

# Current Affairs

"A MONTHLY MAGAZINE FOR UPSC CIVIL SERVICES EXAMINATION"



**UNION  
BUDGET**

**2020-21**

Announcements  
and Analysis

Economic Survey 2019-20:  
Strengthening of Trust in the Economy

India State of Forest Report 2019:  
Green Cover in India

Ethics of Protest:  
Rights and Responsibilities



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# Current Affairs

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Chief Editor

B. Singh (Ex. IES)

CMD, MADE EASY Group

Editor

Aniruddh Pratap Singh



**MADE EASY Publications**

Corporate Office: 44-A/4, Kalu Sarai, New Delhi-110016

Visit us at: [www.madeeasypublications.org](http://www.madeeasypublications.org)

☎ 011-45124660, 8860378007

E-mail: [infomep@madeeasy.in](mailto:infomep@madeeasy.in)

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# MESSAGE TO THE READERS

**T**he March 2020 Issue of the Next IAS Current Affairs Magazine (hereafter called 'The Magazine'), covers news events from 26<sup>th</sup> January 2019 to 25<sup>th</sup> February 2020 (hereafter called 'Coverage Period'). The Magazine has comprehensive coverage of all the topics from current affairs neatly categorized into major sections like Economy, International Issues, Polity & Governance, and so on.

The March issue of the magazine has an in-depth analysis of three issues from the coverage period viz. **'Union Budget 2020-21: Announcements and Analysis'**, **'Economic Survey 2019-20: Strengthening the Trust in the Economy'** and **'Indian State of Forest Report 2019: Green Cover in India'**. The Magazine also covers the issue of Ethics in Protests, 13 the COP to Convention on Migratory Species, Medical Termination of Pregnancy (Amendment) Bill, 2020 and Women in Indian Army and many other issues which have become relevant in the coverage period.

This Magazine has a Guest Article contributed by Shri K.P. Shashidharan (IAAS, Former Director General, CAG Office) on the subject of **'Social Audit for Citizen Participatory Governance'**. The guest columns by such notable authors help readers to have a nuanced understanding of these topics.

The Magazine works on the principle of learning by doing and testing the readers' understanding and retention via model question papers (included in the magazine) based on the lines of Prelims and Mains examinations of the Union Public Service Commission (UPSC) Civil Services Examination.

The Magazine is designed for the needs of the students who are preparing for UPSC Civil Services Examinations. However, it is also helpful for Engineering Services Examinations, Banking Examinations and other government or Public Sector Enterprises examinations.

Any suggestions for further improvement of the Magazine is welcome and may be e-mailed to [currentaffairs@nextias.com](mailto:currentaffairs@nextias.com)

**Team NEXTIAS**



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# UNION BUDGET 2020-21: ANNOUNCEMENTS AND ANALYSIS

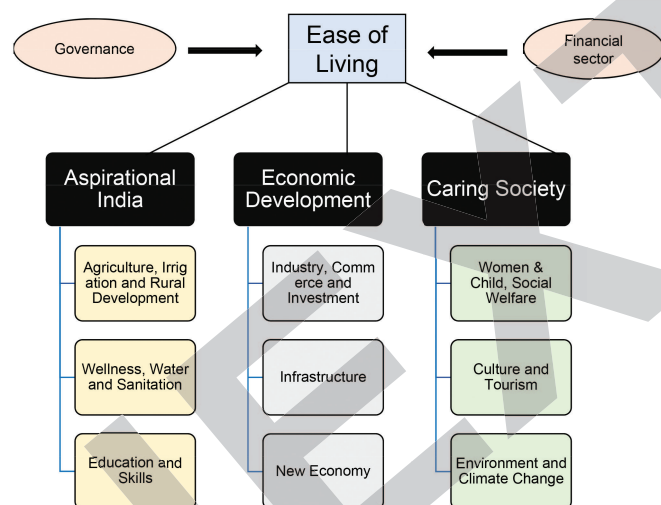
The Union Minister for Finance and Corporate Affairs, Smt Nirmala Sitharaman presented the Union Budget 2020 in Parliament on 1<sup>st</sup> February 2020.

## About:

The Union Budget has been structured on the overall theme of "Ease of Living". The budget is woven around three prominent themes:

- **Aspirational India** in which all sections of the society seek better standards of living, with access to health, education and better jobs.
- **Economic development** for all, indicated in the Prime Minister's exhortation of "Sabka Saath, Sabka Vikas, Sabka Vishwas".
- **Caring Society** that is both humane and compassionate, where Antyodaya is an article of faith.

## PROMINENT THEMES OF THE BUDGE



### The three broad themes are held together by

- Corruption free - policy-driven good governance
- Clean and sound financial sector.

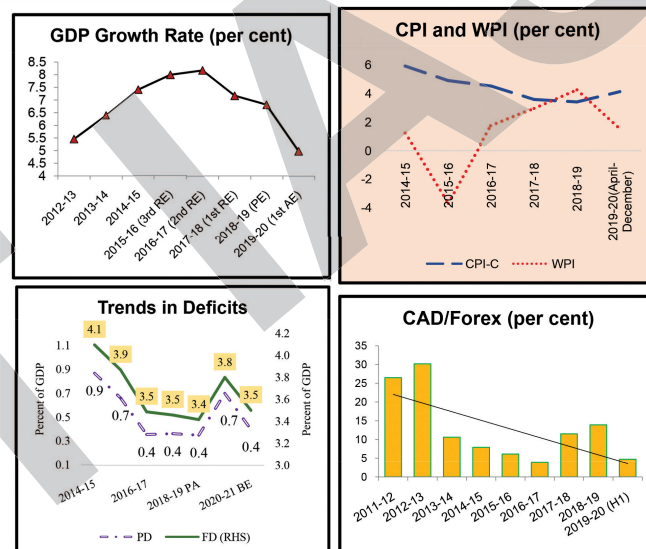
## ASPIRATIONAL INDIA

### I. Agriculture, Irrigation and Rural Development:

- **PM Kusum** to cover 20 lakh farmers for stand-alone solar pumps and further 15 lakh for grid-connected pumps.
- **Impact:**
  - ♦ As solar power is cheaper than diesel, off-grid solar pumps will reduce the cost of irrigation significantly. The effect is substantial in states like Bihar where farmers largely use diesel pumps.

- ♦ This will allow farmers to grow more crops (even the water-intensive ones), at a lower cost of cultivation, thereby increasing income.

## A SNAPSHOT OF THE MARCO VIEW OF THE ECONOMY



- **Criticism:**
  - ♦ Agriculture in India has become increasingly dependent on groundwater for irrigation.
  - ♦ Nearly 90% of India's total groundwater draft is used to irrigate 70% of the country's total irrigated land.
  - ♦ In states like Punjab, electric pumps dominate and power is highly subsidized.
- **Improving agriculture supply chain:**
  - ♦ Viability Gap funding for the creation of efficient warehouses on PPP mode.
  - ♦ SHGs run Village storage scheme to be launched.
  - ♦ Integration of e-NWR and e-NAM.
  - ♦ "Kisan Rail" and "Krishi Udaan" to be launched by Indian Railways and Ministry of Civil Aviation Respectively for a seamless national cold supply chain for perishables.
  - ♦ Agriculture credit target of Rs. 15 lakh crore for 2020-21.
- **Impact:**
  - ♦ The move will reduce the post-harvest losses for both agriculture and horticulture products and improve the farmer's income.
  - ♦ Making agriculture credit available to farmers will help improve farm production and productivity.

- **Criticism:**

- ♦ More focus is on creating storage and transport. However, reforms related to agriculture marketing, pricing, processing of food products and extension services are lacking.
- ♦ There is also a need to address the issue of lower farm mechanization in India which is only about 40 percent as compared to about 60 percent in China and around 75 percent in Brazil.

- **Livestock:**

- ♦ Elimination of **Foot and Mouth Disease (FMD) and brucellosis** in cattle and PPR in sheep and goat by 2025.
- ♦ Increasing coverage of artificial insemination to 70 percent.
- ♦ Doubling of the milk processing capacity by 2025.

- **Impact:**

- ♦ Livestock income has become an important secondary source of income for millions of rural families and has assumed an important role in achieving the goal of doubling farmers' income.

- **Concern:**

- ♦ The livestock sector has been incurring losses from the past year due to a shortage of raw materials, especially maize and soya.
- ♦ The government should allow the import of genetically modified maize and soya for feed manufacturers which will help to bring down the price of the raw materials considerably and to make the feed more affordable to farmers.
- ♦ The general norm is to have at least one veterinary doctor for every 5,000 animals. However, there is a shortage of registered veterinarians over 50%.

- **Blue economy:**

- ♦ The fish production target of 200 lakh tones by 2022-23.
- ♦ Fishery extension through 3477 Sagar Mitras and 500 fish FPOs.
- ♦ Raise fishery exports to Rs. 1 lakh crore by 2024-25

- **Impact:**

- ♦ The sector has been one of the major contributors to foreign exchange earnings with India being one of the leading seafood exporting nations in the world.

- **Concerns:**

- ♦ The Pradhan Mantri Matsya Sampada Yojana which was announced in the last Union budget is yet to get approval from the cabinet.

## II. Wellness, water, and sanitation:

- **Health:**

- ♦ More than 20000 hospitals already impaneled under PM Jan Arogya Yojana.

- ♦ FIT India movement launched to fight NCDs.

- ♦ **"TB Harega Desh Jeetega"** campaign launched to end TB by 2025.

- ♦ Viability gap funding proposed for setting up hospitals in the PPP model.

- ♦ Expansion of Jan Aushadhi Kendra Scheme to all districts by 2024.

- **Impact:**

- ♦ In addition to initiatives announced to improve access to medical care across the nation and boost human health resources, it is encouraging that vital determinant of good health which includes wellness, nutrition, clean drinking water, and sanitation were at the forefront of this Budget.
- ♦ The budget has accorded priority on capacity building by improving health infrastructure in Tier II & III cities and rural areas.

## Concerns and Challenges:

- **Lack of Health Sector Personnel:** Health workforce density in India remains abysmally low.

- **Rural-Urban Divide:** 75% of the doctors are concentrated in urban areas which account for only 31% of India's population. Further, 73% of public hospital beds are in urban areas.

- **Poor Doctor-Patient Ratio:** According to the National Health Profile (NHP), 2018, one allopathic government doctor in India, on an average, attends to a population of 11,082, which is 10 times more than the WHO recommended doctor-population ratio of 1:1,000.

- **Private-Public Divide:** Public hospitals cater to only 30% of OPD and 40% of inpatient care, which means that 70% of OPD and 60% of inpatient care goes to the private sector.

- World Economic Forum estimated that India stands to lose \$4.58 trillion before 2030 due to NCDs and mental health conditions. Hence, timely actions are needed.

- ♦ Rs. 11,500 crore approved for Jal Jeevan Mission for the year 2020-21.

- ♦ **Commitment to ODF-plus** to sustain ODF behavior along with a focus on liquid and greywater management.

- **Impact:**

- ♦ Jal Jeevan Mission will help in augmenting local water sources, recharging existing sources, and promoting water harvesting and desalination.

- ♦ ODF Plus is total sanitation in terms of solid waste management in addition to open defecation free tag.

- ♦ Technology will be used to eliminate manual cleaning of sewer systems and septic tanks.

- **Concerns and Challenges:**

- ♦ The budget allocation on Swachh Bharat Mission has come down as compared to last year's.



- ♦ Lack of access to water has been a challenge in the use of household toilets.
- ♦ Contamination caused by uncleaned toilets has been a recurring challenge.

### III. Education and Skills:

- About 150 higher educational institutions will start apprenticeship embedded courses.
- Internship opportunities to fresh engineers by urban local bodies.
- Special bridge courses to improve skill sets of those seeking employment abroad.
- Full-fledged degree level online education programs.
- Ind-SAT to be conducted in Asia and Africa under the Study in India Programme.

#### Impact:

- Allowing Foreign investments and external corporate borrowings by educational institutions will provide much needed new funding sources to facilitate their growth.
- As education is a state subject, it is good to see that the central government is coordinating with states to encourage the implementation of the New Education Policy at the grassroots.
- Encouraging student engineers to get internships in local bodies will help in the development of new technologies desirable at the local level.
- Full-fledged online courses will provide educational opportunities to underprivileged students.
- Ind-SAT will help India strengthen its position as an international hub for education and learning.

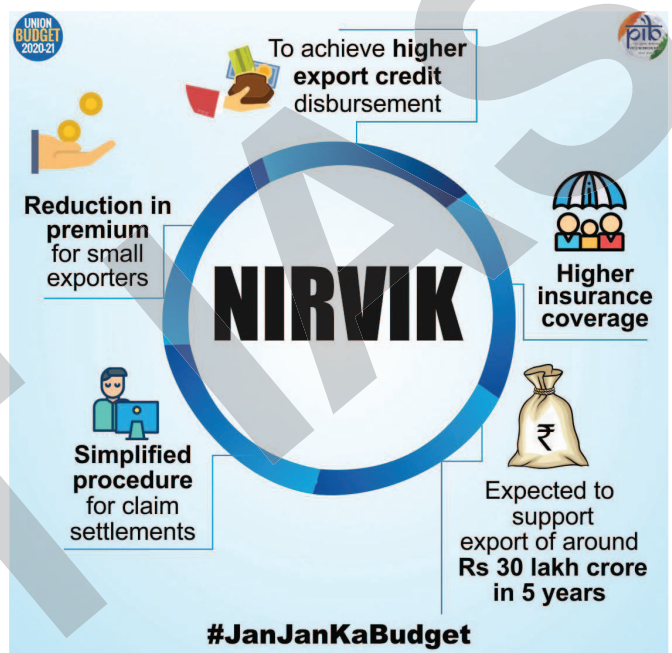
#### Concerns and Challenges:

- Large-scale investments are expected to align classroom and institution's facilities with the proposed introduction of modern pedagogy and teaching methods.
- The other area requiring significant budget allocation would be the training of teachers to use new-age teaching aids and tools.
- The education system needs to focus on **creativity and lifelong learning** which will be essential in preparation for a career where the key constant will be continuous disruptions.
- It is envisaged that 65% of children entering primary school today will ultimately end up working in completely new job types that don't yet exist.

## ECONOMIC DEVELOPMENT

### I. Industry, Commerce, and Investment:

- Scheme to encourage the manufacturing of mobile phones, electronic equipment, and semiconductor packaging.
- **National Technical Textiles Mission** for 4 years.
- **NARVIK Scheme** for higher export credit disbursement launched.



- Setting up of an **Investment Clearance Cell** to provide end to end facilitation.
- Extension of invoice financing to MSMEs through TReDs.
- A scheme to provide subordinate debt for entrepreneurs of MSMEs
- Scheme anchored by EXIM Bank and SIDBI to handhold MSMEs in exports markets.

#### Impact:

- Giving a stimulus to electronics manufacturing will reduce import burden and dependence on China.
- National Technical Textile Mission aims to position India as a global leader in Technical Textiles.
- NARVIK scheme will provide for higher insurance coverage, reduction in premium for small exporters and simplified procedure for claim settlements.
- A single window Investment clearance cell will provide support to entrepreneurs including pre-investment advisory, information related to land banks and facilitate clearances at Centre and also at the state level thereby improving ease of doing business.

**Concerns and Challenges:**

- The Electronic Manufacturing sector is facing problems like – (i) inefficient supply chain for the required electronic components, (ii) Unfair playing field, since companies from competing countries (China, Vietnam, Indonesia, etc) have access to finance at a much lower cost, (iii) Logistics inefficiencies and infrastructural bottlenecks, resulting in greater turnaround time and costs (iv) Shortage of skilled manpower.
- Technical textile sector witnesses high import dependence for machinery. Further, low awareness about technical textile products and lack of standardization and related regulations are other roadblocks.

**II. Infrastructure:**

- **National Logistics Policy** to be launched soon.
- **Roads:** Accelerated development of highways.
- **Railways:** Four station redevelopment projects.
  - ♦ 150 passenger trains through PPP mode.
  - ♦ More Tejas type trains for tourist destinations.
- **Port:** Corporatizing at least one major port.
- **Air:** 100 more airports to be developed under UDAN.

**Impact:**

- Improved connectivity, reduced logistics cost, reduced congestion will have a multiplier effect on the economy.
- The Union Budget reinforces the importance of raising resources through PPP for network strengthening, connectivity, and modernization which will make the infrastructure sector amenable to private investments.
- The logistics policy will help in bringing down the cost of logistics and making the Indian logistics sector globally competitive.

**Concern:**

- Timely monetization of highways has been a challenge which has led to an increase in the debt burden of NHAI.
- Given the news reports from January 2020 suggesting that the Government may introduce a cap on the number of projects a bidder can get, it is still to be seen whether such move leads to wider participation by private parties and more realistic bids.
- Considering that logistics involve inter-state movement, it would be crucial for the Logistics policy to harmonize the roles of the Central Government and the various State Governments.
- **Power & Gas:** Efforts to replace conventional energy meters by prepaid smart meters.
- Expansion of National Gas Grid to 27,000 km.

**Impact:**

- Smart metering systems instead of the conventional ones will not only help in checking payment defaults (due to prepaid

metering) but will also provide the customer with the ability to choose the power supplier.

- Concerning natural gas, the FM announced that reforms will be undertaken w.r.t. price discovery which will make it more transparent and facilitate ease of transactions.

**Concern:**

- The recent arm twisting of power developers by state DISCOMs/State Governments by renegotiating the power tariffs and the terms and conditions of the renewable power purchase agreements is a cause of concern.
- **Infrastructure Financing:** Rs. 103 lakh crore National Infrastructure Pipeline projects announced.

**Impact:**

- The NIP was launched on December 31, 2019. The total capital expenditure in infrastructure sectors in India during the fiscals 2020 to 2025 was projected at over INR 10.2 trillion. About INR 220 billion has already been provided, as support to NIP, which would cater for equity support to infrastructure finance companies such as IIFCL and a subsidiary of NIIF.

**Concerns:**

- NIP is a critical measure that would boost investments in the infrastructure sector. However, given the mammoth proposal, the financing of the NIP may be a challenge.

**III. New Economy:**

- Knowledge Translation Clusters for emerging technology sectors.
- Scaling up of Technology Clusters harbouring test beds and small scale manufacturing facilities.
- **National Mission on Quantum Technologies** and applications with an outlay of Rs.8000 crore proposed.

**CARING SOCIETY****I. Women & Child, Social Welfare:**

- More than 6 lakh Anganwadi workers equipped with smartphones.
- A task force to be appointed to recommend lowering MMR and improving nutrition levels.

**Impact:**

- The Budget 2020-21 has given a decisive push to the social sector with enhanced allocations for welfare schemes.
- Integrated programs involving assistance to NGOs caring for senior citizens, prevention of alcoholism and substance abuse will look into the issues in a holistic way instead of the earlier piecemeal approach.

**Concerns:**

- The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and the Public Distribution System (PDS) are two important lifelines for the rural poor: the budgetary allocation for NREGA has declined.
- The food subsidy allocated for 2020-21 is only ₹ 1.11 lakh crore, which, once again, is slightly higher than the previous year's RE of ₹ 1.08 lakh crore. This is much less than the budget estimate (BE) of last year, of ₹ 1.8 lakh crore.
- The funds allocated for the maternity entitlement scheme, Pradhan Mantri Matru Vandana Yojana remain the same as last year — ₹ 2,500 crores.
- As we look at the various schemes, including social security pensions, Anganwadi services, mid-day meals, the RE for 2019-20 is much lower than BE of 2019-20, indicating underspending in the current year.
- The gender budget of the government as a share of the Union Budget has seen a decline of 0.01% this fiscal - dropping from 4.72% last year to 4.71% - in FY 2020-2021.

