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# **CURRENT AFFAIRS**

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## **GS 2 : Polity, Governance, International Relations**

### **1. Sharing during scarcity**

#### **Context:**

- The **Union Ministry of Jal Shakti's** gazette notification on the jurisdiction of the **Krishna and Godavari River Management Boards** over projects and assets in the fields of irrigation and hydropower.

For detailed information regarding this development and its significance refer to the following article:

#### **Background:**

- **Andhra Pradesh and Telangana** have been involved in a tense stand-off over the sharing of water resources of the inter-state rivers.
- The two states have been complaining of the other drawing more water than that allocated.
- Amid escalating tensions, the Police forces were deployed at various hydel power projects in bordering districts of Andhra Pradesh and Telangana.

#### **Details:**

- The **two river boards would administer, regulate, operate and maintain** 36 projects in the Krishna Basin and 71 in the Godavari to ensure judicious water use in Andhra Pradesh and Telangana.

#### **Way forward:**

- The Centre must ensure that the empowered **Boards function in a fair manner** balancing the interests of both the states.
- The two States should **focus on water and energy conservation and improving the efficiency of irrigation schemes and hydel reservoirs rather than on new projects.**
- The experience of the river boards should serve as valuable policy inputs to the Centre's much-talked-about **concept of river basin organisations**, which could serve as a critical approach to deal with other inter-state water disputes.

## 2. Pegasus is India's Watergate moment

### Context:

- 'Pegasus Project' report produced by the collaborative investigation of journalists from around the world has given rise to **speculations of extensive surveillance by the Indian government.**

### Associated laws and agencies involved in surveillance activities in India:

- Currently, the laws authorising interception and monitoring of communications are Section 92 of the CrPC (for call records, etc.), Rule 419A of the **Telegraph Rules**, and the rules under **Sections 69 and 69B of the IT Act.**
- A limited number of agencies are provided powers to intercept and monitor.

### Threat posed by excessive surveillance:

- While a small amount of surveillance is necessary for national security, excess and arbitrary surveillance is dangerous. Excessive and unaccountable surveillance **imperils privacy, freedom of thought, of speech**, and has a chilling effect on people's behaviour.
- It also goes **against the rule of law** which forms the bedrock of constitutional liberal democracies like India.

### Concerns associated with surveillance in India:

- Despite the repeated claims from the government that all its surveillance is authorised and justified, the article points out serious concerns associated with surveillance activities carried out by intelligence agencies in India.
  - There are **numerous examples of surveillance powers being misused** for personal and political gain, and to harass opponents and have nothing to do with national security or organised crime. There have been even reports of non-state actors misusing police contacts to tap phone calls for personal reasons. Despite such reports, there are a few examples of people being held legally accountable for such unlawful surveillance.
  - **Required legal procedures are often not followed** while undertaking surveillance operations.
  - There is a complete **lack of oversight** of the executive's sole power to carry out surveillance activities. There is no entity to ensure that the surveillance is necessary and proportionate.

- There is very little clarity on the applicability of the available legal options for undertaking surveillance. Indeed, it is unclear when the Telegraph Act applies and when the IT Act applies.
- A limited number of agencies are provided powers to intercept and monitor. However, there are often different lists offered by different sources on what these agencies are. Thus, it is unclear which entities count as intelligence and security agencies. Also, post the K.S. Puttaswamy judgment, **most of India's intelligence agencies are "potentially unconstitutional"**, since they are not constituted under a statute passed by Parliament.
- The various **surveillance programmes such as CMS, TCIS, NETRA, CCTNS, have not been authorized by any statute**, and thus fall short of the Judiciary's test for reasonable restrictions on the invasion of privacy as noted in the 2017 K.S. Puttaswamy judgment.

Important observations made in the K.S. Puttaswamy judgment:

- Any invasion of privacy could only be justified if it satisfied the following three tests:
  - The restriction must be by law
  - It must be necessary and proportionate
  - It must promote a legitimate state interest (e.g., national security)

**Recommendations:**

- There is a need for appropriate **international regulation of the sale of tools like spyware.**
- Likening the recent development to the U.S's Watergate scandal, the article calls for similar measures taken in the U.S. to **reform its intelligence and surveillance system.** There is a need to ensure that **surveillance in India is made accountable.** The various measures which might be taken in this direction include the following:
  - The various intelligence agencies in India must be provided with a **legal framework for their existence and functioning.**
  - A standing committee of Parliament on intelligence must be created to ensure a certain degree of legislative oversight over the operations of the various intelligence agencies. The **functioning of the various intelligence agencies must be brought under parliamentary oversight and scrutiny.** This could play a vital role in ensuring their accountability and them being respectful of civil liberties.
- Intelligence gathering needs to be professionalised and made **non-partisan.**

- Necessary measures need to be taken to ensure that **civil liberties and rule of law are protected and balanced against the need for surveillance activities in the national interest.**

