

# OFFICERS' PULSE

Issue no. 3 | 14th June to 20th June, 2020

## COVERAGE.

The Hindu

The Indian Express

PIB

Rajya Sabha TV

All India Radio

## AT A GLANCE & IN DEPTH.

Polity and Social Issues

Economy

International Relations

Environment

Science and Tech

Culture

**CURRENT AFFAIRS WEEKLY**  
THE **PULSE** OF UPSC AT YOUR FINGER TIPS



# News @ a glance

<b>POLITY</b> .....	3	6) International Atomic Energy Agency.....	21
1) Child Labour .....	3	7) India and Nepal Border disputes.....	23
2) Increase in Domestic Violence.....	5	<b>SCIENCE AND TECHNOLOGY</b> .....	24
3) Pradhan Mantri Van Dhan Yojana .....	6	1) Artificial Intelligence of Things (AIoT) .....	24
4) A.P. Assembly opposes NRC, NPR.....	7	2) Chikungunya.....	25
5) Plea to transfer PM CARES funds to NDRF .....	8	3) Probiotics.....	25
6) Garib Kalyan Rojgar Abhiyan .....	10	4) COVID-19 Vaccine development .....	25
7) Rule of Law Index.....	10	5) Standard Q COVID-19 Ag.....	27
<b>ENVIRONMENT</b> .....	12	6) NavRakshak PPE suit .....	27
1) National Green tribunal.....	12	<b>ART &amp; CULTURE</b> .....	28
2) Malabar gliding frog.....	12	1) Talamaddale .....	28
3) Indian Institute of Tropical Meteorology.....	13	2) Jagannath Temple, Puri .....	28
<b>ECONOMY</b> .....	14	3) Kodumanal, a megalithic site .....	29
1) Wholesale Price Index.....	14	4) Keeladi excavation.....	30
2) BS norms .....	14	<b>PIB ANALYSIS</b> .....	32
3) Commercial coal mining .....	14	1) BARC .....	32
4) EAC-PM .....	15	2) WHO .....	32
5) Tightening of FDI rules.....	16	3) Global Partnership on Artificial Intelligence (GPAI).....	33
<b>INTERNATIONAL RELATIONS</b> .....	17	4) Employees Provident Fund Organisation (EPFO) .....	33
1) Initiatives towards Maritime Domain Awareness .....	17	5) Khelo India State Centres of Excellence .....	34
2) Aid diplomacy .....	17	6) PM SVANidhi - a Special Micro-Credit Facility for Street Vendors .....	35
3) Rising nuclear warheads .....	18		
4) Asian Infrastructure Investment Bank.....	19		
5) Pashupatinath Temple complex .....	20		

# News in Depth

## **AIR NEWS..... 36**

- 1) United Nations Security Council ..... 36
- 2) Hydroxychloroquine ..... 36
- 3) Financial Stability and Development Council 37
- 4) India - China Relations in the current context 37

## **THE HINDU EDITORIALS..... 40**

- 1) COVID-19 and public transport..... 40
- 2) GST compensation to states ..... 41
- 3) Remaining non-aligned is good advice ..... 42
- 4) Lessons from Lee and Gandhi ..... 43
- 5) In pandemic crisis, bridging the gulf with  
West Asia..... 43
- 6) Rural India and COVID-19 ..... 44

- 7) For better conditions of work for migrant  
labourers.....45
- 8) Suspension of MPLADS not the right move ..46
- 9) A Prescription for equitable and effective  
care .....48

## **INDIAN EXPRESS EXPLAINED .....50**

- 1) How India tests for Covid-19 .....50
- 2) Rapid antigen detection test .....51
- 3) Pangolins - Protection upgradation .....52
- 4) What is dexamethasone? .....55
- 5) Why does China trade ban a bad idea?.....56

## **RSTV Big Picture .....58**

- 1) Mental Health- Tackling stress and  
depression: .....58

# News @ a glance

## POLITY

### 1) Child Labour

#### GS 2 -Social Empowerment , Issues related to Children

##### What is Child Labour?

- The term “child labour” is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. It refers to work that:
- is mentally, physically, socially or morally dangerous and harmful to children; and/or
- interferes with their schooling by: depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work.

##### India and Child Labour

- According to a study by the ILO, the majority of the world's child labour (around 71 percent) is done in the agriculture sector, including cotton plantations and rice fields.
- Around 17 percent are employed as service staff, mainly as domestic workers or in restaurants, and another 12 percent of child labour is spread across jobs in the industry sector, including dangerous activities in mines.
- Many child labourers in India are working for starvation wages in textile factories, helping with the processing of carpets, or doing back breaking work in brick making factories and quarries.
- Other child labourers work selling cigarettes, called "Bidis", on the street for the tobacco industry.
- Children are also used for cheap labour in industries such as steel extraction, gem polishing and carpet manufacturing.
- A staggering number of girls are victims of child trafficking in India, whether

through traditional bondage or through organized crime.

- The commercial sexual exploitation of children is among the worst forms of child labour and in India there are around 1.2 million children involved in prostitution.

##### Constitutional Provisions for Child Upliftment

- **Article 21 A: Right to Education:**The State shall provide free and compulsory education to all children of the age of 6 to 14 years in such manner as the State, by law, may determine.
- **Article 24:** Prohibition of employment of children in factories, etc.
- No child below the age fourteen years shall be employed in work in any factory or mine or engaged in any other hazardous employment.
- **Article 39:** The State shall, in particular, direct its policy towards securing
- (e) that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength.

##### About ILO core conventions related to Child Labour

- International Labour Organisation is a **U.N. agency** that was established in 1919.
- ILO brings together governments, employers and workers representatives of 187 member States, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
- The principal means of action in the ILO is the setting up the International Labour Standards in the form of Conventions and Recommendations.
- *Conventions are international treaties and are instruments, which create legally*

*binding obligations on the countries that ratify them.*

- Recommendations are non-binding and set out guidelines orienting national policies and actions.
- There are **eight Core Conventions** of the ILO (also called fundamental/human rights conventions) The two Core Conventions directly related to child labour are that of ILO **Convention 138 and 182**.
- India has ratified **both the Core Conventions of International Labour Organization Conventions 138 regarding admission of age to employment and Convention 182 regarding worst forms of Child Labour.**

#### **Convention No.138: (Minimum Age)**

- **ILO Convention No. 138** concerning Minimum Age for Entry to Employment & Work .Each country ratifying this Convention undertakes to:
  - Pursue a national policy designed to ensure the effective abolition of child labour;
  - Specify a minimum age for Entry to employment or work which will not be less than the ages of completion of compulsory schooling;
  - To raise this progressively to a level consistent with the fullest physical and mental development of young people;
  - Guarantee that the minimum age of entry to any type of employment or work, which is likely to compromise health, safety of morals of young person's shall not be less than 18 years
- **Convention No.182 on Worst Forms of Child Labour:**
  - For the purpose of this Convention, the term child shall apply to all persons under the age of 18.
  - For the purpose of this Convention, the term worst forms of child labour comprises:
    - All forms of slavery or practices similar to slavery, such as the sale and trafficking of children (debt bondage and serfdom and forced or compulsory labour), including forced or compulsory recruitment of children for use in armed conflict.
    - The use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances.

- The use, procuring or offering of a child for illicit activities, in particular of the production and trafficking of drugs as defined in the relevant international treaties.
- Work which by its nature or the circumstances in which it is carried out is likely to harm the health, safety or morals of children.

#### **Child Labour Laws in India**

- **The Mines Act of 1952**, employment of children below the age of 18 years is illegal in mines.
- **National Policy on Child Labour (1987)**, with a focus more on rehabilitation of children working in hazardous occupations and processes, rather than on prevention.
- **Juvenile Justice (Care and Protection of Children) Act 2000 and amendment of the JJ Act in 2006:** includes the working child in the category of children in need of care and protection, without any limitation of age or type of occupation.
- **The Right to Education Act, 2009** has made it mandatory for the state to ensure that all children aged 6 to 14 years are in school and receive free education. Along with Article 21A of the Constitution of India recognizing education as a fundamental right, this constitutes a timely opportunity to use education to combat child labour in India.
- **Child Labour (Prohibition and Regulation) Act, 2016:**
  - Employment of children **below the age of 14 years** in any commercial enterprise is illegal.
  - The Act also bars the employment of adolescents in occupations that deal with hazardous working conditions such as chemical plants and mines.
  - The act says that children can only work after school hours or during holidays and that children are allowed to work in family owned secure sectors.
- **Platform for Effective Enforcement for No Child Labour (PENCIL) Portal** is an electronic platform that aims at involving Centre, State, District, Governments, civil society and the general public in

achieving the target of child labour free society. It has been launched for the effective implementation of Child Labour Act and National Child Labour Project (NCLP) Scheme.

#### Statistics of Child Labour across the World

- Worldwide 218 million children between 5 and 17 years are in employment. Among them, 152 million are victims of child labour; almost half of them, 73 million, work in hazardous child labour.
- In absolute terms, almost half of child labour (72.1 million) is to be found in Africa; 62.1 million in the Asia and the Pacific; 10.7 million in the Americas; 1.2 million in the Arab States and 5.5 million in Europe and Central Asia.
- Almost half of all 152 million children victims of child labour are aged 5-11 years. 42 million (28%) are 12-14 years old; and 37 million (24%) are 15-17 years old.
- Hazardous child labour is most prevalent among the 15-17 years old.
- Among 152 million children in child labour, 88 million are boys and 64 million are girls.
- 58% of all children in child labour and 62% of all children in hazardous work are boys.
- Boys appear to face a greater risk of child labour than girls, but this may also be a reflection of an under-reporting of girls' work, particularly in domestic child labour.

#### Why in News?

- The COVID-19 pandemic is likely to push millions of children around the world into child labour, while those already employed may be forced to work longer hours and under worsening conditions, according to a new brief from the International Labour Organisation (ILO) and the UNICEF.
- This could result in the first-ever rise in child labour in 20 years. Since 2000, child labour decreased by 94 million but this gain could soon be reversed warn the two multilateral bodies.

## 2) Increase in Domestic Violence

#### Why in News?

- The National Commission for Women (NCW) registered an increase of at least

1.5 times in domestic violence complaints since the nationwide lockdown.

#### News in Detail:

- Between March 25 and May 31, the NCW received 1,477 complaints of domestic violence. The total complaints during the 68-day period were 1.5 times the 607 of complaints received between March and May last year.
- Non-governmental organization Swayam, working in the area of women's rights, has seen a more than two-fold increase in domestic violence complaints, which have gone up from an average of 22 complaints each month before COVID-19 to an average of 57 complaints per month on their helplines or through email.

#### About National Commission for Women:

- The National Commission for Women was set up as **statutory body** in 1992 under the National Commission for Women Act, 1990 to
  - review the **Constitutional and Legal safeguards for women** ;
  - recommend remedial legislative measures ;
  - facilitate redressal of grievances and
  - Advise the Government on all policy matters affecting women.

#### Composition of National Commission for Women

- The Commission shall consist of
  - **A Chairperson**, to be nominated by the Central Government.
  - **five Members to be nominated by the Central Government** from amongst persons of ability, integrity and standing who have had experience in law or legislation, trade unionism, management of an industry potential of women, women's voluntary organizations (including women activist), administration, economic development, health, education or social welfare; Provided that at least one Member each shall be from amongst persons belonging to the Scheduled Castes and Scheduled Tribes respectively;
  - **A Member-Secretary** to be nominated by the Central Government who shall be :-
    - an expert in the field of management, organizational structure or sociological movement, or

- An officer who is a member of a civil service of the Union or of an all-India service or holds a civil post under the Union with appropriate experience.

### **Powers and Functions**

- The commission shall perform all or any of the following functions, namely :-
- Investigate and examine all matters relating to the safeguards provided for women under the Constitution and other laws;
- present to the Central Government, annually and at such other times as the Commission may deem fit, reports upon the working of those safeguard;
- make in such reports recommendations for the effective implementation of those safeguards for the improving the conditions of women by the Union or any state;
- take up cases of violation of the provisions of the Constitution and of other laws relating to women with the appropriate authorities;
- look into complaints and take suo moto notice of matters relating to deprivation of women's rights;
- participate and advice on the planning process of socio-economic development of women;

## **3) Pradhan Mantri Van Dhan Yojana**

### **About:**

- Pradhan Mantri Van Dhan Yojana (PMVDY) is a **retail marketing led value addition plan for Minor Forest Produce (MFP)**, meant for forest-based tribes to optimize the tribal income locally. It seeks to improve tribal incomes through value addition of tribal products.
- Under the program, MFP-based tribal groups / enterprises of around 300 members are formed for the collection, value addition, packaging & marketing of Minor Forest Produces.
- It is an initiative of the **Ministry of Tribal Affairs and TRIFED**.

### **About Minor Forest Produce:**

- '**Minor Forest Produce (MFP)**' means all non-timber forest produce of plant origin and will include bamboo, canes, fodder, leaves, gums, waxes, dyes, resins and many forms of food including nuts, wild fruits, Honey, Lac, Tusser etc. The Minor Forest Produces provide both **subsistence and cash income for people who live in or near forests**.
- A number of people from Scheduled Tribes and other forest-dwelling communities depend on the collection and sale of such items for their livelihood.
- The Minor Forest Produce has significant economic and social value for the forest dwellers as an estimated 100 Million people derive their source of livelihood from the collection and marketing of Minor Forest Produce (Report of the National Committee on Forest Rights Act, 2011).

- These tribal enterprises will be in the form of Van Dhan Self Help Groups (SHGs) which will be a group of 15-20 members and such 15 SHG groups will further be federated into a larger group of **Van Dhan Vikas Kendras (VDVKS)** of around 300 members.
- **TRIFED** will support the VDVKS through providing them with model business plans, processing plans & tentative list of equipment for carrying out the value addition work of MFPs.

### **TRIFED**

- The Tribal Cooperative Marketing Development Federation of India (TRIFED) came into existence in 1987. It is a national-level apex organization functioning under the administrative control of the **Ministry of Tribal Affairs**.
- TRIFED has its Head Office located in New Delhi and has a network of 13 Regional Offices located at various places in the country.

### **Objectives**

- The ultimate objective of TRIFED is socio-economic development of tribal people in the country by way of marketing development of the tribal products such as metal craft, tribal textiles, pottery, tribal paintings and pottery on which the

Tribals depend heavily for a major portion of their income.

- TRIFED acts as a facilitator and service provider for tribes to sell their product.
- The approach by TRIFED aims to empower tribal people with knowledge, tools and pool of information so that they can undertake their operations in a more systematic and scientific manner.
- It also involves capacity building of the tribal people through sensitization, formation of SHGs and imparting training to them for undertaking a particular activity.

#### **Main activities to TRIFED include:**

- Retail Marketing Development
- Minor Forest Produce Marketing Development
- Skill up-gradation & Capacity Building of ST Artisans and MFP Gatherers
- R&D Development/Intellectual Proprietary Rights (IPR) Activity

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

- Van Dhan Yojna launched with an intention to improve the tribal income through value addition of tribal products have benefitted 1,205 tribal enterprises employing 3.6 lakh people through 18,000 self-help groups that have been set up under the Van Dhan scheme.

### **4) A.P. Assembly opposes NRC, NPR**

#### **GS Paper- 2 , Population and Associated Issues**

##### **What is the National Population Register?**

- The National Population Register (NPR) is a **Register of usual residents** of the country.
- It is a comprehensive identity database maintained by the **Registrar General and Census Commissioner of India** under the **Ministry of Home Affairs**.
- It is being prepared at the local (Village/sub-Town), sub-District, District, State and National level under provisions of the Citizenship Act 1955 and the Citizenship Rules, 2003.
- It is **mandatory for every usual resident of India** to register in the NPR.
- A usual resident is defined for the purposes of NPR as a person who has resided in a local area for the **past 6 months or more** or a person who intends

to reside in that area for the next 6 months or more.

- NPR cannot be seen as a citizenship registration drive since it would include, for instance, any foreigner residing in a given locality for over six months.
- The data for the NPR were first collected in 2010 along with the house listing phase of Census 2011. In 2015, this data was further updated by conducting a door-to-door survey.

##### **How NPR differs from population census?**

- The decennial census is the largest single source of a variety of statistical information on different characteristics of all persons in the country. The process began for the first time in 1872 when India was still under colonial rule.
- The Census is carried out under the **Census Act, 1948**.
- As opposed to this, the exercise of creating and maintaining a NPR began in the year 2010 to create a registry of usual residents of the country. NPR is conducted under the **Citizenship Act 1955 and the Citizenship Rules, 2003**.
- The Census data does not aim to collect information about individuals but to give an overall picture of the status or condition of residents of India and the overall population trends.
- The purpose of collecting and analyzing Census data is that it informs planning and policy, and helps in assessing the impact of existing government policies.
- While the Census Act makes it compulsory for the government to keep the data collected during census confidential and anonymous, there is no such requirement of confidentiality for NPR data under the citizenship rules. The NPR is a register that will be in the public domain with data of individuals.

##### **National Register of Citizens**

- The National Register of Citizens (NRC) is the register containing names of Indian citizens.
- NRC was prepared first in 1951 after the conduct of the Census of 1951.
- It is being updated and that too **only in Assam**.
- Now, it is not linked to census but one has to link oneself to a family member whose name had appeared either in the **NRC of**

**1951, or to any of the state's electoral rolls prepared till midnight of 24th march 1971.**

- If the applicant's name is not on any of these lists, he can produce any of the **12 other documents dated up to March 24, 1971.**

#### **Why 1971?**

##### **The Assam Accord:**

- Popular movements between 1979 and 1985 against undocumented immigrants in Assam led to the Assam Accord.
- The Assam Accord (1985) was a Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement in New Delhi on 15 August 1985.
- The Accord agreed that all those foreigners who had entered Assam between 1951 and 1961 were to be given full citizenship, including the right to vote.
- Those who had done so **after 1971 were to be deported**; the entrants between 1961 and 1971 were to be denied voting rights for ten years but would enjoy all other rights of citizenship.
- However, the provisions in the Assam accord were not implemented for a long time.
- Finally the Supreme Court, which is supervising the entire process, has set a hard deadline of July 31 for the final NRC. Deadline was extended to August 31<sup>st</sup> later.

##### **Current status:**

- The final draft of NRC was released in August 2019 which excluded 19 lakh of the 3.29 crore applicants in Assam.
- Each excluded person can file an appeal in **Foreigners Tribunals.**
- The appellant then has the option of approaching the **High Court and Supreme Court.**

##### **Foreigners Tribunal:**

- The foreigners tribunals are quasi-judicial bodies, unique to Assam, to determine if a person staying illegally is a "foreigner" or not.
- The Ministry of Home Affairs (MHA) has amended the **Foreigners (Tribunals) Order, 1964**, and has empowered **district magistrates** in all States and Union Territories to set up tribunals to

decide whether a person staying illegally in India is a foreigner or not.

- Earlier, the powers to constitute tribunals were vested only with the Centre.

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

- Several ministers of the Andhra Pradesh state government opposed the NPR exercise claiming that data gathered for NPR exercise in 2010 and 2015 were different as compared to present details.
- They said that now information was also being sought about parents, including their dates of birth, domicile status and mother tongue. This according to the state government was troublesome for the minorities.

### **5) Plea to transfer PM CARES funds to NDRF**

#### **What is PM CARES Fund?**

- 'Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund' (PM CARES Fund)' is a dedicated **national fund with the primary objective of dealing with any kind of emergency or distress situation**, like posed by the COVID-19 pandemic, and to provide relief to the affected.
- **Prime Minister** is the **ex-officio Chairman of the PM CARES Fund** and Minister of Defence, Minister of Home Affairs and Minister of Finance, Government of India are ex-officio Trustees of the Fund.

#### **Key objectives :**

- To undertake and support relief or assistance of any kind relating to a public health emergency or any other kind of emergency, calamity or distress, either man-made or natural, including the creation or upgradation of healthcare or pharmaceutical facilities, other necessary infrastructure, funding relevant research or any other type of support.
- To render financial assistance, provide grants of payments of money or take such other steps as may be deemed necessary by the Board of Trustees to the affected population.

#### **Tax and other Exemptions:**

- Donations to PM CARES Fund would qualify for 100% exemption under the Income Tax Act, 1961.

- Donations to the Fund will also qualify to be counted as Corporate Social Responsibility (CSR) expenditure under the Companies Act, 2013

- The term "**Corporate Social Responsibility**" in general can be referred to as a corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare. Few activities, which can be undertaken by a company under CSR include,
  - Eradicating hunger, poverty & malnutrition, promoting preventive health care & sanitation & making available safe drinking water;
  - Promoting education, including special education & employment enhancing vocational skills especially among children, women, elderly & the differently unable & livelihood enhancement projects;
  - Employment enhancing vocational skills
  - Protection of national heritage, art & culture including restoration of buildings & sites of historical importance & works of art; setting up public libraries;
  - promotion & development of traditional arts & handicrafts; etc..
  - India is the first country in the world to make CSR **mandatory**, following an amendment to the Company Act, 2013.
  - Any company that has a net worth of at least Rs 500 crore, a turnover of Rs 1,000 crore or a net profit of Rs 5 crore is obliged to spend **2% of its average profits** over the last three years on CSR.

