**
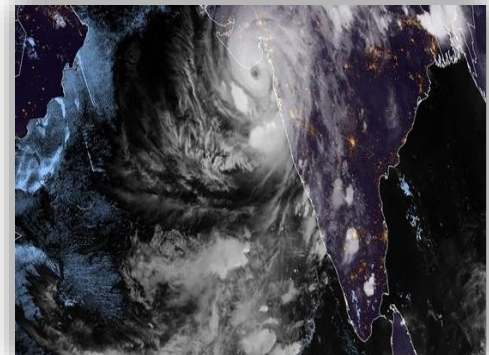
About:

- **Named by:** It is **a tropical cyclone, named by Myanmar.** It means 'gecko', a highly vocal lizard, in the Burmese language.
- Typically, **tropical cyclones** in the North Indian Ocean region **(Bay of Bengal and Arabian Sea)** develop during the **pre-monsoon** (April to June) and **post-monsoon** (October to December) periods.
- **May-June and October-November** are known to produce cyclones of severe intensity that affect the Indian coasts.

Classification:

- It has **weakened into a "very severe cyclonic storm"** from the "extremely severe cyclonic storm".
- The **India Meteorological Department (IMD) classifies cyclones on the basis of the maximum sustained surface wind speed (MSW)** they generate.

- The cyclones are classified as **severe (MSW of 48-63 knots), very severe (MSW of 64-89 knots), extremely severe (MSW of 90-119 knots)** and **super cyclonic storm (MSW of 120 knots or more). One knot** is equal to **1.8 kmph (kilometers per hour).**

Developed in Arabian Sea:

- Tauktae is the **fourth cyclone in consecutive years** to have developed **in the Arabian Sea,** that too **in the pre-monsoon period (April to June).**
- After **Cyclone Mekanu** in 2018, which struck Oman, **Cyclone Vayu** in 2019 struck Gujarat, followed by **Cyclone Nisarga** in 2020 that struck Maharashtra.
- All these cyclones **since 2018** have been categorised either **'Severe Cyclone' or above.**

Arabian Sea becoming Hotbed of Cyclones:

- **Annually, five cyclones on average** form in the Bay of Bengal and the Arabian Sea combined. Of these, **four develop in the Bay of Bengal, which is warmer than the Arabian Sea**.
- In **2018,** while the Bay of Bengal maintained its average of four cyclones a year, the **Arabian Sea produced three cyclonic storms.** In **2019,** the **Arabian Sea overtook** the **Bay of Bengal** with **five cyclones to three.**
- In **2020,** the **Bay of Bengal** produced **three cyclonic storms** while the **Arabian Sea** generated **two.**
- In recent years, meteorologists have observed that the **Arabian Sea, too, has been warming.** This is a phenomenon **associated with global warming.**
- It has been observed that the **sea surface temperature in the Arabian Sea has been rising** for about 40 years. The **increase** in temperature is in the zone **of 1.2-1.4 degree Celsius.**

Tropical Cyclone:

- A tropical cyclone is **an intense circular storm that originates over warm tropical oceans** and is characterized by low atmospheric pressure, high winds, and heavy rain.
- A **characteristic feature** of tropical cyclones is the **eye,** a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type **are called hurricanes** in the **North Atlantic and eastern Pacific** and **typhoons in SouthEast Asia and China.** They are called **tropical cyclones in the southwest Pacific and Indian Ocean** region and **Willy-willies** in north-western **Australia.**
- Storms **rotate counterclockwise** in the **northern hemisphere** and **clockwise in the southern** hemisphere.
- The **conditions favourable** for the **formation and intensification** of tropical storms are:
- **Large sea surface** with **temperature higher than 27° C.**
- Presence of the **Coriolis force.**
- Small variations in the **vertical wind speed.**
- A pre-existing weak low- **pressure area or low-level-cyclonic circulation.**
- **Upper divergence** above the sea level system.

Naming of Tropical Cyclones:

- According to **WMO (World Meteorological Organization) guidelines,** countries in every region are supposed to give names for cyclones.
- The **North Indian Ocean Region** covers tropical cyclones formed over Bay of Bengal and Arabian Sea.
- The **13 members,** which come under the region, are **Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka, Thailand, Iran, Qatar, Saudi Arabia, the UAE** and **Yemen.**
- **India Meteorological Department (IMD)**, one of the six **Regional Specialised Meteorological Centres (RSMC)** in the world, is mandated to issue advisories and name tropical cyclones in the **north Indian Ocean Region.**
- It is an agency of the **Ministry of Earth Sciences.**

#SEVERE CYCLONIC STORM 'YAAS"

- **Cyclone YAAS** has intensified into a **Severe Cyclonic Storm** and is likely to move north-northwestwards, to cross **between Paradip and Sagar Island around Balasore**, during noon of May 26th as a **Very Severe Cyclonic Storm,** informed the **India Meteorological Department (IMD) on May 25, 2021**.