### 3. Accepting radical otherness

- The **U.S.-based Pew Research Center's survey on religious tolerance in India** has noted that Indians of all faiths, paradoxically, **support both religious tolerance and religious segregation.**
  - Most Indians (84%) surveyed said that respecting all religions is very important to them and all religious groups must be allowed to practise their faith freely. Yet, a considerable number of them also said they preferred to have religious groups segregated and live and marry within their own community.
- The article claims that though India is committed to religious diversity, it is mostly exclusionary and segmented in religious toleration. This the article claims is a feature of the **distinctly Asian cosmopolitanism** which has developed in regions that have to accommodate "radical diversities" that may prove to be dangerous if they are brought together in the same space.
- In this regard, the article metaphorically argues that India is neither a melting pot (diverse cultures blending into one common national identity) nor a salad bowl (different cultures retaining their specific characteristics while assimilating into one national identity) but a thali (an Indian meal comprising separate dishes on a platter where they are combined in specific ways).

### 4. India Inequality Report 2021: Oxfam

#### Why in News

The report titled "**India Inequality Report 2021: India's Unequal Healthcare Story**" released by **Oxfam India** shows that the socio-economic inequalities seep into the health sector and disproportionately affect health outcomes of **marginalised communities** due to the absence of **Universal Health Coverage (UHC)**.

- The report suggested that the states which are attempting to reduce existing inequalities and with higher expenditure on health had lower confirmed cases of **Covid-19**.

## Key Points

- **About the Report:**
  - It provides a comprehensive analysis of the health outcomes across different socioeconomic groups to gauge the level of health inequality that persists in the country.
  - The findings are primarily based on secondary analysis from rounds 3 and 4 of the **National Family Health Survey** and various rounds of the **National Sample Survey**.
- **Finding of the Report:**
  - **Performance of Different Groups:** The general category performs better than SCs and STs; Hindus perform better than Muslims; the rich perform better than the poor; men are better off than women; and the urban population is better off than the rural population on various health indicators.
    - The Covid-19 pandemic has further exacerbated these inequalities.
  - **Performance of States:** The states that have for the past few years been reducing inequalities, such as inequalities to access to health between the general category and SC and ST populations, **have less confirmed cases of Covid** – such as Telangana, Himachal Pradesh and Rajasthan.
    - On the other hand, **states that have had higher GDP expenditure on health**, such as Assam, Bihar and Goa, have **higher recovery rates of Covid cases**.
    - **Kerala invested in infrastructure** to create a multi-layered health system, designed to provide first-contact access for basic services at the community level and expanded primary healthcare coverage to achieve access to a range of preventive and curative services.
  - **Rural-Urban Divide:** It was highlighted during the second wave of the Covid-19 pandemic, when rural areas witnessed a shortage of tests, oxygen and hospital beds.
  - **Doctor-person Ratio:** The National Health Profile in 2017 recorded one government allopathic doctor for every 10,189 people and one state-run hospital for every 90,343 people.
  - **Hospital Beds:** The investment in public health infrastructure is so little that the number of beds in the country has actually come down, from 9 beds per 10,000 persons in the 2010 Human Development Report, to only 5 beds per 10,000 persons today.
    - India also **ranks the lowest in the number of hospital beds per thousand population among the BRICS nations** at 0.5. It is

- lower than lesser developed countries such as Bangladesh (0.87), Chile (2.11) and Mexico (0.98).
- **Women Literacy:** While women's literacy has improved across social groups over the years, SC and ST women lag behind the general category by 18.6% and 27.9%, respectively.
    - There exists a gap of 55.1% between the top and bottom 20% of the population in 2015-16.
    - Though the female literacy rate among Muslims (64.3%) is lower than all religious groups, inequality has reduced over time.
  - **Sanitation:** As far as sanitation is concerned, 65.7% households have access to improved, non-shared sanitation facilities in the general category while SC households are 28.5% behind them and ST are 39.8% behind them.
    - While 93.4% of households in the top 20% have access to improved sanitation, only 6% have access in the bottom 20% — a difference of 87.4%.
  - **Immunisation:** The immunisation in ST households at 55.8% is still 6.2% below the national average, and Muslims have the lowest rate across all socio-religious groups at 55.4%.
    - The rate of immunisation of girls continues to be below that of the male child.
    - More than 50% of children still do not receive food supplements in the country.
  - **Life Expectancy:** Life expectancy based on wealth is 65.1 years for the bottom 20% of the households, while it is 72.7 years for the top 20%.
  - **Antenatal Care:** Percentage of mothers who have received full antenatal care declined from 37% in 2005-06 to 21% in 2015-16.
    - The share of institutional deliveries in India has increased from 38.7% in 2005-06 to 78.9% in 2015-16.
  - **Infant Mortality Rate:** Overall improvement in **Infant mortality rate (IMR)** is not equal across social groups. Dalits, Adivasis and OBCs have higher IMR as compared to the general category.
    - IMR for Adivasis is 44.4 which is 40% more than the general category and 10% more than the national average.