**II. Culture and Tourism:**

1. Proposal to establish the Indian Institute of Heritage and conservation.
2. 5 archaeological sites to be developed as iconic sites.
3. A museum on Numismatics and trade to be established.
4. Tribal museum in Ranchi.
5. Maritime Museum to be set up at Lothal.

**Impact:**

- The establishment of the Indian Institute of Heritage and conservation will give a boost to tourism.
- The renewed focus on tourism may lead to substantive growth in foreign exchange earnings, GDP and employment.

**Concerns:**

- Hotel Association of India (HAI) has rued that allocation of Rs 2,500 crore on tourism promotion is not sufficient given the sector's immense potential.
- Rs 9,000 crore is being spent by Indians traveling abroad on holidays because India is lacking the infrastructure required for the tourism sector.

**III. Environment and Climate Change:**

1. Coalition for Disaster Resilient Infrastructure launched in September 2019.
2. Encouragement to states implementing plans for cleaner air in cities above 1 million.

**Impact:**

- CDRI will help achieve India's commitment to the Sendai Framework for Disaster Risk Reduction, enhance adaptation and achieve the 2030 Sustainable Development Goals (SDGs).
- Shutting down of old thermal power plants, whose emissions are above prescribed norms, is in line with our commitments at the Paris conference.
- A budget of Rs. 4400 crore to tackle the issue of air pollution shows governments resolve in improving ease of living.

**Concerns:**

- Budget 2020 with its deafening silence on allocations to the National Action Plan on Climate change (NAPCC) and the National Adaptation Fund, does not augur well for India's campaign to combat climate change.
- The budget announcements over climate change were, to a large extent, vague. Rather it should have laid a strategy that suggests re-orienting how we execute climate action via economy-wide green industrialization that puts money into low-carbon and climate-resilient sectors.

**FISCAL MANAGEMENT**

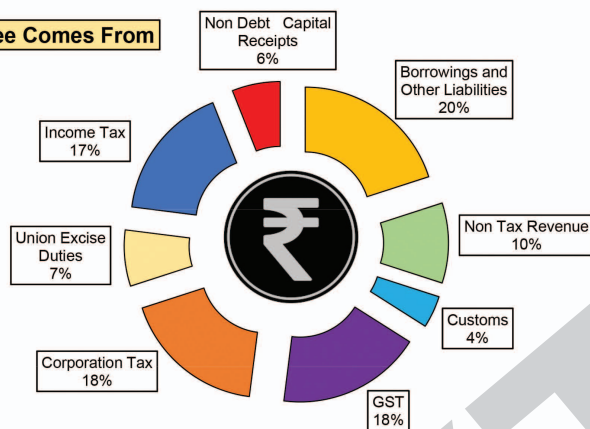
- **Budget Expenditure:** The Indian Budget 2020 is of 30.42 lakh crore rupees. The expenditure has increased significantly when compared with the Union Budget 2019, where the expenditure figure was 26.98 lakh crore rupees (revised estimates).
- **Total Receipts (without considering borrowing):** The total revenue expected in the financial year 2020-21 (without considering borrowing) is only Rs. 22.45 lakh crores.
- **Borrowings:** To balance the expenditure and receipts side of the budget, the government needs to borrow money. The Indian government needs to borrow Rs. 7.96 lakh crore in the financial year 2020-21 to meet its expenditure.
- **Fiscal deficit:** As per budget 2020, Fiscal Deficit is 3.5% of GDP.
- **Primary deficit:** The interest payments for the loans taken by the government are about **Rs. 7.08 lakh crore**. The primary deficit can be expressed as Fiscal Deficit – Interest Payments = Rs. 88134 crores. This comes only like 0.4 of GDP. The value of primary deficit denotes the borrowing which is not used for interest payments. Thus, out of the borrowed money, only 0.4% of GDP is, in reality, available for productive purposes.
- **Direct Tax:**
  - ♦ A new personal income tax regime has been proposed, however, it has been kept as optional.
  - ♦ About 70 of the existing exemptions and deductions to be removed.



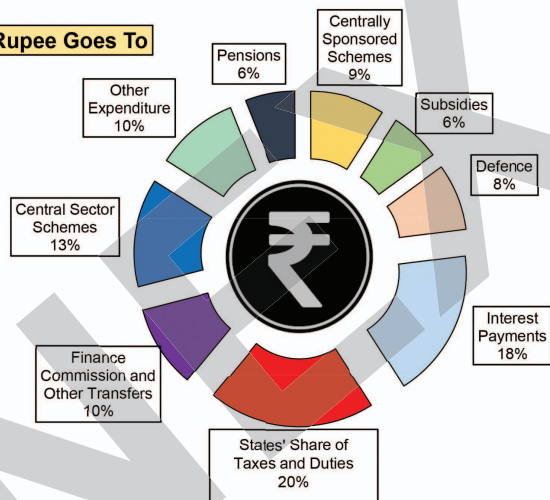
- Dividend Distribution Tax is set to be removed. The dividend shall be taxed at the hands of the recipients.
- The new corporate tax rate of 15% to be extended to cover new electricity generation companies.
- **'Vivad Se Vishwas' scheme**, with a deadline of 30th June 2020, to reduce litigations indirect taxes.
- Faceless appeals to be enabled by amending the Income Tax Act.

## BUDGET AT A GLANCE

### Rupee Comes From



### Rupee Goes To



#### • Indirect tax:

- The cash reward system envisaged incentivizing customers to seek invoices.
- Simplified return with features like SMS based filing for nil return and improved input tax credit flow to be implemented from 1st April 2020 as a pilot run.
- Dynamic QR-code capturing GST parameters proposed for consumer invoices.
- Aadhaar based verification of taxpayers being introduced to weed out a dummy or non-existent units.

- GST rate structure being deliberated to address inverted duty structure.
- 5% health cess to be imposed on imports of medical devices.

### Some Important Tax Proposals in the Budget at a Glance

- Concessional corporate tax rate of 15 per cent to new domestic companies in manufacturing and power sector.
- Tax concession for sovereign wealth fund of foreign governments and other foreign investments.
- Tax benefits to Start-ups by way of deduction of 100 per cent of their profits are enhanced by increasing turnover limit and period of eligibility.
- Concessional tax rate for cooperatives proposed.
- Turnover threshold for audit of MSMEs increased.
- Extension of time limits pertaining to the tax benefits for affordable housing.
- Issuance of Unique Registration Number to all charity institutions for easy tax compliance.
- Health Cess to be imposed on imports of medical equipment given these are made significantly in India.
- Dividend Distribution Tax removed and classical system of dividend taxation adopted.
- Simplified and New Income Tax Regime as an option to the old regime.

Income Bracket (Rs. Lakh)	Below 5	5-7.5	7.5-10	10-12.5	12.5-15	Above 15
Tax Rate (per cent)	Exempt	10	15	20	25	30

- Simplified GST return shall be implemented from 1st April 2020. Refund process to be fully automated.

### Fiscal Consolidation:

- As per the FY21 Budget, the fiscal deficit is expected to be 3.8% of GDP in FY20 and 3.5% in FY21. This is higher than 3.3% and 3% envisaged for FY20 and FY21, respectively, in the FY20 Budget.
- Although revenue deficit is no longer a parameter for measuring fiscal outcomes, it is projected to be 2.7% of GDP in FY21. It is expected to reduce further to 2.3% in FY22 and 1.9% in FY23.
- The revenue deficit to fiscal deficit ratio, which broadly indicates the extent to which borrowings are used for financing current expenditure of the Government, is expected to be 75.1% in FY21.
- The share of external debt has shown a marginal decline from 3% in FY18 to 2.9% in FY21.

# ECONOMIC SURVEY 2019-20: STRENGTHENING OF TRUST IN THE ECONOMY

The Union Minister for Finance and Corporate Affairs, Smt Nirmala Sitharaman tabled the Economic Survey 2019-20 in Parliament on 31 JAN 2020.

## About:

- The Economic Survey, prepared by the Chief Economic Advisor, gives a review of the developments in the economy over the previous 12 months and also gives an outlook for the next financial year.

## VOLUME 1: HIGHLIGHTS

- The theme of the Economic Survey is **wealth creation**, promotion of pro-business policies and strengthening of trust in the economy.

## Wealth Creation:

- The survey notes that our age-old traditions have always commended wealth creation that made India a significant contributor to the world's GDP for more than three-fourths of known economic history.
- Wealth Creation through the invisible hand of markets:** The market economy is based on the principle that optimal allocation of resources occurs when citizens can exercise free choice in the products or services they want.



- In a market economy too, there is a **need for the state to ensure a moral hand** to support the invisible hand as markets are liable to debase ethics in the pursuit of profits at all costs.
- The Survey introduces **"trust as a public good that gets enhanced with greater use"**. If there is high trust, economic activity can flourish.
- Trust can be improved by **reducing information asymmetry, standardizing enforcement systems, enhancing the quality of supervision**.

- Instruments of wealth creation:** Equal opportunities, pro-business policies, limited government intervention, specializing exports, ease of doing business, developed banking sector and healthy NBFC sector, privatization.

## Trust

The Survey introduces the idea of "trust as a public good that gets enhanced with greater use". Trust can be conceptualized as a public good with the characteristics:

- Non-excludability:** The citizens can enjoy their benefits at no explicit financial cost.
- Non-rival consumption:** The marginal cost of supplying this public good to an extra citizen is zero.
- Non-rejectable:** Collective supply for all citizens means that it cannot be rejected.

## Entrepreneurship and Wealth Creation at the Grassroots:

- Entrepreneurial activity has a significant positive impact on Gross Domestic District Product (GDDP). With a 10 percent increase in registration of new firms per district-year, GDDP increases by 1.8 percent.
- There exists a **spatial heterogeneity** in the distribution of Entrepreneurial Activity in India. All four regions except certain eastern states in India demonstrate strong growth in entrepreneurial activity over time.
- There exists a high negative spatial correlation between entrepreneurial activity in manufacturing sectors and the unemployment rate.
- The major determinants of entrepreneurial activity are physical infrastructure (such as roads, rails, electricity, water) and social infrastructure (health, literacy).

## Pro-business Vs Pro-crony

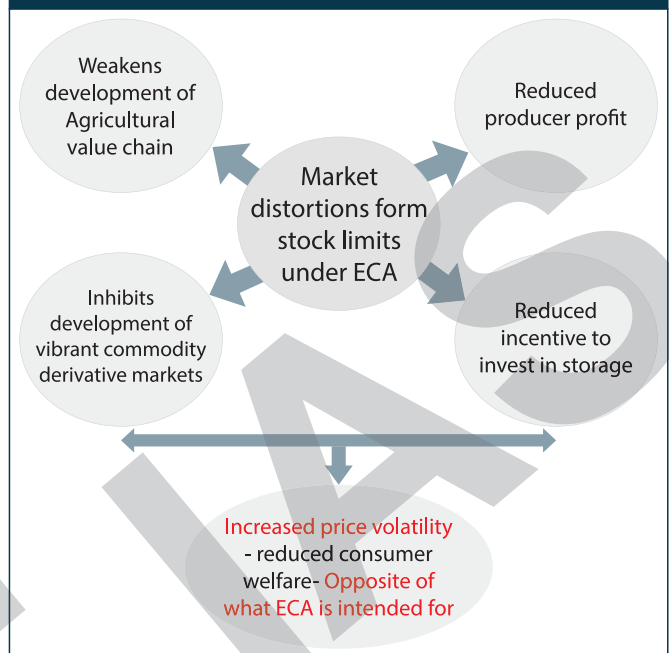
- The liberalization of the Indian Economy in 1991, which enabled **creative destruction**, is an example of **Pro-business policy**.
- Encouraging creative destruction, in turn, enables wealth creation and welfare maximization in the following ways:
  - The entry of new firms increases competition leading to lowered prices for consumers.
  - Brings dynamism to the marketplace and keeps incumbent firms on its toes.
  - Sectors as a whole always outperform individual companies within the sector.

- **Pro-crony policies erode wealth** in the economy as cronyism fosters inefficiencies by inhibiting the process of creative destruction.
- **Pro-crony policies create some indirect costs as well. Such as:**
  - ♦ If the opportunity of crony rent-seeking exists, firms shift their focus away from growth through competition and innovation towards building political relationships.
  - ♦ The rents sought by cronies are paid for by genuine businesses and citizens. Such a transfer of wealth exacerbates income inequality.
- Crony policies and processes collectively extract a larger share of existing wealth instead of expanding available wealth. Thus, creating a cycle of wealth destruction.
- An example of crony capitalism is coal block allocation. It was observed that the market shares of firms (that got coal block allocation) decreased despite gain from discretionary allocation. This has been explained as a case of Dutch Disease.
- **Dutch disease:** Firms that got the free resource diverted efforts towards the tunneling of the windfall gain instead of towards productive business activity.
- Pro-business policies make it easy to do business in a jurisdiction furthering the goal of maximum social welfare. Pro-crony policies may end up giving preferential treatment to some firms at the expense of others.

### Undermining Markets: When Government Intervention Hurts more than it helps:

- Anachronistic government interventions, like Essential Commodities Act (ECA), Drug Price Control Order (DPCO), food subsidy and debt waivers, though well-intentioned tend to do more harm than good in the long-run.
- Direct participation of the Government affects markets' **supply and demand equilibrium** thus generating deadweight losses.
- Interventions that were apt in a different economic setting may have lost their relevance in a transformed economy. Eliminating such instances will enable competitive markets and thereby spur investments and economic growth.

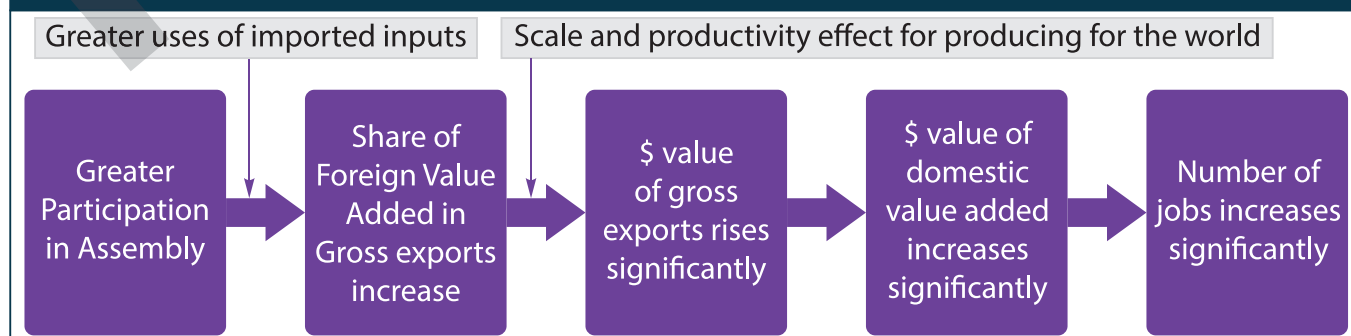
### AGRICULTURAL MARKET DISTORTIONS DUE TO ECA



### Creating Jobs and Growth by Specializing in Exports in Network Products:

- The current environment for international trade presents India an unprecedented opportunity to chart a China-like, labor-intensive, export trajectory and thereby create unparalleled job opportunities for our burgeoning youth.
- By integrating "Assemble in India for the world" into Make in India, India can create 4 crore well-paid jobs by 2025 and 8 crores by 2030.
- With the US-China trade war causing major adjustments in Global Value Chains (GVCs), firms are looking for alternative locations for their operations.
- According to the survey, there are two groups of industries that hold the greatest potential for export growth and job creation.
  - ♦ Traditional unskilled labor-intensive industries such as textiles, clothing, footwear, and toys.

### THE CONCEPTUAL FRAMEWORK FOR GAINS FROM "ASSEMBLING IN INDIA" AS PART OF "MAKE IN INDIA"



- ♦ **Network Products (NPs)** wherein products are not produced from start to finish within a given country; instead, countries specialize in particular tasks or stages of the good's production sequence depending on its comparative advantage.
- **Free Trade Agreements:** India has signed 14 FTAs with various countries between 1993 and 2018. India has clearly "gained" in terms of a 0.7 percent increase in trade surplus per year for manufactured products and of a 2.3 percent increase in trade surplus per year for total merchandise.

### Targeting Ease of Doing Business in India:

- India has risen significantly in the World Bank's Doing Business rankings in recent years, but there are categories where it lags – Starting a Business, Registering Property, Paying Taxes and Enforcing Contracts.
- Enforcing a contract in India takes on average 1,445 days in India compared to just 216 days in New Zealand, and 496 days in China.
- Paying taxes takes up more than 250 hours in India compared to 140 hours in New Zealand, 138 in China and 191 in Indonesia.
- Setting up and operating services or manufacturing business in India faces a maze of laws, rules, and regulations.
- Case studies of merchandise exports found that logistics is inordinately inefficient in Indian sea-ports. The process flow for imports, ironically, is more efficient than that for exports.
- The simplification of the Ease of Doing Business landscape of individual sectors such as tourism or manufacturing, however, requires a more targeted approach that maps out the regulatory and process bottle-necks for each segment.

### Golden Jubilee of Bank Nationalisation: Taking Stock

- In 2019, India completed the 50th anniversary of bank nationalization. India's banking sector is disproportionately under-developed given the size of its economy. For instance, India has only one bank in the global top 100 – same as countries that are a fraction of its size: Finland (about 1/11<sup>th</sup>), Denmark (1/8<sup>th</sup>), Norway (1/7<sup>th</sup>), Austria (about 1/7<sup>th</sup>), and Belgium (about 1/6<sup>th</sup>).
- **Benefits of Nationalization:** The allocations of banking resources to rural areas, agriculture, and priority sectors increased. In the period from 1969-1980:
  - ♦ The number of rural bank branches increased ten-fold.
  - ♦ Credit to rural areas increased twenty-fold.
  - ♦ Credit to agriculture expanded forty-fold, reaching 13% of GDP from a starting point of 2% of GDP.
- A large economy needs an efficient banking sector to support its growth. Historically, in the last 50 years, the top-

five economies have always been ably supported by their banks. Should India's banks play a role proportionate to its economic size, **India should have six banks in the top 100.**

- As PSBs account for **70 percent of the market share** in Indian banking, the onus of supporting the Indian economy and fostering its economic development falls on them. Yet, on every performance parameter, PSBs are inefficient compared to their peer groups.
- The survey suggests the **use of FinTech (Financial Technology)** across all banking functions and employee stock ownership across all levels enhance efficiencies in PSBs.
- A GSTN type of entity should be set up to enable the use of big data, artificial intelligence and machine learning in credit decisions, especially those pertaining to large borrowers. The patterns in default, that such powerful techniques can unearth, are far beyond the capacity of any unscrupulous promoter to escape.
- With the cleaning up of the banking system and the necessary legal framework such as the **Insolvency and Bankruptcy Code (IBC)**, the banking system must focus on scaling up efficiently to support the economy.

### Financial Fragility in the NBFC Sector:

- Following payment defaults faced by subsidiaries of **IL&FS and DHFL** stemmed, primarily, from their over-dependence on short-term wholesale funding from the Liquid Debt Mutual Funds.

### Shadow Banking System

- Shadow banking comprises a set of activities, markets, contracts and institutions that operate partially (or fully) outside the traditional commercial banking sector and are either lightly regulated or not regulated at all.
- A shadow banking system can be composed of a single entity that intermediates between end-suppliers and end-users of funds, or it could involve multiple entities forming a chain".
- The shadow banking system is highly levered with risky and illiquid assets while its liabilities disposed to "bank runs".
- Shadow banks do not have explicit access to central bank liquidity.