- The **deep depression over Eastcentral Bay of Bengal** had intensified into Cyclonic Storm 'Yaas', about 600 km of Port Blair on May 24th. The maximum sustained wind speed is 55 knots gusting to 65 knots around system centre , as per IMD and the sea condition is also rough to very rough.

- The **Union Home Minister Amit Shah** had held a meeting with the chief ministers of Andhra Pradesh, Odisha and **West Bengal and the Lieutenant Governor of Andaman and Nicobar Islands** on May 24th to review preparations in view of Cyclone Yaas.

The IMD has issued the following warnings:

(i) Rainfall Warning: Heavy to very heavy rainfall is predicted at isolated places over Andaman & Nicobar Islands on May 23rd& 24th, over north coastal Odisha on May 25th and Gangetic West Bengal on May 25th-27th and Jharkhand on 26th and Bihar on 27th.

(ii) Fishermen Warning: The fishermen have been advised not to venture into southeast & east-central Bay of Bengal, the Andaman Sea and along and off the coast of Andaman & Nicobar Islands between May 22-24th and into the **central Bay of Bengal from May 23rd– 25th and into the north Bay of Bengal.** Those out in the deep sea of east-central and adjoining northeast Bay of Bengal have been advised to return to the coast.

iii) Tidal wave warning: Tidal wave of 1-2 meter height is very likely to inundate low lying areas of Andaman & Nicobar Islands on May 23- 24, 2021.

iv) Isolated Rainfall/ Duststorm: Under the influence of a Western disturbance, the IMD has predicted thunderstorm and lightning with isolated to fairly widespread rainfall over **Western Himalayan Region**. Isolated rainfall is also expected over plains of Northwest India during next 24 hours and isolated duststorm have been predicted over Rajasthan during next 24 hours.

v) Strong Dust Raising Winds: Besides this, strong dust raising winds have been predicted **over Delhi, Haryana, Rajasthan, Uttar Pradesh and Chandigarh** during the next 3 days.

PM Modi reviews preparedness

Prime Minister Narendra Modi chaired a high-level meeting on May 23rd to review the preparedness of States **and Central Ministries/Agencies** to deal with the **situation arising out of Cyclone 'Yaas'**.He has directed timely evacuation of those in off-shore activities and asked senior officers to work in close coordination with states to ensure the safe evacuation of people from high-risk areas. PM Modi also spoke regarding the need to ensure that the time duration of power supply outages and communication network **should be minimum and be restored swiftly**. He has also **directed officials** to ensure proper planning and coordination with state governments to ensure no disruptions in **Covid treatment and vaccination in hospitals.** He urged on the need to involve district administrations in the planning process for better learning from best practices and seamless coordination.

Preparedness for Cyclone Yaas:

- NDRF has pre-positioned 46 teams in 5 States/Uts, fully equipped with boats, tree-cutters and telecom equipment.
- The Indian Air Force and Engineer task force units of the Indian Army, equipped with boats and rescue equipment, have been put on standby for deployment.

- The Armed Forces have begun preparations to mitigate the impact of the anticipated disaster by airlifting 950 **National Disaster Response Force (NDRF)** personnel across the country. At least 26 helicopters are on standby for immediate deployment.

- The **Telecom Ministry** will be keeping a close watch on all telecom towers and is prepared to quickly restore the telecom network in case it cuts off.

- The **Health Ministry has also issued an advisory to the States/Uts** that are likely to be affected for preparedness and response on Covid-19 in affected areas.

- The **Shipping Ministry** has also taken measures to secure all shipping vessels and it has also deployed emergency vessels (Tugs) for relief and rescue operations.

- **All residents from vulnerable locations or high-risk places are being evacuated with the assistance of the NDRF.**

Background

- **Cyclone Yaas** is the second tropical cyclonic that is expected to hit India in less than a week. Cyclone Tauktae, another tropical system had been brewing earlier in the Indian Ocean and had lashed **across India's western side and caused heavy damage in states like Goa, Maharashtra and Gujarat last week.**

#PUDUCHERRY BECOMES HAR GHAR JAL UT

- **Puducherry** has become **'HarGhar Jal' Union Territory** by ensuring that every rural home in the **UT has tap water connection.**

- With this, the Union Territory has become the fourth state/ UT to provide assured tap water supply to every rural home under **Union Government's flagship programme Jal JeevanMission after Goa, Telangana and Andaman & Nicobar Islands.**

Key Highlights

- **Puducherry has achieved the 'HarGhar Jal'** status much ahead of the target fixed. All 1.16 lakh rural households in the union territory have a tap water supply now.

- During the **UT's annual action plan in April 2021**, it had decided to utilize various funds available through the convergence of different programmes like **MGNREGS, JJM, SBM (G), CSR Fund, Local Area Development Fund and 15th Finance Commission Grants to PRIs**etc at the village level and prepare a Village Action Plan (VAP) for achieving long-term drinking water security.