- PM CARES Fund has also got exemption under the **Foreign Contribution Regulation Act (FCRA), 2010** and a separate account for receiving foreign donations has been opened. This enables PM CARES Fund to accept donations and contributions from individuals and organizations based in foreign countries.

#### **Foreign Contribution Regulation Act (FCRA), 2010**

- Foreign funding of voluntary organizations in India is regulated under FCRA act and is implemented by the **Ministry of Home Affairs**.
- It regulates the acceptance and utilization of foreign contribution or foreign

hospitality by certain individuals or associations or companies.

- The Acts ensures that the recipients of foreign contributions adhere to the stated purpose for which such contribution has been obtained.

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

- The Supreme Court sought a response from the government to a plea that contributions made to the PM CARES Fund to fight COVID-19 should be transferred entirely to the National Disaster Response Fund (NDRF).

#### **About National Disaster Response Fund:**

- National Disaster Response Fund is defined in Section 46 of the **Disaster Management Act, 2005 (DM Act)** as a fund managed by the Central Government for meeting the expenses for emergency response, relief and rehabilitation due to any threatening disaster situation or disaster.
- It is **constituted to supplement the funds of the State Disaster Response Funds (SDRF)** of the states to facilitate immediate relief in case of calamities of a severe nature.
- Definition of a disaster:
  - The DM Act defines "disaster" to mean 'a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.
- Financing of the fund
  - The NDRF is funded through the **National Calamity Contingency Duty (NCCD)** imposed on specified goods and additional budgetary support is provided as and when necessary.
  - The requirement for funds beyond what is available under the NDRF is met through general budgetary resources.
- Utilisation of funds
  - NDRF amount can be spent only towards meeting the expenses for emergency response, relief and rehabilitation.

- For projects exclusively for the purpose of mitigation, i.e, measures aimed at reducing the risk, impact or effect of a disaster or threatening disaster situation a separate fund called National Disaster Mitigation Fund has to be constituted.
- NDRF is located in the "**Public Accounts**" of Government of India under "Reserve Funds not bearing interest"
- Comptroller and Auditor General of India (CAG) audit the accounts of NDRF.
- **Note:** The Finance Ministry recently gave approval to allow individuals and institutions to contribute directly to the National Disaster Relief Fund. This is a significant development at a time when many have expressed concerns about donations sent to the PM CARES Fund or the Prime Minister's National Relief Fund, as both claim they are not public authorities subject to questions under the Right to Information Act.

## 6) Garib Kalyan Rojgar Abhiyan

### About the scheme

- It aims to offer **immediate employment to migrant workers who have returned to their villages because of COVID-19 lockdown.**
- Out of 1 crore estimated migrant workers who have returned to their villages, 67 lakh people are expected to get benefited.
- A total of 116 Districts with more than 25 thousand returnee migrant workers across **six States**, namely Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Jharkhand and Odisha have been chosen for the campaign.
- These districts are estimated to cover about two third of such migrant workers.
- Public Works worth Rs 50,000 crore would be carried out in these districts to provide immediate relief to these workers.
- Workers will be employed in rural housing, rural connectivity including the Pradhan Mantri Gram Sadak Yojana, national highways, railway works, community sanitation complex, gram panchayats, anganwadis, water conservation, digging of wells, plantation and horticulture.

- This scheme will be made available for 125 days and extension of the scheme will be decided based on the need.

### Why in News?

- Prime Minister Narendra Modi has launched Garib Kalyan Rojgar Abhiyan, a massive rural public works scheme, in six states.

## 7) Rule of Law Index

### About the Index

- The Rule of Law Index is designed and compiled by the **World Justice Project.**
- The index is a quantitative assessment tool which offers a detailed and comprehensive picture of the extent to which countries adhere to the rule of law in practice.

### Rule of Law Index 2020

- The Rule of Law Index 2020 presents a portrait of the rule of law in 128 countries and jurisdictions by providing scores and rankings based on **eight factors**:
  - Constraints on Government Powers, Absence of Corruption, Open Government, Fundamental Rights, Order and Security, Regulatory Enforcement, Civil Justice, and Criminal Justice.
- Scores range from 0 to 1, with 1 indicating the strongest adherence to the rule of law.
- With a score of 0.90, Denmark is placed at the top of the list.
- With a score of 0.51, **India secured 69th position.**
- The Index measures adherence to the rule of law by looking at policy outcomes, such as whether people have access to courts or whether crime is effectively controlled.
- The Index examines practical, everyday situations, such as whether people can access public services and whether a dispute among neighbours can be resolved peacefully and cost-effectively by an independent adjudicator.

### World Justice Project

- The World Justice Project (WJP) is an independent, multidisciplinary not for profit organization working to advance the rule of law worldwide.
- Formed in 2009, it is an initiative of American Bar Association with the support of other partners.
- The World Justice Project defines the rule of law as a durable system of laws,

institutions, norms, and community commitment that delivers:

- **Accountability** - The government as well as private actors are accountable under the law.
- **Just Laws** - The laws are clear, publicized, and stable; are applied evenly; and protect fundamental rights, including the security of persons and contract, property, and human rights
- **Open Government** - The processes by which the laws are enacted, administered,

and enforced are accessible, fair, and efficient.

- **Accessible and Impartial Dispute Resolution** - Justice is delivered timely by competent, ethical, and independent representatives and neutrals who are accessible, have adequate resources, and reflect the makeup of the communities they serve.

# ENVIRONMENT

## 1) National Green tribunal

### About



## National Green Tribunal

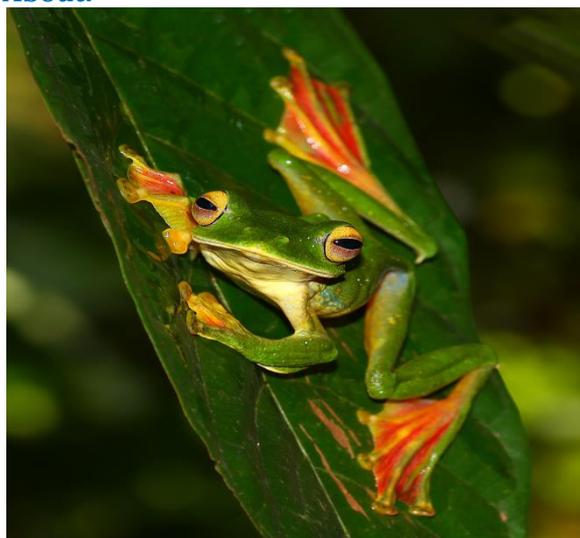
- The National Green Tribunal (NGT) is a **statutory body** that was established in 2010 by the National Green Tribunal Act.
- The principal bench of the NGT is located in **Delhi**, with other benches sitting in Bhopal, Pune, Kolkata and Chennai.
- The Tribunal's dedicated jurisdiction in environmental matters shall provide speedy environmental justice and help reduce the burden of litigation in the higher courts.
- The Tribunal is mandated to make and endeavour for disposal of applications or appeals finally **within 6 months of filing** of the same.
- The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by **principles of natural justice**.
- The NGT deals with civil cases under the seven laws related to the environment, these include
  - The Water (Prevention and Control of Pollution) Act, 1974
  - The Water (Prevention and Control of Pollution) Cess Act, 1977
  - The Forest (Conservation) Act, 1980
  - The Air (Prevention and Control of Pollution) Act, 1981
  - The Environment (Protection) Act, 1986
  - The Public Liability Insurance Act, 1991 and
  - The Biological Diversity Act, 2002
- Two related acts - Wildlife (Protection) Act, 1972 and Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 **have been kept out of NGT's jurisdiction**.

### Why in the news?

- NGT has given direction to Kerala state forest department to send a report on steps taken for prevention of forest fires.
- In february 2020, a forest fire in kerala took the lives of 6 forest guards. In this enquiry, NGT has asked the government of Kerala to file report .

## 2) Malabar gliding frog

### About:



- It is a rare amphibian that can glide in the air up to 10-12 ft in one leap.
- It is **endemic** (found only in that region) to **Western Ghats**.
- The fingers and toes are like sticks to attach to and walk through tree branches. Males are smaller than females.
- They built foam nests above small pools of water, into which the tadpoles drop after hatching. As their body is so soft, they can live only in moist forests with streams.
- Nature enthusiasts have also observed interesting behaviour like cannibalism (eating their own species) among tadpoles.
- The Malabar gliding frog population was declining due to deforestation, climate change, developmental activities, toxic chemicals and so on, he said.

### Why in the news?

- Malabar gliding frog was spotted in the orchard of a house at Pullad, near Kozhencherry in Kerala.

### 3) Indian Institute of Tropical Meteorology

#### About

- The Institute was founded as the Institute of Tropical Meteorology (IITM) in 1962 at **Pune**, as a distinct unit of the India Meteorological Department (IMD).
- It is under the **Ministry of Earth Sciences**.
- IITM is a premiere research Institute to generate scientific knowledge in the field of meteorology and atmospheric sciences that has potential application in various fields such as agriculture, economics, health, water resources, transportation, communications, etc.
- It functions as a national centre for basic and applied research in monsoon meteorology.

#### Intergovernmental Panel on Climate Change (IPCC)



- Created in 1988 by the **World Meteorological Organization (WMO)** and the **United Nations Environment Programme (UNEP)**, the objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies.
- IPCC reports are also a key input into international climate change negotiations.
- The IPCC is an organization of governments that are members of the United Nations or WMO.
- For the assessment reports, IPCC scientists volunteer their time to assess the thousands of scientific papers published each year to provide a comprehensive summary of what is known about the drivers of climate change, its impacts and future risks, and how adaptation and mitigation can reduce those risks.

- The IPCC **does not conduct its own research**.
- The IPCC is divided into three Working Groups and a Task Force.
- Working Group I deals with The Physical Science Basis of Climate Change, Working Group II with Climate Change Impacts, Adaptation and Vulnerability and Working Group III with Mitigation of Climate Change.
- The main objective of the Task Force on National Greenhouse Gas Inventories is to develop and refine a methodology for the calculation and reporting of national greenhouse gas emissions and removals.

#### Why in the news?

- Indian Institute of Tropical Meteorology has developed a climate forecasting model to arrive at projections of the impact of global warming on the subcontinent in the coming century.
- These projections will be part of the next report of the Intergovernmental Panel on Climate Change, expected to be ready in 2022.

#### What are the projections?

- The projections expect annual rainfall to increase, along with more severe cyclones and — paradoxically — more droughts.
- From 1986-2015, the hottest day and coldest night have warmed 0.63°C and 0.4°C, respectively. By the end of the 21st century these temperatures are projected to rise by approximately 4.7°C and 5.5°C, respectively, relative to the corresponding temperatures in 1976-2005.
- The frequencies of future warm days and warm nights are projected to increase by 55% and 70%, respectively, relative to the reference period of 1976-2005.
- Summer heat waves over India are projected to be three to four times higher by the end of the 21st century.
- The projected rapid changes in India's climate will place increasing stress on the country's natural ecosystems, agricultural output, and freshwater resources

# ECONOMY

## 1) Wholesale Price Index

### About WPI

- Wholesale Price Index measures and tracks the changes in the price of goods in the stages before the retail level. It provides estimates of inflation at the wholesale transaction level for the economy as a whole.
- It is released by the **Office of Economic Adviser, Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry**.
- The base year is **2011-2012**.
- The index basket consists of commodities under 3 main categories in decreasing order of weightage: **Manufactured products, Primary Articles and Fuel and Power**.

### Why in News?

- According to the latest WPI data, India's wholesale prices fell 3.21% in May, the most since November 2015, as the country remained under the lockdown imposed to contain the spread of Covid-19.
- It is the first instance of **deflation** since June 2016.
- *Deflation is a persistent fall in the general price level of goods and services.*

## 2) BS norms

### What are Bharat Stage norms?

- The Bharat Stage norms are standards instituted by the government to regulate the emission of air pollutants from motor vehicles.
- As the stage goes up, the control on emissions becomes **stricter**.
- In India, the BS-IV norm has been in force since April, 2017. In 2016, the Centre had announced that India would skip the BS-V norms and adopt BS-VI by 2020.
- These norms are **based on similar norms in Europe** called Euro 4 and Euro 6.

### How is BS6 different from BS4?

- A vital difference between BS6 and the BS4 fuel is that the BS6 fuel contains 5 times fewer **sulphur** traces (10 parts per million) compared to BS4 (50 ppm).

- NO<sub>x</sub> (**Nitrogen Oxide**) level will be brought down by a staggering 70% for Diesel engine and 25% for Petrol Engines.
- The BS6 brings along a plethora of changes, most significant being the mandatory OBD (**Onboard Diagnostics**) for all vehicles. OBD device informs the vehicle owner or the repair technician how efficient the systems in the vehicle are.
- **RDE (Real Driving Emission)** will be introduced for the first time that will measure the vehicle's emission in real-world conditions against simulated conditions.
- Introduction of **DPF (Diesel Particulate Filter)** and **SCR (Selective Catalytic Reduction)** for Diesel engines.
- So a transition from BS4 to BS6 requires modification both in the **fuel** and in the **vehicle engine**.

### Background

- In March 2020, the Supreme Court extended the March 31, 2020 deadline for the sale and registration of BS-IV vehicles because of the extraordinary situation arising out of the COVID-19 lockdown and to provide relief to automobile dealers.
- The apex court allowed sale of 10% of the unsold stock of BS IV vehicles within 10 days of the end of the lockdown, except in Delhi and the National Capital Region. Dealers in Delhi-NCR were denied the relief owing to the high levels of the pollution in the national capital.

### Why in News?

- The Supreme Court barred the sale and registration of BS IV vehicles citing misuse of its earlier order allowing sale of 10% of the unsold stock.
- The court also ordered the Centre to collect details on how many of them were sold and registered after the national lockdown was lifted.

## 3) Commercial coal mining

### Background

- As a part of the announcements under the **Atmanirbhar Bharat Abhiyan**, the Central government recently announced that it would allow commercial mining in the coal sector.

- Refer Pulse #2 edition for details on Atmanirbhar Bharat Abhiyan.

#### What is commercial mining?

- Commercial mining **allows the private sector** to mine coal commercially on a **revenue-sharing model without placing any end-use restrictions**.
- A revenue sharing mechanism instead of the earlier fixed price per tonne will introduce competition, transparency and private sector participation in the market.
- The private firms have the option of either gasification of the coal or exporting it. They can also use it in their own end-use plants or sell them in the markets.
- Further, with **100 per cent foreign direct investment** allowed in the coal sector, **global companies** can also participate in the auctions.
- The complete freedom to decide on sale, pricing, and captive utilisation is expected to attract many private sector firms to participate in the auction process.
- The government expects these steps will generate employment and reduce India's import bill.

#### Was the private sector never allowed in mining?

- Private sector participation was permitted until the early 1970s. The Indira Gandhi government announced the **nationalisation of the coal blocks** in two phases **between 1971 and 1973**.
- The recently announced reforms will effectively **end state-owned Coal India Ltd (CIL)'s monopoly** over mining and selling of coal.

#### Is this the first attempt by govt to open up the sector?

- After the Supreme Court cancelled the coal block allocations made to the private sector in 2014, the central government had brought in the Coal Mines (Special provisions) Act of 2015 to return these coal blocks to the private sector through auctions.
- But there had been **end-use restrictions** and the private sector was **not allowed to trade into the market** making it unattractive for the private sector.
- Further in 2018, private sector firms were allowed to **sell upto 25 per cent of the output** in the market, but this also saw a

lukewarm response from the private sector.

#### Why in News?

- Prime Minister Narendra Modi unveiled the auction process of 41 coal blocks - spread across five states of Maharashtra, Jharkhand, Chhattisgarh, Odisha and Madhya Pradesh - for commercial mining through video-conference.

#### Significance

- The auction for commercial mining was a major step towards making India self-reliant in the energy sector.
- The government has also decided to spend Rs 50,000 crore on creating **infrastructure for coal extraction and transport**. This would also create job opportunities for locals closer to their homes.
- Despite India having the **world's fourth largest coal reserve** and being the **second largest producer**, the country was the **second largest coal importer**. The sector had been kept out of competition and devoid of transparency, hampering investment and efficiency.
- Fully opening up the sector would increase competition, capital, participation and technology. It would ensure new private players did not face the problem of finance.

#### 4) EAC-PM

##### What is it?

- Economic Advisory Council to the Prime Minister (EAC-PM) is a **non-constitutional, non-permanent and independent body** constituted to give advice on economic and related issues to the Government of India, specifically to the Prime Minister.
- The Terms of Reference of EAC-PM include analyzing any issue, economic or otherwise, referred to it by the Prime Minister and advising him thereon, addressing issues of macroeconomic importance and presenting views thereon to the Prime Minister.
- These could be either **suo-motu or on reference** from the Prime Minister or anyone else.
- The chairman is appointed from time to time when the body is constituted.

#### Why in News?

- EAC-PM member Ashima Goyal recently said that the government's Rs 20.97 lakh crore rescue package as a part of the **Atma nirbhar bharat abhiyan** will provide the necessary stimulus to kick-start demand in the economy.

## 5) Tightening of FDI rules

### FDI Routes in India

- The entry of Foreign Direct Investment (FDI) by non residents into India is regulated through two routes –**automatic route and government route**.
  - Under the Automatic Route, the foreign investor does not require any approval from the Reserve Bank or Government of India for the investment.
  - Under the approval route or government route, the foreign investor should obtain prior approval of the Government of India agencies or bodies specified.
- India has opened up most of the sectors for FDI investments through automatic route, but has kept certain sectors like defence, space and atomic energy restricted or prohibited.

### Why in News?

- Amid growing tensions between India and China, the finance ministry has proposed

putting restrictions on pension fund investments from any of India's bordering countries.

- According to a recent draft notification, "A government approval would be required for the investing entity or individual from any of the **bordering countries including China**. The relevant provisions of FDI policy issued from time to time would apply in all such cases."
  - *India shares land borders with **Pakistan, Afghanistan, China, Nepal, Bhutan, Bangladesh and Myanmar**.*
  - Any foreign investment from these countries will be subject to **approval from the government**. The restriction would be applicable from the date of notification by the Government of India.
  - At present, Foreign investment in pension funds regulated by the **Pension Fund Regulatory and Development Authority (PFRDA)** is capped at **49% under the automatic route**.

### About PFRDA

- It is a **statutory** Authority under the **Ministry of Finance**.
- Its mandate is to act as a regulator for the pension sector.

# INTERNATIONAL RELATIONS

## 1) Initiatives towards Maritime Domain Awareness

### About IOC

- The Indian Ocean Commission (IOC) is an intergovernmental body created in 1984 that coordinates maritime governance in the south-western Indian Ocean.
- It consists of **five Member States**: The Union of the Comoros, France Reunion Island, Madagascar, Mauritius and the Seychelles.
- The IOC is the only regional organisation in Africa to represent a group of islands.
- The IOC's mission is to unite Member States' forces and pool their resources, raise awareness of the special challenges that developing islands face and promote Indianoceanica as a region of unique human, cultural and natural diversity.
- Recently, India has been accepted as an **observer** of the Indian Ocean Commission.



### About IFC-IOR

- The Information Fusion Centre – Indian Ocean Region (IFC-IOR) was inaugurated in 2018 within the premises of the Navy's **Information Management and Analysis Centre (IMAC)** in Gurugram.
- The IMAC is the single point centre **linking all the coastal radar chains** to generate a seamless real-time picture of nearly 7,500-km coastline and of some neighbouring countries. It helps in **tracking maritime movements in the region.**

### Why in News?

- After joining the Indian Ocean Commission as Observer, India is looking to post Navy Liaison Officers at the Regional Maritime Information Fusion Centre (RMIFC) in Madagascar and also at the European maritime surveillance initiative in the Strait of Hormuz (EMASOH) for improved Maritime Domain Awareness (MDA).
- This will be in the overall realm of improving linkages of the Navy's Information Fusion Centre for Indian Ocean Region (IFC-IOR) with other IFCs and become the **repository for all maritime data in the IOR.**

### RMFIC & EMASOH

- The RMFIC functions **under the aegis of the Indian Ocean Commission.**
- EMASOH is supported by eight countries which include Germany, Belgium, Denmark, Greece, Italy, the Netherlands, Portugal, and France.
- The aim of EMASOH is to **monitor maritime activity and guarantee freedom of navigation** in the Persian Gulf and the Strait of Hormuz.
- On February 5, the initiative was declared operational by the French Ministry of Armed Forces.