### Rollover Risk:

- ♦ The NBFCs raise capital in the short-term market but the assets of NBFCs are of longer duration. Thus, there arises a need for refinancing the debt at short frequencies.
- ♦ The frequent repricing exposes NBFCs to the risk of facing higher financing costs. Such refinancing risks are referred to as **Rollover Risk**.



- The survey suggests that Health Score can be used to trigger **greater monitoring of an NBFC**. An analysis of the trends in the components of the Health Score can shed light on the appropriate corrective measures that can be taken.

### Privatization and Wealth Creation:

- An analyses of before-after performance of 11 CPSEs that had undergone strategic disinvestment from 1999-2000 to 2003-04 shows that these privatized CPSEs, on an average, perform better post-privatization than their peers in terms of their net worth, net profit, return on assets (ROA), return on equity (RoE), gross revenue, net profit margin, sales growth and gross profit per employee.
- The ROA and net profit margin turned around from negative to positive surpassing that of the peer firms, which indicates that privatized CPSEs have been able to generate more wealth from the same resources.
- Aggressive disinvestment should be undertaken to bring in higher profitability, promote efficiency, increase competitiveness and to promote professionalism in management in the selected CPSEs.

### Is India's GDP Growth Overstated? No!

- GDP growth is a critical variable for decision-making by investors as well as policymakers. Therefore, the recent debate about whether India's GDP is correctly estimated following the revision in estimation methodology in 2011 is extremely significant.
- Concerns of a misestimated Indian GDP are unsubstantiated by the data and are thus unfounded.

### Thalinomics: The Economics of a Plate of Food in India:

- Thalinomics attempts to relate economics to the common person through something that s(he) encounters every day – a plate of food, by quantifying what a common person pays for a Thali across India.
- 2015-16 can be considered as a year when there was a shift in the dynamics of Thali prices. Many reform measures were introduced since 2014-15 to enhance the productivity of the agricultural sector as well as the efficiency and effectiveness of agricultural markets for better and more transparent price discovery.
- **Thali inflation** (year-on-year growth in Thali prices) has cyclical nature but has shown a **secular decrease from 2006-07 to 2015-06**.
- There is **no specific trend in the variability of Thali prices** at the All-India level. This is true across regions and states and also over time.

- Using the annual earnings of an average industrial worker, it was found that the **affordability of vegetarian Thalís improved 29 percent** from 2006-07 to 2019-20 while that for non-vegetarian Thalís improved by 18 percent.

## VOLUME 2: HIGHLIGHTS

### Global Economy in 2019-20:

- The year 2019 was a difficult year for the global economy with global output growth estimated to be the slowest since the global financial crisis of 2009.
- According to the **World Economic Outlook data**, **global output** is estimated to grow at 2.9 percent in 2019, declining from 3.6 percent in 2018 and 3.8 percent in 2017.
- **Major contributors:** (i) Uncertainties due to trade tensions between China and the USA (ii) rising USA-Iran geopolitical tensions (iii) Muted inflation in advanced and emerging economies (iv) Drop in the growth of manufacturing exports from major economies.
- Increasing trade barriers, as well as trade uncertainty stemming from growing trade tensions, also weakened business confidence and further limited trade.

### Indian Economy:

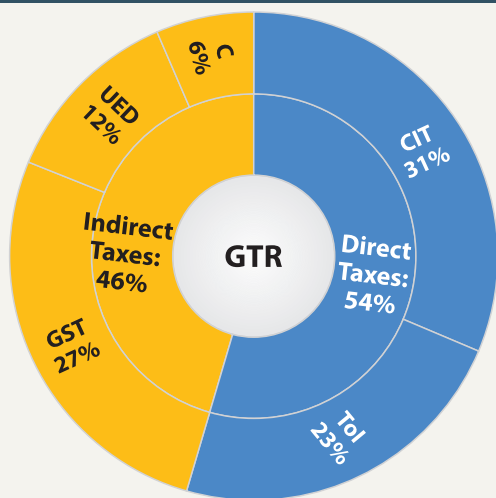
- Amidst a weak environment for global manufacturing, trade, and demand, the Indian economy slowed down with GDP growth moderating to 4.8 percent in H1 of 2019-20, lower than 6.2 percent in H2 of 2018-19.
- Based on CSO's first Advance Estimates of India's GDP growth for 2019-20 at 5 percent, an uptick in GDP growth is expected in H2 of 2019-20. The government must use its strong mandate to deliver expeditiously on reforms, which will enable the economy to strongly rebound in 2020-21.

### Fiscal Developments:

- It is projected that **Central Government liabilities** will come down to 48.0 percent of GDP in 2019-20, 46.2 percent of GDP in 2020-21 and 44.4 percent of GDP in 2021-22.
- **Trends in Receipts:** The Budget 2019-20 targeted a high growth in Non-debt receipts of the Central Government, which was driven by high expected growth in Net Tax revenue and Non-Tax revenue.
- **Non-Tax Revenue:** The Budget 2019-20 aimed to raise Non-Tax revenue to 1.5 percent of the GDP. Roughly, two-thirds of this increase in the BE is envisaged from dividends and profits especially surplus transferred by RBI.
- The States have continued on the path of fiscal consolidation and contained the fiscal deficit within the targets set out by the FRBM Act. The General Government (Centre plus states) has been on the path of fiscal consolidation.



### COMPOSITION OF TAXES IN GROSS TAX REVENUE IN 2019-20 BE



Source: Union Budget Documents & CGA

GTR: Gross Tax Revenue, CIT: Corporation Tax, Tol: Taxes on Income other than Corporation Tax (includes STT), C: Customs, UED: Union Excise Duties, GST: Goods and Services Tax

- Going forward, considering the urgent priority of the Government to revive growth in the economy, the **fiscal deficit target may have to be relaxed for the current year.**

#### External Sector:

- Narrowing of Current Account Deficit (CAD), impressive Foreign Direct Investment (FDI), rebounding of the portfolio (FPI) flows and accretion of foreign exchange reserves imparted stability to the external sector.
- The easing of crude prices and contraction in imports has mainly driven the narrowing of CAD (2.1% in 2018-19 to 1.5% in H1 of 2019-20).
- Consequent to the improvement in the current account and higher capital flows, the Balance of Payments (BoP) has improved from foreign exchange reserves of US\$ 413 billion in end-March 2019 to US\$ 461.2 billion as on January 2020.

#### Monetary Management and Financial Intermediation:

- Monetary policy** remained accommodative in 2019-20. The repo rate was cut by 110 basis points in four consecutive Monetary Policy Committee meetings in the financial year due to slower growth and lower inflation.
- The **Gross Non Performing Advances ratio** of Scheduled Commercial Banks has remained unchanged at 9.3 percent between March and September 2019 and increased slightly for the Non-Banking Financial Corporations from 6.1 percent to 6.3 percent.
- Capital to Risk-weighted Asset ratio** of Scheduled Commercial Banks increased from 14.3 percent to 15.1 percent between March 2019 and September 2019.

#### Prices and Inflation:

- Inflation has been witnessing moderation since 2014 backed by low food inflation. However, in 2019-20, food and beverage inflation has been trending upward mainly backed by raising vegetables, fruits and pulses prices.
- Headline CPI inflation was 3.7 percent in 2018-19 (April to December), compared to 4.1 percent in 2019-20 (April to December).
- Since 2012, there has been a change in inflation dynamics. There is evidence for a **strong reversion of headline inflation to core inflation.**

#### Sustainable Development and Climate Change:

- India is moving forward on the path of SDG implementation. India is among a few countries in the world where, despite ongoing developmental efforts, forest and tree cover are increasing considerably.
- SDG India Index:** The States/UTs are ranked based on their aggregate performance across the 16 SDGs. The SDG score varies from 0 to 100. It is noteworthy that none of the States/UTs fall in the Aspirant category in 2019.
- SDG nexus:** The 'nexus' approach employs the principles of integrating management and governance across sectors. Since, a few SDGs have overlapping objectives with one another, the policies developed and aligned to achieve the goals must consider and identify these linkages.
- At **COP 25 of UNFCCC** at Madrid, India reiterated its commitment to implement the Paris Agreement per the principles of equity and common but differentiated responsibilities.
- ISA** has taken up the role of an:
  - 'Enabler'** by institutionalizing 30 Fellowships from the Member countries;
  - 'Facilitator'** by getting the lines of credit worth US\$ 2 Billion from EXIM Bank of India and US\$ 1.5 Billion from AfD, France;
  - 'Incubator'** by nurturing initiatives like the Solar Risk Mitigation Initiative;
  - 'Accelerator'** by developing tools to aggregate demand for 1000 MW solar and 270,000 solar water pumps.

#### Agriculture and Food Management:

- GVA at constant (2011-12) prices for 2019-20 from 'Agriculture, Forestry and Fishing' sector is estimated to grow by 2.8 percent.
- There is a need to address the issue of lower **farm mechanization** in India which is only about 40 percent as compared to about 60 percent in China and around 75 percent in Brazil.
- Efficient deployment** of inputs such as water, electricity, fertilizers, labor, increase in crop productivity, the better quality of products leading to higher realization of sale price resulting in an increased income of the farmer.

- **Agriculture credit:** The regional distribution of agricultural credit in India is highly skewed. The share of North Eastern States has been less than one percent in total agricultural credit disbursement.
- **Agriculture research and education:**
  - ♦ **Cyber Agro-Physical Systems (CAPS)** helps in reducing uncertainty and risk in agriculture operations through Artificial Intelligence.
  - ♦ **EKTA (Ekikrit Krishi Shiksha Takniki Ayaam)** an integrated online management information system, developed mobile apps such as Kisan Suvidha and Pusa Krishi.
- **Allied sectors – Animal husbandry, dairying, fisheries:**
  - ♦ National Animal Disease Control Programme (NADCP) envisages complete control of FMD by 2025 with vaccination and its eventual eradication by 2030.
  - ♦ An independent Department of Fisheries has been created in 2019 to provide sustained and focused attention on the development of the fisheries sector.
- **Pradhan Mantri Kisan Sampada Yojana:** PMKSY provides subsidy-based support to create robust modern infrastructure for agriculture and agro-based industries along the entire value/supply chain. It is expected to reduce wastage of agriculture produce, increase the processing level, enhance the export of processed foods, and enable the availability of hygienic and nutritious food to consumers at affordable prices.

### Industry and Infrastructure:

- As per the National Statistical Office (NSO), the real **GVA of the industrial sector** grew by **1.6 percent in the first half** of 2019-20. The low growth in the industrial sector is due to the negative growth of 0.2 percent of the manufacturing sector in 2019-20.
- **The low growth is due to:**
  - ♦ Subdued manufacturing activities due to slower credit flow to medium and small industries.
  - ♦ Reduced lending by NBFCs owing to the liquidity crunch.
  - ♦ Tapering of domestic demand.
  - ♦ Volatility in international crude oil prices.
  - ♦ Prevailing trade-related uncertainties, etc.
  - ♦ The underperformance of exports by key labor-intensive sectors.
- **Steps were taken for easing regulations under Start-up India:**
  - ♦ Exemptions from Income tax on investments raised by start-ups.
  - ♦ Implementation of 32 regulatory reforms to improve the Ease of Doing Business for start-ups.
  - ♦ Self-certification regime for six labor laws and three environmental laws.
  - ♦ Start-up India Hub as 'One Stop Shop' for the start-up ecosystem.

### Infrastructure bottlenecks:

- ♦ Power shortages lead to dependence on expensive captive power leading to high costs.
- ♦ Inadequate transport infrastructure hinders the supply of raw materials and the movement of finished goods.
- ♦ Lack of connectivity depresses remuneration to farmers.

### Services Sector:

- **GVA from the service sector** continued to grow moderately during 2019-20 at 6.9% from 7.5% in 2018-19. The services sector continues to outperform agriculture and industry sector growth, contributing around 55% to total GVA growth.
- **India's share in the world's commercial services exports** has risen steadily over the past decade to reach 3.5% in 2018, twice the share in merchandise exports at 1.7%. **India now ranks 8<sup>th</sup>** among the world's largest commercial services sector.
- The shipping turnaround time at ports has almost halved from 4.67 days in 2010-11 to 2.48 days in 2018-19. However, this is still more than twice the global median.

### Social Infrastructure, Employment, and Human Development:

- **Expenditure** on social services (education, Social Infrastructure, Employment, and Human Development health and others) by Centre and States as a proportion of Gross Domestic Product (GDP) increased by **1.5 percentage** points from 6.2 to 7.7 percent, during the period 2014-15 to 2019-20.
- **Total formal employment** in the economy increased from 8 percent in 2011-12 to 9.98 percent in 2017-18.
- About 76.7 percent of the households in the rural and about 96 percent in the urban areas had houses of pucca structure. Targeting **access to electricity**, a **clean cooking facility**, and **housing for all** by 2022.
- Efforts are continuously being made to ensure **piped water supply** and **solid waste management** to all rural households by 2024.
- For education, expenditure increased from 2.8% in 2014-15 to 3.1% in 2019-20 and for health from 1.2% to 1.6%.
- **India's rank in the Human Development Index (HDI)** improved to 129 in 2018 from 130 in 2017. With 1.34 percent average annual HDI growth, India is among the fastest-improving countries, and ahead of China (0.95), South Africa (0.78), Russian Federation (0.69) and Brazil (0.59).
- **Skill development:** According to the Periodic Labour Force Survey (PLFS) 2017-18 only 13.53 percent of the workforce in the productive age group of 15-59 years has received training (2.26 percent formal vocational/technical training and 11.27 percent informal training).
- **Gender disparity** in India's labor market widened due to the decline in the female labor force participation rate, especially in rural areas.

# INDIA STATE OF FOREST REPORT 2019: GREEN COVER IN INDIA

Union Minister Prakash Javadekar released the India State of Forest Report 2019 on December 30, 2019.

## About:

- Forest Survey of India (FSI) **biennially** publishes the India State of Forest Report (ISFR).
- The report was first published in 1987 and the ISFR 2019 is the 16<sup>th</sup> report in the series.
- ISFR fulfills the information needs of the forestry sector of the country and is used for policy formulation, planning, and management of forests at the National level as well as by the States & UTs.

## Terminologies used in the Report:

- Forest cover** in the forest canopy area covered on the ground irrespective of the legal status of the land. **It consists of all tree patches which have canopy density more than 10% and area of 1 ha or more in size**, irrespective of their legal status.

Forest Cover of India: Statistics		
Class	Area (sq km)	Percentage of Geographical Area
Very Dense Forest	99,278	3.02
Moderately Dense Forest	3,08,472	9.38
Open Forest	3,04,499	9.26
<b>Total Forest Cover*</b>	<b>7,12,249</b>	<b>21.67</b>
Free Cover	95,027	2.89
<b>Total Forest and Tree Cover</b>	<b>8,07,276</b>	<b>24.56</b>
Scrub	46,297	1.41
Non-Forest <sup>#</sup>	25,28,923	76.92
<b>Total Geographic Area</b>	<b>32,87,469</b>	<b>100.00</b>

\* Includes 4,975 sq km under Mangrove Cover  
<sup>#</sup> Non-forest includes Tree Cover (percentage rounded off)

- Recorded Forest Area (RFA)** is the land which has been notified as forest under any Government Act or Rules or recorded as 'forest' in the Government records. The recorded forest area may or may not have forest cover. Most of this data comes through the State Forest Departments of respective states.

- Tree cover** is defined as all tree patches of size **less than 1 ha occurring outside the recorded forest area**.
- Tree outside forest (TOF)** refers to all trees **growing outside RFA irrespective of patch size** which could also be larger than 1 ha. Thus, tree cover becomes a subset of TOF.
- Greenwash:** As many states do not provide the data required for RFA, the topographic sheets of the Survey of India are used to roughly calculate the area declared as a forest, this is called the Greenwash.

**National Forest Policy of India, 1988** envisages a goal of achieving 33% of the geographical area of the country under forest and tree cover.

## How is the Data Collected?

- Satellite use** - indigenous LISS III sensor of IRS Resourcesat series of satellites from Indian Space Research Organization (ISRO).
- Use of latest technology **like drones**.
- Ground mapping** and human validation.
- Geo-tagging** photographs through mobile applications.

## India's Forests vis-a-vis International Scenario

- Global Forest Resource Assessment (FRA)** done by FAO after five years. **India ranks 10<sup>th</sup>** according to the report FRA, 2015 with 2% of the global forest area.
- Russia stands 1<sup>st</sup> with 20% of the global forest area.

## Change in Forest Cover:

- The States/UTs showing the highest gain in forest cover are **Karnataka** (1,025 sq km), Andhra Pradesh (990 sq km), Kerala (823 sq km) and J&K (371 sq km).
- The UT with the highest area of forest in Jammu and Kashmir (21,000 sq km) and the lowest area under forest is of Daman and Diu (20.49 sq km).
- The UT with the highest percentage of forest area is Lakshwadeep (90.33%) and with the lowest percentage under forest area in Ladakh (1.47%)
- Apparently, **Northeastern states** have shown the highest decline with loss in forest cover being - Manipur (499 sq km), Arunachal Pradesh (276 sq km) and Mizoram (180 sq km).

## Forest Types and Biodiversity:

India lies in a zone of the confluence of forests with varied types across the subcontinent:

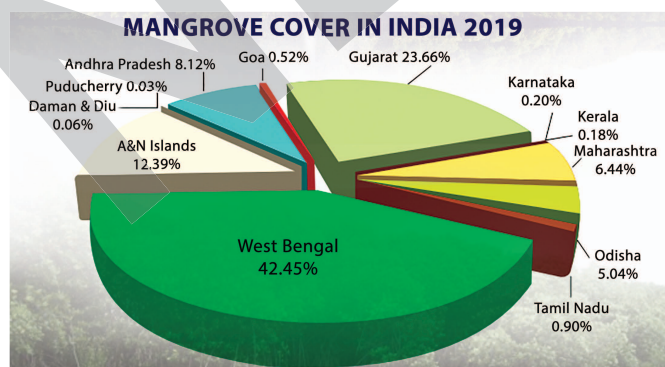
- Tropical Wet Evergreen Forests in the Andaman & Nicobar Islands, the Western Ghats, and the Northeastern States.
- Dry Alpine Scrub high in the Himalayas in the North.
- Semi-Evergreen Forests, Deciduous Forests, Thorn Forests, and Subtropical Pine Forests in the lower montane zone
- Temperate Montane Forests in the higher zones.
- Tropical dry deciduous and thorn forests in the semi-arid areas of Rajasthan and Gujarat.
- **Biodiversity** is defined as the extent of variation among plants and animals in a given area. It is measured commonly by a **Shannon-Weiner Index**. The **Biological Diversity Act, 2002** aims to conserve biodiversity and shows India's commitment towards the ratification of the **Convention on Biological Diversity (CBD) in 2002**.

## Study on Mangroves:

- Mangroves are a diverse group of salt-tolerant plant species of tropical and subtropical intertidal regions of the world.
- They exhibit various evolutionary adaptations to survive the lack of oxygen and high salinity such as succulent leaves, sunken stomata, aerial breathing roots called 'pneumatophores', vivipary, stilt roots, etc.
- India has about 3% of the total Mangrove cover in South Asia.
- Its mangrove cover is 0.15% of its geographical area which has increased by 54 sq km since the last report.
- West Bengal has 42.45% of India's mangrove cover, followed by Gujarat 23.66% shows a maximum increase of 37 sq km in mangrove cover.