- The union territory is now also planning to get NABL accreditation/ recognition for its water quality testing laboratories and is take up testing of all drinking water sources on a campaign mode.

- It is also planning to effectively treat and reuse greywater coming out of homes. It is also working towards

achieving water source sustainability.

Advantages

- The union territory, fortunately, has various rivers and tributaries with **seven in Karaikal district, five in Puducherry district, two inMahé district and one in Yanam district. However, none of the rivers originate within the territory.**

- The Union Territory also has 84 irrigation tanks and over 500 ponds that are the lifeline for groundwater recharging systems, drinking water and agriculture.

- The UT has also been working on rejuvenating its local water bodies and de-silting ponds.

Significance

- Puducherry's achievement is another indicator of the **success of the Jal Jeevan Mission**. Besides **the Union Territory, Punjab and the UTs of Dadra & Nagar Haveli and Daman & Diu** have also crossed a milestone under the mission by assuring regular tap water supply in 75 percent of rural homes.

- Now, around 26.31 lakh rural households out of total 34.73 lakh (76%) in Punjab have a tap water supply. The state aims to achieve 100% coverage of all rural households by 2022.

Jal Jeevan Mission

- **Jal Jeevan Mission (JJM)** envisages supply of **55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC) by 2024**.
- JJM focuses on **integrated demand and supply-side management of water** at the local level.
- Creation of local infrastructure for source sustainability measures as mandatory elements, like **rainwater harvesting, groundwater recharge and management of household wastewater for reuse**, would be undertaken in convergence with other government programmes/schemes.
- The Mission is based on a **community approach to water** and includes extensive Information, Education and Communication as a key component of the mission.
- JJM looks to **create a janandolan for water**, thereby making it everyone's priority.
- **Funding Pattern:** The fund sharing pattern between the Centre and states is 90:10 for Himalayan and North-Eastern States, 50:50 for other states, and 100% for Union Territories.
- The total allocation to the scheme is over ₹3 lakh crore.

Jal Shakti Ministry

- The government has created a **new ministry called 'Jal Shakti'** after merging Ministries of Water Resources, River Development & Ganga Rejuvenation along with Drinking Water and Sanitation.
- 'Jal Shakti' ministry will **encompass issues ranging from providing clean drinking water, international and inter-states water disputes, to the NamamiGange project** aimed at cleaning Ganga and its tributaries, and sub-tributaries.

- The ministry will roll out the government's ambitious plan **('Nal se Jal' scheme under Jal Jeevan Plan)** to provide piped water connection to every household in India by 2024.

Other related initiatives Initiatives by the Government

- **Mahatma Gandhi National Rural Employment Guarantee Act:** The huge workforce employed under the MGNREGA has **enabled the government to introduce water conservation** as a project under the Act.
- The government **aims to improve groundwater harvesting, build water conservation** and **storage mechanisms** through MGNREGA.
- **Jal Kranti Abhiyan:**
- Under it, the government is making active efforts to **revolutionise villages and cities through block-level water conservation schemes.**
- For example, the **Jal Gram Scheme** under the Jal Kranti Abhiyan is aimed at **developing two model villages** in water-starved areas to lead the other villages towards water conservation and preservation.
- **National Water Mission:** It was launched with the objective of **conservation of water, minimising wastage and ensuring more equitable distribution** both across and within states through integrated water resources development and management.
- **NITI Aayog's Composite Water Management Index:** With the objective of achieving effective utilization of water, **NITI Aayog** has developed the Composite Water Management Index.
- **Atal Bhujal Yojana:** It is a **central sector scheme worth Rs.6,000** crore for sustainable management of groundwater with community participation.
- It envisages people's participation through the formation of 'Water User Associations', water budgeting, preparation and implementation of Gram-panchayat-wise water security plans, etc.
- **Jal Shakti Abhiyan:** It was launched in **July 2019** as a **campaign for water conservation and water security** in the country.

#INDIAN NAVY LAUNCHED OPERATION SAMUDRA SETU-II

Indian Navy has launched **Operation Samudra Setu-II** for **shipment of Oxygen-filled containers to India.**

- **Operation Samudra Setu** was launched in **May 2020** as part of the national effort **to repatriate Indian citizens from overseas** during the **Covid-19** pandemic.