### Related agreements

- Of late, India has signed a series of **white shipping agreements, Logistics Support Agreements (LSA) and maritime cooperation agreements** with several countries.
- For instance, at the virtual summit, India and Australia announced a joint declaration on a shared vision for maritime cooperation in the Indo-Pacific in which they agreed to deepen navy-to-navy cooperation and strengthen MDA in the Indo-Pacific region through enhanced exchange of information.
- *White shipping agreements refer to exchange of relevant advance information on the identity and movement of commercial non-military merchant vessels.*

## 2) Aid diplomacy

### Background

- As cases of coronavirus increase in countries across South Asia and some of the Indian Ocean Region (IOR) countries, both India and China are pressing ahead with medical supplies, including medicines and protective gear, as well as offers of medical teams to be stationed there.
- With nearly 6,00,000 cases now, the eight **SAARC countries** account for about 7.5% of the world total of 7.9 million COVID-19 cases, and about 3% of global coronavirus deaths.
- According to its **Health Silk Road initiative**, China has sent 29 medical expert teams to 27 countries.

#### India's outreach

- India has intensified its offers in the SAARC region (minus Pakistan) and the IOR, deploying aid by Air India flights as well as by the Indian Naval Ship 'Kesari' and sending teams as well.
- India has thus far sent medical teams to the Maldives, Mauritius, Comoros, and Kuwait.
- The deployment to the Comoros and Mauritius, part of "**Mission Sagar**", was particularly considered historic as it unveiled new Indian capabilities in parts of the IOR that other countries had not developed.
- For the past months, two 14-member Indian Navy medical teams have been stationed in Mauritius and Comoros, where they toured local hospitals, trained personnel and assisted in COVID-19 management techniques.

#### Why in News?

- Amidst its own tensions with India and the month-long standoff between India and China at the Line of Actual Control, Nepal Prime Minister K.P. Oli has decided not to accept medical teams from either India or China.

#### About SAARC

- The South Asian Association for Regional Cooperation (SAARC) was established in 1985 with 7 founding members.
- SAARC now comprises **eight Member States**: Afghanistan (joined in 2007), Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
- There are nine observer countries namely Australia, China, European Union, Iran,

Japan, Mauritius, Myanmar, South Korea, and the United States.

- The Secretariat of the Association is located in **Kathmandu, Nepal**.

#### Mission Sagar

- 'Mission Sagar' is Government of India's initiative to assist island nations in Indian Ocean amidst the ongoing COVID-19 pandemic.
- The Mission is being coordinated by the **Ministry of External Affairs and Ministry of Defence**.
- The deployment is in consonance with the Prime Minister Narendra Modi's vision of **Security and Growth for All in the Region (SAGAR)** promulgated in March 2015.
- SAGAR highlights the importance accorded by India to relations with her neighbouring countries and further strengthens the existing bond.

### 3) Rising nuclear warheads

#### What's in the news?

- Swedish think tank Stockholm International Peace Research Institute (SIPRI) has released its report on nuclear warheads recently.
- *SIPRI is an independent international institute based in Sweden, dedicated to research into conflict, armaments, arms control and disarmament.*

#### Highlights of the report

- All nations that have nuclear weapons continue to modernise their nuclear arsenals, while India and China increased their nuclear warheads in the last one year.
- China is in the middle of a significant modernisation of its nuclear arsenal. It is developing a **nuclear triad** for the first time, made up of new land and sea-based missiles and nuclear-capable aircraft.
- *A nuclear triad is a three-pronged military force structure that consists of land-launched nuclear missiles, nuclear-missile-armed submarines and strategic aircraft with nuclear bombs and missiles.*
- India and Pakistan are slowly increasing the size and diversity of their nuclear forces.
- China's nuclear arsenal had gone up from 290 warheads in 2019 to 320 in 2020, while India's went up from 130-140 in

2019 to 150 in 2020. Pakistan's arsenal was estimated to be between 150-160 in 2019 and has reached 160 in 2020. **Both China and Pakistan continue to have larger nuclear arsenals than India.**

- The nuclear arsenals of the nuclear-armed states other than the United States and Russia were considerably smaller but all these states were either developing or deploying new weapon systems or had announced their intention to do so.
- Together the **nine nuclear-armed states** — the U.S., Russia, the United Kingdom, France, China, India, Pakistan, Israel and North Korea — possessed an estimated 13,400 nuclear weapons at the start of 2020, which marked a decrease from an estimated 13,865 nuclear weapons at the beginning of 2019.
- The decrease in the overall numbers was largely due to the dismantlement of old nuclear weapons by Russia and the U.S., which **together possess over 90% of the global nuclear weapons.**

#### Rising tensions

- The U.S. and Russia have reduced their nuclear arsenals under the 2010 **New Strategic Arms Reduction Treaty (New START)** but it will lapse in February 2021 unless both parties agree to prolong it.
- However, discussions to extend the New START or negotiate a new treaty made no progress with the U.S.'s insistence that China must join any future nuclear arms reduction talks, which China has categorically ruled out.
- The deadlock over the New START and the collapse of the 1987 Soviet–U.S. Treaty on the Elimination of **Intermediate-Range and Shorter-Range Missiles (INF Treaty)** in 2019 suggest that the era of bilateral nuclear arms control agreements between Russia and the U.S. might be coming to an end.
- Russia and the U.S. have already announced extensive plans to replace and modernise their nuclear warheads and delivery systems.

#### Related information

##### New START

- The New Strategic Arms Reduction Treaty was signed in 2010 by **Russia and the United States** and entered into force in 2011.

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

##### Intermediate-Range Nuclear Forces treaty

- Signed in 1987, the Intermediate-Range Nuclear Forces (INF) treaty required the United States and the Soviet Union to eliminate all of their **nuclear and conventional ground-launched ballistic and cruise missiles** with ranges of **500 to 5,500 kilometres.**
- As a result of the treaty, both countries destroyed a total of 2,692 short-, medium-, and intermediate-range missiles.
- Last year, the **U.S. announced its formal withdrawal** from the Intermediate-Range Nuclear Forces treaty accusing Russia of breaching the terms of the deal.

## 4) Asian Infrastructure Investment Bank

### About AIIB

- The Asian Infrastructure Investment Bank (AIIB) is an international development bank that provides financing for infrastructure projects in Asia.
- Headquartered in **Beijing**, it began operations in 2016.
- It includes 102 members worldwide (**India** is a founder member of AIIB).
- AIIB consists of two classes of membership: **regional and non-regional members.** Regional members hold **75% of the total voting power** in the Bank.
- **China** is the largest shareholder with 26.64 per cent voting shares in the bank. **India** is the second largest shareholder with 7.6 per cent voting shares followed by **Russia** 6.0 per cent.
- India is the biggest borrower of AIIB.



### Why in News?

- Asian Infrastructure Investment Bank has approved a \$750-million loan to India to help strengthen its response to the adverse impacts of the COVID-19 pandemic on millions of poor and vulnerable households.
- Co-financed by the **Asian Development Bank**, the budgetary support will go towards bolstering economic aid for businesses, including for the informal sector, expanding social safety nets for the needy, and strengthening the country's healthcare systems.

### About ADB

- The Asian Development Bank (ADB) was founded in 1966 with the primary mission of fostering growth and cooperation among countries in the Asia-Pacific Region.
- It is headquartered in **Manila**, Philippines.
- At present, ADB comprises 68 members (including **India**)- of which 49 are from within Asia and the Pacific and 19 outside.
- The ADB was **modeled closely on the World Bank**, and has a similar weighted voting system where votes are distributed in proportion with members' capital subscriptions.
- The two largest shareholders of the ADB are the **US and Japan**.
- ADB is an official United Nations Observer.

## 5) Pashupatinath Temple complex

### About the temple

- Pashupatinath Temple is the largest temple complex in **Nepal** and stretches on both sides of the **Bagmati River**.

- It sees thousands of worshippers from Nepal and India every day.
- Dedicated to **Lord Shiva**, Pashupatinath is one of the four most important religious sites in Asia for devotees of Shiva.
- The temple was built in the **5th century AD** and later renovated by **Malla kings**.
- The main temple is built in a **pagoda styled** inside a fortified courtyard.
- Pagoda is a towerlike, multistory, solid or hollow structure made of stone, brick, or wood.*
- The temple is also listed under the **UNESCO World Heritage site**.



### Why in News?

- India has pledged to construct a Rs 2.33 crore sanitation facility at the iconic Pashupatinath Temple complex to improve the infrastructure in the holy shrine for the pilgrims.
- The project would be constructed under the **Nepal-Bharat Maitri: Development Partnership** as a high impact community development scheme by India.
- India's assistance for the infrastructure development at the Pashupatinath Temple complex comes amid a raging border row between the two countries.

### Related information

#### UNESCO World Heritage site

- A World Heritage Site is a landmark or area, selected by the United Nations Educational, Scientific and Cultural Organization (UNESCO) for having cultural, historical, scientific or other form of significance, which is legally protected by international treaties.

#### UNESCO's World Heritage Convention, 1972

- The Convention Concerning the Protection of the World Cultural and Natural Heritage is an international

agreement that was adopted by the General Conference of UNESCO in 1972.

- It is based on the premise that certain places on Earth are of **outstanding universal value** and should therefore form part of the common heritage of humankind.
- It basically defines the kind of **natural or cultural sites** which can be considered for inscription on the World Heritage List.
- The Convention sets out the duties of **State Parties** in **identifying potential sites and their role in protecting and preserving them**.
- By signing the Convention, each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage.
- It explains how the World Heritage Fund is to be used and managed and under what conditions **international financial assistance** may be provided.

#### UNESCO Cultural sites in India (30)

- Agra Fort
- Ajanta Caves
- Archaeological Site of Nalanda Mahavihara at Nalanda, Bihar
- Buddhist Monuments at Sanchi
- Champaner-Pavagadh Archaeological Park
- Chhatrapati Shivaji Terminus (formerly Victoria Terminus)
- Churches and Convents of Goa
- Elephanta Caves
- Ellora Caves
- Fatehpur Sikri
- Great Living Chola Temples
- Group of Monuments at Hampi
- Group of Monuments at Mahabalipuram
- Group of Monuments at Pattadakal
- Hill Forts of Rajasthan
- Historic City of Ahmedabad
- Humayun's Tomb, Delhi
- Jaipur City, Rajasthan
- Khajuraho Group of Monuments
- Mahabodhi Temple Complex at Bodhi Gaya
- Mountain Railways of India
- Qutb Minar and its Monuments, Delhi
- Rani-ki-Vav (the Queen's Stepwell) at Patan, Gujarat
- Red Fort Complex
- Rock Shelters of Bhimbetka
- Sun Temple, Konârak

- Taj Mahal
- The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement
- The Jantar Mantar, Jaipur
- Victorian Gothic and Art Deco Ensembles of Mumbai
- **UNESCO Natural sites in India (7)**
- Great Himalayan National Park Conservation Area
- Kaziranga National Park
- Keoladeo National Park
- Manas Wildlife Sanctuary
- Nanda Devi and Valley of Flowers National Parks
- Sundarbans National Park
- Western Ghats
- **Mixed site (1)**
- Khangchendzonga National Park

## 6) International Atomic Energy Agency

### Background

#### Iran nuclear deal

- **The Joint Comprehensive Plan of Action (JCPOA)**, more commonly known as the Iran nuclear deal, was reached between Iran and six world powers known as the **P5+1** (China, France, Germany, Russia, the United Kingdom, and the United States) in July 2015.

#### What did Iran have to do to meet the requirements of the deal?

- According to this framework, Iran would **redesign, convert, and reduce its nuclear facilities** in order to lift all nuclear-related economic sanctions.
- The deal also allowed for the tracking of nuclear activities with robust transparency and inspections by the **International Atomic Energy Agency (IAEA)**.

#### U.S. withdrawal from JCPOA

- The US President Donald Trump unilaterally withdrew from the Iran nuclear deal in 2018, claiming it did not address Iran's ballistic missile programme or its roles in Middle Eastern conflicts.
- The US also re-imposed tough economic sanctions against Iran.
- Reacting to the US' withdrawal, Iran announced that it will breach its limits set on its nuclear activity by the 2015 deal.

### Why in News?

- The **International Atomic Energy Agency** has passed a resolution urging Iran to allow inspectors from the IAEA to access two sites in Iran to clarify whether any undeclared nuclear activity took place there in the early 2000s.
- The IAEA claims it still has the access it needs to inspect Iran's declared nuclear facilities, as per its mandate under the nuclear deal between Iran and world powers reached in 2015.
- Iran has been blocking access to the sites for months.
- The resolution was drafted by the three European parties to the 2015 nuclear deal (France, Germany, and the United Kingdom). The United States supported the resolution, whereas China and Russia, also party to the nuclear deal with Iran, voted against it.

### About IAEA

- The International Atomic Energy Agency is the world's central intergovernmental forum for scientific and technical co-operation in the nuclear field.
- It works for the safe, secure and peaceful uses of nuclear science and technology, contributing to international peace and security and the United Nations' Sustainable Development Goals.
- The IAEA is an autonomous international organization within the United Nations system. It partners with more than a dozen UN organizations, thereby helping extend the reach of its services.
- **IAEA reports annually to the UN General Assembly.**
- Created in 1957, the IAEA Secretariat is headquartered in Vienna, Austria.
- Total Membership: 171 (including **India**).
- The main functions of the IAEA are to:
  - encourage and assist research, development and practical application of atomic energy for peaceful uses throughout the world;
  - establish and administer safeguards designed to ensure that such activity assisted by the Agency is not used to further any military purpose;
  - apply safeguards to relevant activities at the request of Member States;
  - apply, under the **Nuclear Non-Proliferation Treaty (NPT)** and other

international treaties, mandatory comprehensive safeguards in non-nuclear weapon States (NNWS) Parties to such treaties.

### Related information

#### Nuclear Non-Proliferation Treaty

- The Treaty on the Non-Proliferation of Nuclear Weapons aims to prevent the spread of nuclear weapons and weapons technology, to foster the peaceful uses of nuclear energy, and to further the goal of disarmament.
- It entered into force in 1970.
- Its 190 states-parties are classified into two categories: **nuclear-weapon states (NWS)**—consisting of the United States, Russia, China, France, and the United Kingdom—and **non-nuclear-weapon states (NNWS)**.
- Under the treaty, the five NWS commit to pursue general and complete disarmament, while the NNWS agree to forgo developing or acquiring nuclear weapons.
- Only four countries (South Sudan, **India**, Israel, and Pakistan) have not signed the treaty, and one country (North Korea) has signed and then withdrawn from the treaty.

#### Why didn't India join?

- The Treaty defines nuclear weapon states as those that had manufactured and detonated a nuclear explosive device prior to 1 January 1967.
- Thus, the spirit of the NPT creates a divide between countries that did develop nuclear power before 1967 and those that didn't develop nuclear power before 1967.
- Being a signatory to NPT means that the party state will cease all development of nuclear weapons and will open doors for inspection of its nuclear facilities by the **International Atomic Energy Agency**.
- The NPT, in India's opinion, doesn't explain the need for this distinction and loss of national sovereignty.

#### Nuclear Suppliers Group

- Established in 1975, the Nuclear Suppliers Group (NSG) comprises 48 states that have voluntarily agreed to coordinate their export controls to non-nuclear-weapon states.

- The NSG governs the transfers of civilian nuclear material and nuclear-related equipment and technology.
- Full compliance with the obligations of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is a **membership criterion** to join NSG.
- India has been trying, since 2008, to join the NSG, which would give India access to more sophisticated nuclear technology.
- However, China has repeatedly blocked India's entry into NSG as India is not a signatory to the NPT.
- It should be noted that members are admitted to NSG only by **consensus**.

## 7) India and Nepal Border disputes

### Background

- India and Nepal share a 1,800km (1,118-mile) open border.
- Nepal has long claimed the areas of **Limpiyadhura, Kalapani and Lipulekh** under the **1816 Sugauli treaty** with the British East India Company, although these areas have remained under the control of Indian troops since India fought a war with China in 1962.
- Under the Treaty of Sugauli, **Kali river** was agreed as the demarcation line for the boundary between India and Nepal.
- However, what is meant by "Kali River" in the upper reaches is unclear, which created the scope for different interpretations by the two neighbours.



CNN Source: maps4news.com/HERE; Ministry of Land Management, Nepal; Indian government. Graphic: Natalie Croker, CNN

- The latest border dispute between the countries began over India's inauguration last month of a Himalayan link road cutting through the Lipulekh Himalayan pass, which will serve as the shortest route between capital New Delhi and Kailash-Mansarovar, a revered Hindu pilgrimage site in the Tibetan plateau.

### Why in News?

- Nepal's Parliament has cleared a Constitution Amendment Bill that endorses the country's new map that includes the areas of Lipulekh, Kalapani, and Limpiyadhura as part of its territory.
- The formal inclusion of the map in the Constitution gives a rare kind of guarantee to the physical territory of the Nepalese state that makes future negotiations with India on the border issues difficult. However, Nepal has maintained that it remains open for dialogue.
- India, which controls the region has rejected the map, saying it is not based on historical facts or evidence.

# SCIENCE AND TECHNOLOGY

## 1) Artificial Intelligence of Things (AIoT)

### GS 3: Awareness in the field of science and technology

#### What Is Artificial Intelligence (AI)?

- Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions.
- The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.
- Weak AI tends to be simple and single-task oriented, while strong AI carries on tasks that are more complex and human-like.

#### Applications of Artificial Intelligence

- The applications for artificial intelligence are endless. The technology can be applied to many different sectors and industries.
- AI is being tested and used in the healthcare industry for dosing drugs and different treatment in patients, and for surgical procedures in the operating room.
- Other examples of machines with artificial intelligence include computers that play chess and self-driving cars.
- It also has applications in the financial industry, where it is used to detect and flag activity in banking and finance such as unusual debit card usage and large account deposits.
- Personal assistants such as Amazon's Alexa and Apple's Siri are examples of weak AI.

#### What Is the Internet of Things (IoT)?

- The Internet of Things refers to a network comprised of **physical objects capable of gathering and sharing electronic information**.
- The Internet of Things includes a wide variety of “smart” devices, from industrial machines that transmit data about the production process to sensors that track information about the human body.
- The goal behind the Internet of things is to have devices that self report in real-

time, improving efficiency and bringing important information to the surface more quickly without depending on human intervention.

#### Applications of IoT

- **Smart homes** equipped with smart thermostats, smart appliances and connected heating, lighting and electronic devices can be controlled remotely via computers and smartphones.
- **Wearable devices** with sensors and software can collect and analyze user data, sending messages to other technologies about the users with the aim of making users' lives easier and more comfortable.
- In healthcare, IoT offers many benefits, including the ability to **monitor patients** more closely using an analysis of the data that's generated.
- In agriculture, IoT-based **smart farming systems** can help monitor, for instance, light, temperature, humidity and soil moisture of crop fields using connected sensors.
- IoT is also instrumental in **automating irrigation systems**.
- In a **smart city**, IoT sensors and deployments, such as smart streetlights and smart meters, can help alleviate traffic, conserve energy, monitor and address environmental concerns, and improve sanitation.

#### What is AIoT?

- The Artificial Intelligence of Things (AIoT) is the **combination of artificial intelligence technologies with the Internet of Things** infrastructure to achieve more efficient IoT operations, improve human-machine interactions and enhance data management and analytics.
- AIoT is transformational and mutually beneficial for both types of technology as AI adds value to IoT through machine learning capabilities and IoT adds value to AI through connectivity, signaling and data exchange.
- AI can be used to transform IoT data into useful information for improved decision making processes.

#### Why in News?

- Smartphone maker Realme is hoping to launch a number of AIoT products this year in India.

## 2) Chikungunya

### GS 3: Science and Technology

#### What is Chikungunya?

- Chikungunya is a **mosquito-borne viral disease** first described during an outbreak in southern Tanzania in 1952.
- It is an **RNA virus** that belongs to the **alphavirus genus of the family Togaviridae**.

#### Signs and symptoms

- Chikungunya is characterized by an abrupt onset of **fever** frequently accompanied by **joint pain**.
- Other common signs and symptoms include muscle pain, headache, nausea, fatigue and rash.
- The disease shares some clinical signs with dengue and zika, and can be misdiagnosed in areas where they are common.

#### Transmission

- The virus is transmitted from human to human by the bites of **infected female mosquitoes**.
- Most commonly, the mosquitoes involved are **Aedes aegypti** and **Aedes albopictus**, two species which can also transmit other mosquito-borne viruses, including dengue.