## Recommendations

- The **right to health should be enacted as a fundamental right** that makes it obligatory for the government to ensure equal access to timely, acceptable, and affordable healthcare of appropriate quality and address the underlying determinants of health to close the gap in health outcomes between the rich and poor.

- The **free vaccine policy** should adopt an **inclusive model** to ensure that everyone, irrespective of their gender, caste, religion or location i.e. people living in hard-to-reach areas, gets the vaccine without any delay.
- **Increase health spending to 2.5 percent of Gross Domestic Product (GDP)** to ensure a more equitable health system in the country; ensure that union budgetary allocation in health for SCs and STs is proportionate to their population.
- Regions with higher concentration of **marginalised population should be identified** and public health facilities should be established, equipped and made fully functional as per the **Indian Public Health Standards (IPHS)**.
- **Widen the ambit of insurance schemes** to include out-patient care. The major expenditures on health happen through out-patient costs as consultations, diagnostic tests, medicines, etc.
- **Institutionalize a centrally-sponsored scheme** that earmarks funds for the provision of free essential drugs and diagnostics at all public health facilities.
- **Regulate the private health sector** by ensuring that all state governments adopt and effectively implement Clinical Establishments Act or equivalent state legislation.
- **Extend the price capping policy** introduced during the Covid-19 pandemic to include diagnostics and non-Covid treatment in order to prevent exorbitant charging by private hospitals and reduce catastrophic out-of-pocket health expenditure.
- **Augment and strengthen human resources and infrastructure** in the healthcare system by regularising services of women frontline health workers.
- **Establishing contingency plans** for scenarios such as the second wave of the pandemic.
- **Inter-sectoral coordination** for public health should be boosted to address issues of water and sanitation, literacy, etc. that contribute to health conditions.

## Conclusion

- To stabilise and equalise this inequality, universal health coverage should be supported strongly by the public sector.
- Persistent underfunding of the public health system, especially primary health care and inadequate health infrastructure in India remain to be addressed by the government even after devastating second wave. Otherwise, health emergencies will only aggravate existing inequalities and work as a detriment for the poor and the marginalised.



## 5. Two-thirds of Indians have antibodies, shows ICMR survey

### Context:

- The **fourth national COVID-19 serosurvey** conducted by the Indian Council of Medical Research (ICMR).

### Details:

- As per the sero-survey, **two-thirds of the population aged above six have antibodies against SARS-CoV-2.**
- The survey also found that more than **half of the children (6-17 years) were seropositive.**
- Though the survey offered a ray of hope in the fight against the pandemic, there was no room for complacency given that nearly 40 crore people, or a third of the population, are still vulnerable to the COVID-19 infection.

## 6. Aquaculture farmers to sell produce on e-Santa

### e-Santa:

- The term eSaNta depicts Electronic Solution for Augmenting NaCSA Farmers Trade in Aquaculture.
  - National Centre for Sustainable Aquaculture (NaCSA) is an extension arm of the **Marine Products Export Development Authority (MPEDA), Ministry of Commerce & Industry.** The objectives of NaCSA are to encourage and uplift the small and marginal farmers through the organization of clusters and maintaining of best management practices.
- It basically functions as an **electronic marketplace for marine products.** It enables widely dispersed buyers and farmers to interact and execute purchase transactions digitally.
- This initiative by building a bridge between Aqua farmers and buyers to interact directly and buy the produce directly from farmers **helps eliminate the middlemen completely.**

### Context:

- Many aquaculture farmers in Andhra Pradesh are planning to update the details of their produce online and market their stocks through e-Santa.

## GS 3 : Economy, Science and Technology, Environment

### 7. Navy seeks bids to build submarines

#### Project-75I:

- Under Project-75I, the Indian Navy intends to **acquire six diesel-electric submarines**, which will also feature **advanced air-independent propulsion systems** to enable them to stay submerged for a longer duration and substantially increase their operational range.
- The six modern conventional submarines will have the latest equipment, weapons and sensors, including advanced torpedoes, modern missiles and state-of-the-art countermeasure systems.
- All six submarines are expected to be **indigenously constructed in Indian shipyards under the strategic partnership model** of the procurement procedure.
  - Under this system, Strategic Partners (SPs) or Indian applicant companies for the project will have to tie up with any of the Original Equipment Manufacturers (OEM) for the production process.

#### Context:

- The Defence Ministry has issued the Request For Proposal (RFP) for the construction of six advanced conventional submarines for the Navy under Project-75I.

**THE INDIAN EXPRESS**

## GS 2 : Polity, Governance, International Relations

### 1. Stand Up India Scheme

#### Why in News

Recently, the Ministry of Finance has extended the Standup India Scheme up to the year 2025.