## Importance of Mangroves:

- The complex root system is very efficient in dissipating sea wave energy thus protecting the coastal areas from tsunamis.



- Their roots slow down water flows and enhance sediment deposition thus, trapping the fine sediments including heavy metal contaminants.

- They act as a fertile breeding ground for many fish species and other marine fauna.
- They act as an important source of livelihood for the coastal communities dependent on the collection of honey, tannins, wax, and fishing.
- They are an important carbon sink.

## Case Study on the Conservation of Mangroves

- **Gujarat** is known for the restoration of degraded mangrove habitats by direct seed sowing and practices like bed plantation.
- **Andhra Pradesh**, Forest Department has formed Eco-Development Committees and Van Samrakshan Samithis for joint implementation of projects in mangrove areas.

## Forest Fires:

**Detection of forest fires:** It is done through a collaboration of NASA, ISRO, and FSI

- **The Moderate Resolution Imaging Spectroradiometer (MODIS)** is a sensor invented by NASA which sends signals to the **National Remote Sensing Centre (NRSC)** on detection of the rise of temperatures in forests. This information is then relayed to **FSI** which further sends it to the respective forest in charge.
- **The Early Warning and Danger Rating** for forest fires are the concepts that make use of weather data, forest fuel load conditions, socio-economic & infrastructure data and terrain conditions in issuing an early warning for likely forest fire incidents in an area.
- **Identifying fire-prone areas and their categorization**
  - ♦ More than **36% of the country's forest cover has been estimated prone** to frequent forest fires.
  - ♦ 4% of the country's forest cover is extremely prone to fire
  - ♦ Most of the fire-prone forest area is found in the northeastern region and the central part of the country.

## National Action Plan on Forest Fires, 2018

One of the main objectives of the action plan is to reduce the incidences of fires by informing, enabling and empowering **forest fringe communities** and incentivizing them to work **in tandem with the State Forest Departments (SFDs)**. The plan will also establish a 'Centre of Excellence on Forest Fire Management' at FSI.

## Growing Stock:

- **Definition:** Volume of all living trees in a given area of forest or wooded land that has more than a certain diameter and height. It is usually measured in solid cubic meters (cum). It is collected both for forests as well as trees outside forests.



- **Why is it important?** It is an indicator of forest productivity. In the recent past, growing stock estimation has gained further importance due to the significant role of forest in climate change mitigation. It forms the basis for the calculation of biomass and carbon stock in the forests.
- **How much is it?** The growing stock per hectare at the national level has been estimated as **55.69 cum**. **Shorea robusta (Sal tree)** has the highest growing stock among other trees in the forest area, and in the tree outside the forest, **Mangifera Indica (mango tree)** is at top.

### Bamboo:

- They are found in the **tropical, sub-tropical and mildly temperate** regions of the world.
- The total bamboo bearing area of the country has been estimated to be 16.0 m ha. **Madhya Pradesh has maximum** bamboo bearing area > Maharashtra > Arunachal Pradesh > Odisha.
- The GOI promulgated the **Indian Forest (Amendment) Ordinance, 2017** to exempt bamboo grown in non-forest areas from the definition of a tree, thus, **dispensing with the requirement of obtaining felling permits and transit permit** for its transport and economic use.
- It was done to promote the cultivation of bamboo in non-forest areas to achieve twin objectives of increasing the income of farmers and also increasing the green cover of the country.

### Carbon Stock:

#### Paris Agreement and India

According to the forestry target under **Nationally Determined Contributions (NDC) made to the UNFCCC** under the **Paris Agreement (2015)**, India has committed to creating an additional carbon sink of **2.5 to 3.0 billion tonnes of CO<sub>2</sub> eq** through additional forest and tree cover by 2030.

- The present Carbon Stock of India is 7.124 bn tons. With Arunachal Pradesh having the maximum carbon stock and Sikkim having maximum per hectare carbon stock of 171.04 tonnes/ha.
- The annual growth in carbon stock is **21.3 m tonnes**.
- IPCC qualifies 5 different Carbon pools - '**above-ground biomass**' (AGB) and '**below-ground biomass**' which constitute the living portion. The '**dead wood**', '**litter**' and '**Soil organic matter**' (SOC) constitute the 'dead organic matter'. SOC accounts for nearly 50% of the total carbon locked in forests.

### Relationship of People with the Forest:

- As per the Census 2011, nearly **26% of villages** are located in the proximity of forest areas, they are often **termed Forest Fringe Villages (FFVs)**.

- They majorly use forest resources for fuel **wood, fodder, small timber, and bamboo**.
- FSI's study shows that fuelwood consumption in terms of per capita per year **has reduced by 5.46% from 2011**. It is possible that Governmental schemes of **like the Ujjawala scheme and push towards non-renewable energy** have been effective in reducing fuelwood removal from forests to some extent.
- **The average annual removal of the small timber is 6.82%** of the average annual yield at the national level. This means that FFVs tend to remove approximately 7% of the total timber harvested in the country.

#### Top 5 States with the Highest Forest Cover

S. No.	State	Area (Sq Km)
1.	Madhya Pradesh	77,482
2.	Arunachal Pradesh	66,688
3.	Chhattisgarh	55,611
4.	Odisha	51,619
5.	Maharashtra	50,778

#### Top 5 States in terms of Percentage of Area Covered

S. No.	State	Percentage
1.	Mizoram	(85.41%)
2.	Arunachal Pradesh	(79.63%)
3.	Meghalaya	(76.33%)
4.	Manipur	(75.46%)
5.	Nagaland	(75.31%)

#### States with the Lowest Forest Area

S. No.	State	Forest area (sq Km)
1.	Haryana	1602
2.	Punjab	1,849
3.	Goa	2,237
4.	Sikkim	3,342
5.	Bihar	7,306

#### States with the Lowest Percentage of Area Under Forest Cover

S. No.	State	Percentage area (%)
1.	Haryana	3.62
2.	Punjab	3.67
3.	Rajasthan	4.86
4.	Uttar Pradesh	6.15
5.	Gujarat	7.57



# ETHICS OF PROTEST: RIGHTS AND RESPONSIBILITIES

Recently, the passing of the Citizenship Amendment Act (CAA) led to the massive protests involving women, students and children.

## About:

- Public protests are the hallmark of a free, democratic society, whose logic demands that the voice of the people should be heard by those in power and decisions be reached after proper discussion and consultation.
- But it should also be realized that we have a right to voice our dissent but we have to do it the right way, which means with fairness and respect should be uppermost in mind.

## Protest in India: Background

- The founding bedrock of the Indian Constitution is formed by its struggle against colonial rule, in which the seeds of a political public sphere and democratic Constitution were sown.
- Protests have also offered points of inclusion and participation to the voices that are not part of the mainstream as seen in the protests for creation of **Andhra or the Chipko movement**.

## Ethical ways to Protest:

- There are several innovative and ethical ways of protesting without affecting work, poor as well as economy of the state.
  - Social boycott:** The protesters may resort to social boycott by not attending rallies, functions, parties, social gatherings, even weddings of a corrupt officials, political leaders etc.
  - Social media campaigns:** Like we have recently seen related to **Janlokpal campaign on Twitter and Face book**.
  - Organizing Marches** (Candle), rallies (bike, car, bicycle) with handing out flyers.
  - Online petitions** in order to spread awareness among large number of people about the cause and get their support and then finally make the authorities realize that such large number of people support or demand for this and thus, it is a meaningful protest. **likeavaaz.org, change.org etc.**
  - Blacking out the websites** i.e. to switch the websites from colour to black and white as well as web site owners is encouraged to place images related to cause on their sites.
  - Wear black ribbons on hands** or cloths as a symbol of protest of an issue also Protest an issue by simply wearing a button or a pin stating your cause.
  - By switching off your lights** for one hour – fix a time and switch off light. Like **Earth Hour**.

## Constitutional Provisions Regarding Peaceful Protest

- The Right to protest peacefully is enshrined in the Indian Constitution—**Article 19(1) (a)** guarantees the freedom of speech and expression; **Article 19(1) (b)** assures citizens the right to assemble peaceably and without arms.
- Article 19(2)** imposes reasonable restrictions on the right to assemble peaceably and without arms in the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement to an offence.
- In **Ramlila Maidan Incident v. Home Secretary, Union of India & Ors. Case (2012)**, the Supreme Court had stated, “**Citizens have a fundamental right to assembly and peaceful protest** which cannot be taken away by an arbitrary executive or legislative action.”

## Ethical responsibility of the Protesters:

- The goal of any protest is a moral one: to make things better. However, this concern must be balanced against the ethical obligations to do no harm, respect others, and be fair. In this context certain responsibilities can be summarized as following:
  - Obey the law:** Civil disobedience has an important role in democracy, but those who break the law, even in the name of a higher moral good, may have to pay a significant personal price.
  - Be tolerant:** Tolerance is a necessary condition for respectful protest. We should embrace diversity, not wish it away.
  - Being respectful:** Respectful protest doesn't guarantee that you'll achieve the result you're hoping for, but disrespectful protest almost certainly means you won't.
  - Responsibility to maintain Fairness:** Winston Churchill noted that “**democracy is the worst form of government except for all those others that have been tried,**” and fairness is one of the distinguishing characteristics or **bedrock of democracy**. To be fair is to give to others their due, and in the context of protesting, this means that everyone deserves to be heard.
  - To abide by the Fundamental Duty that **make citizen conscious of his social and citizenship responsibilities** such as:

- To safeguard public property and to abjure violence.
- To value and preserve the rich heritage of our composite culture and to promote harmony and the spirit of common brotherhood amongst all people of India transcending religious, linguistic and regional or sectional diversities.

### Ethics of Involving Children in Protests"

The case of involving children in protests is a grey area in the world of ethics. At one end are children right to be aware of the surroundings and learning to stand up for their beliefs, at the same time the protests can also bear a biased impression on their vulnerable minds.

### Arguments for Involving Children in Protests:

- **Awareness:** Children who are involved in protests grow more awareness about the society surrounding them and the issues affecting them.
- **Rights assertion:** Children are part of a political framework right from birth, particularly if they are born into disadvantaged or marginalised social groups.
  - ♦ Being involved in protests makes them educative and assertive about their rights.
  - ♦ It is not wrong to expose children to protests when justice and basic human rights are in question.
- **Right way to protest:** Going to protest in itself is not wrong if the children get to know the right way to protest from the adults which is within the limitations of constitutionality and legality.
- **History of protests:** Historically, across the world, children have always been a part of revolutions, rallies and protest marches.
  - ♦ During the Independence movement against the British, it was part of the culture for parents to take children for protests.
  - ♦ Indira Gandhi's 'Manjari sena' and Bhagat Singh participation during Non-Cooperation Movement protests are depicted as an example of childhood valour.
- **Constitutional Rights:** Like all Indian citizens, children too have the right to protest as per the Constitution.
  - ♦ Greta Thunberg's climate change movement that has sparked a global movement, particularly among the younger generation was only possible because they exercised their right to protest

### Arguments against Involving Children in Protests:

- **Enforcing beliefs:** Small children have a very impressionable mind and they have limited capacity to develop their own understanding. In this case, by bringing them in protests, parents' ideology is forced upon them.
- **Prone to extremism:** Children and Teenagers could get exposed to radical ideas and opinions in a politically charged

atmosphere.

- ♦ It is also reported that they can be used as political fodder in such a state of mind.
- **School Absenteeism:** When children are involved in protests, they would be absent from schools or not mentally capable to attend schools.
- **Physical Incapacity:** Unlike adults, children are physically weaker to bear the rigors of protests that can turn violent, could turn into stampede, or simply physically and mentally exhausting.
  - ♦ The Supreme Court took suo motu cognisance of children involvement in protests when a 4-year child recently died in an Anti CAA protest due to cold weather.
- **Simplistic understanding:** When children are exposed to polarised views, especially on caste, class or religion, it becomes deeply embedded in their minds and could be there for life.
  - ♦ At their tender age, children lack the multidimensional and complicated nature of the socio-political reality.

### Way Forward:

- **Children Consent:** Foremost condition is that children are not taken to any protest against their consent.
- **Monitoring:** It is the responsibility of the state and the media to ensure that children are not exposed to radical ideas during the protests.
  - ♦ Further they are not chanting slogans or audience to such slogans that incite hatred or violence.
- **Minimum age:** The National Commission for Protection of Child Rights in consultation with child experts, should put forward a minimum age for the children to participate in protests.
  - ♦ This should be in consideration of the mental development, capability of holding informed opinions etc.
- **Critical thinking:** Schools should develop the critical thinking skills of the students so they can have informed debates and form better opinions.
  - ♦ Conducting debates and essay writing on relevant issues would provide students a way of showing dissent.

### Police Practises across the World to Control Such Kind of Protest:

- Governments and law enforcement agencies can adopt and implement rules and regulations on the use of force and firearms to deal with public protests but keep the ethical issues associated with the use of forces and firearms. The perusal of the global best practices also points out towards reformation of the public protest handling strategies by the police as well as up-gradation of mob handling equipment and supportive strategies.

- **For instance:**

- **Australia:**

- They have a **force policy** which addresses operational plans and issues, including crowd management.
    - They have adopted Tactical Option Model designed to assist members in understanding that they have a range of tactical options and that these options must be considered with communication and safety central to their decision making.
    - They conduct a risk assessment of the situation, prepare a plan, make all possible inquiries about the subject and request any assistance deemed necessary.
    - Training in operational safety tactics is provided by the **Centre for Operational Safety** in order to ensure that police members fully apply this model.

- **Chile:**

- **Use of water cannon** to disperse the crowd.
    - Police normally wear full riot gear and apply methods similar to the French approach such as it makes use of shields and batons.
    - In order to disperse violent crowd and demonstrators, tear gas and water cannons are utilized.
    - The country subscribes to the use of force (lethal) and uses firearms but **only where situations dictate such**.

- **U.K**

- In UK, the Kettle Tactics approach is used to control large, and potentially violent protests in which protesters find themselves surrounded by police specially trained in crowd control.
    - Use of Police Support Unit or PSU in which officers have undergone specialist training in public order policing.
    - The police forces in UK have developed training in public order which comprises three courses in public order command training for the strategic, tactical and operational commanders.

## What Police can do to Control the Protest in a Better Manner?

The police have the duty to control and regulate crowds while providing citizens the space and peace to exercise their right to assembly. However, there are times when the protest takes a violent turn and in order to handle such kind of protest in a better way following measures could be taken such as:

- By drafting appropriate policies to plan an appropriate crowd-control strategy.
- When drafting strategies for the police to deal with violent protests, **five important elements** must be considered such as
  - **Information:** Police must acquire as much information as possible about the nature of the event, the grievances of the protesters, and other basic variables.

- **Intention:** intention should be clearly defined i.e., are they dispersing the crowd or are they using force against civilians?
- **Method:** to achieve their intention should be discussed so that all security officers are aware of the organisational structure of the police and their different duties and responsibilities.
- **Logistics:** Elements such as traffic routes, ambulances, proper equipment and gear should also be planned and prepared in advance.
- **Communication:** This includes engaging in media briefings and issuing press releases that keep the public informed about the developments surrounding the protest, especially if the incident persists for a few days. Continued contact and communication between government, police officials, and the public will help in developing trust and will also allow the government to directly address any miss-information.
- Policy strategies should include an immediate response to all situations with a communal implication, frequent press briefings to prevent distortion of news, protecting all places of worship, and maintaining a healthy interaction between all communities.
- Use of the **four basic formations for riot control**, which include: **column formation** (which is used by police during riots to move from one point to another); **line formation** (which is used for blocking the mob's movement and is ideally suited when teargas is to be used); **wedge formation** (ideally suited for clearing an area or breaking up a crowd); and **the diagonal formation** (used to disperse the crowd in a particular direction).
- **By using Security forces to disperse an unlawful assembly** and using the equipment and weapons for crowd control recommended by the BPR&D which include water cannons, teargas shells, stinger and dye-marker grenades, Tasers and lasers, net guns, and stink bombs. All of these are described as nonlethal weapons that are effective in crowd control.
- **Persuasive Appeals** can be made to a crowd so that the crowd feels that the police are on its side. The technique of successful persuasion depends on the characteristics of the crowd being dealt with.

## Conclusion:

The right of citizens to protest and gather peacefully without arms is a fundamental aspect of India's democracy. While it is also the right of the government to protect civilians from violent protests, certain essential principles need to be kept in mind. Irrespective of the government or political party in power, state and central police forces must remember to work for, protect, and defend the citizens. By working towards resolving problems arising from the politicisation of the police force, citizens can be sure that even when a democratic civil protest turns violent, police forces will restore public peace and order in a lawful, legal and constitutional manner.



**K.P. Shashidharan, IAAS**  
Former Director General,  
CAG Office

## **SOCIAL AUDIT FOR CITIZEN PARTICIPATORY GOVERNANCE**

The true objective of governments must be citizen-centric participatory inclusive governance. As PM Modi says government must ensure 'sub ke saath sub ka vikas and sub ka vishwas' with 'less government and more governance' and Finance Minister Nirmala Sitharaman assures, 'vivad se vishwas' focusing on reform, perform and transform must happen in reality. A service-obsessed, transparent, accountable democratic governance can only go beyond sloganeering to provide genuinely effective good governance.

International bodies like the World Bank have taken many initiatives to involve people to bring in social accountability and sustainable development. Accountability is key to the empowerment of the poor. The success of the traditional "supply-side" of top-down governance architecture though having political checks and balances with statutes, rules and procedures, internal and external auditing and criminal justice system, in practice they achieve to a limited extent as is evidenced by many instances. Establishing independent accountability agencies like ombudsmen and other approaches including privatizing public institutions, contracting services to a private sector introducing market-based accountability mechanism to the public sector met with only limited success. The only way is to improve the "demand-side" of governance through strengthening the capacity of citizens, especially the poor, the deprived and the marginalized to directly demand greater accountability from public officials. The demand-side accountability mechanism needs to be revamped in the country by social activists, social auditors, non-governmental organizations, civil

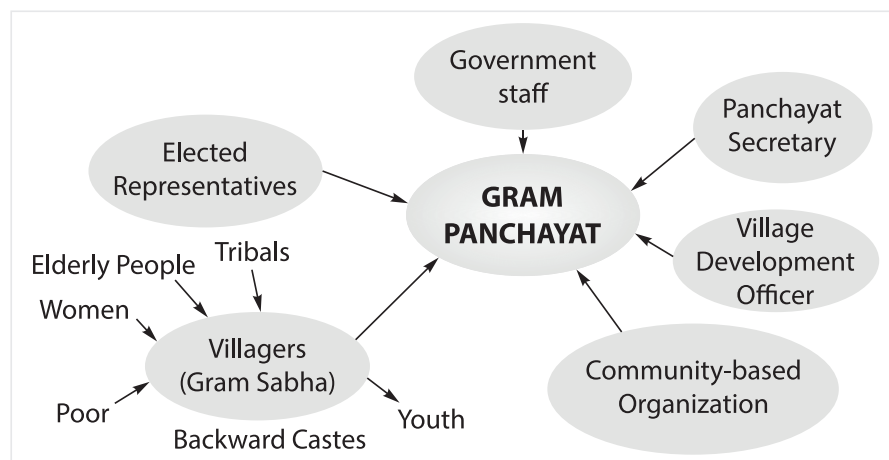
society, and community organizations. Increasing participation of citizens in the administration can only make the right to information and citizen charter effective in the delivery of services and providing good governance.