#### Treatment

- There is **no specific antiviral drug treatment** for chikungunya.
- Treatment is directed primarily at relieving the symptoms, including the joint pain using anti-pyretics, optimal analgesics and fluids.
- There is **no commercial chikungunya vaccine**.

#### Why in News?

- Studying the geographic distribution and evolution of the chikungunya virus over the period from 2005-2018, a team from ICMR-National Institute of Virology, Pune, has noted **India as an endemic reservoir** for the virus with persistent global transmissions from the country.

## 3) Probiotics

### GS 3: Science and Technology

#### What are probiotics?

- Probiotics are **live microorganisms** that may be able to **help prevent and treat some illnesses**.
- This includes **bacteria, yeasts and viruses** — with bacteria making up the vast majority.
- Promoting a **healthy digestive tract** and a **healthy immune system** are their most widely studied benefits.
- These are also commonly known as **friendly, good, or healthy bacteria**.
- Probiotics can be supplied through **foods, beverages, and dietary supplements**.

#### What is the Gut Microbiome?

- The 'gut microbiome' is made up of the trillions of microorganisms and their genetic material that **live in our intestinal tract**.
- These microorganisms, mainly comprising bacteria, are involved in functions critical to your health and wellbeing.
- These bacteria play a key role in digesting food we eat, and they help with absorbing and synthesising nutrients too.
- These are also involved in many other important processes including metabolism, body weight, and immune regulation, as well as brain functions and mood.

#### Why in News?

- A study by IIT Madras researchers of 36 strains of gut bacteria commonly found in the gut reveals their metabolism and could bring added rigour into the development of probiotics.

#### Gut bacteria

- The human gut microbiome has a huge number of beneficial bacteria, collectively called **commensals**, living in it.
- Key among these are the bacteria of the **Bifidobacterium genus**.
- Bifidobacterium adolescentis and B. longum are found in the adult human gut whereas B. bifidum are found in the infant gut.
- Bifidobacterium is one of the largest genera among gut bacteria and its species are known to be early colonisers of the breastfed infant gut.

## 4) COVID-19 Vaccine development

### GS 3: Science and Technology

### What are vaccines?

- Vaccines are one of the most effective tools to **prevent** diseases.
- A vaccine is “a product that produces immunity from a disease External link and can be administered through needle injections, by mouth or by aerosol.”
- A vaccine is a substance that **resembles the disease-causing agent** (also called pathogen) but does not cause the disease.
- It **trains the body's immune system** to recognise and kill the pathogen, and creates a memory for the future.
- Vaccines are available to protect us against many life-threatening diseases such as **polio, influenza, meningitis, typhoid, tetanus, diphtheria**, and certain types of cancers.
- Vaccines have also been responsible for **eradication (or near eradication) of deadly diseases such as smallpox and polio.**

### How are vaccines made?

- There are multiple ways to make vaccines.
- For a **killed vaccine**, the pathogen can be **grown outside the body, purified and inactivated** with chemicals. Example: injectable polio vaccine.
- Alternatively, the pathogen can be **weakened by repeated culture or by genetic means**. Example: oral polio vaccine.
- One of the proteins on the pathogen surface can also be produced artificially and used to raise immunity. An example of this would be the Hepatitis B vaccine.

### Stages of vaccine development

- Development of vaccines can be simplified into two broad stages:
  - **Pre-clinical development** is research carried out in lab assays and on animals. It includes:
    - Identification (discovery) of relevant antigens (e.g. **screening**)
    - Evaluation of vaccine **efficacy in test tubes and animals**
  - **Clinical development** is when the vaccine is **first tested in humans**.
- It covers four stages over several years, from initial **clinical trials in humans (phase I)** right through to introduction and beyond (phase IV).

- Clinical development is built on rigorous ethical principles of informed consent from volunteers, with an emphasis on vaccine safety as well as efficacy.

### Phases of clinical development

- Vaccines take several years to develop, and their development typically proceeds through three phases of clinical trials.
  - In Phase 1, small groups of people receive the trial vaccine.
  - During Phase 2, the clinical study is expanded and the vaccine is given to people who have characteristics (such as age and physical health) similar to those for whom the new vaccine is intended.
  - In Phase 3, the vaccine is given to several thousand people and tested for efficacy and safety.
- During this phase, participants either receive the vaccine or a placebo.
- The efficacy of the vaccine is determined by comparing the prevalence of infection in the group that was administered the vaccine with the one which received a **placebo**.
- The hypothesis that those in the vaccine group will be infected significantly less is thus tested.

### Definitions of placebo

- a usually pharmacologically inert preparation prescribed more for the mental relief of the patient than for its actual effect on a disorder
- an inert or innocuous substance used especially in controlled experiments testing the efficacy of another substance (such as a drug)

### Is a virus needed to develop a vaccine against it?

- With modern molecular tools and technologies, **isolating a virus is not required** to make a vaccine against it.
- The **genetic sequence** can be obtained directly from infected patients and this can be converted into proteins using various platform technologies.
- This makes it possible to have vaccines ready for hundreds of pathogens that have not yet infected humans, but have the potential to do so in future.

### Why in News?

- The World Health Organisation (WHO) site lists 10 vaccine candidates for Covid-

19 in clinical evaluation and 126 candidate vaccines in preclinical evaluation.

## 5) Standard Q COVID-19 Ag

### GS 3: Science and Technology

#### About

- The Standard Q COVID-19 Ag detection kit is a **rapid chromatographic immunoassay** for qualitative detection of specific antigens to SARS-CoV-2.
- It has been developed by SD Biosensor, a South Korea based company, having its manufacturing unit in Manesar, Gurugram.
- The kit, validated by the ICMR and the All India Institute of Medical Sciences (AIIMS), was **different from the Rapid Antibody Test kit**.
- Sample used is nasopharyngeal swabs in this test, while blood is collected in the antibody test.
- The kits will allow **faster diagnosis**.

#### Why in News?

- The Indian Council of Medical Research (ICMR) has recommended the use of Standard Q COVID-19 Ag antigen detection test in containment zones and healthcare settings in combination with the RT-PCR test.

#### More in the news

- An advisory released by the ICMR stated that the test has **high specificity (ability to detect true negatives)** and relatively **low sensitivity (ability to detect true positives)**.
- The Council recommends the use of this test in containment zones or hotspots to test symptomatic persons with influenza-like illness and asymptomatic direct and high-risk contacts with co-morbidities of a confirmed case.
- The test can be interpreted as positive or negative after 15 minutes of putting the sample into the well by appearance of test and control lines, which **can be read with a naked eye, requiring no specialized equipment**.
- The maximum duration for interpreting a positive or negative test is 30 minutes.

## 6) NavRakshak PPE suit

### GS 3: Indigenization of technology and developing new technology

#### About NavRakshak PPE suit

- The manufacturing know-how of NavRakshak PPE has been developed at the Innovation Cell of the Institute of Naval Medicine, INHS Asvini Hospital (Mumbai) of the **Indian Navy**.
- It is **cost effective** as it does not require any major capital investment and can be adopted even by gown manufacturing units using basic stitching expertise.
- Intellectual Property Facilitation Cell of Directorate General of Quality Assurance (DGQA), Department Of Defence Production, Ministry of Defence along with Indian Navy and NRDC partnered in protecting the Intellectual property and its commercialisation.
- Since the concept of using uncoated, unlaminated or untapped PPE has been provided for the first time, and using such PPE was not practised at all, there was a need to protect the IP rights of this innovation.

#### Why in News?

- The **National Research Development Corporation (NRDC)** has licensed the manufacturing know-how of 'NavRakshak' PPE— to five MSME clients to meet the ongoing country-wide demand for quality PPE kits.

#### About National Research Development Corporation (NRDC)

- NRDC, established in **1953** by the Government of India, its primary objective is to promote, develop and commercialise the technologies / know-how / inventions / patents / processes emanating from various national R&D institutions / Universities.
- It is presently working under the administrative control of the **Dept. of Scientific & Industrial Research, Ministry of Science & Technology**.
- NRDC has also successfully exported technologies and services to both developed as well as the developing countries.

# ART & CULTURE

## 1) Talamaddale

### GS 1: Indian culture, Art Forms

#### About Talamaddale

- The traditional art of 'talamaddale', an art form of **coastal Karnataka**, is a **variant of Yakshagana theatre**.
- The word Talamaddale is derived from the word '**tala**' (**Cymbal**) and **Maddale (the drum)**.
- While the Yakshagana has speech, dance and costume, talamaddale has **only the spoken word** with music being common between them.
- Hence, it is an art form minus dance, costumes and stage conventions.

#### Yakshagana

- Yaksha-gana literally means the **song (gana) of a Yaksha**.
- Yakshas were an exotic tribe mentioned in the Sanskrit literature of ancient India.



- The theater form was originally called **Bayalata** (open place play) or simply **Ata** (play).
- Yakshagana is a **traditional dance drama** popular in the coastal districts and adjacent areas of the state of **Karnataka**.
- Yakshagana is popular in the districts of **Uttara Kannada, Shimoga, Udupi, Dakshina Kannada** and the **Kasaragod** district of Kerala.
- Yakshagana combines dance, music, spoken word, elaborate costumes and makeup, and stage technique with a distinct style and form.
- It is generally regarded as a form of **folk theater**, but possesses strong classical connections.
- Yakshagana arose from the **Vaishnava bhakti movement** as a means of entertaining and educating the common people, and was well-established by the sixteenth century.

- A performance usually depicts a story from the **Hindu epics** of Ramayana and Mahabharata and the mythology of the puranas.

#### Why in News?

- The Sanathana Yaksha Ranga Cultural Centre and Northern California Havyaka Group hosted a virtual talamaddale episode streamed live over the internet.

## 2) Jagannath Temple, Puri

### GS 1: Architecture

#### About

- Sri Jagannath Temple is one of the most revered and sacred pilgrimage sites in India.
- Its main deity is **Lord Jagannath**, who is said to be an **incarnation of Lord Vishnu**.
- There are two other deities, **Lord Balabhadra** and **Devi Subhadra**.
- The Jagannath Puri Rath Yatra is considered as India's **biggest chariot festival**.



- The majestic temple is said to have been built by king **Anangabhimadeva**, also known as **Angangabhima III** of the **Ganga dynasty**.
- Some historians say the construction of the temple began during the reign of king **Anantavarman Chodagangadeva**, the founder of the dynasty, in the **12th century**.

#### Architecture of the temple

- The temple is built in the **Nagara** style (Sub-school: **Kalinga or Odisha school**) of temple architecture.
- The temple consists of four structures: **Vimana or Bada Deula** (sanctum sanctorum), **Jagamohana** or Mukhasala (the porch or mandap), **Natamandir** (the audience hall) and **Bhogamandap** (bhoga is the food offering made to gods).

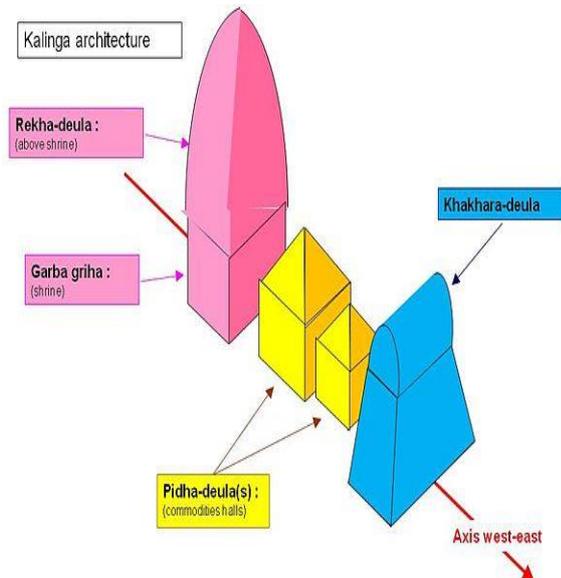
- The **Vimana** is in the style of **Rekha deul**-characterised by **curvilinear tower** known as Shikhara.
- The **Jagamohana** is in the form of **Pidha deula**- **square building with a pyramid-shaped roof**.

#### Other details

- It is built on a gigantic raised platform, **Vimana** on a **pancharatha ground plan** and is 65-m-high.
- The temple complex is enclosed within **two concentric walls**, the Kuruma Bheda (inner wall) and the Meghnad Pachira (wall).
- Also revered is the **Aruna stambha** or **the Sun pillar**, the 33-ft-high **monolithic pillar of black chlorite** in front of the main entrance.
- The capital of the pillar is surmounted by a squatting **Garuda** (the mythological bird mount of Lord Vishnu).

#### About Kalinga school of architecture

- Kalinga temple style is broadly classified into **three** main categories, namely Rekha, Pidha and Khakhara.



- **Rekha-deul** (temple) is distinguished with its **square plan** topped with a **curvilinear tower**.
- A **Pidha-deul**, also referred as **Bhadra deul**, also has a **square plan** topped with a **pyramidal tower** composed of horizontal tiers arranged in a receding manner.
- A **Khakhara deul** is surmounted with a

barrel-shaped (**vault-shape**) **tower** over a **rectangular plan**.

- Most of the Kalinga temples fall under the Rekha category.
- Very few temples depict Khakhara style, usually these temples are dedicated to a form of Devi.
- Pidha-style is usually used for jagamohanas but not for the main deul.

#### Why in News?

- The Supreme Court has modified its earlier order and allowed the annual Jagannath Rath Yatra in Odisha's Puri to be held with the coordination of the Temple committee, State and Central government without compromising with the health issue pertaining to Covid-19.

### 3) Kodumanal, a megalithic site

- GS 1: Indian culture

#### What are Megaliths?

- A megalith is a **large prehistoric stone** that has been used to construct a structure or monument, either alone or together with other stones.
- Megaliths were constructed either as **burial (sepulchral) sites or commemorative (non-sepulchral) memorials**.
- The sepulchral sites include **dolmenoid cists** (box-shaped stone burial chambers), **cairn circles** (stone circles with defined peripheries) and **capstones** (distinctive mushroom-shaped burial chambers found mainly in Kerala).



- The **urn** or the sarcophagus containing the mortal remains was usually **made of terracotta**.

- Non-sepulchral megaliths include memorial sites such as **menhirs (single upright stone)**.

#### Megalithic culture in India

- The tradition of **constructing or raising huge stones** on different functions is termed as megalithic culture.
- The megalithic monuments of peninsular India are believed to have been erected in the **Iron Age (1500BC – 200AD)**.
- Megaliths are spread **across the Indian subcontinent**, though the **bulk of them are found in peninsular India**, concentrated in the states of Maharashtra (mainly in Vidarbha), Karnataka, Tamil Nadu, Kerala, Andhra Pradesh and Telangana.



- In concordance with their **belief in life after death**, the megalithic people were in the habit of interring burial goods along with mortal remains.
- The Megalith people, besides using **Black-and-Red Ware** type of pottery and **iron tools** and weapons, also used **gold, silver, copper** indicating that the Megalithic artisans were proficient in working out these metals as well.
- Megalithic culture finds **several references in ancient Tamil Sangam literature**. For instance, menhirs are referred to as **nadukal**.
- The prominent Megalithic sites are **Adichanallur** and **Paiyampalli** (Tamil Nadu); **Porkalam** in Kerala; **Nagarjunkonda** and **Yelleswaram** in Andhra Pradesh; **Naikund, Mahurjhari, Khapa, Talaghat** in Maharashtra; Allahabad-Mirzapur-Varanasi region of Uttar Pradesh, **Burzahom** in Kashmir etc.
- In Assam and Meghalaya, the Megaliths constitute a part of tradition still living among the natives.

#### Why in News?

- The recent Kodumanal (Erode district, Tamilnadu) excavation threw light on burial rituals and the concept of afterlife in megalithic culture.

#### News in Detail



- A total of 250 **cairn-circles** has been identified at the site.
- Earlier excavations revealed that the site served as a **trade-cum-industrial centre from 5th century BCE to 1st century BCE**.
- Previous excavations have revealed that multi-ethnic groups lived at the village, located about 500 metres away from the **Noyyal river**.
- The findings unearthed so far include an animal skull, possibly of a wolf or a dog; precious stones like beryl, carnelian, quartz, jasper, beads, gold pieces and needles; copper smelting units; the mud walls of a workshop; potteries; and Tamil Brahmi script.

#### 4) Keeladi excavation

##### GS 1: Indian Culture

##### About Keeladi archaeological site

- The site Keeladi with pre-historic cultural deposit mound extending over a vast area of more than 110 acre is located in **Sivagangai District, Tamilnadu**.
- Excavation had revealed cultural traits in the form of structural activity (**brick structures, terracotta ring wells, terracotta pipes**).
- Antiquities like few pieces of **gold ornaments, copper objects, iron implements, terracotta gamesmen (chessman)**, hopscotches (a game), ear ornaments, **spindle whorls, figurines**, beads of terracotta, glass, semi-precious stones (**agate, carnelian, crystal, etc.**).



- Popular ceramic types like finer variety of Black and Red ware, Black ware, Black Polished ware, Red ware, Rouletted ware, few pieces of Arretines were also found.
- There are also a number of **graffiti sherds** of both pre and post firing nature.
- A good number of potsherds with **Tamil Brahmi script** were found which had several Sangam era Tamil names, which indicate a **highly literate society**.

#### Significance

- The Tamil Nadu Archaeology Department (TNAD) has stated that the Keeladi deposits could be safely dated to a period between **6th century BCE and 1st century CE**.
- The findings push back the date of Tamil-Brahmi script to another century, i.e., 6th century BCE.
- It reveals that an **urban civilisation** existed in Tamil Nadu in the **Sangam era** on the banks of the river Vaigai, contemporary to the second urbanisation [the first being Indus] of the Gangetic Valley.

#### Sangam era

- Tamil Sangam is an **assembly of poets**, who had its seat in **Madurai** between **4th century BCE and 2nd century**

#### BCE.

- The works of this period are collectively called **Sangam Literature**.
- There was **no evidence of any kind of religious worship**.
- Skeletal remains of oxen, cows, buffaloes and goats indicate that there was **cattle-rearing**.
- The antiquities, taken together, suggest that the prime occupation of the people of Keeladi was **agriculture**, which was supplemented by the **iron industry, carpentry, pottery-making and weaving**.
- Beads of agate, Carnelian and quartz indicate that they had **trade links with countries like Rome**.
- The Keeladi findings have led academics to describe the site as part of the **Vaigai Valley Civilisation**.
- The results from previous excavations suggest that the **second urbanisation** [the first being Indus] of Vaigai valley happened in Tamil Nadu around 6th century BCE as it happened in Gangetic plains.

#### Why in News?

- Skeletal remains of a child were excavated recently from Konthagai village, part of the sixth phase of ongoing excavations in the ancient site of Keeladi.
- The skeleton was found buried between two terracotta urns.
- A gold coin that is said to have been used extensively in the 17th century AD, some shells and pots, have also been found recently.

# PIB ANALYSIS

## 1) BARC

### About :

- The Bhabha Atomic Research Centre (BARC) is India's **premier nuclear research facility**, headquartered in Trombay, Mumbai, Maharashtra.
- It is a multi-disciplinary research centre with extensive infrastructure for advanced research and development covering the entire spectrum of nuclear science, engineering and related areas.

### Background:

- Dr. Homi Jehangir Bhabha conceived the Nuclear Program in India. Dr Bhabha established the Tata Institute of Fundamental Research (TIFR) for carrying out nuclear science research in 1945.
- To intensify the effort to exploit nuclear energy for the benefit of the nation, Dr Bhabha established the Atomic Energy Establishment, Trombay (AEET) in January 1954 for a multidisciplinary research program essential for the ambitious nuclear program of India.
- Later in 1966, AEET was renamed Bhabha Atomic Research Centre (BARC).

### Objective of BARC:

- Its core mandate is to sustain peaceful applications of nuclear energy, primarily for power generation.
- It manages all facts of nuclear power generation, from theoretical design of reactors to, computerised modelling and simulation, risk analysis, development and testing of new reactor fuel materials, etc.
- It also conducts research in spent fuel processing, and safe disposal of nuclear waste.
- Its other research focus areas are applications for isotopes in industries, medicine, agriculture, etc.

### Why in News?

- High quality Face mask has been developed at the Bhabha Atomic Research Centre which is affiliated to Department of Atomic Energy. The mask was developed using HEPA filter and is expected to be cost-effective also.

- **High-Efficiency Particulate Arrestance (HEPA) filters**
- These filters are able to trap 99.97 % of particles that are 0.3 microns.
- It traps air contaminants in a complex web of fibers.

## 2) WHO

### GS 2 Health

#### About WHO

- The World Health Organization is a **specialized agency** of the United Nations (UN) established in 1948 to further international cooperation for improved public health conditions.
- It is headquartered in Geneva, Switzerland.
- Working with 194 Member States (including **India**), its stated goal is to ensure "**the highest attainable level of health for all people**".