Operation Samudra Setu-II:

- Seven Indian Naval ships viz. **Kolkata, Kochi, Talwar, Tabar, Trikand, Jalashwa and Airavat** have been deployed for shipment of liquid medical **oxygen-filled cryogenic containers** and associated **medical equipment** from various countries.
- Two ships, the **INS Kolkata and INS Talwar,** have entered the Port of **Manama, Bahrain,** to **carry back 40 tonnes of liquid oxygen to Mumbai.**
- The **INS Jalashwa** is enroute to Bangkok while the **INS Airavat** is on its way to **Singapore on similar missions**

Operation Samudra Setu:

- It was **launched along with Vande Bharat Mission (VBM).**
- VBM is the **biggest civilian evacuation exercise** to bring back Indian citizens stranded abroad amidst the **coronavirus**-induced travel restrictions.
- It has **surpassed the large-scale airlift of 1,77,000 people in 1990** at the onset of the Gulf War.
- Indian Naval Ships **Jalashwa and Airavat, Shardul and Magar** participated in this operation.
- **Around 4000 Indian citizens** stranded in neighbouring countries, amidst **Covid-19** outbreak, were successfully repatriated back to India.
- **Indian Navy** has previously undertaken similar evacuation operations as part of **Operation Sukoon in 2006 (Beirut) and Operation Rahat in 2015 (Yemen).**

#PRADHAN MANTRI SWASTHYA SURAKSHA YOJANA

Setting up of **22 new regional AIIMS (All India Institute of Medical Sciences)** has been approved under the **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)** so far.

About the initiative:

- **Launch:PMSSY** was announced **in 2003** with objectives of correcting regional imbalances in the availability of affordable/reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.
- **Nodal Ministry:** Ministry of **Health and Family Welfare.**

PRADHANMANTRI SWASTHA SURAKSHA YOJANA(PMSSY)
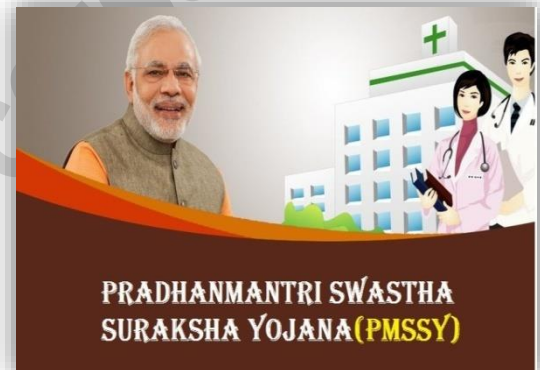
Two Components:

- Setting up of **AIIMS like institutions.**
- **Upgradation of government medical colleges** in various states.
- The **project cost** for upgradation of each medical college institution is **shared by the Centre and the state.**

Other Initiatives Related to Healthcare Sector:

- Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN)

- **A** single non-lapsable reserve fund for Health **from the proceeds of Health and Education Cess.**

- PM AtmanirbharSwasth Bharat Scheme: **Announced in the** Union Budget 2021-22.

- Aims **to develop capacities of primary, secondary, and tertiary care health systems even in the last miles of the nation, and developing a modern ecosystem for research, testing and treatment in the country itself.**

National Digital Health Mission (NDHM):

- The NDHM is a complete digital health ecosystem with four key features — **health ID, personal health records, Digi Doctor** and **health facility registry.**
- **Ayushman Bharat** (a two-pronged approach):
- Creation of **health and wellness centres** to bring health care closer to homes.
- The formulation of a **Pradhan Mantri Jan Arogya Yojana (PMJAY)** to protect poor and vulnerable families against financial risk arising out of catastrophic health episodes.

National Health Policy (NHP) 2017:

- Aims **to provide healthcare in an "assured manner" to all,** the NHP 2017 strives to address current and emerging challenges arising from the ever-changing socio-economic, technological and epidemiological scenarios.

Pradhan Mantri Bhartiya JanaushadhiPariyojana (PMBJP)

- PMBJP stores have been set up **to provide generic drugs,** which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.

National Health Mission:

- NHM was launched by the government of India **in 2013** subsuming the National Rural Health Mission and the National Urban Health Mission.
- The main programmatic components include Health System Strengthening in rural and urban areas for - **Reproductive-Maternal- Neonatal-Child and Adolescent Health (RMNCH+A),** and **Communicable and Non-Communicable Diseases.**

#4-DIGIT SECURITY CODE LAUNCHED ON CO-WIN PORTAL

- **The Union Health Ministry** has introduced a **'4-digit security code'** feature on the **Cowin portal to reduce errors regarding vaccination status.**
- The feature has been introduced for the individuals who have booked their vaccination slots online. **It will determine whether they received the vaccine dose or not.**
- The security code has been launched after the government received several complaints on social media that stated that those **who had booked an appointment for the COVID-19** vaccine but didn't show up to receive the dose were marked as having been administered the vaccine. These individuals

had received an SMS saying that the vaccine was administered to them even when it had not.

- The **Ministry said that the CoWIN system** is introducing a new feature of four-digit security code in the CoWIN application from May 8 to minimise such errors and the subsequent inconvenience caused to the citizens.

- **Significance:**Now, the **verifier/vaccinator will ask the beneficiary about his/ her four-digit code** and then enter the same in the CoWIN system to correctly record the vaccination status.

How will the 4-digit security code work?