### **What is a Social Audit?**

Social audit is a powerful tool available with citizens to oversee governance and delivery of public services. Social audit holds the public entities and public servants responsible for their decisions and actions while using public resources. Social audit applies the quantitative and qualitative analysis of what was planned vis a vis what was achieved by measurement, ratio analysis, comparison, trends over time-based on defined parameters. Social audit is managed by civil society and the citizen auditors. Social audit is a citizen participatory audit conducted by the people who are the final beneficiaries of government schemes, programs, projects, policies, and legislation. In a social audit, citizens assess the impact of government schemes, projects, and programs. They verify official records, compare with ground realities and investigate what went wrong and what

action must be taken. Social auditors oversee, cross-examine the books of accounts kept in the rural and urban local bodies and evaluate outputs, outcomes, and impacts concerning budgets' outlay, schedule, and targets and the targeted beneficiaries of various government initiatives. The citizen auditors question authorities and hold the public servants accountable for their actions and decisions and control irregularities and reduce corruption. Social audit is based on democratic principles of stakeholders' active involvement in governance to ensure transparency, accountability to enhance the quality of governance, service delivery and building trust in government functioning. Social audit is an accountability mechanism that measures, evaluates, identifies gaps in service delivery and finds how to bridge the gaps with the direct participation of the intended beneficiaries. It is an effective monitoring tool to track the utilization of public resources and validate its outcome.

Social audits are conducted in partnership with civil society organizations, with auditors from scheme beneficiaries, trained on how to conduct a social audit.





Social auditors conduct surveys in the locality and validate by spot inspections. The participants call for a '**Jan sunwai**' (public hearing) attended by Gram Sabha members, local administrative officers, the point person for the scheme and sometimes even local politicians. Based on the findings, citizens question lacunae in fund allocation and deficit in work execution, service delivery, expenditure incurred, completion reports, the status of work and distribution of benefits. The social audit must not end with a '**jan sunwai**' without effective follow up of corrective actions. Social audit is a critical stocktaking of any government scheme by the involvement of the primary stakeholders, the audit evaluated the quality of works executed with disbursements, laborers and materials used.

Social audit tools, techniques, investigation methodology, public hearing, citizen report cards, people's surveys can factor genuine concerns and problems of the poor and improve the quality of public service delivery and governance. Citizen report card (CRC) aims to gather citizen data and feedback on the services through commissioned surveys. A self-rating by local service providers and an interface meeting later validated their assessments. Second, citizen audit methodologies highlighted the value of collaboration with stakeholders i.e., implementing agencies, local service providers, affected communities, local public officials, and the program's target groups – and of ensuring their understanding of the audit process. Citizen auditors insisted on conducting community-based meetings to orient local stakeholders on the participatory audit process, and to collectively assess project results and impact. Citizen audit approaches produced information about program implementation. The familiarity of citizens with the target communities and people's practices allowed deeper inquiries into such practices and related issues shed light on valuable data

such as the garbage collectors' health concerns and complaints concerning payment of minimum wages, and the presence of local cleanliness campaigns and garbage collection systems in some communities.

### Conducting Social Audit:

Social audit is not done on a scripted manner on dotted lines. It is conducted often by the citizen auditors of the locality in a dramatic way based on the investigation, cross verification, inquiry, people's survey, evidence and facts demanding justice and suitable corrective and preventive action. Social audits of MGNREGA, since its inception in 2005 are now being done in a more organized manner. Rule 4 of Audit of Schemes Rules, 2011, prescribes that "Social Audit Unit" (SAU) shall facilitate the conduct of the Social Audit of MGNREGS works. SAU must train and deploy State Resource Persons (SRP), District Resource Persons (DRP), Block Resource Persons (BRP) and Village Resource Persons (VRP) to facilitate the Gram Sabha (GS) in conducting the social audit. The social audit should be conducted at least once every six months. The concurrent social audits shall be done for all works every month.

The union government had notified a structured auditing standard in consultation with CAG of India in 2016 and directed states to set-up Directorates of Social Audits. Almost all states set up the Directorates of Social Audits. The government, along with the Tata Institute of Social Sciences and National Institute of Rural Development and Panchayati Raj, Hyderabad developed a short-term certificate course on social audits for the district and block resource persons and SHGs. This enabled training SHGs and resource persons for conducting a social audit of MGNREGA. Funds are allocated separately for social audit of MGNREGA. SAU frames an annual calendar and a copy of the calendar will be sent to all the DPCs for making necessary

arrangements. The laborers and the village community will be informed about the Gram Sabha conducting the social audit. The Social Audit Team shall be provided with the required information and records of all implementing agencies. Social auditors along with primary stakeholders shall verify all the documents, physically verify the works. Gram Sabha shall be convened to discuss the findings providing a platform for all villagers to obtain further information. The public collective platforms of jansunwais or public hearings remain its soul. In the social audit, citizens become vigilant, involved in governance, empowered and get politicized to question the public authorities for deficit governance and thereby making grassroots participatory democracy in action.

All the officials responsible for implementation must be present in the meeting. The action taken report of the previous social audit will be read out at the beginning of the meeting. The entire proceeding of the Social Audit shall be video recorded and uploaded on the website and the reports must be prepared in local language displayed on the notice board of the Gram Panchayat for at least seven days. The report must contain a list of grievances that require redressal and a list of social audit findings that require criminal investigation. The Action Taken Report on the issues raised in the Gram Sabha shall be given to the Social Audit Unit and to the individuals whose grievance was recorded in the report.

### Benefits of Social Audit:

The social audit ensures transparency, accountability by citizen participation in the audit process. A report of a joint task force on social audit recommended making social audit a vibrant, independent and citizen-based monitoring system. The Supreme Court, in an ongoing PIL, emphasized the strengthening of social audit as a systemic solution in law. The Comptroller and Auditor General laid down "auditing standards" for social



audit in 2016 as “the first-ever such exercise for the formulation of standards for social audit in the world”. Websites, twitter handles, citizen charters, right to information, media advertisements, political speeches and sloganeering must be supplemented and validated by genuine citizen-centric governance.

Social audit harness peoples’ energies to address the challenge of the implementation of government programs and their effective grassroots level monitoring. Along with other transparency and accountability platforms, social audit acts as a legal, moral, and democratic necessity. Direct discussions with government functionaries and people’s representatives, media, women’s organizations, and other stakeholders build trust in government, elicit constructive suggestions and better accountability for the actions and decisions taken by public servants. The people can participate, oversee, supervise and suggest improvements where they have firsthand knowledge and experience. Enforcing “social accountability” through citizen participatory governance tools like social auditing and citizen participatory audits in many of the topics in social sector like health, education, sanitation, rural infrastructure, environment and sustainable development goals related areas and gender budgeting can promote greater accountability, transparency, and effectiveness of government functioning to make to realize the goal of inclusive more governance and less government.

If done effectively, the social audit is a powerful instrument to deter and detect corruption in the use of public resources and redress the grievances by taking prompt follow up action. Social audits could detect more than Rs 100 crore misappropriated funds under MGNREGA and effect recovery about Rs 40 crore and nearly 6,000 field personnel were implicated/removed from duty based on findings. Institutionalization of social audit faces resistance from the establishment.

Administrative and political will are needed to institutionalize social audits to deter corruption in all government programs. Social auditors face even intimidation to access primary records for verification.

### **Better Public Accountability, Transparency, and Impact**

Traditionally, the Constitutional framework puts in place horizontal public accountability mechanisms to enforce the rule of law. The parliamentary oversight of the executive combined with different institutions, constitutional bodies, and watchdogs exercise checks and balances on government functioning. The constitutional, judicial, legislative and executive “control agencies” like the judiciary, legislative/parliamentary commissions, election commission, Supreme Audit institutions (SAIs), internal and external auditors, ombudsmen, anticorruption agencies, independent constitutional bodies, and regulators have the responsibility to oversee government functions. These institutions are empowered by constitution and statute to enforce the rule of law and take action if any violations or deviations from the applicable acts and rules are noticed by oversight, public disclosure, investigations and hearings, reprimand, demotion, reduction of compensation, budgets and jurisdiction, removal from office through elections, impeachment, or dismissal, fines, prosecution, and imprisonment.

Social auditing dates back to the 1970s when private companies in the western countries actively involved the stakeholders in the decision-making process. During the 1970/80s, co-operatives and social enterprises in the UK, Europe, and the USA started ‘Social Audit’ for commercial businesses and environmental assessments of companies. The social concerns addressed included “productivity, contribution to knowledge, employment security, the fairness of

employment opportunities, health, education and self-development, physical security, transportation, recreation, and environment”. As Molière cautions, “It is not only what we do, but also what we do not do, for which we are accountable.” Corporations could assess the impact and improve their products, services, create a healthier corporate culture for improving productivity and profits. In the 1980s, the social audit was applied in the public sector for democratic governance. Civil society organizations (CSOs) participated in areas dealing with human rights, gender, social sector projects and environmental issues bringing in greater transparency.

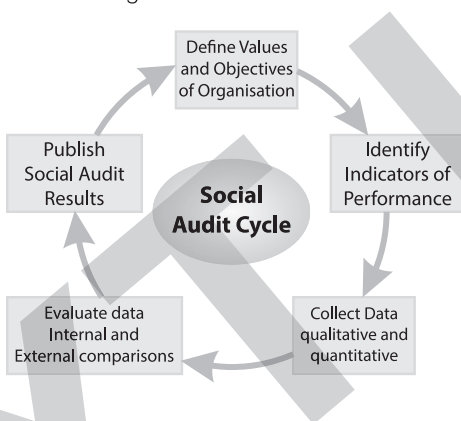
Social audit in India evolved from Rajasthan. It is now a legally mandated people’s audit process where potential and existing beneficiaries evaluate the implementation of a government program by comparing official records with ground realities. Social audit is currently conducted for MGNREGA, rural housing programs and funds allocated through the 14<sup>th</sup> Finance Commission. More than 5,000-6,000 district and block-level resource persons and 60,000 women Self-Help Groups (SHGs) were trained through a specially-designed certificate course to conduct social audits. Most of the states set up Directorates of Social Audits for capacity building and conducting social audits of government schemes. However, civil society organizations and social activists believe that social audits to be effective, proper implementation of the Right to Information (RTI) Act is a must. A social audit can then become a powerful tool for holding the public servants accountable for their actions and decisions while expending public resources. As per the size of the public expenditure or estimate of revenue collection, corruption level increases. Mere extension of social audits to other programs without effective RTI enforcement will not yield desired results and impact.

## Need to Extend the Social Audit to Other Schemes

The National Rural Employment Guarantee Act, 2005 (MGNREGA) enshrined social audits in the Act to access all the records of the scheme including muster rolls and account books. The Social Audit Manual of the Ministry of Rural Development requires every state to set up an independent Social Audit Unit consisting of resource persons from the State, District and Village, and experts on relevant themes. The Department of Rural Development in states like Andhra Pradesh, Telangana and Meghalaya set up Society for Social Audit and Transparency, autonomous institutions that conduct social audits of the MGNREG Scheme. The National Food Security Act introduced social audits of fair price shops and PDS under the Act. Guidelines for monitoring implementation of the Mid-Day Meal scheme through social audits are in vogue. The governments in Uttar Pradesh and Uttarakhand initiated social audits of development projects and welfare schemes related to rural areas. CAG recommended a social audit of local bodies' schemes for better accountability and effectiveness of fund allocation and utilization. Meghalaya became the first state in India to legislate a Social Audit law making a social audit of state-run schemes mandatory. The central government intends to include social audit to all government schemes across ministries for evaluating their outcome on beneficiaries and address their grievances.

Transparency is important for administration in decision making with the right to access relevant information. The community can engage in the process of decision making and validation. They ensure public responsibility of elected representatives and government officials on actions and decisions taken by the public officials. Social auditing schemes

are different from another auditing by the government, but a complement to other forms of auditing, including CAG audits and internal auditing by the departments. The participation of stakeholders in auditing makes them "people's audits," conducted by the people for themselves sometimes with the support of local nongovernmental organizations (NGOs), civil society and community organizations, encouraged by media and local government institutions. Social auditors need to be equipped with proper training and capacity building for conducting effective social audits.



### Importance of Social Auditing:

Public accountability of public officials is a must for ensuring good governance. Conventional accountability mechanisms of elections come after a certain period. Traditional demand-side mechanisms of accountability like protest rallies have limited impact. Citizens' participation in monitoring government performance can enhance transparency by exposing government failures and enforcing social accountability and fighting against public sector corruption. Social audits can contribute to improved governance. The Mazdoor Kisan Shakti Sangathan (MKSS) (Worker's and Farmers' Power Organization) in India is a non-party peoples' organization conducting the social audit for a just and equal society. The MKSS sought accountability for the expenditure of public funds on social

welfare programs by convening public meetings in villages and verification of public records.

In the 2004 World Development Report (WDR), the World Bank emphasized the need to strengthen relationships of accountability between policymakers, service providers and citizens. Successful service delivery must factor people's concerns in policymaking. The right to information movement in India helps to enhance citizen information and voice for bottom-up accountability and participatory citizen monitoring and citizen-state dialogue. Civil society organizations and NGOs and ordinary citizens act jointly with the government for improved social responsibility by the government and improved integrity, credibility and trust.

However, the ability of the public to question the status quo is often dependent on whether they have sound legal backing. The right to freedom of information thus has strong connections to social accountability. Social audits help in factoring feedback of people to accelerate social change. Through evaluation and reporting with information on what worked and what failed, the stakeholders can help improved performance.

Social audits empower the public. It is participatory and strengthens democracy. It allows the public to determine issues affecting them. Social audit secures the accountability of managers of public funds and corporations regarding their social responsibility and triggers behavioral change and influences policy decisions. It can fight against corruption and promotes good governance, transparency and the rule of law. It promotes basic human values and rights and the right to the freedom of information. It enhances performance in public programs. The social audit process is transparent, fair and creates a win-win situation for the citizens and public entities.

## WHO RENAMES CORONAVIRUS AS 'COVID-19'

Recently, the World Health Organization officially announced COVID-19 as the name for the disease caused by the novel Coronavirus.

### About:

- The “CO” in COVID stands corona, while “VI” is for virus and “D” for the disease. The number 19 stands for the year 2019 when the outbreak was first identified.
- The WHO had to come up with the name in line with the **2015 guidelines (these were designed to name a new disease)** between the global agency, the **World Organisation for Animal Health** and the **Food and Agriculture Organization**.
  - ♦ Under these guidelines, WHO advises against using place names such as **Ebola and Zika**.
- This name gives a **standard format to use for any future coronavirus outbreaks**.
- The main aim behind this exercise was to “minimize the unnecessary negative impact of disease names on trade, travel, tourism or animal welfare, and avoid causing offense to any cultural, social, national, regional, professional or ethnic groups.
- Earlier, the Coronavirus Study Group of the International Committee on Taxonomy of Viruses, which had assessed the novelty of the human pathogen, has named the virus as “**Severe acute respiratory syndrome coronavirus 2**”, or “**SARS-CoV-2**”.
  - ♦ **NOTE:** The Coronavirus Study Group is responsible for developing the official classification of viruses and taxonomic naming of the Coronaviridae family.

### Recent Update regarding Coronavirus

- The WHO has recently declared the COVID-19 a ‘pandemic’. According to the WHO, a pandemic is the worldwide spread of a new disease. Thus, the ‘pandemic’ status has to do more with the spread of the disease, than its severity.
- The word “pandemic” comes from the Greek ‘pandemos’ where ‘Pan’ meaning everyone and ‘Demos’ means the population. This declaration is a formal announcement that the WHO assesses the impact of COVID-19 to have reached a new level.

### What is Coronavirus (COVID-19)?

- Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as **Middle East Respiratory Syndrome (MERS-CoV)** and **Severe Acute Respiratory Syndrome (SARS-CoV)**.
- **Coronaviruses are zoonotic**, meaning they are transmitted between animals and people.

### WHO Guidelines for Naming A Disease

- According to the guidelines, the name of a new disease should consist of a combination of terms.
  - ♦ These terms consist of a generic descriptive term based on clinical symptoms (respiratory), physiological processes (diarrhea), and anatomical or pathological references (cardiac).
  - ♦ It can refer to specific descriptive terms such as those who are afflicted (infant, juvenile, and maternal), seasonality (summer, winter) and severity (mild, severe).
  - ♦ The name can also include other factual elements such as the environment (ocean, river), causal pathogen (coronavirus) and the year the new disease is first detected with or without mentioning the month.
- The year is used when it becomes “necessary to differentiate between similar events that happened in different years”.
  - ♦ In the case of COVID-19, coronavirus has caused other diseases such as Severe acute respiratory syndrome (SARS) and Middle East Respiratory Syndrome (MERS).
- Besides, the WHO has also listed out the terms that should be avoided while naming a new disease. This includes geographic locations, people’s names, species of animal or food, references to culture, population, industry or occupation, and terms that incite undue fear.

### Why do the Virus and the Disease have Different Names?

- Viruses, and the diseases they cause, often have different names. For example, HIV is the virus that causes AIDS. People often know the name of a disease, such as measles, but not the name of the virus that causes it (rubeola).
- There are different processes, and purposes, for naming viruses and diseases.
  - ♦ **Viruses are named based on their genetic structure** to facilitate the development of diagnostic tests, vaccines, and medicines. Virologists and the wider scientific community do this work, so viruses are named by the **International Committee on Taxonomy of Viruses (ICTV)**.
  - ♦ Diseases are named to enable discussion on disease prevention, spread, transmissibility, severity, and treatment. Human disease preparedness and response is WHO’s role, so diseases are officially **named by WHO in the International Classification of Diseases (ICD)**.



# HOW CORONAVIRUS CAN KILL

## SYMPTOMS

The coronavirus attacks cells in the respiratory system

**Runny nose**

**Cough**

**Sore throat**

**High temperature**

## SPREAD

Novel coronavirus first spread to humans from an animal - thought to be a snake - at the South China Seafood Wholesale Market.

The virus is transmitted between humans in droplets from coughing and sneezing and touching or shaking hands.

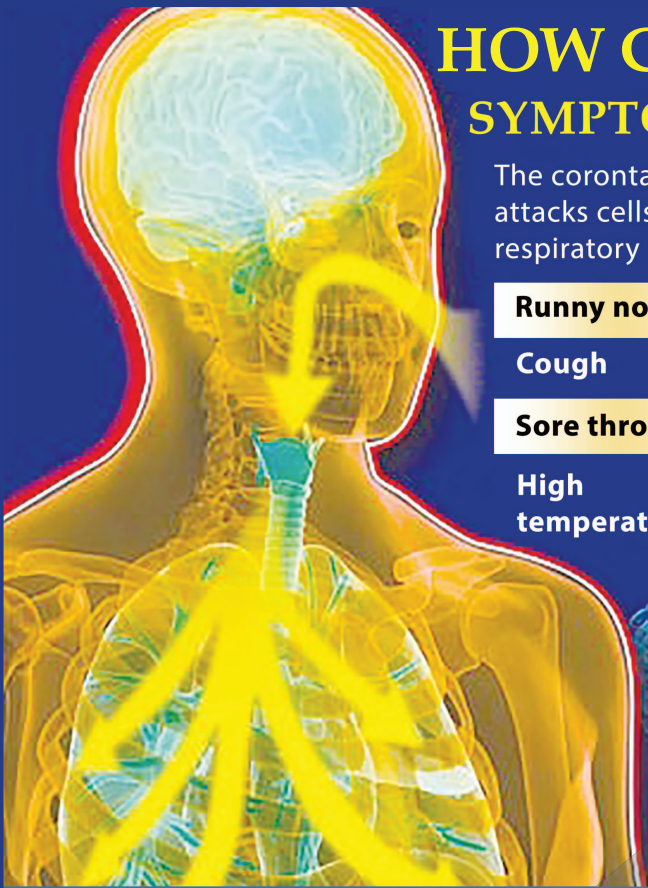
It enters humans through the nose and mouth, then finds a 'host cell' in the respiratory system, such as one in the nose. The host cell then bursts and other nearby cells in the body are infected with the virus.