#### Key Points

- **Launch:**
  - It was launched in April 2016 to promote entrepreneurship at the grass-root level focusing on economic empowerment and job creation.
- **Aim:**
  - To leverage the institutional credit structure to reach out to the underserved sector of people such as SCs, STs and Women Entrepreneurs.
- **Facilitates Bank Loans:**
  - The objective of this scheme is to facilitate bank loans between Rs.10 lakh and Rs.1 crore to at least one SC or ST borrower and at least one woman borrower per bank branch of Scheduled Commercial Banks for setting up a Greenfield enterprise.
    - This enterprise may be in manufacturing, services or the trading sector.
- **Eligibility:**
  - SC/ST and/or women entrepreneurs; above 18 years of age.
  - Loans under the scheme are available for only Greenfield projects.
    - A greenfield project is one which is not constrained by prior work. It is constructed on unused land where there is no need to remodel or demolish an existing structure.
  - Borrower should not be in default to any bank or financial institution.
  - In case of non-individual enterprises, at least 51% of the shareholding and controlling stake should be held by either an SC/ST or Woman entrepreneur.
- **New Changes:**
  - The margin money requirement for loans under the Scheme has been reduced from 'upto 25%' to 'upto 15%' and activities allied to agriculture have been included in the Scheme.
- **Connect Centers:**

- The offices of SIDBI (Small Industries Development Bank of India) and NABARD (National Bank for Agriculture and Rural Development) are designated **Stand-Up Connect Centres (SUCC)**.
- **Performance so far:**
  - Banks have sanctioned Rs 26,204 crore to about **1,16,266 beneficiaries** under the Scheme in the **last five years**.
  - The scheme has **benefited more than 93,094 women entrepreneurs**.

## 2. SMILE Scheme

### Why in News

Recently, the Ministry of Social Justice and Empowerment has formulated a scheme “**SMILE - Support for Marginalized Individuals for Livelihood and Enterprise**”.

- It includes a subscheme - ‘**Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in Begging**’.

### Key Points

- **About:**
  - It is a **new Scheme after the merger of existing Schemes** for Beggars and Transgenders.
  - Scheme provides for the use of the existing shelter homes available with the State/UT Governments and Urban local bodies for rehabilitation of the persons engaged in the act of Begging.
    - In case of non-availability of existing shelter homes, new dedicated shelter homes are to be set up by the implementing agencies.
- **Focus:**
  - The focus of the scheme is extensively on **rehabilitation, provision of medical facilities, counselling, basic documentation, education, skill development, economic linkages** and so on.
  - It is estimated that an **approximate 60,000 poorest persons would be benefited** under this scheme for leading a life of dignity.
- **Implementation:**
  - It will be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations, Community Based Organizations (CBOs), institutions and others.
- **Scheme for Comprehensive Rehabilitation of Beggars:**

- It will be a **comprehensive scheme for persons engaged in the act of begging.**
- The scheme has been implemented in the selected cities on pilot basis having large concentrations of the Beggar community.
- During the year 2019-20, this Ministry had released an amount of Rs. 1 Crore to **National Institute of Social Defence (NISD)** and Rs. 70 Lakh to **National Backward Classes Finance & Development Corporation (NBCFDC)** for skill development programmes for beggars.
- **Status of Beggars In India:**
  - According to the **Census 2011** ,total number of beggars in India is 4,13,670 (including 2,21,673 males and 1,91,997 females) and the number has increased from the last census.
  - **West Bengal tops the chart followed by Uttar Pradesh** and Bihar at number two and three respectively. Lakshadweep merely has two vagrants according to the 2011 census.
  - Among the union territories, **New Delhi had the largest number of beggars** 2,187 followed by 121 in Chandigarh.
  - Among the northeastern states, Asam topped the chart with 22,116 beggars, while Mizoram ranked low with 53 beggars.
  - Recently, the Supreme Court has agreed to examine a plea for **decriminalising begging** which has been made an offence in various states under Prevention of Begging Act.

### **National Backward Classes Finance & Development Corporation**

- NBCFDC is a Government of India Undertaking under the aegis of Ministry of Social Justice and Empowerment.
- It was incorporated under **Section 25 of the Companies Act 1956** on 13<sup>th</sup> January 1992 as a **Company not for profit.**
- Its objective is **to promote economic and developmental activities** for the benefit of **Backward Classes** and to assist the poorer section of these classes in skill development and self-employment ventures.

### **National Institute of Social Defence**

- The NISD is an **Autonomous Body** and is registered under **Societies Act XXI of 1860 with the Government of National Capital Territory (NCT), Delhi.**
- It is a **central advisory body** for the Ministry of Social Justice and Empowerment.
- It is the nodal training and research **institute in the field of social defence.**
- The institute **currently focuses on human resource development** in the areas of drug abuse prevention, welfare of senior citizens, beggary prevention, transgender and other social defence issues.

- The mandate of the institute is to **provide inputs for the social defence programmes** of the Government of India through **training, research & documentation**.

## **GS 3 : Economy, Science and Technology, Environment**

### **3. Roadmap for India's Offshore Wind Energy**

#### **Why in News**

Recently, the **Ministry of New and Renewable Energy (MNRE)** has set a target of installing 5 GW of offshore capacity by 2022 and 30 GW by 2030.

- India can generate 127 GW of offshore wind energy with its 7,600 km of coastline.