- An individual will receive the four-digit security code when he/she books vaccination slots **on Co-WIN platform.**The **4-digit security code** will also be printed on the appointment acknowledgment slip.The beneficiaries will also receive an SMS containing the four-digit code.
- The verifier/vaccinator will ask the beneficiary for his/her 4 digit security code.The vaccinator will then enter the four-digit security code into the CoWIN system to record that the beneficiary has been vaccinated.
- The **four-digit security feature will ensure that the correct data about vaccination is recorded**.The vaccination certificate will be issued to users only after the vaccinator gets the security code.
- It would be important for people going to get the vaccine to not lose their four-digit security code.This feature is only for those who have done an online booking for vaccination.

About Co-WIN Portal

- Co-WIN, **a cloud-based IT platform,** is supposed to **handle minute details for India's Covid-19 immunisationprogramme,** including registering beneficiaries, allocating vaccination centres, sending text messages with name of their vaccinator to beneficiaries and live monitoring of vials in cold storage.

Agencies Involved:

- The Co-WIN platform is **owned by the Ministry of Health and Family Welfare** and **was earlier the platform used for conducting Pulse Polio** and **other crucial immunisationprogrammes** across the country.
- The same platform has been expanded for doling out Covid-19 vaccines and the **Ministry of Electronics and IT** along with the **National Informatics Centre** are handling the backend and the tech infrastructure for it.
- **Features:** This app enables monitoring the inoculation drive and tracking the listed beneficiaries for vaccination on a real-time basis.
- Thus, it also helps to **counter proxy vaccinations.**
- **Aadhaar enabled:** This app would enable beneficiaries to be **identified efficiently** through use of **Aadhaar** platform.

AarogyaSetu mobile App

- India launched **AarogyaSetu mobile App** to augment the efforts of limiting the spread of **Covid-19.**
- It has an objective of **enabling bluetooth based contact tracing** and mapping of likely hotspots and dissemination of relevant information about Covid-19.

- Although the app has been resourceful by its users, there were **privacy concerns** regarding the lack of transparency in the app's code.
- To address these concerns, the government has decided to launch the code-set of the **app on GitHub to make it more transparent.**
- **Arogya setu as an open source: Open Source** refers to a source which people can modify and share because its design is publicly accessible.
- **Source code** is the part of software that computer programmers can manipulate its working and function. Programmers who have access to a computer program's source code can improve that program by adding features.
- **Significance:** Expanding collaboration amongst the talented youth and citizens through open source would help in building a robust and secure technology solution which will further support the work of frontline health workers in fighting this pandemic together.

#DRDO'S DEVELOPED 2-DG DRUG

- **Union Defence Minister Rajnath Singh** released the first batch of **DRDO's 2DG medicine for treating COVID-19 patients** on May 17, 2021. The Defence Minister handed over the first batch of the 2-DG anti-COVID drug to Union Health Minister **Dr. Harshvardhan at a formal launch event.**
- The 2-DG drug has been developed by **DRDO's Institute of Nuclear Medicine and Allied Sciences (INMAS) in collaboration with Dr Reddy's Laboratories (DRL).**
- Rajnath Singh said in a tweet that it is a perfect example of India's scientific prowess and a milestone in the efforts towards self-reliance.
- The Minister said that he would personally like to felicitate the scientists who played a major role in the development of the drug when the situation improves, as they deserve credit for this wonderful achievement.
- **What is anti-COVID drug 2-DG:**The 2-DG drug comes in a sachet in powder form. It is taken orally by dissolving it in water.
- **How does the drug work:**The drug accumulates in the virus-infected cells and prevents virus growth by stopping viral synthesis and energy production. What makes this drug unique is its selective accumulation in virally infected cells.
- **Significance**: The anti-COVID drug 2-DG is expected to play a crucial role in winning the fight against COVID-19. The Union Defence Minister noted that the development and production of the drug is a shining example of a public-private sector partnership to help the nation in these challenging times.

Remdesivir is developed to **treat** Ebola **and related viruses.** According to the **World Health Organization (WHO),** the drug helps **to prevent Covid-19 viral replication.** It has the best potential and can be used in high doses without causing toxicities. It has been observed that the USA has bought the **entire stock of Remdesivir for the next three months.** It will therefore **not be available for the rest of the world.Vaccine nationalism** occurs when a country manages **to secure doses of vaccine for its own citizens or residents** before they are made available in other countries. It is done through **pre-purchase agreements** between a government and a vaccine manufacturer. Also, the manufacturing firm of the drug Remdesivir has a **patent monopoly** and thus **charging a price that is hundreds of times its original cost.**

Key Highlights

- The **first batch of the 2-DG (2-deoxy-D-glucose) drug comprises about 10,000 doses**. It will soon be given to the patients. Drug manufacturers are working on increasing the production of the medicine for future use.
- The drug has been developed by a team of DRDO scientists including Dr. Anant Narayan Bhatt. The clinical trials of the drug showed that it helps in the faster recovery of hospitalised patients and reduces supplemental oxygen dependence. A higher proportion of patients being treated with the 2-DG drug showed RT-PCR negative conversion in COVID patients.
- The drug is expected to be of immense benefit to the people suffering from COVID-19.