#### Objectives

- To act as the directing and coordinating authority on international health work.
- To establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations may be deemed appropriate.
- To provide assistance to the Governments, upon request, in strengthening health services.
- To promote cooperation among scientific and professional groups which contribute to the advancement of health

#### Where does WHO get its funding from?

- It is funded by a large number of countries, philanthropic organisations, United Nations organisations etc.
- **Voluntary donations** from member states contribute 35.41%, **assessed contributions** (dues countries pay in order to be a member of WHO) are 15.66%, **philanthropic organisations** account for 9.33%, **UN organisations** contribute about 8.1%; the rest comes from myriad sources.

- Countries decide how much they pay and may also choose not to. India contributes 1% of member states' donations.

#### Why in News?

- According to the WHO, **Entamoeba histolytica** is the third-leading cause of morbidity and mortality due to parasitic disease in humans. It causes amoebiasis or amoebic dysentery, which is highly prevalent in developing countries.
- A team of researchers from the Jawaharlal Nehru University (JNU) has developed new drug molecules against the protozoa that cause amoebiasis.

### 3) Global Partnership on Artificial Intelligence (GPAI)

#### GS Paper 2 - Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests

##### About GPAI

- GPAI is an international and multi-stakeholder initiative to guide the responsible development and use of AI, based on human rights, inclusion, diversity, innovation, and economic growth.
- GPAI will be supported by a Secretariat, to be hosted by **Organization for Economic Cooperation and Development (OECD)** in Paris, as well as by two Centers of Expertise- one each in Montreal (Canada) and Paris (France).
- The OECD will also be a Permanent Observer to the GPAI's governing bodies.

- **Organisation for Economic Cooperation and Development**
- The OECD is an intergovernmental economic organisation, founded to stimulate economic progress and world trade.
- Founded in 1961, OECD comprises 37 Member countries. **India is not a member of OECD.**
- Most OECD members are high-income economies with a very high Human Development Index (HDI) and are regarded as developed countries.
- It is a forum of countries describing themselves as committed to democracy and the market economy.
- It provides a platform to compare policy experiences, seeking answers to common

problems, identify good practices and coordinate domestic and international policies of its members.

##### Functions:

- GPAI will bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.
- It will bring together leading experts from industry, civil society, governments, and academia to conduct research and pilot projects on AI.
- It will initially comprise four working groups focused on responsible AI, data governance, the future of work, and innovation and commercialisation.

##### Founding Members:

- Australia, Canada, the European Union, France, Germany, India, Italy, Japan, the Republic of Korea, Mexico, New Zealand, Singapore, Slovenia, the United Kingdom and the United States.

##### Why in News?

- India has joined the Global Partnership on Artificial Intelligence as a **founding member** to support the responsible and human-centric development and use of Artificial Intelligence.

##### How will it help India?

- By joining GPAI as a founding member, India will actively participate in the global development of Artificial Intelligence, leveraging its experience around the use of digital technologies for inclusive growth.

### 4) Employees Provident Fund Organisation (EPFO)

##### About EPFO

- EPFO is one of the World's largest Social Security Organisations in terms of clientele and the volume of financial transactions undertaken.
- It is a government organization that manages provident fund and pension accounts for the workforce engaged in the organized sector in India.
- It implements the Employees' Provident Fund and Miscellaneous Provisions Act, 1952. The Act provides for the institution of provident funds for employees in factories and other establishments.

- It is administered by the **Ministry of Labour & Employment**, Government of India.

#### Why in News?

- Employees Provident Fund Organisation has launched a “Multi Location Claim Settlement” facility.
- This facility will cover claims such as provident fund, pension, partial withdrawal and claims and transfer claims.

#### News in Detail:

- The “Multi Location Claim Settlement” facility will enable EPFO offices to settle online claims from any of its regional offices, across the country. The recently launched facility will reduce any delay in claim settlement cycle.
- By introducing this facility, EPFO has moved away from the existing system of geographical jurisdiction for claim processing, hence reducing the delays by uniformly distributing the claim settlement related workload nationwide.

### 5) Khelo India State Centres of Excellence



#### Why in News?

- The Ministry of Youth Affairs and Sports is all set to establish Khelo India State

### GS- 2 Growth and Development

#### About Khelo India Scheme

- The Khelo India programme has been introduced to **revive the sports culture in India at the grass-root level** by building a strong framework for all sports played in our country.
- It is implemented by the **Ministry of Youth Affairs and Sports**.
- Under the scheme, the talented players identified in priority sports disciplines at various levels (by the High-Powered Committee) will be provided **annual financial assistance of 5 lakh per annum for 8 years**.

#### Objectives:

- Conduct structured annual sports competition and encourage Mass participation of youth.
- Identify talent through these competitions.
- Guidance and nurturing of the talent through the existing and new infrastructure
- Creation of Sports infrastructure at various levels.

Centres of Excellence (KISCE) under the ministry’s flagship, Khelo India Scheme to enhance India's Olympic performance.

### News in Detail:

- One KISCE will be identified in each state and union territory, with an effort to create a robust sporting ecosystem in the entire country.
- In the first leg, the Ministry has identified state-owned sports facilities in eight states of India, including, Karnataka, Odisha, Kerala, Telangana and the north east states of Arunachal Pradesh, Manipur, Mizoram and Nagaland which will be upgraded into KISCE.
- The State and Union Territory will run the centre and build capacity to turn it into the world-class sporting facility.
- They will be responsible for all aspects of management of the centre including, boarding, lodging and maintenance, while funds for expert coaches, supporting staff, equipment, infrastructure will be extended through the Khelo India Scheme.

## 6) PM SVANidhi - a Special Micro-Credit Facility for Street Vendors

### About the scheme

- PM SVANidhi was launched by the **Ministry of Housing and Urban Affairs** for **providing affordable Working Capital loan to street vendors** to resume their livelihoods that have been adversely affected due to Covid-19 lockdown.
- Under the Scheme, the vendors can avail a working capital loan of **up to Rs. 10,000**, which is repayable in monthly instalments in the tenure of **one year**.
- On timely/ early repayment of the loan, an interest subsidy @ 7% per annum will be credited to the bank accounts of

beneficiaries through Direct Benefit Transfer on quarterly basis. There will be no penalty on early repayment of loan.

- If the vendor repays the instalments in time or earlier, they will develop his credible credit score that makes him eligible for a higher amount of term loan to 20 thousand rupees and so on.
- The scheme promotes digital transactions through cash back incentives up to an amount of Rs. 100 per month.
- The scheme targets to benefit over **50 lakh street vendors**, who had been vending on or before 24th March this year, in urban areas. The duration of the scheme is till March 2022.
- **SIDBI** will implement the PM SVANidhi Scheme under the guidance of MoHUA.
- The lending institutions under the Scheme include Scheduled Commercial Banks, Regional Rural Banks, Small Finance Banks, Cooperative Banks, NBFCs, Microfinance institutions and Self Help Group banks.

### SIDBI

- Small Industries Development Bank of India (SIDBI) set up on 2nd April 1990 under an Act of Indian Parliament, acts as the Principal Financial Institution for Promotion, Financing and Development of the Micro, Small and Medium Enterprise (MSME) sector as well as for co- ordination of functions of institutions engaged in similar activities.

# News in Depth

## AIR NEWS

### 1) United Nations Security Council

#### About UNSC

- The United Nations Security Council (UNSC) was established in 1946 as one of the six principal organs of the UN. It is generally viewed as the apex of the UN system.
- It is responsible for the maintenance of **international peace and security**.
- Its powers include the establishment of peacekeeping operations, the establishment of **international sanctions**, and the authorization of military action through Security Council resolutions.
- It is the only UN body with the authority to issue **binding resolutions** to member states.

#### Membership

- UNSC consists of 15 Members (including 5 permanent members- (P-5) United States, Russia, China, United Kingdom and France) and each member has one vote.
- The UN Charter affords the **veto power only to the five permanent members** of the UNSC.
- These permanent members can veto any substantive Security Council resolutions, including those on the admission of new member states.
- The Security Council also has **10 non-permanent members**, elected on a **regional basis** as follows:
  - 1) five for African and Asian States;
  - 2) one for Eastern European States;
  - 3) two for the Latin American and Caribbean States; and
  - 4) two for Western European and other States.
- Each year the 193-member UN General Assembly (UNGA) elects five non-permanent members for a two-year term.

- The body's presidency rotates monthly among its members.

#### India's non-permanent member seat

- Last year, India's candidature for a non-permanent seat at the UNSC for a two-year term (starting from 2021) was unanimously endorsed by the 55-member Asia-Pacific grouping at the United Nations.
- India has already held a non-permanent seat on the UNSC for seven terms.

#### Why in News?

- India has been elected as a non-permanent member of the UNSC for a two-year term from the Asia-Pacific category after winning 184 votes in the 193-member General Assembly.
- Along with India, Ireland, Mexico and Norway also won the Security Council elections.
- To be elected to the Council, candidate countries need a **two-thirds majority** of ballots of Member States that are present and voting in the General Assembly.

### 2) Hydroxychloroquine

#### About Hydroxychloroquine

- Hydroxychloroquine (HCQ) is an **anti-malarial drug** similar to chloroquine, one of the oldest and best-known anti-malarial drugs.
- It is also used in the treatment of autoimmune diseases such as rheumatoid arthritis and lupus.

#### Mechanism of action:

- Hydroxychloroquine is an **interferon blocker**, and works by **diminishing the immune system's response to a viral infection**.
- *Interferons are a group of soluble glycoproteins that are produced and released from cells in response to virus infection.*

- This property of HCQ makes it useful in **autoimmune disorders such as lupus and rheumatoid arthritis.**

#### Hydroxychloroquine and COVID-19:

- A **hyperactive response by the immune system** is said to be primarily responsible for pneumonia, also fallout of a severe SARS-CoV-2 infection.
- Since HCQ has the ability to diminish the immune system's response to a viral infection it seems to be effective in case of COVID-19 patients.
- The drug has shown to have shortened the time to clinical recovery of COVID-19 patients.
- However, many of these are in small lab-controlled testing and **no proper human trials** have been conducted to determine its efficacy.
- In India, the Ministry of Health and Family Welfare has recommended the use of hydroxychloroquine for asymptomatic frontline workers, such as surveillance workers deployed in containment zones and paramilitary/police personnel involved in COVID-19-related activities,

#### Adverse effects of HCQ:

- HCQ may lead to
  - cardiac arrhythmia
  - liver damage
- The WHO has said that while there is no conclusive evidence yet of the efficacy of HCQ in Covid-19 treatment, the side-effects are well documented.
- Many countries have limited it to clinical trials under supervision of clinicians in hospital settings.

#### Why in News?

- India has lifted the nearly three-month old ban on export of Hydroxychloroquine and its formulations, with immediate effect.
- A notification moving them from the 'Prohibited' to 'Free' for export policy has been issued by the **Directorate General of Foreign Trade (DGFT).**
- The latest notification is an amendment to the one issued on March 25, prohibiting the export of HCQ and formulations, except under certain conditions.

#### About DGFT

- The Directorate General of Foreign Trade organisation is an attached office of the

**Ministry of Commerce and Industry.** It is headquartered in New Delhi.

- This Directorate is responsible for formulating and implementing the **Foreign Trade Policy** with the main objective of promoting India's exports.

### 3) Financial Stability and Development Council

#### What is FSDC?

- Financial Stability and Development Council (FSDC) is an apex-level body constituted in 2010 to strengthen and institutionalize the mechanism for maintaining financial stability.
- It is chaired by the **Union Finance Minister of India.**
- Its members include the heads of financial sector regulators (RBI, SEBI, PFRDA, IRDA), Finance Secretary and/or Secretary, Department of Economic Affairs, Secretary, Department of Financial Services, and Chief Economic Adviser.
- The Council monitors macro prudential supervision of the economy, including functioning of large financial conglomerates, and addresses inter-regulatory coordination and financial sector development issues. It also focuses on financial literacy and financial inclusion.

#### Why in News?

- The Financial Stability and Development Council sub-committee headed by RBI Governor Shaktikanta Das resolved to remain to emerging challenges following the coronavirus outbreak and take necessary action to preserve financial stability.

### 4) India - China Relations in the current context

- On June 15, the worst violence on the India-China border since 1967 claimed the lives of 20 Indian soldiers.
- The clash occurred in the **Galwan Valley**, which hasn't been a site of conflict since 1962.

**Views on such a rash attack by China despite there have always been peace at the borders:**

- After 1962, it is an **unprecedented situation** for which there are going to be serious implications beyond military level.
- Eg: Implications can be there for cultural relations , economic relations, people to people relations etc.
- Even though there are grave tensions between India and China, the **economic relations in terms of trade are worthy** which might get affected due to such move of China.
- Thus, certain **military obligations have to be made on part of China** in order to restore the status quo.

**As in the last few years, China's dominant nature is rising particularly in the South-China sea, can this brutal attack be an example of aggressive nature towards dominating the Asian Region?**

- According to some experts, China's dominant nature in the South-China sea is a partial **response to accumulating U.S. forces in the region.**
- Other than this, there can be reasons like Tibetan issue, rising nationalism in Taiwan, Hongkong protest, Accusation for Covid-19 pandemic etc.
- Overall, China does have **aggressive nature but sometimes it does play a defensive role** also but this aggressive move of China has shattered the India China equation.
- The main reason for the attack can be the **miscalculation of Article 370 by the Chinese Government** but on August 12, 2019 it was clearly spelt out that Article 370 has no bearing on India's territorial borders which is either on LOC or LAC.
- However, the Government of India is committed to restoring the status quo and until the exact reason is not known for such a brutal step, the relations between India and China cannot be on the same track.

**Does Regional Geo-politics have a role to play in raising tensions between India and China?**

- There is a role of regional geo-politics because **China has always backed Pakistan in every situation.**
- The major change came in the China-Pakistan relationship is when China introduced the Belt and Road initiative

(BRI) and China has invested **millions for the China-Pakistan Economic corridor (CPEC).**

- The CPEC passes through India and China reassured that there will be no change along the LOC.
- Thus, if China had concerns over it would have resolved it by negotiations instead of going for such a move.
- The question arises here is that such a brutal action by PLA would not have taken place without clearance from top authorities so whether the PLA is under complete control of Chinese President or not.
- Another fact lies is that China avoids dialogue with India regarding CPEC.
- Hence, it is an extreme move which is unacceptable to India and can be detrimental to Chinese interest.
- The internal dynamics of China has to be carefully looked upon in order to resolve the tensions.

**Does the U.S have a role for china being more aggressive?**

- There is economic as well as political pressure on China due to **trade war, accusation for Covid- 19 etc. and it exactly resembles a cold war situation.**
- In this situation, **China needs India in economic terms** but without accepting the fact that China has gone for such a tragic move which is harmful for the India-China relationship.
- **However, a further and deeper extension of reforms is needed from Chinese side in order to restore the relationship.**

**As India is elected as a non-permanent member of UNSC, it may have added up the insecurity for China but can this insecurity be a reason for such a move?**

- When India was competing for the membership at UNSC, the rest of the countries were supporting it while China was against it.
- Even for the NSG membership, the rest of the countries were ready to accept India in the given fold but China was not supporting it.
- Hence, there can be no clear conclusion until the exact reason behind it is known.

**Way Forward:**

- Though China has strategic and diplomatic relations with Pakistan because Pakistan's geographical setting gives China access to the Indian Ocean, it **should not be used as a strategy to encircle India.**
- The major factor behind hindering relations between India and China is the **excessive influence of Pakistan on**

**China's foreign policy on which China needs to revisit in order to maintain healthy relations.**

- Thus, putting India and Pakistan on the same foot is the crossed error judgement of China and **rebuilding relationships on a separate track is the need of the hour.**

# THE HINDU EDITORIALS

## 1) COVID-19 and public transport

### Context

- As the country emerges from the lockdown, a proper ramping up of the transport system is needed.

### Public transport guidelines

- The Delhi Metro Rail Corporation has released guidelines to tackle several social distancing and sanitisation concerns, and to address the possibility of viral transmission through tokens, push buttons on lifts, and handrails at the station elevators.
- Other metro rail systems are also expected to follow similar guidelines.

### Views that public transport does not transmit infection:

- One study says that SARS-CoV-2 does not seem to get transmitted much outdoors and there is clearly high risk in indoor areas under AC with focused air flow.
- Thus we can conclude that a non-AC bus with open windows offers a much less risky outdoor-like environment.
- However, it would be wrong to conclude that an AC metro rail coach is risky because contact-time is also very important in viral transmission in indoor spaces.
- A majority of metro rail trips in Indian cities are no more than 20 minutes long, and there is research indicating that this may not be long enough for significant viral densities and inhalation of sufficient viral particles, even without social distancing.
- It is unlikely for any significant level of public transport infections to happen via inhalation or even crowding and clothed-body contact, though we cannot say it with certainty.

### How does infection occur?

- Hand contact with common surfaces must be considered as a source of infection spread, as it is well-known to cause significant COVID-19 spread.

### Limitations of the guidelines:

- The guidelines being developed in India address some of the related issues. However, they leave out certain key

elements that should be taken very seriously –

1. The handgrip rings and handrails from the ceilings,
  2. The stanchion poles,
  3. Any grab rails on the seatbacks.
- If an infected asymptomatic person deposits viral particles on such surfaces, and another person grabs the same spot even briefly, the viral particles could be picked up by their hand. Every successive individual who hangs on to the handgrip where one infected person deposited the virus can pick up the virus at a high density from the same spot.

### Suggestions for more safety

- To employ staff to wipe the hand grips at frequent intervals, constantly moving from end to end in the trains and buses.
- To give wet sanitising wipes to every traveller entering a metro rail coach with a suggestion to have it in their palms before touching or gripping anything. Wipe disposal bins will be needed in the coaches.
- Paid staff or volunteers dispensing hand sanitisers on platforms can be an option to handle aggraving passengers as it is important to prevent them from transferring what is on their hands to their faces after egress.
- Offering contactless wash basins with soap dispensers at the platform level could be effective.
- Signs on hand hygiene vis-a-vis touching surfaces are needed.
- To create external airflow to dissipate viral particles.
- Metro rail AC systems could be changed to High Efficiency Particulate Air filters with frequent circulation of fresh air.

### Way forward:

- Actions are needed from both authorities and the public to keep our public transport systems safe. If no such actions are taken and a serious level of viral transmission is later traced to public transit, the result will be a mode shift to private vehicles.
- As pollution and accidents kill more people in India than COVID-19 does now,

a mode shift away from public transport will have long-term consequences.

- Several safety measures could prevent mass transmission of the virus and a shift to private modes of transport which means measures are needed to gain the public's confidence in mass transport modes, to avoid a significant modal shift to road traffic.

## 2) GST compensation to states

### About GST Council

- Goods & Services Tax Council is a constitutional body under Article 279A, for making recommendations to the Union and State Government on issues related to Goods and Service Tax.
- The GST Council is chaired by the Union Finance Minister and other members are the Union State Minister of Revenue or Finance and Ministers in-charge of Finance or Taxation of all the States.

### Mandate of GST Council

- The Goods and Services Tax Council shall make recommendations to the Union and the States on—
  1. the taxes, cesses and surcharges levied by the Union, the States and the local bodies which may be subsumed in the goods and services tax;
  2. the goods and services that may be subjected to, or exempted from the goods and services tax;
  3. model Goods and Services Tax Laws, principles of levy, apportionment of Goods and Services Tax levied on supplies in the course of inter-State trade or commerce under article 269A and the principles that govern the place of supply;
  4. the threshold limit of turnover below which goods and services may be exempted from goods and services tax;
  5. the rates including floor rates with bands of goods and services tax;
  6. any special rate or rates for a specified period, to raise additional resources during any natural calamity or disaster;
  7. special provision with respect to the States of Arunachal Pradesh, Assam, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Himachal Pradesh and Uttarakhand; and

8. Any other matter relating to the goods and services tax, as the Council may decide.

- The Goods and Services Tax Council shall recommend the date on which the goods and services tax be levied on petroleum crude, high speed diesel, motor spirit (commonly known as petrol), natural gas and aviation turbine fuel.

- While discharging the functions conferred by this article, the Goods and Services Tax Council shall be guided by the need for a harmonized structure of goods and services tax and for the development of a harmonized national market for goods and services.

- **Quorum:** One-half of the total number of Members of the Goods and Services Tax Council shall constitute the quorum at its meetings.

- **Voting share:** Every decision of the Goods and Services Tax Council shall be taken at a meeting, by a majority of not less than three-fourths of the weighted votes of the members present and voting, in accordance with the following principles, namely:—

1. the vote of the Central Government shall have a weightage of one third of the total votes cast, and
2. The votes of all the State Governments taken together shall have a weightage of two-thirds of the total votes cast, in that meeting.