#### **Key Points**

- **About Offshore Wind Energy:**
  - Wind energy today typically comes in **two different "types": onshore wind farms** which are large installations of **wind turbines located on land, and offshore wind farms** which are **installations located in bodies of water**.
  - Offshore wind energy refers to the **deployment of wind farms inside the water bodies**. They utilise the sea winds to generate electricity. These wind farms either use fixed-foundation turbines or floating wind turbines.
    - A **fixed-foundation turbine is built in shallow water**, whereas a **floating wind turbine is built in deeper waters** where its foundation is anchored in the seabed. Floating wind farms are still in their infancy.
  - Offshore wind farms must be **at least 200 nautical miles** from the shore and **50 feet deep in the ocean**.
  - Offshore wind turbines produce electricity which is **returned to shore through cables buried** in the ocean floor.
- **Status of Wind Energy in India:**

- India's electricity generation from wind reached **39.2 gigawatts (GW) a year** in March 2021. An addition of **another 20 GW** over the next five years is expected to happen soon.
- The **compound annual growth rate for wind generation** has been **11.39% between 2010 and 2020**, and for **installed capacity, it has been 8.78%**.
- More than 95% of commercially exploitable resources are **located in seven states**: Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu.
- **Benefits:**
  - Wind speed **over water bodies is high** and is consistent in direction. As a result, offshore wind farms **generate more electricity** per installed capacity.
  - Fewer offshore turbines are required **to produce the same capacity** of energy as **compared to onshore ones**.
  - Offshore wind farms **have a higher CUF** (capacity utilisation factor) than onshore wind farms. Therefore, offshore wind power **allows for longer operating hours**.
    - A wind turbine's CUF is equal to the average output power divided by the maximum power capabilities.
  - It's **possible to build bigger and taller** offshore windmills, resulting in increased energy harvest.
  - Furthermore, the **wind flow is not restricted by hills or buildings**.
- **Challenges:**
  - **Higher Installation Cost:**
    - Local substructure manufacturers, installations vessels and **trained workers are lacking in India**. Offshore wind turbines **require stronger structures and foundations** than onshore wind farms. This **can cause higher installation costs**.
  - **Higher Maintenance Cost:**
    - The action of **waves and even high winds**, particularly during storms or hurricanes, **can damage wind turbines**. Eventually, offshore wind farms **require maintenance** that is **more costly and difficult to perform**.
- **Policies related to Wind Energy:**
  - **National Wind-Solar Hybrid Policy:** The main objective of the National Wind-Solar Hybrid Policy, 2018 is to provide a framework for promotion of large grid connected wind-solar PV hybrid systems for optimal and efficient utilization of wind and solar resources, transmission infrastructure and land.
  - **National Offshore Wind Energy Policy:** The National Offshore wind energy policy was notified in October 2015 with an objective to develop

the offshore wind energy in the Indian **Exclusive Economic Zone (EEZ)** along the Indian coastline of 7600 km.

### Way Forward

- **Renewable purchase obligation:** Power distribution companies, open access consumers and captive users can purchase clean energy as part of their total electricity consumption through a renewable purchase obligation.
- **Lower taxes:** In India, the GST Law exempts electricity and power sales from GST. In contrast, wind power generation companies cannot claim **input tax credits** when they pay GST to purchase goods and/or services for setting up the project.
- **Feed-in tariff:** Discoms can adopt feed-in tariff (FiT) regulations and make offshore wind power procurement mandatory. FiT can be tailored to suit each offshore wind project. FiT can be used to promote offshore wind power in the early stages of development until it becomes economically viable.
- **Deemed generation provision:** Offshore wind projects need to be protected against curtailment concerns because of the **inability of State Load Dispatch Centres (SLDCs)** to absorb large quantities of power that may be generated. For this, the offshore wind can be given a “deemed generation provision”.

## 4. Domestic Manufacturing in Solar Energy

### Why in News

Recently, the **Union Ministry of New and Renewable Energy (MNRE)** has released the **first list of photovoltaic module manufacturers in India.**

- MNRE has made it mandatory for solar cell and module manufacturers to register under the **Approved List of Models and Manufacturers (ALMM)** - an initial step towards **reducing India’s dependence on solar imports and self-reliance.**
- However, given the capacity constraints for domestic manufacturers, **ALMM may pose near-term challenges for the Indian developers for planning the procurement of imported photovoltaic modules.**

### Solar Technologies

- **Solar PhotoVoltaic (SPV):** SPV cells convert solar radiation (sunlight) into electricity. A solar cell is a semi-conducting device made of silicon and/or other materials, which, when exposed to sunlight, generates electricity.



- **Solar Thermal:** Solar Thermal Power systems, also known as Concentrating Solar Power systems, use concentrated solar radiation as a high temperature energy source to produce electricity.