How was anti-Covid drug 2-DG developed?

- DRDO took the initiative of developing an anti-COVID therapeutic application of 2-DG in April 2020 in line with PM Narendra Modi's call for preparedness against the pandemic.The **INMAS-DRDO scientists conducted lab experiments with the help of the Centre for Cellular and Molecular Biology (CCMB), Hyderabad.**
- The experiments showed that the molecule works effectively against the SARS-CoV-2 virus and restricts viral growth. Based on these results, the **DCGI's (Drugs Controller General of India) Central Drugs Standard Control Organization (CDSCO)** permitted Phase-II clinical trials of the 2-DG in COVID-19 patients in May 2020.
- DRDO along with DRL started clinical trials to test the safety and efficacy of the drug in COVID-19 patients.

2-DG drug: Phase III Clinical Trial Results

- The Phase-III clinical trials of 2-DG involved 220 patients and was conducted at 27 COVID hospitals in **Delhi, Maharashtra, Uttar Pradesh, Gujarat, Rajasthan, Andhra Pradesh, West Bengal, Karnataka, Telangana and Tamil Nadu** between December 2020 to March 2021.

- The phase III clinical trial data showed that a significantly higher proportion of patients improved symptomatically and became free from supplemental oxygen dependence by Day-3 in comparison to SoC (42 percent vs 31 percent), This was also observed in patients aged more than 65 years. **which indicated an early relief from Oxygen dependence.**

- Following the submission of these results, the DCGI on May 1, 2021 granted permission for the Emergency Use of the drug as an adjunct therapy in moderate to severe COVID-19 patients. The 2-DG drug is a generic molecule and analogue of glucose and hence, it can be easily produced and made available in large quantities in the country.

Background

- The second wave of the COVID-19 has turned out to be deadly for India with a large number of patients facing severe oxygen dependency resulting in the need for urgent hospitalization.
- The 2-DG drug is expected to save precious lives due to the mechanism of operation of the drug in infected cells. **This can also reduce the hospital stay of COVID-19 patients.**

India' two vaccines: COVISHIELD & COVAXIN

- **COVISHIELD:** It is the name given to an **Oxford-AstraZeneca** Covid-19 vaccine candidate which is technically referred to as **AZD1222 or ChAdOx 1 nCoV19.**
- **Produced By:** It is a version of the vaccine **developed by the University of Oxford** in collaboration with **Swedish-British drugmaker AstraZeneca.Serum Institute of India (SII)** is the manufacturing partner in India.
- **Constituents and Action:** It is **based on a weakened version of a common cold virus** or the adenovirus that is found in chimpanzees. This viral vector **contains the genetic material of the SARS-CoV-2 spike protein** (protrusions) present on the outer surface of the virus that help it bind with the human cell.
- The **body's immune system** is supposed to **recognise this protein** as a threat, and work on **building antibodies against it.**
- **Significance:** It had triggered an immune response in humans against the **novel coronavirus** in early trials and is considered to be one of the global frontrunners for the Covid-19 vaccine.
- **COVAXIN:** It is India's only indigenous **Covid-19** vaccine.
- **Produced By:** Developed by **Bharat Biotech,** Hyderabad in collaboration with the **Indian Council of Medical Research's National Institute of Virology,** Pune
- **Constituents and Action:** It is an **inactivated vaccine** which is **developed by inactivating (killing) the live microorganisms** that cause the disease.
- This **destroys the ability of the pathogen to replicate,** but keeps it intact so that the immune system can still recognise it and produce an immune response. It is expected to **target more than just the spike protein.**
- It also **aims to develop an immune response to the nucleocapsid protein** (the shell of the virus that encloses its genetic material).
- **Significance:COVAXIN** is more likely to work against newer variants of the virus, **including the UK variant,** as it contains **immunogens (epitopes)** from other genes in addition to those from Spike protein.
- **Immunogen** is a stimulus that produces a humoral or cell-mediated immune response, whereas antigens are any substance that binds specifically to an antibody.
- All immunogens are antigens, but all antigens may not be immunogens.
- Approval of **COVAXIN** ensures India has an additional vaccine shield especially against potential **mutant strains** in a dynamic pandemic situation.

#DRDO DEVELOPS ANTIBODY DETECTION KIT 'DIPCOVAN'

- The **Defence Research and Development Organisation** has developed an antibody detection kit for the early screening of COVID-19.
- The **Defence Institute of Physiology and Allied Sciences, a lab of DRDO**, in association with Delhi based firm **Vanguard Diagnostics Pvt Ltd, has developed DIPCOVAN**, the **DIPS-VDx COVID 19 IGg Antibody Microwell ELISA for sero surveillance.**
- As per the **Defence Research and Development Organisation**, the three batches of the product were validated for the last one year. The **COVID-19 antibody detection kit**

has been approved by the Indian Council of Medical Research in April 2021.