- No act or proceedings of the Goods and Services Tax Council shall be invalid merely by reason of—

1. any vacancy in, or any defect in, the constitution of the Council; or
2. any defect in the appointment of a person as a Member of the Council; or
3. any procedural irregularity of the Council not affecting the merits of the case.

- **Dispute adjudication:** The Goods and Services Tax Council shall establish a mechanism to adjudicate any dispute

1. Between the Government of India and one or more States; or
2. Between the Government of India and any State or States on one side and one or more other States on the other side; or
3. Between two or more States, arising out of the recommendations of the Council or implementation thereof.

### Why in the news?

- Several States have been urging the Centre to extend emergency fiscal support and release past GST compensation dues enshrined in the GST law to cope up with the pandemic induced economic crisis.

### GST compensation:

- Under the GST compensation Act 2017, states are guaranteed full compensation for any revenue loss for the first five years after the introduction of the GST in July 2017.
- For the purpose of calculating the compensation amount in any financial year, year 2015-16 will be assumed to be the base year, from which revenue will be projected. The growth rate of revenue for a state during the five-year period is assumed to be 14% per annum.
- Any shortfall has to be compensated from the receipts of Compensation Cess imposed on selected commodities that attract a GST of 28 per cent.

## 3) Remaining non-aligned is good advice

### What was the issue?

- Chinese forces came in sizeable numbers and crossed the undemarcated LAC at quite a few points in the Ladakh and Sikkim sectors which were in the vicinity of Pangong Tso (Lake), the Galwan Valley, the Hot Springs-Gogra area (all in Ladakh), and at Naku La in the Sikkim sector. Let us discuss the reason behind this move of Chinese forces.

### Reason behind Chinese move

- Strengthening India's border infrastructure by construction of Darbuk-Shyok-Daulat Beg Oldi road in Ladakh
- To demonstrate China's newly assertive post-pandemic foreign policy.
- Existence of certain geopolitical factors
- An increase in bilateral tensions between India and China
- Economic pressures, apart from China's internal dynamics.

### Geo political factors- India-US tilt

- For instance, while India professes to be non-aligned, it is increasingly perceived as having shifted towards the American orbit of influence.

- India's United States tilt is perhaps most pronounced in the domain of the U.S.-China relations.
- India tends to side with the U.S. and against China whenever there is a conflict of interest between the two.
- An evident degree of geopolitical convergence also exists between the U.S. and India in the Indo-Pacific, again directed against China.
- India is today a member of the Quad (the U.S., Japan, Australia and India) which has a definite anti-China connotation.
- U.S. President Donald Trump's latest ploy of redesigning the G-7, including in its countries such as India (India has conveyed its acceptance), but excluding China, provides China yet another instance of India and China being in opposite camps.

### Bilateral tensions

- Bilateral relations between the two countries have been steadily deteriorating.
- India is almost the last holdout in Asia against China's Belt Road Initiative (BRI).
- India also had an opportunity to declaim against the China-Pakistan Economic Corridor (CPEC).
- China views India's assertions regarding Gilgit-Baltistan, as an implicit attack on the CPEC, China's flagship programme.
- More recently, India was one of the earliest countries to put curbs and restrictions on Chinese foreign direct investment.

### China's internal dynamics

- Impact of internal pressures that have been generated within China due to the COVID-19 pandemic
- Reports of growing opposition within party ranks to some of President Xi Jinping's policies, including the BRI.
- The coupling of political and economic tensions has greatly aggravated pressures on Mr. Xi.

### Way forward

- India is being increasingly projected as an alternative model to China, and being co-opted into a wider anti-China alliance which China clearly perceives as provocation.
- It is advisable that India remains truly non-aligned and not become part of any

coalition that would not be in India's long-term interest.

#### **4) Lessons from Lee and Gandhi**

##### **Context**

- Globalisation has made life easy for migrant capital and not for migrant labour. In this context, lessons from Lee Kuan Yew, the founding father of modern Singapore, and from Mahatma Gandhi, the father of the Indian nation becomes inevitable to deal with the migrant crisis arising out of COVID-19 pandemic.

##### **Lee's model of developing Singapore**

- Lee declared that Singapore would become the first 'developed' country in Asia, when it was founded in 1965 and he is known as the founding father of modern Singapore.
- According to him, humans are not tools to produce returns for investors, rather money is a tool to produce benefits for humans and hence his measure of development was to raise the per capita incomes of Singaporeans to the same levels as citizens in more advanced economies.
- Lee attracted foreign investments from the companies by assuring them world-class infrastructure, an efficient administration, and low taxes.
- In return, he wanted the companies to help the government by investing in continuous Upgradation of their employees' skills, so that Singaporeans would earn more and Singapore would become fully 'developed'.
- Thus the ultimate measure of Singapore becoming fully developed was not the size of its GDP, but the incomes of its citizens.

##### **Gandhian economics**

- Gandhi said that unless people in India's villages have economic and social freedom, India cannot be a free country.
- He believed that the economy must serve human needs, rather than human beings becoming fodder for the GDP.
- According to him, diluting the rights of workers to make life easier for investors should not be done.
- 'Gandhian' economics, which E.F. Schumacher and J.C. Kumarappa (sometimes referred to as Gandhi's

Planning Commission) articulated is based on simple principles.

- Human beings and local communities must be the means for human progress and their well-being must be the purpose of progress too.
- Governance must be strengthened at the local level, in villages and cities.
- Wealth is good, but wealthy people must be only trustees of a community's wealth, and not its owners.
- The alienation of owners from workers must be reduced with the creation of new models of cooperative capitalist enterprises, where the workers are owners of the enterprises and not remote capitalists, or the state.

##### **Lesson to be learned**

- Governments must listen to and care for their citizens and workers more than to investors. They must encourage only those investors who care as much for citizens and workers where they invest as for their own investors back home.
- The test of public policies must be not what is good for investors and for the GDP, but what is good for the people, especially those who are the most powerless.

##### **Choices before India:**

- The health crisis and the economic crisis have made people everywhere consider what path we should take after this crisis either back to the 'normal' economics of GDP (by running behind the west) or towards a more human and more local economics (by taking a path less taken, using a 'Gandhian' approach for human development).

#### **5) In pandemic crisis, bridging the gulf with West Asia**

##### **Significance of West Asia for India**

- For India and its foreign policy, the West Asia/Gulf region holds a significant court for strategic, economic and even domestic political agendas, ranging from migration to energy security.
- Contribution to remittances
- An estimated figure of close to nine million Indians work in West Asia, responsible for sending back more than 56% of India's annual infusion of \$80 billion in remittances.

- The UAE alone is responsible for \$19 billion in remittances, being the third largest trade partner of India after the United States and China.
- Oil and investment
- India gets around 60% of its hydrocarbon requirements from West Asia. On an annualised basis, India saves up to \$1.35 billion for each \$1 drop in oil prices.

#### **Impact of pandemic on West Asia**

- The oil price crash, triggered by expectations of oversupply, and crash in demand due to COVID-19, carries massive costs to the West Asian economies.
- According to a Dubai Chamber of Commerce & Industry survey, more than 70% of businesses classified as small and medium-sized enterprises in Dubai, may not survive over the months to come.
- Labour critical industries such as tourism, conventions, hospitality and airlines bear the immediate impact.
- According to a 2019 U.S.-U.A.E. Business Council report, the UAE's hospitality sector itself contributes 4.6% of the country's GDP, making nearly 600,000 jobs that are mostly fulfilled by foreign workers. Some reports suggest that up to 30% of these jobs could be lost.
- The major sovereign wealth funds and other financial institutions in West Asia have been hit hard by COVID-19 as well.

#### **Impact of Pandemic on India-West Asia relations**

- Fall in remittances
- Reverse migration of blue collar workers
- Loss of jobs in labour critical industries
- Reduction in oil prices- cushions the impact of pandemic on India's balance of payment.

#### **Way forward:**

- The central government should work with the government of Maharashtra to expedite land acquisition for the \$50 billion mega-refinery project.
- Fast-track resolution of endless litigation that has troubled the sale of a major stake of Mumbai airport to a consortium that includes the UAE sovereign fund, Abu Dhabi Investment Authority (ADIA) will also send out a positive signal to the markets.
- India has the opportunity to transform the landscape and attract the kind of long-

term capital that the economy needs and the government has announced that it has set up an empowered group headed by Cabinet Secretary to take necessary steps to attract FDI into India.

- To mitigate the loss of trade revenue and remittances, the return of semi-skilled and skilled workers, the government has tried to soften the blow by launching the Skilled Workers Arrival Database for Employment Support (SWADES) which attempts to capture the skills profile of returning workers and house them in a central portal that can be accessed by Indian and foreign companies.

## **6) Rural India and COVID-19**

### **Current scenario:**

- With rapidly escalating numbers of cases and deaths in urban India, the initial misplaced optimism that India is somehow protected from the COVID-19 pandemic has proved to be illusory.
- The detrimental effect on Urban India is so intense as to occupy the entire attention of the health-care workforce, planners and policy makers.
- The medical services in these urban areas (three major epicentres of the epidemic) — Mumbai, Delhi and Chennai have been overwhelmed.

### **Unprepared rural India**

- As we are facing the urban wave of this epidemic in India the rural population has been relatively underexposed, with very few cases and deaths.
- As 65% of the country's population is rural, the large, vulnerable majority in rural India is yet to feel the heat of this epidemic.
- Contributors to Rural spread of the disease
- Limited restoration of public transport
- Relaxation of restrictions on the movement of people
- Importations from urban to rural India
- These will set the stage for the rural wave.
- However rural India is clearly unprepared to face this epidemic.

### **Contrasts in health care**

- Health care and education are the two vital indices of human development where an urban-rural divide is always there in India.

- If the first urban wave of the COVID-19 is overwhelming our relatively better urban health-care resources, rural India with its already deficient health-care resources when it faces the rural epidemic wave would suffer the most.

#### Asynchronous waves

- The lockdown of the entire country led to a paralysis of urban and rural life synchronously while the urban and rural waves of this epidemic are clearly asynchronous.
- The rural wave is just beginning while the urban wave is about to peak.

#### Measures to be taken

- Administer the social vaccine as a prophylaxis before rural spread

#### Social vaccine

- It is a metaphor for a series of social and behavioural measures that governments can use to raise public consciousness about unhealthy situations through social mobilisation.
- A decentralised systematic approach with participation of all stakeholders in each village, taluk and district is needed the most.

#### Proceeding step by step

- Blocking urban-rural importations
- Quarantining those who move from red zone to green
- Diagnosing and managing clinical COVID-19 syndrome with or without positive PCR test results
- Providing field hospitals exclusively for isolating and managing COVID-19 cases (manned by younger, and therefore less vulnerable, medical and nursing teams).
- There is a need to protect and sustain existing hospitals and primary health centres not to be frequented by COVID-19 patients, but for providing care for all other medical, surgical and obstetric emergencies.
- Mildly and moderately symptomatic COVID-19 patients should be managed by home isolation, delivering essential and medical supplies at home, and home monitoring of oxygen saturation by readily available portable finger pulse oximeters.
- Each such patient should be followed up daily by a designated medical professional, who should call over the phone and identify

those who need hospitalisation for life-threatening pneumonia.

- Non-communicable diseases and other common diseases should be handled on a tele-medicine platform manned by experienced and older (age more than 55 years) medical personnel; there should be a follow-up over the mobile phone.
- This approach will minimise the loss of medical manpower due to COVID-19 at the time when we need them the most.

- Educate rural people with all the tools like print, radio, the electronic media, and messages through mobile phones.
- Giving the rural people accurate information in simple language to make them clearly understand that their self-protection and the protection of their families are entirely in their hands.
- Behavioural changes are critical
- Every man, woman and child must wear a cotton cloth mask when out of the home, and observe strict hand hygiene.
- All elders and any person with a co-morbidity should be protected by reverse quarantine

#### Conclusion:

- With knowledge and skills, it is the duty of State health administrators and the medical fraternity to tackle the rural wave with courage and wisdom.

### 7) For better conditions of work for migrant labourers

#### Lockdown provides opportunity

- Terrible living conditions in the cities and the shocking treatment meted out to the migrant labourers during the lockdown period, makes them no longer yearn to go back to their work in the cities.
- To enable the migrant workers to fulfil their desire of staying at home this is an opportunity for
  - those working to provide workers security,
  - those involved in the cooperative movement,
  - those trying to improve the living conditions in rural India, and
  - Those working in the area of skill development to reach out to.

#### Opportunities ahead

### Forming cooperative societies

- The migrants can form cooperative societies as many have similarities in their jobs as tailors, plumbers, construction workers etc.,

### What will be the purpose of these cooperatives?

#### Better terms and conditions

- These cooperative societies, if they expand and form hubs, could start developing their services or products that can be sold with better terms and conditions.
- For example, if in a village in Bihar several tailors come together to form a cooperative society of tailoring, they could attract contracts from garment manufacturers in Bihar and also elsewhere.
- Many government agencies have been mandated to help build cooperative societies and cooperative banks to help such societies.
- With large national institutions enabling such cooperative societies, groups of migrant workers can find institutional strength.

#### Decent living

- For those whose skills or products do not have enough marketing in a local area, it is possible for them to re-enter the city as labour cooperatives, or even unions, with demands that help them have a decent living.

### Giving MGNREGA a better shape

- MGNREGA has been offered as a way of alleviating migrant workers' distress but this is not only a short term but also vulnerable wage-earning occupation.
- Sites cannot be opened during the monsoon season and also, at any given area, there may not be enough sites to engage many people.
- So another possibility is to give MGNREGA better shape so that MGNREGA funds can be used to enable women or artisans to market their products.

### A pyramid of group economic activity

- States can build new kinds of economic structures in India, a pyramid of group economic activity going from the rural areas through collective marketing to fill the demand from the cities.

- Successful unionisation of workers can protect them from exploitation and it is possible to have dispersed production, home-based or small-unit based, to start a supply chain to markets, whether local markets or capital city markets or export markets.

### Rebuild economic production

- Rebuilding economic production through different institutional arrangements can be done.
- Arrangements that can provide an optimal solution to the workers as well as contribute to the GDP must be made.
- It will also rebuild an India where cities are not congested and where the standard of living in rural areas will improve.

## 8) Suspension of MPLADS not the right move

### About the Members of Parliament Local Area Development Scheme

- The Members of Parliament Local Area Development Scheme (MPLADS) is a programme first launched 1993, aimed towards providing funds for developmental works recommended by individual MPs.
- The objective of the scheme is to enable MPs to recommend works of developmental nature with emphasis on the creation of durable community assets based on the locally felt needs to be taken up in their Constituencies.
- Under the MPLADS scheme, each MP has the choice of suggesting to the District Collector works to the tune of Rs 5 crore per annum to be taken up in his or her constituency.
- The Ministry of Statistics and Programme Implementation has been responsible for the policy formulation, release of funds and prescribing monitoring mechanism for implementation of the Scheme.

### Jurisdiction

- Lok Sabha Members can recommend works within their Constituencies and Elected Members of Rajya Sabha can recommend works within the State of Election (with select exceptions). Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.

- Under MPLADS, the role of the MPs is limited only upto recommendation of works. Thereafter, it is the responsibility of the District Authority to sanction, execute and complete the works recommended by Members of Parliament within the stipulated time.
- The guidelines recommend MPs to suggest works costing at least 15 per cent of their MPLADS entitlement for the year for areas inhabited by Scheduled Caste population and 7.5 per cent for areas inhabited by ST population.
- In case there is insufficient tribal population in the area of Lok Sabha Member, they may recommend this amount for the creation of community assets in tribal areas outside of their constituency but within their State of election.

#### **What kind of projects are executed?**

- The guidelines lay down a number of development works, including construction of railway halt stations, providing financial assistance to recognised educational bodies, cooperative societies, bar associations, installing CCTV cameras, and rainwater harvesting systems,
- The MPLADS funds can be merged with other schemes such as MGNREGA and Khelo India.

#### **Why in the news?**

- The Union Cabinet has approved a 30% cut in the salaries of all Members of Parliament and a two-year suspension of the MPLAD scheme so that the amount saved can go to the Consolidated Fund of India to fight COVID-19.
- The move is seen as a part of the government's efforts to address the challenges in the fight against COVID-19. The fund will be used for the purchase of equipments for government hospitals and dispensaries, medical testing and screening of patients and also setting up other related facilities.

#### **Arguments against suspension of MPLADS**

##### **Doing away with vital role**

- MPLADS has enabled MPs to play a leadership role in the developmental process of his constituency and sort out its day-to-day problems.

- The suspension of the MPLADS for 2020-21 and 2021-22 in the wake of the pandemic has done away with this vital role of MPs.

##### **Differing perceptions**

- There is a perception that the very nature of the scheme gives space for corruption, however this is not supported by empirical data.
- The vital role of an MP in the MPLADS ends with selecting micro development projects for his constituency.
- Implementation of these projects is done by district-level officers under the vigilant eye of the Ministry of Statistics and Programme Implementation.
- Furthermore, the Scheme undergoes an impartial and meticulous auditing.
- The second instalment of funds is released only when the first instalment is fully utilised with no audit objections.
- This procedure leaves no place for corruption.

##### **Antidote to favouritism**

- The pork barrel policy of State and Union Governments often leads to skewed development and regional imbalance.
- *(Pork-barrel politics is the legislator's practice of slipping funding for a local project into a budget. Here public money is channelled to particular constituencies based on political considerations, at the expense of broader public interests)*
- MPLADS has been an antidote to this favouritism by providing opposition MPs some chance to cater to the developmental needs of their constituency.
- The suspension of the Scheme has snatched away this limited opportunity.

##### **Undermines aspirations of the marginalised**

- Of the MPLADS corpus, 15% has been earmarked for the development of Scheduled Castes and 7.5% for the Scheduled Tribes.
- Around ₹20 lakh of the MPLADS fund per annum has been allotted for the welfare of differently abled people.
- Suspension of the MPLADS undermines the developmental aspirations of these marginalised segments.

##### **Undermines prestige of MP vis-a-vis MLA**

- The suspension of the MPLADS undermines the prestige of MPs vis-à-vis MLAs.
- For Eg: In Kerala, there are handsome funds at the disposal of MLAs.
- In 2012, Kerala announced the launching of the Legislative Assembly Constituency Asset Development Fund. This aims at creating durable assets for which each MLA will be allocated ₹5 crore during a particular financial year for undertaking capital works in his/her constituency so as to improve infrastructural facilities.
- The corpus has subsequently been enhanced to ₹6 crore per annum.

#### Conclusion

- A scheme that catered to the developmental aspirations of local people, ironed out the regional imbalances and made MPs engaged should be restored as early as possible.

### 9) A Prescription for equitable and effective care

#### Context:

- In handling the pandemic, there is a clear need to get the public and private sectors into a functioning partnership.

#### Current scenario:

- Medical care has been disrupted by the novel coronavirus.
- Fear, anxiety, uncertainty and confusion have all overtaken clinical services.
- The private sector, which delivers the major part of medical services, is now functioning at a skeletal level and patients have considerable difficulty in accessing medical care.
- Tamil Nadu has one of the better health systems in the country and has demonstrated that it can provide high quality care through public-private collaboration in the areas of maternity, cardiac and trauma care.
- As the number of COVID-19 cases keeps on increasing, there is a need to pull together the resources of the public and private sectors into a functioning partnership, to provide good clinical care, ameliorate suffering and prevent deaths.

#### A neglect of the primary task

- With the focus on prevention (through testing of suspects, isolation of cases and institutional quarantine of contacts),

doctors have been unable to attend to their primary task of providing good clinical care to reduce morbidity and prevent deaths.

#### Importance of clinical care

- The majority of COVID-19 infections are mild and resolve on their own.
- Serious illness occurs in the elderly and those with multiple co-morbidities such as diabetes, heart disease and respiratory problems.
- The primary cause of death in COVID-19 pneumonia is respiratory failure.
- The mainstay of treatment in moderate and severe illness is clinical monitoring, oxygen therapy to correct hypoxemia (low oxygen levels in the blood), and good supportive care.
- Good supportive care for sick patients is essential in preventing deaths.
- Hospital services have to focus on in-patient management of moderate and severe pneumonia, prioritising intensive care unit (ICU) beds for potentially reversible illness.
- It is necessary to ensure that every patient with moderate and severe COVID-19 pneumonia has access to the optimum level of care, to prevent deaths and ameliorate suffering.

#### Combating fear

- Because of the labelling and stigmatisation of those diagnosed with COVID-19, the public are reluctant to come to hospital and may come late or die at home.
- Thus a clear message that hospitals will provide good quality care for COVID-19, at affordable cost and ensuring confidentiality should be sent at the earliest.