## DEATH

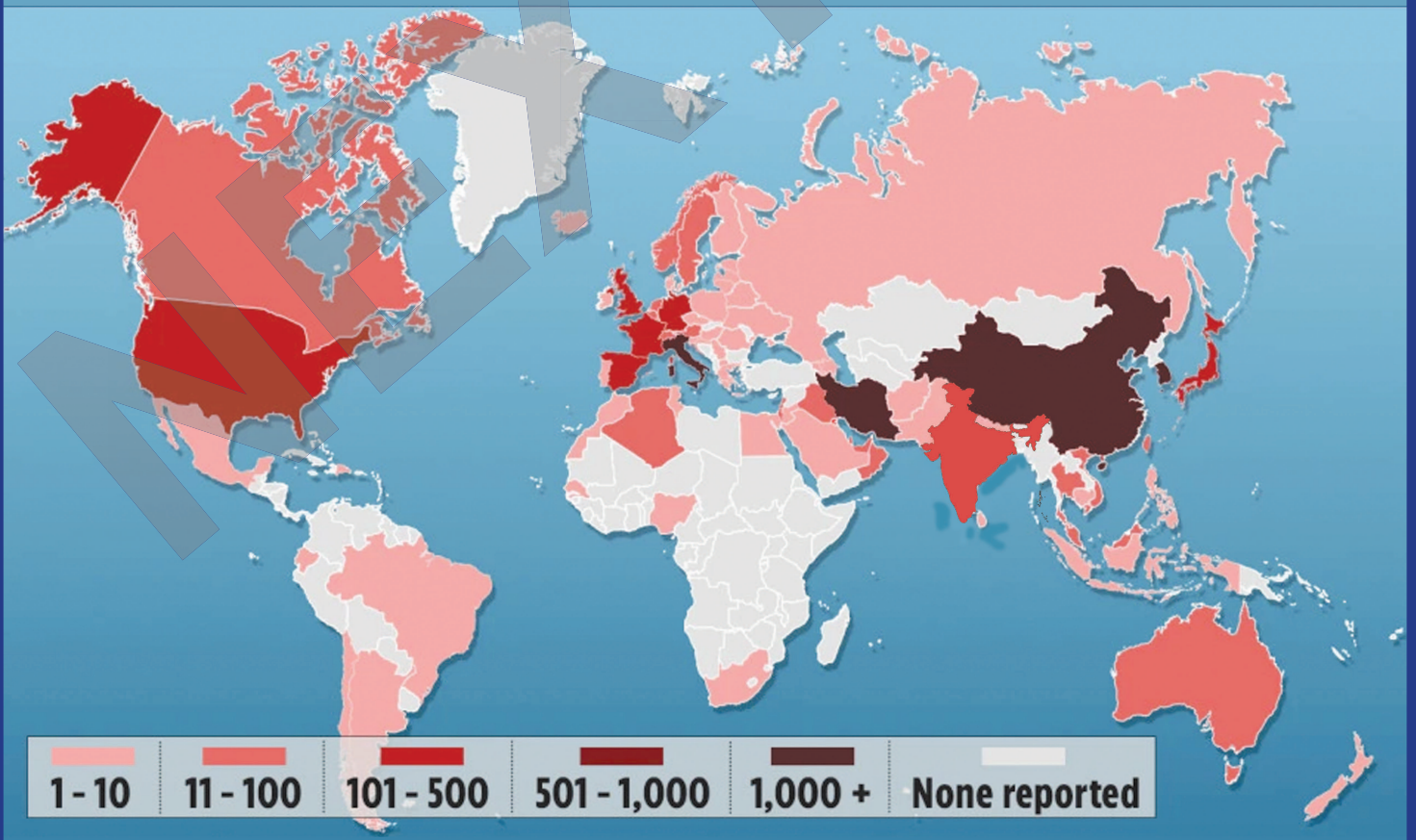
Most victims die from complications including pneumonia and from swelling in the lungs.

Severe pneumonia can kill people by causing them to 'drown' in the fluid flooding their lungs.

The virus also causes swelling in the respiratory system, which can make it hard for the lungs to pass oxygen into the bloodstream - leading to organ failure and death.



## SPREAD OF CORONAVIRUS



# NAMASTE TRUMP: KEY TAKEAWAYS

The US has approved the sale of an Integrated Air Defence Weapon System (IADWS) to India for an estimated cost of \$1.9 billion.

## About:

- The sale of Air Defence system was finalised during the recent U.S. President's visit to India.
- **Objective of purchase of IADWS:**
  - ♦ To modernise India's armed forces and to expand its existing air defence architecture to counter threats posed by air attacks.
  - ♦ To counter the massive military modernisation by China which is also flexing its military muscles in the strategic Indo-Pacific region.
  - ♦ To update military capability of India and to enhance interoperability between India, The US and other allies.

## Integrated Air Defence Weapon System (IADWS):

- The IADWS system provides integrated air missile defence and is currently deployed around Washington, DC.
- It includes launchers, targeting and guidance systems, advanced medium-range air-to-air missile (AMRAAM) and Stinger missiles, 3D Sentinel radars, fire-distribution centres and command and control units.
- The IADWS is also called the National Advanced Surface to Air Missile System (NASAMS-II).
- With the IADWS, India plans to fortify its capital city, New Delhi, by erecting a multi-layered missile shield over the National Capital Territory (NCT) against aerial threats.

## Missiles used in the System:

- DRDO's Advanced Air Defence(AAD) and Prithvi Air Defence (PAD) interceptor missiles to intercept enemy missiles, in the 2,000-km class.
- The second layer consisting of S-400 systems will have missiles with interception ranges of 120-380 km.
- This is followed by Barak-8 (Indo-Israeli surface-to-air missile) with 70-100 km interception range, and the indigenous Akash air defence missile systems with a 25-km range.

## Key Takeaways from Trump's Visit:

The U.S. President's visit to India has catalysed progress on outcomes in defence, security and energy cooperation.

- **Defence technology:** India would be purchasing \$3bn worth of U.S. military equipment in the form of Apache and MH-60 Romeo helicopters.
- **Security cooperation:** Through joint military exercises as well

as fighting international crimes such as drug trafficking, narco-terrorism, human trafficking, organized crime and violent extremism.

- **Energy sector:** Significant increase in energy imports from the U.S., particularly LNG after ExxonMobil signed a deal to improve India's natural gas distribution network.

## Concerns:

- A few of the major deals that had been expected could not be completed during the visit.
  - ♦ This included the conversion of an MoU for Petronet LNG Limited of India to invest in American gas company Tellurian into an agreement,
  - ♦ Commercial agreement for Westinghouse to build six nuclear reactors in Andhra Pradesh.
- Though both the leaders of India and the U.S. have time and again expressed concerns over China's hegemony in the South China Sea as well as China's Belt and Road Initiative, both have failed to outline the future course of action in their Indo-Pacific partnership.
- On the trade front, despite the long term negotiations, even a limited trade deal could not be finalized.

## Way Forward:

- The trade sector is one such area where the full potential for bilateral cooperation has not been realized. With the political backing of the leaders of the two countries, negotiators must move towards finalizing the much anticipated yet elusive trade deal.
- More economic openness would be to the benefit of both India and the US. The Indian government needs to acknowledge this and take appropriate steps.
- Given the ongoing slowdown in the Indian economy, meaningful reforms that improve the efficiency of land and labour allocation, that make investments in infrastructure attractive, and emphasize job creation, will help keep India on a strong footing vis-à-vis its strategic partners.
- An appropriate strategy of mutual engagement by capitalizing on synergies and sidestepping roadblocks needs to be employed.
- The two governments must now strive to complete the unfinished agreements and set the course for their newly designated '**Comprehensive Strategic Global Partnership**'.



# INDIA-BASED NEUTRINO OBSERVATORY

Recently, the villagers in Tamil Nadu had protested against the India-based Neutrino Observatory (INO) projects.

## About:

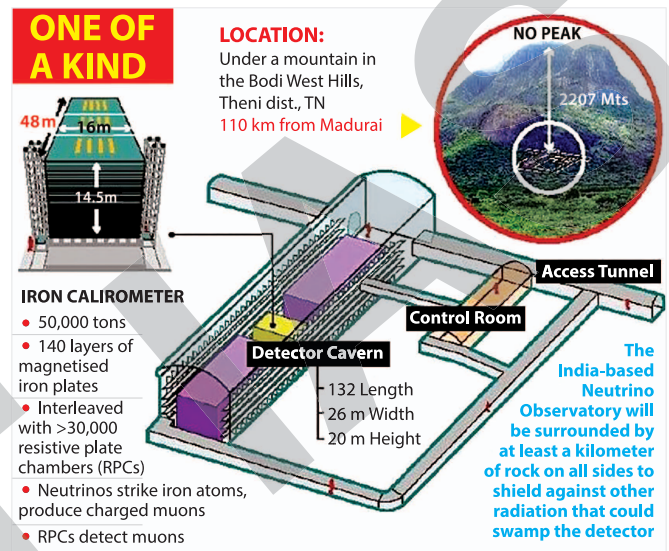
- It is a multi-institutional effort aimed at building a world-class underground laboratory with a rock cover of approx.
- The project is jointly funded by **Department of Atomic Energy (DAE)** and the **Department of Science and Technology (DST)**. The INO lab will be located in a site in the Bodi West Hills (BWH) region near Pottipuram village in **Theni district** of Tamil Nadu.
- At present, nearly 26 institutions and about 100 scientists are involved in the INO collaboration with **Tata Institute of Fundamental Research, Mumbai**, is the host institution. This large collaboration is the first of its kind in the country and is expected to grow further.
- The INO aims to solve the neutrino mass hierarchy:** To determine, that is, which of the three types of neutrinos is heaviest and which is lightest. This knowledge would allow physicists to probe long-standing mysteries such as how neutrinos acquire mass and why the universe has so much more matter than antimatter.
- The INO will detect neutrinos from various natural and laboratory sources using an **Iron Calorimeter (ICAL) detector**.
- INO has no strategic or defense applications.** Its operation involves no radioactivity release or toxic emissions.

## Why should the Laboratory be Situated Underground?

- Neutrinos are notoriously difficult to detect in a laboratory because of their extremely weak interaction with matter. The background from cosmic rays (which interact much more readily than neutrinos) and natural radioactivity will make it almost impossible to detect them on the surface of the Earth.
- This is the reason most neutrino observatories are located deep inside the Earth's surface. Most background radiation from cosmic rays is absorbed by the earth while only neutrinos reach the laboratory.

## Concerns Raised by People Against INO:

- The local people who are living nearby the site, fear that the underground **excavation and blasts** in an ecologically sensitive, seismically active area close to dams such as Idukki and Mullaperiyar will endanger the biodiversity and lives of the people.
- People also fear that drilling and rock-blasting will lead to extensive structural damages to houses located in nearby villages.



- The NGT had earlier suspended the permit on the grounds that **Madhikettan Shola National Park in the Idukki district of Kerala** was just about 4.9 km from the proposed INO project site.
- Some other concerns are related to radiation and the emission of hazardous chemicals from the INO.

## Quick Facts about Neutrinos

- Trillions of the harmless particle stream through our body every second, night or day.
- Neutrinos are the second most abundant particle in the universe (after particles of light called photons).
- Neutrinos rarely interact with anything—a lightyear of lead would stop only about half of the neutrinos coming from the sun.
- About 15 billion neutrinos from the Big Bang are in the average room.
- Neutrinos interact only through two of the four known forces: **the weak force and gravity**.
- So far, scientists have discovered three flavors of neutrinos: electron (**ν<sub>e</sub>**), muon (**ν<sub>μ</sub>**), and tau (**ν<sub>τ</sub>**).
- They oscillate, or change flavor, as they travel.
- Their masses are very tiny, but not yet known.
- Their speed is very close to the speed of light, but also not known exactly.
- They could be the reason that matter exists in the universe.

**FUNDAMENTAL**

Neutrinos are fundamental particles, which means that—like quarks and photons and electrons—they cannot be broken down into any smaller bits.

**ABUNDANT**

Of all particles with mass, neutrinos are the most abundant in nature. They're also some of the least interactive. Roughly a thousand trillion of them pass harmlessly through your body every second.

**ELUSIVE**

Neutrinos are difficult but not impossible to catch. Scientists have developed many different types of particle detectors to study them.

**OSCILLATING**

Neutrinos come in three types, called flavors. There are electron neutrinos, muon neutrinos and tau neutrinos. One of the strangest aspects of neutrinos is that they don't pick just one flavor and stick to it. They oscillate between all three.

**LIGHTWEIGHT**

Neutrinos weigh almost nothing, and they travel close to the speed of light. Neutrino masses are so small that so far no experiment has succeeded in measuring them. The masses of other fundamental particles come from the Higgs field, but neutrinos might get their masses another way.

**DIVERSE**

Neutrinos are created in many processes in nature. They are produced in the nuclear reactions in the sun, particle decays in the Earth, and the explosions of stars. They are also produced by particle accelerators and in nuclear power plants.

**MYSTERIOUS**

Neutrinos are mysterious. Experiments seem to hint at the possible existence of a fourth type of neutrino: a sterile neutrino, which would interact even more rarely than the others.

**VERY MYSTERIOUS**

Scientists also wonder if neutrinos are their own antiparticles. If they are, they could have played a role in the early universe, right after the big bang, when matter came to outnumber antimatter just enough to allow us to exist.

### Arguments against these Concerns:

- The INO project in Bodi hills is located in the peripheral area of seismic zone II, as defined by the Bureau of Indian Standards. This zone has the lowest seismic risk in the country.
- The prior existence of a number of tunnels and caverns is important and useful for future forecasting.
- The INO project does not disturb the ecosystem around the site and does not release any radiation, as it does not have any radioactive substance. It only measures the cosmic rays coming to the earth.
- As per the project report most of the neutrino detectors in the world are at latitudes over 35 deg. It is possible to push such a detector down to almost 8 deg latitude in South India, within proximity to the Equator.
- This permits neutrino astronomy searches covering the whole celestial sky and study of solar neutrinos passing through the Earth's core.

### Way Forward:

- INO will have an impact on the emerging high energy physics scenario in the country. People trained at INO will not only participate here but also have the expertise to contribute to other high energy and nuclear physics projects around the world.
- Over the long term, INO is expected to develop into a world-class underground science laboratory straddling many fields like physics, biology, geology and allied engineering fields.
- It is notable that the INO laboratory's design permits it to also host a dark-matter decay experiment, in essence accommodating areas of research that are demanding great attention today. The establishment of the INO lab would thus have a huge impact on the higher education in India in addition to various technological spin-offs.

# UNION CABINET CLEARS ART REGULATION BILL, 2020

Recently, the Union Cabinet has approved the Assisted Reproductive Technology Regulation Bill 2020 aimed for the welfare of Women in the Country.

## About:

- In an attempt to protect and safeguard the **reproductive rights** of women, the Union Cabinet has recently cleared a bill to regulate the Assisted Reproductive Technology services in the country.

## What is ART?

- Assisted Reproductive Treatment (ART), also known as assisted reproductive technology, refers to **treatments used to assist people in achieving a pregnancy**.
- It includes all fertility treatments in which **both** eggs and embryos are handled. It covers a wide spectrum of technologies including:
  - Simple techniques:** Ovulation induction, artificial insemination, also known as intrauterine insemination and donor insemination.
  - Advanced techniques include:** In-Vitro Fertilization (IVF), Intracytoplasmic sperm injection (ICSI) and Pre-implantation genetic diagnosis (PGD).

## What are the Major Highlights of the Bill?

- This bill intends to make provisions for safe and ethical practice of assisted reproductive technology services in the country.
- Establishment of National Board:** The bill aims to lay down code of conduct to be observed by persons working at clinics, to set the minimum standards of physical infrastructure, laboratory and diagnostic equipment and expert manpower to be employed by clinics and banks etc.
- Formulation of State Boards:** The States and Union Territories are required to constitute the State Boards and State Authorities. These will have the responsibility to follow the policies laid by the National Board for clinics and Banks in the State.
- National Registry and Registration Authority:** The bill provides for maintenance of a Central database and providing assistance to the National Board in its functioning.
- Confidentiality clause:** The Bill will also ensure confidentiality of intending couples and protect the rights of the child.
- It makes Pre-Genetic Implantation Testing **mandatory** for the benefit of the child born through ART.
- Clause for Punishment:** The Bill proposes for a stringent punishment for those **practicing sex selection**, sale of human embryos or gametes, running, agencies/rackets/organisation for such unlawful practices.

## Why was Regulation Needed?

- India has a rich history of employing ART, though the initial years went officially undocumented at that time. In the late 1970s, only months after the birth of **Louise Brown**, the first 'test tube baby', Kolkata-based doctor Subhas Mukherjee announced the birth of the world's second test tube baby.
- Subsequently, the industry saw phenomenal growth, as infertility rates went up. A market projection (by Fortune Business Insights) said the size of the ART market is expected to **reach \$45 billion by 2026**.
- Upregulation of ART has led to India becoming a global centre for reproductive medical tourism.
- The need to protect the affected Women (**oocyte donor**) and the Children from exploitation.
  - There is need for equal treatment of Children born through Assisted reproductive technology.



### DO YOU KNOW?

**Oocyte:** It is a female germ cell in the process of development (eggs, ova, ovum). It is produced in the ovary and gives rise to the ovum (the egg), which **can be fertilized**.

- Clinics in India offer nearly all the ART services yet no standardization of protocols not insurance is available.
- Also, the cryopreservation of sperm, oocytes and embryo by the **ART Banks** needs to be regulated so that the infertile couples will be more ensured of the ethical practices in ARTs.

## Other Important Bills for Welfare of Women

- Surrogacy Regulation Bill 2020,
- Amendment to the Medical Termination of Pregnancy Act;
- Pre-Conception and Pre-Natal Diagnostic Techniques amendment Act.
- These present a bouquet of legislation that will go a long way in protecting women's reproductive rights and safeguarding children born out of ART.

## Way Ahead:

- Although, Assisted Reproductive Technology (ART), including In-Vitro Fertilization (IVF), has given hope to a multitude of persons suffering from infertility, but also introduced a plethora of legal, ethical and social issues.
- The present Bill aims to eliminate exploitation in the field.



# 13<sup>TH</sup> COP TO CONVENTION ON MIGRATORY SPECIES

India hosted the 13<sup>th</sup> Conference of the Parties to CMS (COP 13) in Gandhinagar, in February 2020.

## About:

- As the host, India was officially designated as the Presidency of the Convention on the conservation of Migratory Species of Wild Animals (CMS) for the next three years till 2023.
- Note:** The preceding presidency was with the Philippines (2017-2020).
- The theme of the 13 COP to the CMS:** "Migratory species connect the planet and together we welcome them home".
- Mascot:** "Gibi - The Great Indian Bustard". It is a critically endangered species that has been accorded the highest protection status under the Wildlife Protection Act, 1972.

## Logo:

- "The CMS COP 13 logo is inspired by 'Kolam', a traditional art form from southern India.
- In the logo of CMS COP-13, Kolam art form is used to depict key migratory species in India like Amur falcon, humpback whale, and marine turtles.