## Key Points

- **About ALMM:**
  - The ALMM lists eligible models and manufacturers of solar cells and modules complying with the **BIS (Bureau of Indian Standards) certification**.
    - It was announced in 2019.
  - It aims to have a **quality benchmark for modules and prevent low-quality Chinese manufacturers** from dumping their products in India.
  - Enlisting in ALMM is **mandatory for manufacturers supplying to the government-owned solar projects**.
    - Only the models and manufacturers included in this list shall be eligible for use in projects under Government schemes & Programmes, installed in the country.
  - Further, the word "**Government**" includes Central Government, State Government, Central Public Sector Enterprises, State Public Sector Enterprises and Central and State Organizations/ Autonomous bodies.
- **Issues Related to ALMM:**
  - **May Impact Bankability of Solar Projects:** Lack of clarity about ALMM means supply uncertainty, limited module choices, no access to newer technologies, and cost increases for developers of large-scale projects.
    - This may also result in a hike in solar power tariff prices which may undermine the prospects of solar energy.
  - **Overlap Between BIS and ALMM:** The ALMM was put in place to ensure the quality of solar products, but it overlaps the existing Bureau of Indian Standards (BIS) certification in many aspects.
    - BIS is related to product certification, ALMM is more of a process and manufacturing facility/original equipment manufacturer certification.
    - This has created a compliance burden for domestic manufactures.
  - **Supply-side Bottlenecks:** Many developers believe that the implementation of ALMM **will deter foreign players from supplying to the Indian market**.
    - With the domestic market still far away from being self-reliant, project developers are staring at a supply bottleneck in the foreseeable future.
- **Domestic Capacity of Solar Power in India:**

- There has been a **significant progress in solar capacity addition since 2014**, with India progressively emerging as the **world's third largest solar market**.
  - However, India's solar story is **largely built over imported products**.
  - The domestic solar equipment manufacturing industry has largely failed to capitalise on the opportunity.
  - Nearly **80% of the solar inputs and components are imported from China**.
- The reason for this is that **Solar cell manufacturing is a complicated process** that is technology and capital intensive and it also upgrades every 8-10 months.
  - Further, the **global market of solar wafer and ingot manufacturing is dominated by China**, who uses anti-competitive measures to dump cheap solar equipment into India.

### Solar Energy and India

- Just before the **Paris climate summit** in 2015, the Government of India had said it would install 175 GW of renewable power by 2022, including 100 GW of solar power.
  - In this context, the **National Solar Mission** is a major initiative of the Government of India and State Governments to promote ecologically sustainable growth while addressing India's energy security challenge.
  - Further, India's commitment as part of INDC at Paris climate deal to reduce the emissions intensity of its GDP by 33 to 35% by 2030 from 2005 level.
- **Sustainable rooftop implementation of Solar transfiguration of India (SRISTI) scheme** envisages to promote rooftop solar power projects in India.
- The **KUSUM scheme** would provide additional income to farmers, by giving them the option to sell additional power to the grid, through solar power projects set up on their barren lands.
- Through the establishment of **International Solar Alliance (ISA)**, India envisages the world to leverage solar energy potential of more than 122 countries, which lie either completely or partly between the Tropic of Cancer and the Tropic of Capricorn to promote solar energy.
  - Further, ISA's vision is to enable **One World, One Sun, One Grid (OSOWOG)**.

### Way Forward

- ALMM and BIS certification could have been better managed by **combining these two objectives** and making it a single-window process.

- **Strong financial measures** are required to finance the solar projects, innovative steps like **green bonds**, institutional loans and clean energy funds can play a crucial role.
- Promotion of **research and development in the renewable energy sector**, especially in storage technology.
- Proper mechanism should be provided to tackle China's dumping of solar equipment.
- Framework to avoid unnecessary delays in policy decision making and implementation. India **needs a Solar Waste Management and Manufacturing Standards Policy**.

## 5. Events of Extreme Weather

### Why in News

People around the world have been doubly hit by the **Covid-19 pandemic and extreme weather events** which experts say have been **fuelled by climate change**.

### Key Points

- **Recent Extreme Weather Events:**
  - The **unprecedented heat wave** that drove temperatures across **Canada and parts of the United States to a record high**, causing hundreds of deaths between June 25 to 30.
  - The recent **floods in Germany** that killed over 180 people in the country.
    - **Floods** have also been reported across **several Asian countries, in China, India and Indonesia**.
  - **Cyclones Tauktae and Yaas** that hit India's west and east coasts respectively.
- **Some Causes of Extreme Weather Events:**
  - **Extreme Temperature:**
    - The **temperature of the Earth is rising every year** and increasing temperature and extreme sunshine on top of it **creates a low-pressure system**.
    - Due to which the hurricanes and other tropical storms get their way to start.
  - **High Atmospheric Winds:**
    - The jet stream is found where the **cold air from Earth's poles meets with warm tropical air**.