- The antibody detection kit has been developed indigenously by scientists. Extensive validation on over 1000 patients was also done at various COVID hospitals in Delhi.

Significance:

- The kit can detect the spike as well as the nucleocapsid (S and N) proteins of the SARS-CoV-2 virus with a high sensitivity of 97% and specificity of 99%.
- **DIPCOVAN** aims for the qualitative **detection of IgG antibodies in human serum or plasma, targeting the SARS-CoV-2 related antigens.**
- The **detection kit** also offers a significantly faster turn-around time as it requires only 75 minutes to conduct the test without any form of cross-reactivity with other diseases.
- The antibody detection kit will be useful for understanding **COVID-19 epidemiology** as well as **assessing the individual's previous SARS-CoV-2 exposure.**

DIPCOVAN: Key Highlights

- In May 2021, the **antibody detection kit** received regulatory approval from the Drugs Controller General of India and the **Central Drugs Standard Control Organisation, Health Ministry** to manufacture the product for sale and distribution.
- The product is expected to be launched by **vanguard Diagnostics Pvt. Ltd. Commercially by the first week of June 2021.**
- At the time of the launch, readily available stocks will be 100 kits (approx. 10,000 tests) with a production capacity of around 500 kits per month after the launch. The antibody detection kit is expected to be available at about Rs. 75 per test.

Anti-Covid drug by DRDO:

- The Defence Research and Development Organisation had also launched an **anti-COVID drug 2-deoxy-D-glucose (2-DG).**
- The drug is developed by the Institute of Nuclear Medicine and Allied Sciences of DRDO in partnership with Dr Reddy's Laboratories. The **first batch of the anti-COVID drug** was launched by the **Union Defence Minister Rajnath Singh.**

#DOT GIVEN PERMISSIONS FOR 5G TRIAL

The **Department of Telecommunications (DoT)** has given **permissions to Telecom Service Providers (TSPs)** for conducting trials **for use and applications of 5G technology.**

- This formally **leaves out Chinese companies** like Huawei and ZTE from the 5G race in India.

About the Trials:

- In the initial phase, these trials **will be for 6 months**, including a 2 month period for procurement and setting up of the equipment.
- TSPs will be required to **test their set up in urban areas, semi-urban areas as well as rural areas.**
- TSPs will be **provided with experimental spectrum** in various bands, such as the mid-band of 3.2 GHz to 3.67 GHz, the millimeter wave band of 24.25 GHz to 28.5 GHz, and others.
- **Applications** such as tele-medicine, tele-education, augmented/ virtual reality, drone-based agricultural monitoring, etc. will be tested. The **data generated during the trials will be stored in India.**
- **Use of Indigenous Technology:** The TSPs are encouraged to conduct trials using **5Gi technology** in addition to the already known 5G Technology.
- The **5Gi technology** was advocated by India and it is approved by **International Telecommunications Union (ITU)** - the United Nations specialized agency for information and communication technologies – ICTs.
- The 5Gi technology **has been developed by** IIT Madras, Centre of Excellence in Wireless Technology (CEWiT) and IIT Hyderabad. It **facilitates much larger reach of the 5G towers and Radio networks.**

Need for 5G Trial:

- The **telecom market in India is left with only three private telcos**, with the rest having surrendered to the **low returns on investments** over the years. The **two state-run companies, MTNL and Bharat Sanchar Nigam Limited (BSNL)** have survived but are making losses.
- In order **to increase their average revenue per user**, it is pertinent for telcos to start offering the new 5G technology as soon as possible.

Chinese Telecom Companies in India:

- India's telecom ministry **has left out Chinese equipment makers Huawei and ZTE from its 5G trials**, becoming **the latest country to lock the firms out.**
- The US says **Huawei could be used by China for spying**, via its 5G equipment and its Federal Communications Commission (FCC) has even ordered certain US telecommunications companies to remove Huawei equipment from their network.
- **India is yet to implement any type of official ban on the Chinese companies**, which currently supply a significant amount of equipment to India's mobile providers.