## What are Migratory Species?

- Migratory species of wild animals move from one habitat to another during different times of the year, due to various factors such as food, sunlight, temperature, climate, etc.
- A migratory route will typically have nesting sites, breeding sites, and availability of preferred food and require the availability of suitable habitat before and after each migration. eCMS Guidelines currently deals only with the underwater noises. It does not include threats related to infrastructural development. Gobi Bear, Persian Leopard and Wild Sheep Set for Greater Protection. The IUCN Red List categorizes Gobi Bear under Critically Endangered. These species are going to be included under the Central Asian Mammals Initiative (CAMI) and are set to join other Central Asian mammal species already benefiting from international cooperation under the

## Important Development in CMS COP 13:

- Ten new species were added to CMS Appendices at COP13. Seven species were added to Appendix I, which provides the strictest protection: Asian Elephant, Jaguar, Great Indian Bustard, Bengal Florican, Little Bustard, Antipodean Albatross, and the Oceanic White-tip Shark.

- The Urial, Smooth Hammerhead Shark, and the Tope Shark were listed for protection under Appendix II, which covers migratory species that have unfavorable conservation status and would benefit from enhanced international cooperation and conservation actions.
- CMS COP13 also adopted the Gandhinagar Declaration, which will send a message to the first negotiating session of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework convening in Rome.

## India, Migratory Species and CMS:

- India has been a Party to the CMS since 1983.
- India has also signed a non-legally binding MOU with CMS on the conservation and management of Siberian Cranes (1998), Marine Turtles (2007), Dugongs (2008) and Raptors (2016).
- India is a temporary home to several migratory animals and birds. The important among these include Amur Falcons, Bar-headed Geese, Black-necked cranes, Marine turtles, Dugongs, Humpbacked Whales, etc.
- The Indian sub-continent is also part of the major bird flyway network, i.e, the Central Asian Flyway (CAF) that covers areas between the Arctic and Indian Oceans, and covers at least 279 populations of 182 migratory waterbird species, including 29 globally threatened species.
- India has also launched the National Action Plan for the conservation of migratory species under the Central Asian Flyway.

## About Convention on the Conservation of Migratory Species of Wild Animals

- In order to protect the migratory species throughout their range countries, a Convention on Conservation of Migratory Species (CMS), has been in force, under the aegis of United Nations Environment Programme.
- Also referred to as the Bonn Convention, it provides a global platform for the conservation and sustainable use of migratory animals and their habitats and brings together the States through which migratory animals pass, the Range States, and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.
- CMS is the only convention that deals with taking or harvesting of species from the wild.



- **Appendix I:** Migratory species threatened with extinction are listed on Appendix I of the Convention.
- **Appendix II:** Migratory species that need or would significantly benefit from international co-operation are listed in Appendix II of the Convention.
- **Parties to the convention:** As of 1 Nov. 2019 the Convention has 130 Parties. Two countries signed the original Convention but have yet to ratify it so are not a Party (Jamaica and the Central African Republic).
- A State becomes a Party to an international convention when it deposits its instrument of ratification, acceptance, approval or accession to the convention with the depositary (Vienna Convention on the Law of Treaties, 1969).

- All CMS signatory States can join the Convention by ratification. All States that are not signatory States can become a Party to the Convention by accession, since CMS was closed for signature on 22 June 1980.
- **Conference of Parties:** The Conference of the Parties (COP) is the principal decision making body of the Convention.
  - ♦ It meets once every three years. All the Parties are entitled to attend the Conference and participate in the votes.
  - ♦ The first COP in 1985 established a Standing Committee, whose task is to oversee the running of the Convention and the Secretariat between sessions of the COP.

## State of India's Bird 2020

*Recently, the State of India's Bird 2020 was released at the 13<sup>th</sup> Conference of Parties of the Convention on the Conservation of Migratory Species of Wild Animals.*

### About State of India's Bird 2020:

- The State of India's Birds report is the first comprehensive assessment of the distribution range, trends in abundance, and conservation status for most of the bird species that regularly occur in India.
- It is not a government report, but a consortium of both government and non-government organisations.

### Methodology:

- The data for these birds was collected through the citizen science app 'eBird'.
- The assessment is based on three indices. Two are indices of change in abundance: long-term trend and current annual trend (over 5 years), and the third is a measure of distribution range size.
- Using these three indices together with the IUCN Red List (Red List of Threatened Species), each species was classified into categories of conservation concern for India.

### Key Findings of the Report:

- According to the study, the populations of raptors (eagles, hawks, kites, etc.), migratory seabirds and birds that live in specialised habitats were the most affected in the past decades.
- The number of birds in the Western Ghats, which is considered one of the world's foremost biodiversity hotspots, also declined by almost 75 per cent since 2000.
- Indian Peafowl, the national bird, has shown a dramatic increase in both abundance and distribution across the country.

- The number of house sparrows has also stabilised nationwide, although there is still a marked decline in their population in cities.
- The Indian vulture has recorded a consistent drop in its numbers since the 1990s the report has highlighted.
- The Indian bustards including the Great Indian Bustard, the Macqueen's Bustard, Lesser Florican and the Bengal Florican have also been facing the onslaught of loss of habitat and hunting practices by humans.
- The report categorises 101 species as 'High Conservation Concern for India' and suggests many urgent policy measures to be adopted immediately. 319 species are classified under the 'Moderate Conservation Concern' category.
- 126 species, including the peafowl, house sparrow, Asian Koel, rose-ringed parakeet and the common tailorbird, are expected to increase in numbers, primarily due to their ability to survive in human habitats.

### eBird App:

- The data for the birds in the State of India's Birds report was collected through the citizen science app 'eBird', which received a record ten million entries by approximately 15,500 bird watchers a.k.a. citizen scientists.
- Cornell University's Laboratory of Ornithology hosts the app, while its India-specific portal is curated and customised by Bird Count India.
- Bird Count India is an informal group of birdwatching enthusiasts, ornithologists, naturalists and conservationists dedicated to documenting Indian birds.

# THE FUTURE OF EARTH 2020 REPORT

The “The Future of Earth, 2020” Report was recently released.

## About:

- The Future of Earth 2020 report has been jointly released by the **South Asia Future Earth Regional Office, Divecha Centre for Climate Change and Indian Institute of Science.**
- The report was prepared with the aim of reducing carbon footprint and halting global warming **below 2 degree Celsius by 2050.**
- The report lists five global risks that have the potential to impact and amplify one another in ways that may cascade to create a global systemic crisis. They are: failure of climate change mitigation and adaptation, extreme weather events, biodiversity loss and ecosystem collapse, food crisis and water crisis.

## Key Highlights of the Report:

- **Interrelation between global risk factors:**
  - ♦ Extreme heat waves can accelerate global warming by releasing large amounts of stored carbon from affected ecosystems, and at the same time intensify water crises and/or food scarcity.
  - ♦ Strains on food production are expected to increase, as a result of various forces including climate change, biodiversity loss, and a global population on the rise.
  - ♦ The loss of biodiversity also weakens the capacity of natural and agricultural systems to cope with climate extremes, increasing our vulnerability to food crises, they point out.
- **Challenges related to green house gas emission:** Major assessments in last two years have all argued that time is running out to reduce greenhouse gas emissions.
  - ♦ Despite declarations of a climate crisis or climate emergency by the leaders of more than 700 cities, states and governments, the concentration of carbon dioxide in the atmosphere during 2019 reached more than 415 parts per million (ppm).
  - ♦ The five years from 2014 to 2018 were the warmest recorded over land and ocean since 1880.
- **Loss of Biodiversity:**
  - ♦ Anthropogenic factors such as Humans have now “significantly altered” 75% of our planet’s land area; about a quarter of species in assessed plant and animal groups are threatened.
  - ♦ In 2018, the world’s last male northern **white rhino** died in his Kenyan enclosure, while the Brazilian blue parrot, Spix’s Macaw, was declared extinct in the wild.

- **Denial of climate change:** Right-wing populism, a breed of politics that exploits people’s fears during times of economic decline and growing inequality, and that focuses on nationalist tendencies to clamp down on borders and reject immigrants, is on the rise around the world. This often leads to a denial of climate change facts or impacts.

### South Asia Future Earth Regional Office

South Asia Future Earth Regional Office is hosted by the Divecha Centre for Climate Change, Bangalore, India. The office plays a key role in promoting solution-oriented research on environmental sustainability in the south Asian region. Future Earth, established in 2015, is an international sustainability research network.

- **The digital platforms** such as social media, search engines and e-commerce algorithms, tend to favour the spread of information designed to engage with emotion over reason, which can cause the propagation of “fake news”, and can lead to social harms like an erosion of trust in vaccines.
- **Environmental health and education:**
  - ♦ New thinking about conservation is needed. **The National Education Policy** will address the question of environmental health and education at the school level.
  - ♦ Children in the last four years of secondary education will have a reasonable grounding to be sensitive towards the environment. Without it no government rules and policies can be helpful.

## Way Forward:

- Reversing the trends of loss of life on the planet will require some new ways of thinking about conservation.
- Humans are now the main driver behind planetary change, thus human systems should be targeted.
- Bolstering financial resilience should go hand in hand with increasing the resilience of the communities.
- Negative impact of migration can be avoided with pragmatic planning that anticipates inevitable demographic change, and accommodates human movements with infrastructure and targeted social inclusion programmes.
- In 2020, we can no longer claim we are unaware of environmental change. We live in our own small local environments that we can ourselves defile, restore, or enhance. Each is a part of the bigger whole, just as we are part of a bigger humanity.

# TOXIC AIR: THE PRICE OF FOSSIL FUELS

A report titled 'Toxic Air: The Price of Fossil Fuels' has been released by The Greenpeace Southeast Asia.

## About:

- This report reveals the cost of air pollution from fossil fuels and highlights solutions that can protect our health and benefit our communities.
- Air pollution generated from burning fossil fuels is attributed to approximately 4.5 million premature deaths worldwide every year.
- Air pollution increases the incidence of chronic and acute illnesses and also damages our economies and the environment.
- Note:** Greenpeace is a **non-governmental environmental organization** with offices in over 55 countries and an international coordinating body in Amsterdam, the Netherlands.

## Key Findings of the Report:

- The report provides a **global assessment of the health impact of air pollution** from fossil fuels in 2018 and a first-of-its-kind estimate of the **associated economic cost**.

### Related Information

- PM<sub>2.5</sub>** are fine particles with diameters that are **generally 2.5 micrometers and smaller**. PM<sub>2.5</sub> particles are **respirable** as they are small enough to reach the gas exchange region of the lungs.
- Ozone (O<sub>3</sub>)** formed at **near-ground level** is an air pollutant that **causes smog**. Ground level ozone forms when **Nitrogen oxide (NOx) pollution reacts with chemicals called volatile organic compounds** (chemicals from sprays, paints etc.).
  - Ozone pollution causes **acute human health problems, including chest pain, throat irritation and inflammation** of the airways.
  - It also adversely affects **vegetation and crops**.
- Nitrogen oxides:** When **fossil fuels are burned in air**, nitrogen oxides (NO and NO<sub>2</sub>, collectively referred to as NOx) are created from molecular nitrogen in the air and in the fuel that is being burned.
  - NOx pollution, along with sulfur dioxide, which is also produced when fossil fuels are burned, **reacts with water to form acid rain, snow and fog**, and with other substances to **form particulate matter**.
  - Exposure to nitrogen oxides causes **cardiovascular diseases, exacerbated symptoms of asthma, chronic obstructive pulmonary disorder** and other respiratory diseases.

- The report talk about the following pollutants:** Fine particulate matter (PM<sub>2.5</sub>), ozone (O<sub>3</sub>) and nitrogen dioxide (NO<sub>2</sub>), and only that pollution which is emitted by fossil fuel combustion (coal, oil and gas).
- India is estimated to bear a cost of \$150 billion, or 5.4% of the country's GDP, which is the **third-highest absolute cost from fossil fuel air pollution worldwide**.
- China and the US are estimated to bear the highest absolute costs from fossil fuel air pollution, respectively at \$900 billion and \$600 billion.
- Combination of air pollutants, such as **PM<sub>2.5</sub>, NO<sub>2</sub> or ozone**, is associated with increased incidence of diseases including **Ischemic Heart Disease (IHD), Chronic Obstructive Pulmonary Disease (COPD), and lung cancer, lower respiratory infections, type II diabetes, etc.**
- Health impacts from air pollution **generate economic costs** through the **cost of treatment, management of health conditions, and from work absences**.
- PM<sub>2.5</sub> air pollution leads to the greatest health impact** and the greatest financial cost of the three pollutants (**PM<sub>2.5</sub>, O<sub>3</sub>, and NO<sub>2</sub>**).

## Valuable Suggestions:

- Use of Sustainable Transport System:**
  - By setting a phase-out date for diesel and petrol cars.
  - Implementation of various urban transport measures, such as restricting cars' access into certain neighbourhoods or districts, promoting car-free days, etc.
- Switch to Renewable Energy:** The phase out of fossil fuels and switch to renewable forms of energy is beneficial both for reducing air pollution and mitigating anthropogenic (man-made) climate change.
- By increasing spending on the health sector:** It needs to be noted that India spends around 1.28% of the GDP on health while air pollution from burning fossil fuels costs an estimated 5.4% of India's GDP.
- By taking strict action should be taken against non-compliance of thermal power plants.
- Moving the energy generation sector from fossil fuels to renewable would help to prevent premature deaths and vast savings in health costs.

# MEDICAL TERMINATION OF PREGNANCY (AMENDMENT) BILL, 2020

Cabinet has recently approved the Medical Termination of Pregnancy (Amendment) Bill (MTP), 2020.

## Salient Features of the Amendment:

- The amendment increases the maximum permissible age of the foetus for abortion **from 20 to 24 weeks** for special categories of women such as rape survivors, victims of incest, differently-abled women and Minors etc.
  - ♦ Furthermore, opinions will be required from **two doctors** rather than one if abortion is planned between 20-24 weeks.
- The maximum gestation age clause will not apply in cases of **substantial foetal abnormalities** diagnosed by a Medical Board.
- **Confidentiality:** Name and other particulars of a woman whose pregnancy has been terminated shall be **kept as secret**.
- The Bill seeks to relax the contraceptive-failure condition for **'any woman or her partner'** from the previous provision for **'only married woman or her husband'**.

## Need of Amendments:

- The MTP Act presently allows abortion post 20 weeks only where it is necessary to save the life of the mother. Thus, even after the diagnosis of a substantial foetal abnormality the law gives no recourse **unless there is a prospect of mother's death**.
- Several petitions are in courts seeking permission for aborting pregnancies at a gestational age beyond the present permissible limit (20 weeks) on grounds of foetal abnormalities or pregnancies due to sexual violence faced by women.
- The **betterment of diagnostic techniques** has allowed some defects to be revealed after 20 weeks has passed.
- **Right to Privacy:** The Supreme Court has recognised women's right to make reproductive choices and their decision to abort as a dimension of their personal liberty.

## Key Provisions in the Original MTP Act, 1971:

Pregnancy may be terminated by a medical practitioner:

- Where the length of the pregnancy **is less than twelve weeks**, or if gestation period **is more than twelve weeks but does not exceed twenty weeks**.
- A registered medical practitioner shall be consulted for the opinion that the continuance of the pregnancy would involve a **risk to the life of the woman** (her physical or mental health) or there is a risk that the **child** may suffer from a serious physical or mental abnormality.
- **NOTE:** Before 1971 abortion was a criminal offence under IPC section 312.

## Arguments in Favour of this Bill:

- Abortion can be undertaken if any abnormality is diagnosed after 20 weeks. This will reduce the chances to resort to **informal abortion channels** and unsafe MTPs. (According to a study by Sample Registration System in 2003, **unsafe abortions account for 8% of maternal deaths** in India).
- It may ease out abortions for **victims of rape or incest, differently-abled women and minors**.
- **Unmarried women** can now undergo legal abortions.
- By reducing the need to follow a legal route to get formal permission for abortion the bill may ensure **dignity, autonomy, confidentiality and justice for women**.
- The Bill also allows for abortion if there are substantial foetal abnormalities diagnosed by the Medical Board.

## Issues with the Amendment Bill:

- The **medical practitioner, rather than the women seeking abortion, has the final say** on whether the abortion can be carried out or not.
- **Late termination Vs Viability of the foetus:** Viability, with developments in medical science, may improve up to 24 weeks of gestation and aborting such a foetus may raise ethical issues as it may be possible for the foetus to experience pain. The bill **may also increase the cases of female foeticides**.

## International Scenario:

- **United States:** No federal ban, but 43 states have prohibitions on gestational limits, from 20 to 24 weeks.
- **China:** No defined time limits for access to abortion, highly liberal laws due to the 2-child policy.
- **Netherlands:** Abortions are allowed up to 24 weeks. After that it is allowed only if the unborn foetus has an untreatable disease and would have little to no chance of survival after birth, or for the physical or mental health of the pregnant woman.

## Way Ahead:

- Improve **contraceptive facilities**, awareness and their availability with the public.
- **Upgrading medical technologies** and advocating safe abortion practices across the country.
- Setting up of **medical boards across districts** with members from various groups such as NGOS, Human rights activists, doctors and eminent people from the area to present a fair chance of abortion even after 24 weeks.



# GENDER GAP IN SCIENCE

February 11 is celebrated by the United Nations as the International Day of Women and Girls in Science.

## About:

- The International Day of Women and Girls in science is celebrated to promote equal access to and participation in science for women and girls.
- According to a UNESCO study, just 28.8% of researchers are women. In India, only 14% of the researchers are women.

## In-Depth about Women Pioneers in Science:

- Of the **866 Nobel winners so far, only 53 have gone to women**. Marie Curie being the only double laureate (physics and chemistry).
- Only one woman each has won the prestigious mathematics awards - The Abel Prize and The Fields Medal. Karen Uhlenbeck won the Abel Prize in 2019.
- Apart from Mother Teresa, no other woman from India has won the Nobel.

## Data to Substantiate the Gender Gap in Science:

- **Low enrolment in STEM courses** - UNESCO data shows that only around 30% of female students select STEM related fields in higher education.
- In 2015-16 (according to a NITI Aayog report), 9.3% of female students enrolled in engineering UG courses and 4.3% in medical science.
- A trend seen across countries, including India, is that the number of women in sciences decline while they move up the education ladder as more become doctoral students and less become researchers.

## Reasons for Wide Gender Gap:

- **Stereotype threat** is one compelling explanation for low enrolment.
- **Lack of exposure** in early childhood to certain fields.
- **High dropout rates** - according to a recent report by NCPDR, 39.4% girls aged 15-18 years dropped out of school and college.
- Due to **family pressure** most women take up jobs rather than work in research industry.
- **Long hours of work** in research and regular field visits make these research jobs further distant from married women.

- A study of 1,327 Swedish school students found that more boys are attracted to STEM subjects and more girls are attracted to subjects in the HEED (health, elementary education and domestic) spheres.

## The Sociology Angle

Research by the University of Washington, Seattle shows that for jobs where high level qualifications are demanded, men candidates engage in self-promotion, and are boastful while equally qualified women are more 'modest' and 'undersell' themselves. Even in groups and situations where men and women are present as colleagues, the views of women are either ignored or listened to less seriously than those of men.

## Steps taken to Reduce the Gender Gap:

- Through implementation of programmes like **Beti Bachao, Beti Padhao**.
- Laws against **child marriage and sexual harassment at workplace**.
- **Providing adequate scholarships** in private as well as government courses.
- **Breaking the 'Glass Ceiling'** for women by spreading awareness about successful case studies of women and the difficulties faced by them.
- Full and equal participation of women in science and technology is one of the core objectives mentioned in the **Science and Technology Policy, 2003**.