- These winds help to continue and control the weather system from west to east in the northern hemisphere and from east to west in the southern hemisphere.
- Sometimes these winds bring unpleasant weather with them which may lead to the formation of a tornado.
- **When Pressure Systems Meet:**
  - When **too cold high-pressure systems** meet with **too warm low-pressure systems**, the **chances of extremely high waves on sea surface** increases.
  - The too cold high-pressure systems originate from sub-polar land whereas too warm low-pressure systems originate from temperate seas.
- **Improper Weather Systems:**
  - The weather systems (such as air masses, fronts, etc.) keep on moving in a proper way which helps to maintain the weather conditions in a smoother way.
  - When the weather conditions come across any disturbance in between, it **creates disasters**.
- **Climate Change:**
  - The world temperature has increased quite high from the past few decades and even keeps on changing year after year.
  - One of the **big reasons** for the increase in Earth's temperature is **the level of CO<sub>2</sub>**.
  - As the **CO<sub>2</sub> is increasing in the atmosphere**, the temperature of the earth is also increasing simultaneously.
- **Global Warming:**
  - As the world temperature is increasing due to global warming simultaneously the effects of it are also increasing.
  - Global warming is contributing to **intensifying heatwaves**.
  - Global warming also **boosts the amount of water vapor in the atmosphere** which may lead to causes of severe weather like heavy rainfall, heavy snowstorm, etc.
- **Concerns:**
  - The rise in **average global temperature** is linked with **widespread changes in weather patterns**.
    - The **rising average global temperature** is making **heavy rainfall more likely**.
    - **Warmer air carries more moisture**, meaning that more water will be released eventually.
  - **Extreme weather events** like **heat waves and extreme rainfall** are likely to become more frequent or more intense with **rising anthropogenic climate change**.

- The Theory of **Anthropogenic Climate Change** is that **humans are causing most of the current changes** to climate by burning fossil fuels such as **coal, oil, and natural gas**.
- **Temperatures at the Earth's poles** are rising at two to three times the temperature at the equator.
  - This weakens the **jet stream of the mid-latitudes**, situated over Europe.
  - During summer and autumn, the weakening of the jet stream has a causal effect resulting in slower-moving storms.
  - This can result in more severe and longer-lasting storms with increased intensity.
- Also, according to a study, **human-induced global warming** has contributed to the increased frequency and intensity of **cyclonic storms over the Arabian Sea**.
- **Related Initiatives:**
  - **National Action Plan on Climate Change (NAPCC)**
  - **India's Intended Nationally Determined Commitments (INDC)** under Paris Climate Deal.

## 6. For Cairns dispute, international arbitration is not the way forward

### Context

The recent move by Cairn to seize India's sovereign assets in order to enforce its arbitration award has brought into focus the dispute and the related issues.

### Utility of Bilateral Investment Treaties (BIT)

- After the World Wars, as more countries gained sovereignty, they tended to look at foreign investments as **a form of neo-colonialism**.
- Bilateral investment treaties became the primary tool to forge relationships between developed and developing countries.
- The BITs help to adopt standards for prompt, adequate and effective compensation in case of expropriation.
- With the advent of globalisation, BITs became the means for foreign investment in developing countries.

- Although the impact of investment agreements on foreign investments remains highly contextualised and inconclusive, these came to govern **international investment relations**.
- The BITs retained the old-world construct that allowed **international arbitration**.
- However, many developing countries view arbitration of tax matters as a **breach of their sovereign right to tax**.

### The Cairn Energy case

- In 2012, explanations were added to the Income Tax Act 1961 – these provisions were deemed as having a retrospective effect.
- This was more in response to the Supreme Court's decision in the Vodafone case which denied the income tax department's assertion of tax claims arising from the offshore transfer of **interest that substantially derived their value from India**.
- The 2012 explanations to the IT Act indeed **sought to fix tax avoidance**.
- Looking into the details of the Cairn case, one can see the series of reorganisations that tip-toed around tax laws of multiple jurisdictions, **resulting in the non-payment of tax**.
- **Taxing offshore indirect transfers** – a structuring device to gain tax advantage from the indirect sale of assets – is not unique to India (336 tax treaties contain such an article).
- It is also possible to see that the **underlying assets of the subsidiaries were immovable assets in India**.
- The UK-India tax treaty allowed for **taxation of capital gains as per Indian law**.
- India **challenged the admissibility** of the case before the arbitration tribunal.
- However, the case rests on a **distinction between tax and tax-related investment**.
- Surely, all investments have tax implications and the acceptance of such a distinction could create problems even where tax is explicitly carved out from the bilateral investment treaties.
- The option of arbitration upon an unsuccessful **Mutual Agreement Procedure (MAP)** resolution is not available in India.
- For this reason, over the years, there has been a rising trend in tax disputes involving BITs.
- The Cairn case is one such instance where arbitration was invoked especially since MAP was not an option.

## Way forward

- The case raises many questions that administrators must address through reform.
- India's **model BIT introduced in 2016** rectifies the issue of the distinction between tax dispute and investment-related taxation dispute through the specific exclusion of taxation.
- The recognition of a tax-related investment dispute, distinct from a tax dispute, should not undermine such a carve-out.

## Conclusion

It is also important to note even if the award is enforced, the matter of tax avoidance stands pending before the High Court. Given the complexity, the only reasonable solution would be a negotiated settlement. Even if there's a resolution in the Cairns case, questions of law would remain.