- However, the **government has signalled a tighter, more security-oriented approach to the country's networks**, which is widely **expected to work against the Chinese companies.**
- In December 2020, the government said **it would identify "trusted" sources of telecoms gear its carriers can use** in their networks as part of the **new security directive** for the sector.
- Those new procurement rules are expected to come into effect in June 2021, and will restrict Indian network providers to buying certain types of equipment from "trusted sources". It **might also include a list of banned suppliers.**

5G Technology

- **Features of 5G Technology:**
- **Bands in 5G:** 5G mainly work in 3 bands, namely low, mid and high frequency spectrum — all of which have their own uses as well as limitations.
- **Low band spectrum:** It has shown great promise in terms of coverage and speed of internet and data exchange however the maximum speed is limited to 100 Mbps (Megabits per second).
- **Mid-band spectrum:** It offers higher speeds compared to the low band, but has limitations in terms of coverage area and penetration of signals.
- **High-band spectrum:** It has the highest speed of all the three bands, but has extremely limited coverage and signal penetration strength.
- **Upgraded LTE:** 5G is the **latest upgrade in the long-term evolution (LTE) mobile broadband networks.**
- **Internet Speed and Efficiency:** In the high-band spectrum of 5G, internet speeds have been tested to be as high as 20 Gbps (gigabits per second) as compared to the maximum internet data speed in 4G recorded at 1 Gbps.
- 5G will provide up to three times greater spectrum efficiency and ultra low latency.
- Latency is the amount of time data takes to travel between its source and destination.

Utility of 5G Applications:

- Trigger Fourth Industrial Revolution: **Combined with** IoT**, cloud,** big data**, AI, and** edge computing**, 5G could be a critical enabler of the fourth industrial revolution**.
- Real Time Relay of Information: **One of the primary applications of 5G will be implementation of sensor-embedded networks that will allow real time relay of information across fields such as manufacturing, consumer durables and agriculture.**
- Efficient Transport Infrastructure: **5G can also help make transport infrastructure more efficient by making it smart. 5G will enable vehicle-to-vehicle and vehicle-to-infrastructure communication, making driverless cars, among other things, a reality.**
- Improve the Accessibility of Services: **5G networks could improve the accessibility of services such as** mobile banking **and** healthcare.
- Local Research: **It will stimulate the local Research and Development (R&D) ecosystem to develop innovative applications tailored to commercial needs.**
- Economic Impact: **5G is expected to create a cumulative economic impact of USD1 trillion in India by 2035, according to a report by a government-appointed panel (2018).**

Evolution from First Generation to Fifth Generation

- **1G** was launched in the **1980s** and worked on **analog radio signals** and supported **only voice calls.**
- **2G** was launched in the **1990s** which uses **digital radio signals** and supported **both voice and data transmission** with a bandwidth of 64 Kbps.
- **3G** was launched in the **2000s** with a **speed of 1 Mbps to 2 Mbps** and it has the ability to transmit telephone signals including **digitised voice, video calls and conferencing.**
- **4G** was launched in **2009** with a peak **speed of 100 Mbps to 1 Gbps and it also enables 3D virtual reality.**

#H. VARDHAN CHAIRS 74TH WORLD HEALTH ASSEMBLY

- The **Health Minister and the Chairman of WHO Executive Board, Dr. Harsh Vardhan** on May 24, 2021, presented the details of the 147th and 148th sessions of the Executive Board before the 74th World Health Assembly.
- **Director-General of the World Health Organisation, Dr. Tedros** also briefed about the various activities of WHO including those that have been taken up for COVID-19 Management.
- While speaking on the occasion, the Union **Health Minister summarized the highlights of the 147th and 148th sessions of EB** as well as its special session on the COVID-19 response which was held on October 5 and 6, 2020.

Health Minister presents highlights of Executive Board sessions:

- **Harsh Vardhan, Chairman of the WHO Executive Board,** noted that the board has called for further efforts to ensure equitable and fair access to **Coronavirus vaccines to COVAX Facility.**
- The Executive Board during the sessions engaged in the discussion on the **impact of Coronavirus on global health.**
- The Board recommended that the **74th WHA** must also consider the report on the mental health preparedness and the response for the COVID-19 pandemic.
- The Executive Board during the 147th and 148th sessions recommended endorsing the updated comprehensive Mental Health Action Plan for a period of 2013 to 2030.
- The board encouraged the World Health Organisation to work closely with the **World Organisation or Animal Health and the Food and Agricultural Organisation** for identifying the zoonotic source of the virus.
- The Health Minister informed that the Board also decided to encourage Member States to take further action to address diabetes as a public health problem.
- The Executive Board has also recommended that the **74th World Health Assembly** must adopt a decision for presenting a road map for the global action plan for the control and **prevention of non-communicable diseases till 2030.**

What is the World Health Assembly?

- **It is a forum through which WHO is governed by its 194 member states.** The World health assembly is the world's highest health policy setting body and is composed of the Health Ministers from WHO's member states.
- The major tasks of the World Health Assembly are to **decide major policy questions and approve the WHO work programme and budget**. It also elects its Director-general and annually elects 10 members for renewing part of its executive board.
- Currently, the Health Minister of India **Dr. Harsh Vardhan is the Chairman of the WHO Executive Board**. He was appointed for the position in May 2020. Vardhan had succeeded Dr. Hiroki Nakatani of Japan.

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