#### What should be done?

- Shift the discourse from the focus on prevention and reducing the number of cases to an equal priority for providing COVID-19 care would be better.
- In order to implement a universal COVID-19 care programme, the government health system should collaborate with private hospitals to make care accessible and affordable.
- For example, the Tamil Nadu government's efforts to cap the cost for

different levels of COVID-19 care in private hospitals are a positive step.

- The government should financially assist the private sector by reimbursing basic patient care costs for providing COVID-19 care.
- Every citizen who has serious COVID-19 pneumonia should be able to access high quality care.
- Only patients with moderate to severe COVID-19 pneumonia should be admitted;
- ICU care should be prioritised for COVID-19 patients who have potentially reversible illness;
- Confidentiality of the patient should be protected;
- The government should support the basic cost of COVID-19 care in private hospitals as well;
- City hospitals should pool their ICU resources for the care of COVID-19 pneumonia;
- Medical staff involved in COVID-19 care should be adequately protected with appropriate personal protective equipment, or PPE, and should be trained in infection control and clinical care protocols.
- They should be encouraged to communicate with a patient and the family within the restrictions.
- Families of staff who die due to COVID-19 should receive appropriate compensation.

**Conclusion:**

- These initiatives can only be realised with appropriate leadership from the government.
- Our response to the epidemic must combine good science, clinical reasoning and a humane response to save the lives of the people of our country.

# INDIAN EXPRESS EXPLAINED

## 1) How India tests for Covid-19

### ELISA

- ELISA stands for enzyme-linked immunosorbent assay and it was developed in 1974.
- It detects whether a person's immune system has produced antibodies against a particular infection such as HIV.
- The test is called "enzyme-linked" because it uses enzymes to detect presence of antibodies in a blood sample.
- An ELISA test is of two types depending on the antibodies tested for immunoglobulin G (IgG) and immunoglobulin M (IgM).
- IgG detects antibodies developed in the later stage of infection, and IgM detects antibodies produced in early stages of infection.
- Currently, only IgG testing kits have been approved in India.
- In India, the ELISA test for Covid-19 is only approved for serosurveys which estimate the proportion of the population exposed to infection and for surveys in high-risk areas and segments like containment zones, immunocompromised individuals, and frontline and health workers.

### How does it help?

- According to Indian Council of Medical Research (ICMR), depending upon the level of seroprevalence of infection, matching public health interventions can be implemented for prevention and control of the disease.

### Advantages

- Relatively inexpensive
- Consumes less time

### Limitations

- Its use is limited to making population-based estimates that can inform policy decisions.

### RT-PCR

- For individual diagnosis and treatment of Covid-19, the test used worldwide is RT-PCR (reverse-polymerase chain reaction).
- Earlier it was also used for Ebola and Zika diagnosis.

### About PCR

- A real-time polymerase chain reaction (real-time PCR), also known as quantitative polymerase chain reaction (qPCR), is a laboratory technique of molecular biology based on the polymerase chain reaction (PCR).
- It monitors the amplification of a targeted DNA molecule during the PCR (i.e., in real time), not at its end, as in conventional PCR.

### How is it performed?

- In this, a nasopharyngeal (nasal) or oropharyngeal (mouth) swab is taken and sent in a cold storage box to the central laboratory, where the viral RNA is converted to complementary DNA (cDNA) using reverse transcriptase, and amplified following the addition of a primer and fluorescent dye and DNA building enzymes.
- A positive test will be indicated by the raise in fluorescence.
- Depending on the equipment and method used, the time taken may vary between a few hours to a day to get the reports.
- (Apart from nasal or oral swab, another option for RT-PCR is the bronchoalveolar lavage (BAL) method, which a bronchoscope is passed to obtain fluid from lungs or sputum. Sputum or BAL has a higher viral load, so there is a higher chance of virus detection than nasal or oral swab.)

### Positives and negatives

- This test is very sensitive and specific and can detect even if a single viral RNA particle is present in the swab.
- False negative (negative test when the patient is actually COVID-19 positive) may be obtained in some cases due to improper swab sampling, prolonged time to get samples to the lab causing degradation of RNA.
- RT-PCR is expensive, while free in government labs. Until May end, the ICMR had capped the cost of a test at Rs 4,500 for private laboratories, but has since removed the cap for private labs, allowing states to fix their own prices.

### Rapid antibody test

#### About Rapid antibody testing

- It involves conducting blood tests on people displaying influenza-like illness symptoms in containment zones, large migration gatherings, or evacuee centres.
- A rapid antibody test is conducted to determine the presence of antibodies IgM and IgG, which can be detected from the seventh day of the onset of COVID-19 symptoms.
- This test can help understand an individual's capacity to fight the infection after the virus has invaded the body.
- A rapid test kit can produce results in just 30 minutes.
- The rapid antibody-based test will help detect the growth rate of cases, effectively aiding the country develop a better containment strategy.

#### **Not for diagnosis**

- WHO does not recommend the use of antibody-detecting rapid diagnostic tests for patient care but encourages the continuation of work to establish their usefulness in disease surveillance and epidemiologic research.
- The rapid antibody tests may not be as accurate as the RT-PCR.
- These tests are known to throw up more false negatives than false positives which is why the US Centre for Disease Control recommends a molecular test like RT-PCR if a rapid antibody test throws negative results.

#### **Issues with currently available rapid testing kits**

- Though it is quick and it can be done by anyone without much training the currently available POC rapid testing kits have been brought into the market without quality assurance by the regulatory authorities of the countries in which they were manufactured and they lack the validation process.
- Several of the testing kits have been fast-tracked due to increasing demand, hence lacking in quality, with variable sensitivity from 30% to 80%.
- The main concerns raised by several European countries and India are that these kits are showing a higher percentage of false negative reports.
- According to ICMR, a person may test positive for antibodies 7-10 days after contracting Covid-19 infection and may

continue to show positive results for several weeks. While a positive result indicates the person has been exposed to the coronavirus, a negative result may not entirely rule out Covid-19.

#### **TrueNat**

- The TrueNat machine is small and portable, mostly running on batteries, and provides results within 60 minutes. It involves taking nasal or oral swabs.
- This is a privately designed test that works on the same principle as RT-PCR, but with a smaller kit and with faster results.
- TrueNat is commonly used for tuberculosis and HIV testing.
- Recently, the ICMR approved TrueNat for screening and confirmation for Covid-19.
- If a sample test is negative, it has to be treated as negative; if it tests positive, a second test called RdRp gene confirmatory assay has to be performed.

#### **When to use which**

- To understand which test to use, the purpose has to be defined.
- A person may test positive in these tests at different points of time during an infection. After the person is exposed, the viral load may be high in the respiratory tract within a few days, and an RT-PCR or TrueNat test may return positive.
- But if the person has not developed antibodies, both a rapid test and ELISA will return negative. In a few days, say over a week later, antibodies start getting produced, at which point RT-PCR may show negative but ELISA and Rapid will show positive.
- To diagnose and treat, doctors rely on RT-PCR, which implies active infection. Once confirmed the person has to be isolated, and treated if symptoms emerge.
- A positive result from ELISA or rapid antibody test may not mean the person needs isolation or is infectious; it may simply mean the person was exposed to the virus and has developed antibodies. These two tests, being cheaper than RT-PCR, are employed in large-scale population surveys.

## **2) Rapid antigen detection test**

### **Why in the news?**

- Recently, the Indian Council of Medical Research (ICMR) approved the rapid antigen detection test for diagnosis of Covid-19.

#### **What is the rapid antigen detection test for Covid-19?**

- It is a test on swabbed nasal samples that detects antigens (foreign substances that induce an immune response in the body) that are found on or within the SARS-CoV-2 virus.
- It is a point-of-care test, performed outside the conventional laboratory setting, and is used to quickly obtain a diagnostic result.

#### **How is rapid antigen detection test different from RT-PCR test?**

- RT-PCR is currently the gold standard frontline test for the diagnosis of Covid-19.
- Like RT-PCR, the rapid antigen detection test too seeks to detect the virus rather than the antibodies produced by the body.
- The most significant difference between the two is time.
- As the ICMR has pointed out, the RT-PCR test takes a minimum of 2-5 hours including the time taken for sample transportation, limits the widespread use of the RT-PCR test and also impedes quick augmentation of testing capacity in various containment zones and hospital settings, while in the rapid antigen detection test, the maximum duration for interpreting a positive or negative test is 30 minutes.

#### **Where will the test be used?**

- The ICMR has advised that the test will be performed onsite under strict medical supervision and maintaining the kit temperature between 2° and 30°C.

#### **Containment zones:**

- In containment zones, the test can be conducted on all symptomatic influenza-like illnesses. Asymptomatic direct and high-risk contacts with co-morbidities (lung disease, heart disease, liver disease, kidney disease, diabetes, neurological disorders, blood disorders) of a confirmed case are to be tested once between day 5 and day 10 of coming into contact.

#### **Healthcare settings**

- In healthcare settings, it can be used in three categories.

1. In all persons presenting influenza-like symptoms in a healthcare setting and suspected of having Covid-19 infection;
2. In asymptomatic patients who are hospitalised or seeking hospitalisation, in the following high-risk groups — those chemotherapy, immunosuppressed patients including those who are HIV positive, patients diagnosed with malignant disease, transplant patients, elderly patients (over age 65) with comorbidities
3. In asymptomatic patients undergoing aerosol-generating surgical/non-surgical interventions such as elective/emergency surgical procedures like neurosurgery, ENT surgery, dental procedures, and non-surgical interventions like bronchoscopy and dialysis.

#### **Is the test a confirmatory one for diagnosis of Covid-19?**

- According to the ICMR guidelines, if the test shows a positive result, it should be considered as true positive, and does not need reconfirmation. However, those who test negative in the rapid antigen test should then be tested by RT-PCR to rule out infection.

#### **What are the limitations of an antigen test's results?**

- Antigen tests are very specific for the virus, but are not as sensitive as molecular PCR tests which mean positive result is accurate however negative result does not rule out infection as there are chances for false negatives.
- The antigen test needs to be conducted at the site of sample collection in the healthcare setting as the sample would be stable for only one hour.

#### **Reasons for false negatives:**

- If the level of an extracted antigen in a specimen is below the sensitivity of the test
- If a poor quality specimen is obtained
- If the concentration of antigen in a specimen is below the detection limit of the test

### **3) Pangolins - Protection upgradation**

#### **About Pangolin species**

- Out of the eight species of pangolin, the Indian Pangolin and the Chinese Pangolin are found in India.
- Indian Pangolin is a large anteater covered by 11-13 rows of scales on the back. A terminal scale is also present on the lower side of the tail of the Indian Pangolin, which is absent in the Chinese Pangolin.
- The pangolin is the world's most widely trafficked animal.

#### **Habitat:**

- The Indian Pangolin occurs sporadically throughout the plains and the Himalayan foothills to southern India.
- In the north-east, it is replaced by the Chinese Pangolin, a species whose range extends to South-East Asia.

#### **Protection status**

- Both species are listed under Schedule I Part I of the Wildlife (Protection) Act, 1972.
- IUCN lists the Indian Pangolin as 'endangered' and the Chinese Pangolin as 'Critically Endangered'.
- Both the species are on CITES Appendix II.
- 

#### **About Wildlife Protection act, 1972**

- The Wildlife Protection Act, 1972, provides for protection to listed species of flora and fauna and establishes a network of ecologically-important protected areas.
- The Wildlife Protection Act empowers the central and state governments to declare any area a wildlife sanctuary, national park or closed area.
- The Act divides species into 'schedules' ranked from I to V. Schedule I members are the best protected with severe punishments meted out to those who hunt them.

#### **Schedules under Wildlife Protection act,1972**

- Species listed in Schedule I and part II of Schedule II get absolute protection — offences under these are prescribed the highest penalties.
- Species listed in Schedule III and Schedule IV are also protected, but the penalties are much lower.
- Schedule V includes the animals which may be hunted. Under Section 62 of WPA, the Central Government may, on the requests from the respective States, declare any wild animal other than those specified in Schedule I & Part II of Schedule II of the law to be vermin for any area for a given period of time for selective slaughter.
- As long as the notification is in force such wild animals shall be included in Schedule V of the law, depriving them of any protection under that law.
- The plants in Schedule VI are prohibited from cultivation and planting.

#### **About IUCN Red List**

- The International Union for Conservation of Nature's (IUCN) Red List of Threatened Species has evolved to become the world's most comprehensive information source on the global conservation status of animal, fungi and plant species and it was established in 1964.
- The IUCN Red List is a critical indicator of the health of the world's biodiversity.
- It provides information about range, population size, habitat and ecology, use and/or trade, threats, and conservation actions that will help inform necessary conservation decisions.
- The IUCN Red List Categories and Criteria are intended to be an easily and widely understood system for classifying species at high risk of global extinction.
- It divides species into nine categories: Not Evaluated, Data Deficient, Least Concern, Near Threatened, Vulnerable, Endangered, Critically Endangered, and Extinct in the Wild and Extinct.

# Endangered Species: Categories and Criteria

	Population Reduction Rate	Geographic Range		Population Size	Population Restrictions	Extinction Probability (in the wild)
		Extent of Occurrence	Area of Occupancy			
<b>Least Concern</b>	A species that has a widespread and abundant population					
<b>Near Threatened</b>	A species that is likely to qualify for a threatened category in the near future					
<b>Vulnerable Species</b>	30-50% population decline	<20,000 km <sup>2</sup>	<2,000 km <sup>2</sup>	<10,000 mature individuals	<1,000 mature individuals or an area of occupancy of <20 km <sup>2</sup>	at least 10% within 100 years
<b>Endangered Species</b>	50-70% population decline	<5,000 km <sup>2</sup>	<500 km <sup>2</sup>	<2,500 mature individuals	<250 mature individuals	at least 20% within 20 years or 5 generations
<b>Critically Endangered</b>	≥80-90% population decline	<100 km <sup>2</sup>	<10 km <sup>2</sup>	<250 mature individuals	<10 mature individuals	at least 50% within 10 years or 3 generations
<b>Extinct in the Wild</b>	Only survives in cultivation (plants), in captivity (animals), or as a population well outside its established range					
<b>Extinct</b>	No remaining individuals of the species					



Image courtesy: [www.nationalgeographic.org](http://www.nationalgeographic.org)

## About CITES

### Convention on Illegal Trade in Endangered Species (CITES):

- It is an international agreement aimed at ensuring that international trade in specimens of wild animals and plants does not threaten their survival.
- It is also referred to as the Washington Convention (Washington resolution adopted during IUCN meet).
- It is legally binding on the Parties, but it does not take the place of national laws of parties. States have to adopt their own domestic legislation to implement its goals.

- It is administered through the United Nations Environment Programme (UNEP), Geneva, Switzerland.
- The species covered by CITES are listed in three Appendices, according to the degree of protection they need.

### Appendix I:

- Most endangered plants and animals.
- Examples include gorillas, giant pandas etc.,.
- They are threatened with extinction and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial, for instance for scientific research.

### Appendix II:

- Not necessarily now threatened with extinction but that may become so unless trade is closely controlled.
- Most CITES species are listed in this Appendix.
- It also includes "look-alike species", i.e. species whose specimens in trade look like those of species listed for conservation reasons.
- International trade in specimens of Appendix-II species may be authorized by the granting of an export permit or re-export certificate.

#### Appendix III

- List of species that are included at the request of a party.
- Trade is allowed with the presentation of documents.

#### Conservation Issues

- Major threats to pangolins in India are
- Hunting and poaching for local consumptive use (e.g. as a protein source and traditional medicine) and
- International trade, for its meat and scales in East and South East Asian countries, particularly China and Vietnam.

#### How poaching becomes easy?

- The pangolin creatures are strictly nocturnal, repelling predators by curling up into scaly spheres upon being alarmed.
- The same defence mechanism however, makes them slow and easy to catch once spotted.
- A 2018 study by the international conservation group TRAFFIC had found 5,772 pangolins had been detected by law enforcement agencies in India between 2009 and 2017.

#### World Pangolin Day

- World Pangolin Day, celebrated on the third Saturday in February, is an international attempt to raise awareness of pangolins and bring together stakeholders to help protect these unique species from extinction.

#### TRAFFIC and WWF-India Initiatives

- TRAFFIC is mapping pangolin trade hubs, conduits, transportation, high poaching areas and drivers in relation to poaching and illegal trafficking of pangolins.
- TRAFFIC, in partnership with World Wide Fund For Nature-India and Wildlife Crime Control Bureau (WCCB) launched a social

media campaign in 2015 to create awareness and divert efforts towards curbing illegal trade in pangolins.

#### Why in the news?

- China recently accorded the highest level of protection to the pangolin, the animal that is widely believed to be the intermediate host between bats and humans in the transmission of the novel coronavirus SAR-CoV-2.
- It also removed the scales of the endangered mammal from its list of approved traditional medicines.

#### 4) What is dexamethasone?

##### What's in the news?

- The World Health Organisation has welcomed the initial clinical trial results from the United Kingdom that shows dexamethasone can be a lifesaving drug for patients who are critically ill with Covid-19.
- According to preliminary findings shared with the WHO, dexamethasone was seen to reduce mortality by about one third for patients on ventilators, and for patients requiring only oxygen, and the mortality was cut by about one fifth.
- The benefit was only seen in patients seriously ill with Covid-19, and was not observed in patients with milder disease.
- It was an outcome of a WHO-administered RECOVERY trial — the largest global clinical trial — that is checking the ability of several re-purposed drugs to treat COVID-19.

##### About dexamethasone

- It is an anti-inflammatory drug.
- Commonly used to treat conditions in which the body's immune system does not function properly, and causes inflammation and tissue damage.
- Dexamethasone reduces the production of the chemicals that cause inflammation and also reduces the activity of the immune system by affecting the way white blood cells function.
- Dexamethasone falls in a category called corticosteroids, which closely mimic cortisol, the hormone naturally produced by the adrenal glands in humans.
- During the SARS outbreak in 2003, corticosteroid therapy was used to reduce inflammatory-induced lung injury. In

Covid-19, too, many countries are investigating the effectiveness of corticosteroid therapy on patients with an acute respiratory infection.

- The clinical management protocol for Covid-19 released by the Health Ministry allows the use of corticosteroid therapy.
- However, improper use of systemic corticosteroids can increase the risk of osteonecrosis of the femoral head (ONFH). Osteonecrosis refers to the death of bone tissue due to lack of blood supply.
- Health Ministry protocol says a larger dose of glucocorticoid will delay the removal of coronavirus due to immunosuppressive effects.
- So, for patients with progressive deterioration of oxygenation indicators, rapid worsening and excessive activation of the body's inflammatory response, corticosteroids can be used.

## 5) Why does China trade ban a bad idea?

### Trade deficit is not bad:

- One of the main reasons why banning trade has been the first reaction is the notion that having a trade deficit.
- Having a trade deficit/surplus against a country doesn't make the domestic economy weaker or worse off.
- India has a trade surplus with the USA, that doesn't mean that our economy is stronger than the USA.
- Similarly, we have a trade deficit with South Africa, but that doesn't mean that our economy is weaker than South Africa's economy.
- So a trade deficit with a country doesn't mean we are worse.
- A trade deficit with China only means that Indians buy more Chinese products than what Chinese from India. It shows that Indian consumers, as well as the Chinese producers, gained through trading.
- At one level, no country is self-sufficient and that is why trade is such a fantastic idea.
- It allows countries to specialise in what they can do most efficiently and export that good while importing whatever some other country does more efficiently.
- In case of persistent trade deficit, the domestic government should put in place

policies and create the infrastructure that raises competitiveness, it should not "force" or even "nudge" people to move away from trade because doing so will undermine efficiency and come at the cost of the consumer's benefits.

### Will hurt Indian Poor:

- If Chinese ACs were replaced by either costlier Japanese ACs or less efficient Indian ones, richer Indians may still survive this ban — by buying the costlier option — but a number of poor, who could have otherwise afforded an AC, would either have to forgo buying one because it is now too costly (say a Japanese or European firm) or suffer (as a consumer) by buying a less efficient Indian one.

### Will hurt Indian Exporters and Producers:

- Several businesses in India import intermediate goods and raw materials, which, in turn, are used to create final goods — both for the domestic Indian market as well as the global market
- Contrary to popular belief an overwhelming proportion of Chinese imports are in the form of intermediate goods such as electrical machinery, nuclear reactors, fertilisers, optical and photographic measuring equipment organic chemicals etc.
- Such imports are used to produce final goods which are then either sold in India or exported.
- A blanket ban on Chinese imports will hurt all these businesses at a time when they are already struggling to survive, apart from hitting India's ability to produce finished goods.