## Prelims Practice Questions

**1. A Living Root Bridge, a type of simple suspension bridge built by manipulating the roots of the trees, is usually seen in the state of**

- a. Himachal Pradesh
- b. Kerala
- c. Meghalaya
- d. Odisha

**Answer: c**

### Explanation:

- The trees in Meghalaya not only develop the conventional rooting system but also develop aerial rooting system. Aerial roots are roots that grow on the above-ground parts of a plant. Therefore, people in the region make use of Living Root Bridges.
- A living root bridge is a type of simple suspension bridge formed of living plant roots by tree shaping. They are common in the southern part of the Northeast Indian state of Meghalaya.
- They are handmade from the aerial roots of rubber fig trees (*Ficus elastica*) by the Khasi and Jaintia people.

**2) With respect to *Pegasus*, sometimes seen in the news recently, consider the following statements:**

1. It is a spyware that infects devices and spies on the victim by transferring data to a master server in an unauthorised manner.
2. It was built and marketed by the Israel based NSO Group.

Which of the statement(s) given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

- *A global collaborative investigative project has recently discovered Israeli spyware Pegasus was used to target thousands of people across the world.*

***Pegasus Spyware***

- It is a spyware that infects victims and spies on the victim by transferring data to a master server in an unauthorised manner.
- It was built and marketed by the Israel based company, NSO Group.
- The company claims to sell it only to Vetted foreign governments worldwide.
- Pegasus is the very basic form, can infect devices that are connected to the Internet.
- Some updated versions can also infect phones even without the victim clicking on any links or messages.
- The software can, based on instructions from a remote server, automatically turn on the microphone and Camera and look into chats, contacts and data backup.

**3. Which of the following are the primary sources of vegetable oils in India?**



1. Cottonseed
2. Groundnut
3. Rice Bran
4. Soybean
5. Sunflower

**Options:**

- a. 1, 2 and 3 only
- b. 2, 4 and 5 only
- c. 1, 2, 3 and 4 only
- d. 2, 3, 4 and 5 only

**Answer: b**

**Explanation:**

- Primary sources of vegetable oil: Soybean, Rapeseed & Mustard, Groundnut, Sunflower, Safflower & Niger.
- Secondary sources of vegetable oil: Oil palm, Coconut, Rice Bran, Cotton seeds & Tree Borne Oilseeds.

**4. Arrange the following countries in descending order based on the *forex reserve holdings*:**

1. China
2. Japan
3. Switzerland
4. Russia
5. India

Select the correct answer using the codes given below:

- a. 1-2-4-3-5
- b. 4-1-2-5-3
- c. 1-2-3-4-5
- d. 1-4-2-5-3

**Answer : c**

- With India's forex reserves at \$608.99 billion as on June 25, 2021 stood, India has emerged as the fifth largest foreign exchange reserves holder in the world after China, Japan, Switzerland and Russia.
- This was stated by Minister of State for Finance Shri Pankaj Chaudhary in a written reply to a question in the Lok Sabha recently.

**5. Twin Deficit is a condition where a nation has both**

- a. Current Account Deficit and Fiscal Deficit
- b. Current Account Deficit and Revenue Deficit
- c. Primary Deficit and Revenue Deficit
- d. Fiscal Deficit and Hyperinflation

**Answer: a**

**Explanation:**

- A twin deficit economy is one that has both fiscal and current account deficits.
- A twin deficit occurs when a nation's government has both a trade deficit and a budget deficit.
- A trade deficit, also known as a current account deficit, occurs when a nation imports more than it exports.
- Fiscal deficit is a condition where the government is spending more money than it takes in from taxes and other revenues excluding debt.

**6. With reference to a grouping of countries known as BRICS, consider the following statements:**

1. The First Summit of BRICS was held in Rio de Janeiro in 2009.
2. South Africa was the last to join the BRICS grouping.

**Which of the statements given above is/are correct?**

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

**Answer: b**

**Explanation:**

- The First Summit of BRICS was held in Yekaterinburg in Russia in 2009.
- South Africa was the last to join the BRICS grouping.
- BRICS is the acronym coined to associate five major emerging economies: Brazil, Russia, India, China, and South Africa.
- South Africa was invited to join the bloc (BRIC) in December 2010, resulting in BRICS.

### **Mains Practice Questions**

**1. Artistic creativity of people of Indus valley civilization was vast. Comment. (250 words)**

**Approach**

- Give a brief introduction on Harappan art forms.
- Discuss the features, uniqueness and vivid imagination of art forms of Indus valley civilisation (IVC).
- Explain the significance of the distinct art forms used in social life.
- Write a suitable conclusion.

**2. Ethics examines the criteria for judging human actions as right or wrong. What are the various sources of ethical guidance for a civil servant? (150 words)**

**Approach**

- Introduce by defining the Ethics.
- Write briefly the need for ethical behaviour for civil servants.
- Discuss various sources of ethical guidance for civil servants.
- Conclude suitably.