### Will barely hurt China

- It will hurt India and Indians far more than it will hurt China.
- While China accounts for 5% of India's exports and 14% of India's imports — in US\$ value terms — India's imports from China (that is, China's exports) are just 3% of China's total exports. More importantly, China's imports from India are less than 1% of its total imports.
- The point is that if India and China stop trading then — on the face of it — China would lose only 3% of its exports and less than 1% of its imports, while India will

lose 5% of its exports and 14% of its imports.

- It is much easier for China to replace India than for India to replace China.
- What if China decides to abruptly ban all trade and forbid all private investment via any route into India?
- Of course, India would survive, but at a huge cost to common Indians while depriving many Indian businesses (the start-ups with billion-dollar valuations) of Chinese funding.

#### **India will lose policy credibility**

- One of the first things an investor — especially foreign — tracks is the policy credibility and certainty.
- If policies can be changed overnight, if taxes can be slapped with retrospective

effect, or if the government itself reneges on contracts, no investor will invest.

- Or, if they do, they will demand higher returns for the increased risk.

#### **Raising tariffs is mutually assured destruction**

- Raising duties on Chinese products might lead to the same kind of reciprocation from China which will again hurt India the most.
- Going away from the rules of WTO might eventually side-line India in the global trade arena.
- The world will bypass India and carry on trade if India doesn't play by the rules.

# RSTV Big Picture

## 1) Mental Health- Tackling stress and depression:

### Why in News?

- Recently, the Bollywood actor Sushant Singh Rajput's tragic death has triggered a much-needed conversation on mental health in India.
- Even the pandemic also doesn't seem to be helping, but playing on the minds of lakh of people and causing stress.

### Why is the issue of mental health not taken seriously even now in the country?

- According to the World Health Organization, over 90 million Indians, or **7.5% of the population, suffer from mental health issues.**
- Mental health issues are among the **leading causes of non-fatal disease burden in India.**
- The proportional contribution of mental health to the total disease burden has almost doubled since 1990; and **suicide was the leading cause of deaths** among young people — aged 15 to 39 — in 2016.
- In India, there is a lot of stigma attributed to Mental health and people think mental health is a problem of being ashamed of and due to which the rate of issues goes on increasing because it is neglected.
- **The main reason for not being serious about the issue is the lack of awareness about mental health and due to which lot of people are affected.**

### The Pandemic is causing a different kind of problem as far as Mental health is concerned so what should be done to tackle the situation?

- The **Behaviour of a person is a combination of thinking and feeling** which acts as an effective instrument to tackle the situation.
- However, during the pandemic people are running towards preventive measures, medicines etc. instead of giving a logical thought due to which the **stress is increasing.**
- The term **Psycho-Neuro-Immunology depicts the situation where if someone is stressed up biologically then the person is also stressed up psychologically** and the immune system

goes into compromise mode which can be a threat to the immune system.

- The response can be overwhelming but it depends on **how we perceive it** and the mental health is primary because every disease first attacks the mind and then it percolates and resides in weak sense organs.
- Thus, a **positive and logical thinking** will lead to a practical behaviour towards the pandemic.

### As compared to Western countries why the people in India do are not seeking the help of councillors?

- It depends on the **personality of a particular person** because everyone might not be comfortable in expressing themselves and it also depends on the thinking of the person.
- But the situation is changing nowadays because now people have **started realising that along with physical health, mental health is also very important** because handling an internal game is as important as handling the external game.
- Hence, **mental health is not defined as something wrong or irregular in someone but it is defined as an essential part of life and foundation for achievement.**

### What are some of the signs which can be identified when someone is going through stress or depression?

- The first sign which can be identified easily in the person who is going through stress is the **change in the behaviour or nature of the concerned person.**
  - Eg: Mood swings, feeling sleepy or not feeling sleepy at all, anger, irritation etc.
- The second sign can be **Lack of concentration and memory loss.**
- The third sign can be **changes in the thinking of the person** which is not easily identifiable but can give some hints. Eg: Negative thoughts
- Thus, it **varies from person to person** because every person will be different by personality.

### What are the different types of stress and how does it lead to different kinds of Mental problems?

- Stress is something which tries to **destroy one's physiological and psychological functioning and it can be due to various reasons.**
- The outputs can be frustration, conflict and pressure which may create stress on the biological cycle as well.
- **There can be two forms of stress:**
- Internal stress: Constant internal stress can lead to serious consequences for a person as he/she goes further in life.
- External stress: It is good to some extent because it may help us in achieving our goals without deviating from our path.
- In this Era, people **who aspire to be successful** and live a happy life are the **most susceptible people to go through stress.**
- Success is just a result, but success can be achieved only when we are **feeling better both mentally and physically.**
- Hence, **feeling good about ourselves is the first step to get rid of stress and depression.**

### How do we attain better Mental health?

- All kinds of feelings are normal in human beings whether it is happiness or stress but the **main focus lies on how we deal with the situation.** E.g.: When feelings like anger, anxiety, irritability etc. come up in the person, we are not taught how to deal with it.
- We should be **aware what kind of stress we have** in order to tackle the situation because it's necessary to take a pause and have a look at it.
- We should try to **express ourselves freely** in front of others and should be empathetic towards listening to the person who is going through such a situation.
- Some grounding techniques like **meditation, breathing** etc. can be done in order to balance the routine cycle.

### How to tackle the stress?

- We should **learn to say "NO"** to ourselves and others, if something is out of our capacity which may help us to get relieved.

- We should get **our strength analysed and try to be in a positive area.**
- **Instead of motivation, activation can be made as a principle to get rid of stress.** I.e. Motivation: It requires someone from outside to make us feel good about ourselves.
  - Activation: It is when we are making us feel good about ourselves.
- A picture has to be created in our mind which will **create a hope and boost our self esteem.**

### Way Forward:

- We need to change our mindsets, tone and the words that we think in our mind in order to tackle the problem.
- **Thus, greater the goals, greater will be the pressure and stress but we should think in a positive manner instead of putting pressure and stress on ourselves.**

## References

### POLITY:

- <https://www.thehindu.com/news/international/covid-19-may-push-millions-more-into-child-labour-world-bodies/article31813134.ece>
- <https://www.soschildrensvillages.ca/news/child-labour-in-india-588>
- <https://vikaspedia.in/education/child-rights/child-labour>
- <https://www.ilo.org/ipec/facts/lang--en/index.htm>
- 2) <https://www.thehindu.com/news/national/covid-19-lockdown-spike-in-domestic-violence-says-ncw/article31238659.ece>
- <http://ncw.nic.in/commission/about-us>
- <https://wcd.nic.in/sites/default/files/ncwact.pdf>
- 3) <https://www.thehindu.com/todays-paper/tp-national/van-dhan-vojna-helps-tribals-beat-odds/article31837658.ece>
- 4) <https://www.thehindu.com/news/national/andhra-pradesh/assembly-passes-resolution-against-nrc-and-npr/article31854935.ece>
- <https://www.newindianexpress.com/states/andhra-pradesh/2020/jun/18/house-passes-resolution-against-nrc-npr-model-2158107.html>
- 5) <https://www.thehindu.com/news/national/pm-cares-fund-supreme-court-seeks-government-reply/article31854530.ece>
- <https://indianexpress.com/article/india/plea-to-transfer-pm-cares-funds-to-ndrf-supreme-court-seeks-govt-reply-6464029/>
- [http://www.arthapedia.in/index.php?title=National Disaster Response Fund \(NDRF\)#:~:text=National%20Disaster%20Response%20Fund%20is,threatening%20disaster%20situation%20or%20disaster.](http://www.arthapedia.in/index.php?title=National+Disaster+Response+Fund+(NDRF)#:~:text=National%20Disaster%20Response%20Fund%20is,threatening%20disaster%20situation%20or%20disaster.)
- 6) <https://www.thehindu.com/news/national/centre-lays-out-50000-crore-public-work-scheme-for-migrant-workers/article31863944.ece>
- 7) [https://worldjusticeproject.org/sites/default/files/documents/WJP-ROLI-2020-Online\\_0.pdf](https://worldjusticeproject.org/sites/default/files/documents/WJP-ROLI-2020-Online_0.pdf)
- <https://worldjusticeproject.org/about-us>

### Environment

- <https://timesofindia.indiatimes.com/topic/national-green-tribunal>
- <https://eol.org/pages/1038326>
- <https://www.thehindu.com/news/national/kerala/malabar-gliding-frog-spotted-at-pullad/article31827553.ece>
- <https://www.tropmet.res.in/History-1-Page>
- <https://www.ipcc.ch/about/>

### IR

- <https://www.thehindu.com/news/national/india-pledges-to-construct-sanitation-facility-at-nepals-iconic-pashupatinath-temple/article31839092.ece>
- <https://www.thehindu.com/business/Industry/aiib-clears-750-mn-loan-to-india-for-covid-19/article31854315.ece>
- <https://www.thehindu.com/news/international/nepal-parliaments-lower-house-unanimously-passes-bill-to-redraw-political-map/article31821242.ece>
- <https://www.thehindu.com/news/international/iaea-begins-meet-over-irans-n-programme/article31836260.ece>
- <https://www.thehindu.com/news/national/india-china-expanded-nuclear-stockpile-in-last-one-year-report/article31833890.ece>
- <https://www.thehindu.com/news/national/aid-offers-from-india-china-galore/article31828030.ece>
- <https://www.thehindu.com/news/national/india-looks-to-deploy-naval-liaisons-at-madagascar-abu-dhabi-for-information-exchange/article31828272.ece>

### Economy

- <https://www.thehindu.com/news/national/ladakh-standoff-finance-ministry-proposes-restrictions-on-foreign-investment-in-pension-funds/article31876027.ece>
- <https://www.thehindu.com/business/Industry/pm-kick-starts-virtual-auction-of-41-coal-blocks/article31863541.ece>
- <https://theprint.in/theprint-essential/all-about-commercial-mining-and-how-it-changes-the-coal-production-game-in-india/444378/>
- <https://economictimes.indiatimes.com/news/economy/policy/scope-to-finetune->

[stimulus-package-says-eac-pm-member-ashima-goyal/articleshow/76356675.cms?from=mdr](https://www.thehindu.com/business/sc-bars-sale-registration-of-bs-iv-vehicles/article31835998.ece)

- <https://www.thehindu.com/business/sc-bars-sale-registration-of-bs-iv-vehicles/article31835998.ece>
- <https://economictimes.indiatimes.com/news/economy/indicators/may-wholesale-prices-fall-signals-deflation/articleshow/76393562.cms?from=mdr>

## S&T

- <https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp>
- <https://www.investopedia.com/terms/i/internet-things.asp>
- <https://internetofthingsagenda.techtarget.com/definition/Artificial-Intelligence-of-Things-AIoT>
- <https://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT#:~:text=The%20internet%20of%20things%2C%20or,human%2Dto%2Dcomputer%20interaction.>
- <https://www.who.int/news-room/fact-sheets/detail/chikungunya#:~:text=Chikungunya%20is%20a%20viral%20disease,and%20can%20vary%20in%20duration.>
- <https://www.thehindu.com/sci-tech/science/persistent-global-transmission-of-chikungunya-from-india/article31821943.ece>
- <https://foodandmoodcentre.com.au/2016/07/what-is-the-gut-microbiome/>
- <https://www.thehindu.com/sci-tech/science/iit-madras-study-reveals-metabolism-of-key-gut-microbiota/article31821977.ece>
- <https://www.healthline.com/nutrition/probiotics-101>
- <https://www.medicinenet.com/probiotics/article.htm>
- <https://www.thehindu.com/sci-tech/health/coronavirus-can-a-covid-19-vaccine-be-developed-soon/article31822315.ece>
- <https://www.merriam-webster.com/dictionary/placebo>
- <https://indianexpress.com/article/explained/human-challenge-trials-explained-6382949/>

- <https://www.thehindu.com/sci-tech/health/when-will-a-covid-19-vaccine-be-ready/article31131211.ece/amp/>
- <http://www.euvaccine.eu/vaccines-diseases/vaccines/stages-development>
- <https://medlineplus.gov/druginfo/meds/a682792.html>
- <https://www.thehindubusinessline.com/news/science/who-lauds-steroid-trial-results-on-covid-19-to-co-ordinate-meta-analysis/article31848239.ece#>
- <https://www.thehindu.com/news/national/indian-doctors-express-cautious-endorsement-for-dexamethasone-for-covid-19/article31845167.ece>
- <https://www.thehindu.com/news/national/icmr-recommends-use-of-faster-covid-19-testing-kit/article31834925.ece>
- <https://www.thehindu.com/news/national/coronavirus-mobile-lab-rolled-out-for-last-mile-covid-19-testing-access/article31863762.ece>
- <https://pib.gov.in/PressReleasePage.aspx?PRID=1632335>
- <http://www.nrdcindia.com/Pages/About%20Us>

## Health

- <https://www.thehindu.com/news/national/coronavirus-hydroxychloroquine-with-ppe-reduces-odds-of-covid-19-in-health-workers-icmr-researchers/article31724680.ece>
- <https://www.nature.com/scitable/definition/rna-polymerase-106>
- <https://www.thehindu.com/news/national/coronavirus-remdesivir-cleared-for-emergency-use/article31733334.ece>
- <https://www.csio.res.in/CommonNew.php?ds=69&page=1>
- <https://www.thehindu.com/sci-tech/science/scientists-find-second-most-common-coronavirus-type-in-india/article31734371.ece>
- <https://www.nationsencyclopedia.com/United-Nations-Related-Agencies/The-World-Health-Organization-WHO-PURPOSES.html#ixzz60Sz4jw33>
- <https://www.who.int/about>
- <https://www.thehindu.com/sci-tech/health/coronavirus-hydroxychloroquine-clinical-trials->

[will-resume-says-who/article31742357.ece.](https://www.thehindu.com/opinion/op-ed/making-public-transport-safe-during-covid-19/article31828057.ece)

### Editorials

- <https://www.thehindu.com/opinion/op-ed/making-public-transport-safe-during-covid-19/article31828057.ece>
- [https://economictimes.indiatimes.com/news/economy/finance/centre-gives-15340-crore-as-gst-compensation-to-states/articleshow/75855070.cms?from=mdr#:~:text=Centre%20gives%20Rs%2015%2C340%20crore%20as%20GST%20compensation%20to%20states,-ET%20Bureau%20%7C%20Updated&text=Under%20GST%20law%2C%20states%20are,\(GST\)%20in%20July%202017.](https://economictimes.indiatimes.com/news/economy/finance/centre-gives-15340-crore-as-gst-compensation-to-states/articleshow/75855070.cms?from=mdr#:~:text=Centre%20gives%20Rs%2015%2C340%20crore%20as%20GST%20compensation%20to%20states,-ET%20Bureau%20%7C%20Updated&text=Under%20GST%20law%2C%20states%20are,(GST)%20in%20July%202017.)
- [http://gstcouncil.gov.in/gst-council#:~:text=Goods%20%26%20Services%20Tax%20Council%20is,to%20Goods%20and%20Service%20Tax.&text=As%20.per%20Article%20279A%20\(1,the%20commencement%20of%20Article%20279A.](http://gstcouncil.gov.in/gst-council#:~:text=Goods%20%26%20Services%20Tax%20Council%20is,to%20Goods%20and%20Service%20Tax.&text=As%20.per%20Article%20279A%20(1,the%20commencement%20of%20Article%20279A.)
- <https://www.thehindu.com/opinion/editorial/behind-the-curve-the-hindu-editorial-on-gst-compensation-to-states/article31828367.ece>
- <https://www.thehindu.com/opinion/lead/remaining-non-aligned-is-good-advice/article31836296.ece>
- <https://www.thehindu.com/opinion/op-ed/lessons-for-yogi-from-gandhi-and-lee/article31835579.ece>
- <https://www.thehindu.com/opinion/op-ed/in-pandemic-crisis-bridging-the-gulf-with-west-asia/article31836298.ece>
- <https://www.thehindu.com/opinion/lead/a-shot-of-hope-with-a-game-changing-vaccine/article31383184.ece>
- <https://www.thehindu.com/opinion/op-ed/rural-india-the-new-viral-flash-point/article31845783.ece>
- <https://www.thehindu.com/opinion/op-ed/for-better-conditions-of-work/article31845747.ece>
- <https://www.thehindu.com/opinion/op-ed/in-defence-of-mplads/article31845286.ece>
- <https://www.thehindu.com/opinion/op-ed/a-prescription-of-equitable-and-effective-care/article31854853.ece>

### PIB

- <https://pib.gov.in/PressReleasePage.aspx?PRID=1631440>
- 2) <https://pib.nic.in/PressReleaseDetail.aspx?PRID=1631498>
- 3) <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1631676>
- <https://in.ambafrance.org/Global-Partnership-on-Artificial-Intelligence>
- 4) <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1631691>
- <https://www.livemint.com/money/personal-finance/epf-claims-epfo-launches-multi-location-claim-settlement-facility-11592225770380.html>
- 5) <https://pib.nic.in/PressReleaseDetail.aspx?PRID=1632427>
- <https://kheloindia.gov.in/about>
- <https://pib.gov.in/PressReleasePage.aspx?PRID=1632543#:~:text=It%20is%20per%20to%20to%20mention,to%20benefit%20over%2050%20lakh>
- <http://ddnews.gov.in/business/govt-unveils-pm-svanidhi-scheme-provide-affordable-loans-street-vendors>

### AIR

- <http://newsonair.com/News?title=Regulators-to-take-necessary-action-to-preserve-financial-stability%3a-FSDC-sub-committee&id=391662>
- <https://www.thehindu.com/business/govt-allows-export-of-hcq-formulations/article31863731.ece>
- <http://newsonair.com/News?id=391586>
- <https://timesofindia.indiatimes.com/india/india-elected-non-permanent-member-of-un-security-council/articleshow/76434802.cms>
- <http://newsonair.com/Audio-Archive-Search.aspx>

### ART and CULTURE

- <https://www.thehindu.com/news/national/karnataka/amid-pandemic-traditional-art-of-talamaddale-goes-digital/article31836303.ece>
- <https://yakshagana.com/talamaddale/>
- <https://www.newworldencyclopedia.org/entry/Yakshagana>
- <https://www.shreejagannatha.in/architecture/>

- <https://www.thehindu.com/news/national/sc-stays-this-years-historic-puris-rath-yatra-due-to-covid-19-pandemic/article31858629.ece>
- <https://www.incredibleindia.org/content/incredible-india-v2/en/destinations/puri/sri-jagannath-temple.html>
- <https://navrangindia.blogspot.com/2018/01/odisha-temple-architecture-and-south.html>
- <http://puratattva.in/2020/03/25/kalinga-temple-architecture-5546>
- <https://www.indiatvnews.com/news/india/police-inspector-suspended-for-forcibly-entering-puri-jagannath-temple-609395>
- <https://www.shreejagannatha.in/main-temple-complex/>
- <https://www.livemint.com/Sundayapp/a8MlN3mwHQjlpmbZBhcXI/Exploring-Indias-megalithic-culture-a-riddle-set-in-stone.html>
- <https://www.thehindu.com/news/national/tamil-nadu/excavation-at-kodumanal-reveals-megalithic-belief-in-afterlife/article31862510.ece>
- <https://www.newsgram.com/megalithic-culture-of-india-the-forgotten-link-of-indian-history/>
- <https://www.thehindu.com/news/national/tamil-nadu/skeletal-remains-of-a-child-excavated-as-part-of-keeladis-6th-phase-excavation/article31872136.ece>
- <https://www.thehindu.com/news/national/tamil-nadu/unearthing-an-ancient-civilisation/article29856930.ece>
- <https://www.thehindu.com/news/national/tamil-nadu/keeladi-findings-traceable-to-6th-century-bce-report/article29461583.ece>
- <https://www.tnarch.gov.in/keeladi>

#### **INDIAN EXPRESS EXPLAINED**

- <https://indianexpress.com/article/explained/how-india-tests-for-covid-19-6459048/>
- <https://indianexpress.com/article/explained/how-rapid-antigen-test-detects-coronavirus-where-it-will-be-used-6460735/>
- [\[upgrade-by-china-curb-its-trafficking-coronavirus-6460736/\]\(https://www.thehindu.com/news/national/sc-stays-this-years-historic-puris-rath-yatra-due-to-covid-19-pandemic/article31858629.ece\)](https://indianexpress.com/article/explained/the-pangolin-can-the-protection-</a></li>
</ul>
</div>
<div data-bbox=)

- [https://www.wwfindia.org/about\\_wwf/priority\\_species/threatened\\_species/indian\\_pangolin/](https://www.wwfindia.org/about_wwf/priority_species/threatened_species/indian_pangolin/)
- <https://www.thehindu.com/sci-tech/energy-and-environment/scientists-radio-tag-indian-pangolin/article30823693.ece>
- <https://indianexpress.com/article/explained/dexamethasone-covid-treatment-trial-explained-6465602/>

#### **RSTV**

- <https://www.youtube.com/watch?v=MAead30MjtU>