## Conclusion:

- Implementation of SDG 5 – Gender Equality can help in bringing a gendered approach to the policies, schemes and laws of the country.
- India is expected to gain from its “demographic dividend” in the coming years and women are an integral part of this developmental process.
- Indians must work towards making “a society in which, women attain their full potential and are able to participate as equal partners in all spheres of life and influence the process of social change”. (Draft National Policy for Women, 2016).

# MALNUTRITION IN INDIA

The Global Hunger Index reported that India suffers from “serious” hunger and ranked it 102 out of 117 countries.

## About:

- In a major initiative to improve the health and nutrition Finance minister in the Union Budget announced a jump of over 22% on allocation for nutrition-related programmes.

## What is Malnutrition?

- WHO defines malnutrition as deficiencies, excesses or imbalances in a person's intake of energy and nutrients.
- It covers 2 broad groups of conditions.
  - Undernutrition** — which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies
  - Overweight and obesity.

## Status of Malnutrition:

- Stunting:** The percentage of **stunted children** under 5 reduced from 48% in 2005-06 to **38.4% in 2015-16**.
- Wasting:** There has been a rise in the percentage of children who are wasted from 19.8% to 21% during 2004 to 2016.
- The national average weight at birth is less than 2.5 kg for 19% of the children.
- Anaemia:** More than half of India's children are anaemic (58%), this is caused by a nutritional deficiency of iron and other essential minerals.
- Among **adults, 23% of women and 20% of men are considered undernourished** in India.

## Issues with Ongoing Schemes:

- Low utilization of funds** – all three major schemes i.e. ICDS, MDMS, POSHAN abhiyaan have seen an underutilization of funds in the budget of 2019-20.
- Protein deficiency** - According to a recent food data there is stagnation in demand for protein-rich foods in India. Thus, schemes are focusing less on quality of food.
- Micronutrient deficiency (Hidden Hunger)** – Globally, vitamin A deficiency is the leading cause of blindness in children, Iodine and Iron deficiency can cause Goitre and Anaemia respectively.
- Poor nutrition to pregnant mother** has a direct effect on child health leading to low birth weight of baby.
- Lack of sanitation** – Children are constantly exposed to germs from faeces which makes them vulnerable to the kinds of chronic intestinal diseases that prevent bodies from making good use of nutrients in food, and they become malnourished.

## What can be the Steps to Improve this Situation?

- Improving expenditures towards schemes effectively.
- Food fortification** - process of adding micronutrients into foodstuff that do not already contain them.
  - FSSAI suggests fortifying Flour (with Iron, Vitamin B12 and Folic Acid), Milk and Edible Oil (with Vitamins A and D) and Double Fortified Salt (with Iodine and Iron).
- Diversification of food crops** - promote nutritious cereals like millets and pulses.

### Nutri-Cereals

In 2018-19, the Government of India **launched a National Millet Mission** which included renaming millets as “**nutri-cereals**” also to promote nutritious cereals a **2018-19** was declared as the **Year of Millets** in a campaign mode across the country.

- Exploiting the Agriculture-nutrition link** - because about three-fifths of rural households are agricultural and malnutrition rates are highest in rural areas.
- Improvement in sanitation practices** across the country especially in rural areas under Swachh Bharat scheme.

### Bharatiya POSHAN Krishi Kosh

Scheme by Ministry of Women and Child Development along with Bill & Melinda Gates Foundation

- One of its components is development of a Food Atlas.
- The Agro-Food Atlas will act as a repository of diverse crops across 127 agro-climatic zones of the country.
- It will collect data of crops currently being grown, agro-ecological conditions and guidance on how a greater diversity of crops could be encouraged in a particular district or block to promote dietary diversity and nutrition.

## Conclusion:

- According to **World Food Programme** and **World Bank** - Malnutrition affects cognitive ability, workforce days and health, impacting as much as 16% of GDP of the world. India needs to hasten to **achieve Sustainable Development Goal 2 of 'Zero Hunger'** by 2030 and fulfil its commitments towards the **National Health Mission** so that we may reap our demographic dividend and development shall occur in both cognitive as well as physical spheres.

# WOMEN IN INDIAN ARMY

**The Supreme Court (SC) dismissed a Union government submission and declared that Short Service Commission (SSC) women officers are eligible for Permanent Commission (PC) and command posts in the Army.**

## About:

- The judgement was on a 10-year-old appeal filed by the government against a 2010 decision of the Delhi High Court to grant SSC women officers permanent commission.
- The SC declared that SSC women officers are eligible for Permanent Commission and Command posts in Army and ordered the govt. to implement its judgment in 3 months.
- The SC has done away with all discrimination for grant of PC bringing women on a par with male officers. It has also removed the restriction of women officers only being allowed to serve in staff appointments.



## DO YOU KNOW?

- **Short Service Commission (SSC):** Commissioned for a period of 10 years, extendable up to 14 years. But Pension in army starts only after 20 years of service. Thus, no pension to SSC candidates.
- **Permanent commission:** Officers could opt for permanent commission at the end of 10 years of service, this option was earlier not available to women officers.
- **Command posts:** The officer which has ultimate authority over the unit (100-200 men). Usually a Commanding Officer is appointed after 15-20 years of service.

## Chronology of the Case:

- **1992** - Induction of women officers in the Army started. They were commissioned for a period of five years in specific streams such as Army Education Corps, Corps of Signals, Intelligence Corps, and Corps of Engineers under the **Women Special Entry Scheme (WSES)**
- **2006** - The WSES scheme was replaced with the SSC scheme, which was extended to women officers in the same roles in as specified earlier — **which excluded combat arms such as infantry and armoured corps.**
- **2003** - A PIL was filed before the Delhi High Court for grant of permanent commission to women in the army.
- **2010** - The High Court ruled that women would be entitled to PC at par with male SSC officers. The judgement was challenged in the SC.
- **2019** - The government passed an order granting PC to SSC women officers in ten streams of the Army (all supporting roles). But they would not be offered any command appointments, and would serve only in staff posts.

## The Present Scenario of Women in Armed Forces:

- SSC for women is available only in 'Combat Support Arms' and 'Services' wings of the Army.
- Thus, even after the SC judgement women shall be allocated for permanent commission in only Combat Support Arms' and 'Services' wings and not in Combat operations.

## Examples of Women who have Excelled in the Military

- **Col. Mitali Madhumita** - on a UN mission in Kabul, saved dozens of lives buried under the debris when the Indian embassy in Kabul suffered a terror attack on February 26, 2011. For this she was awarded the Sena medal (first ever to a woman army officer).
- **Squadron Leader Minty Agarwal** - a Fighter Controller with the Indian Air Force. She was part of the team that guided Wing Commander Abhinandan during the Balakot airstrike by the IAF.

## Government's View:

- Deployment of women officers was not advisable in conflict zones where there was **"minimal facility for habitat and hygiene"**.
- **"Physical" and "physiological limitations"** in granting command positions to women officers (women officers do not undergo the same rigorous training during recruitment as men).
- Challenges like domestic issues, pregnancy and transfers which can affect the families. Women officers are at a greater risk if taken as Prisoners of War.

## Supreme Court's Counters on these Arguments:

- The court found the remarks in the note not only constitutionally invalid but discriminatory, affecting the dignity of women officers.
- It held that such a mentality was majorly due to a deep stereotype held by the society.

## Way Ahead:

- There is a need for change in mindsets of people.
- War scenario is changing and is shifting to the digital ground, especially with the advent of drones and robotics.
- A board of officers is commissioned to decide whether promotions to the rank of Colonel (who is mostly a commanding officer) can take place or not for a particular officer. In some services, less than 30% of male officers are promoted to the rank of Colonel. Let the same board of officers decide whether a woman officer is fit to command a unit.



# KERALA ISLANDS UNDER CRZ REGIME

Around 2,130 backwater islands of Kerala, including Maradu, have been brought under the Coastal Regulation Zone (CRZ) regime thereby imposing curbs on development activities.

## About:

- As many as 2,130 backwater islands of Kerala, including Maradu, have been brought under the Coastal Regulation Zone (CRZ) regime thereby imposing curbs on development activities.
- The islands have been identified by invoking provisions of 2011 notification.
  - The 2011 notification makes special provisions for Kerala considering the unique coastal systems of backwaters and backwaters islands along with the space limitation in the coastal stretches of the State of Kerala.
- This is for the first time that the list of the Kerala islands is being drawn up.
  - NOTE:** The list of the islands was prepared by the National Centre for Earth Science Studies, Thiruvananthapuram, for the Kerala Coastal Zone Management Authority (KCZMA).
- Background:** Recently, the Supreme Court ordered the demolition of five apartment complexes in Kerala for violating Coastal Regulation Zone (CRZ) norms.

## Coastal Regulation Zone (CRZ) Rules:

- CRZ Rules govern human and industrial activity close to the coastline, in order to protect the fragile ecosystems near the sea.
- The Rules are mandated under the **Environment Protection Act, 1986** and were **first framed in 1991**.
- They sought to restrict certain kinds of activities, like large constructions, setting up of new industries, storage or disposal of hazardous material, mining, or reclamation and bunding, within a certain distance from the coastline.

## Features of Coastal Regulation Zone (CRZ) Notification, 2018:

- Revised FSI norms in CRZ areas:** For CRZ-II (Urban) areas, Floor Space Index (FSI) or the Floor Area Ratio (FAR) is permitted as per prevailing value on the date of the new Notification.
- For CRZ-III (Rural) areas, two separate categories have been stipulated:**

## DILUTED BY DESIGN

Hotels, resorts and temporary tourism facilities can now be built closer to the shore; mangroves to make way for ports, harbours.

### Coastal Regulation Zone Notification, 2011

#### Index

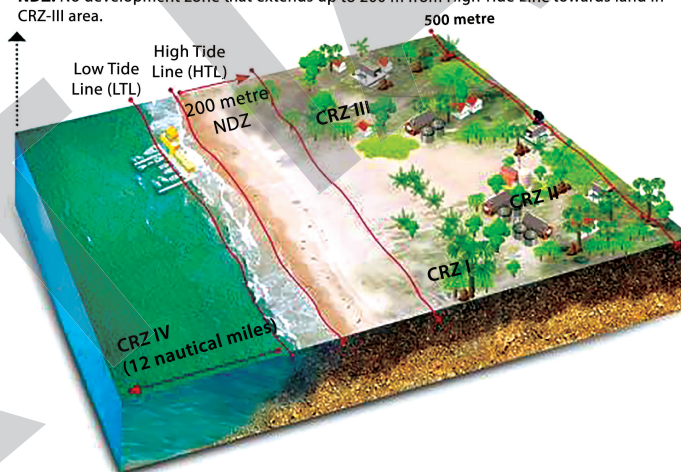
**CRZ I:** Eco-sensitive and intertidal areas.

**CRZ II:** Areas which have been developed up to or close to the shore.

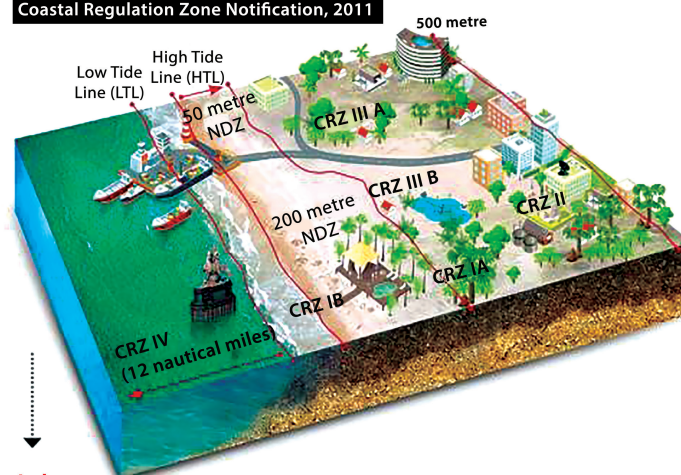
**CRZ III:** Areas that are relatively undisturbed and do not fall under CRZ-I or CRZ-II.

**CRZ IV:** Area between Low Tide Line and 12 nautical miles into the sea/tidal influenced waterbodies.

**NDZ:** No development zone that extends up to 200 m from High Tide Line towards land in CRZ-III area.



### Coastal Regulation Zone Notification, 2011



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**CRZ IA:** Eco-sensitive areas.

**CRZ IB:** Inter-tidal areas.

**CRZ II:** Areas which have been developed up to or close to the shore.

**CRZ IIIA:** CRZ-III areas, where the population density is more than 2,161 sq.km as per 2011 Census.

**CRZ IIIB:** Areas with population density of less than 2,161 per sq.km, as per 2011 Census.

**CRZ IVA:** 12 nautical miles from the Low Tide Line towards the sea.

**CRZ IIIB:** Tidal influenced waterbodies.

**NDZ:** 50 metres from High Tide Line in CRZ-III A areas, 200 m from HTL in CRZ-III B areas.



- ♦ **CRZ-III A - Densely populated rural areas** with a population density of **2161 per square kilometre as per 2011 Census**. Such areas shall have a No Development Zone (NDZ) of 50 meters from the High Tide Line (HTL) as against 200 meters from the High Tide Line stipulated in the CRZ Notification, 2011.
  - The HTL is the line on the land up to which the highest water line reaches during the spring tide.
- ♦ **CRZ-III B** - Rural areas with population density of below 2161 per square kilometre as per 2011 Census. Such areas shall continue to have an NDZ of 200 meters from the HTL.
- **Tourism infrastructure promotion:** Temporary tourism facilities such as toilet blocks, change rooms etc. have now been **permitted in Beaches and also in the "No Development Zone" (NDZ)** of the CRZ-III areas. However, a minimum distance of 10 m from HTL should be maintained for setting up of such facilities.
- CRZ Clearances streamlined: Only projects/activities, which are located in the **CRZ-I (Ecologically Sensitive Areas) and CRZ IV (area covered between Low Tide Line and 12 Nautical Miles seaward)** shall be dealt with for CRZ clearance by the Ministry of Environment, Forest and Climate Change.
- The powers for clearances with respect to CRZ-II and III have been **delegated at the State level**.
- **A No Development Zone (NDZ)** of 20 meters has been stipulated for all Islands.
- **Pollution abatement:** In order to address pollution in Coastal areas treatment facilities have been made permissible activities in CRZ-I B areas.
- **Exemptions:** Defence and strategic projects have been accorded necessary exemptions.

#### Classification of the CRZ under CRZ notification, 2011:

- **CRZ-I:**
  - ♦ CRZ-1 A: ecologically sensitive areas.
    - **CRZ-1B:** Area between Low Tide Line and High Tide Line.
- **CRZ-II:** Areas in municipal limits or in existing legally designated urban areas
- **CRZ-III:** Relatively undisturbed areas which do not fall under CRZ-I or II which include coastal zone in the rural areas.
- **CRZ-IV:** Area between Low Tide Line and 12 nautical miles into the sea/tidal influenced waterbodies.
- **No Development Zone:** Extends up to 200 meters from HTL towards land in CRZ-III areas.

#### Differences between 2011 and 2018 Notifications

2011 Notification	2018 Notification
For CRZ-II (Urban) areas, Floor Space Index (FSI) had been frozen as per 1991 Development Control Regulation (DCR) levels.	Decided to de-freeze FSI and permit FSI for construction projects, as prevailing on the date of the new Notification enabling redevelopment areas to meet the emerging needs.
CRZ-III is a single category which includes relatively undisturbed areas which do not fall under CRZ-I or II which include coastal zone in the rural areas.	For CRZ-III (Rural) areas, two separate categories: CRZ-III A and CRZ-III B. CRZ-III A areas shall have a No Development Zone (NDZ) of 50 meters from the High Tide Line (HTL) as against 200 meters from the High Tide Line stipulated for CRZ-III B areas.
No such provision	Temporary tourism facilities such as toilet blocks, drinking water facilities etc. have now been permitted in Beaches including the "No Development Zone" (NDZ) of the CRZ-III areas.
CRZ Clearances were given by the by the Ministry of Environment and Forest.	The powers for clearances with respect to CRZ-II and III have been delegated at the State level.
No Development Zone for CRZ-III areas.	A No Development Zone (NDZ) of 20 meters has been stipulated for all Islands

#### Salient Features of 2018 Notification (Notified in Jan 2019)

- Construction will be permissible in an area beyond the 50 metres from the High Tide Line.
- Within the 50 metre CRZ area of these islands, only the repair and reconstruction of existing dwelling units of local communities will be permitted.
- Beyond the 50-metre limit, the local communities could construct new dwelling units with the permission of the local body.
- However, the CRZ area of these islands has been reduced to 20 metres in the subsequent CRZ notification issued in 2019, allowing more land for construction towards the water body.
- However, it is yet to come into force and till the 2019 notification comes into effect, the 2011 notification will apply.



# ECONOMY

## ABOLITION OF ANTI-DUMPING DUTY ON PURIFIED TEREPHTHALIC ACID (PTA)

*Why government has lifted a duty that polyester makers paid on a chemical?*

### About:

- Finance Minister announced in the recent budget that the government was **abolishing in public interest an anti-dumping duty that was levied on imports of a chemical called Purified Terephthalic Acid (PTA)**.
- Domestic manufacturers of polyester have called the move a huge relief for the industry as the anti-dumping duty made the PTA costlier.
  - This had led to a drop in exports of some of the Indian made polyester products during 2014-16, simultaneously increasing their imports on the other hand.
- Background:** The anti-dumping duty on PTA was imposed after two domestic PTA manufacturers approached the Directorate General of Trade Remedies (DGTR) in 2013 arguing that this dumping of PTA into the Indian market had a "significant" adverse impact on the domestic industry.
  - Following an investigation, DGTR imposed anti-dumping duties on PTA imported from South Korea and Thailand in 2014 and 2015, and from China, Indonesia, Taiwan, Iran and Malaysia in 2015 and 2016.
- Benefits of removing anti-dumping duty:** Easy availability of this critical input at competitive prices would help **unlock "immense" potential in the textile sector** which is also seen as a "significant" employment generator.
- Potential drawbacks of removing anti-dumping duty:** It may reduce the profit margins of domestic PTA producers, including Reliance Industries Ltd (RIL) and Indian Oil Corp. Ltd (IOC).
  - NOTE:** China is a very big player with huge upstream and downstream PTA capacities. Removing anti-dumping duty on PTA may increase our trade deficit with China.

### What are PTA and MEG?

- Purified Terephthalic Acid (PTA)** is a crucial raw material used to make various products, including polyester fabrics. It has certain qualities like weathering resistance, strength and flexibility.
- PTA makes up for around 70-80% of a polyester product** such as polyester staple fibre and spun yarn. Cushions, sofas, sportswear, car seat covers and bed sheets have a certain proportion of polyester in them.

- Mono Ethylene Glycol (MEG)** is another raw material used in the manufacturing of polyester.
  - MEG is currently the subject of another anti-dumping duty investigation initiated by **Directorate General of Trade Remedies (DGTR)** recently.



### DO YOU KNOW?

- Dumping:** It is a process where a company exports a product at a price lower than the price it normally charges in its own home market.
- Anti-dumping duty:** It is a protectionist tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value. It is imposed to protect local businesses and markets.
- In general, the WTO agreement allows governments to act against dumping **where there is genuine injury** to the competing domestic industry.

## DEPOSIT INSURANCE COVER INCREASED TO RS. 5 LAKH

*Union Budget 2020-21 increased Deposit insurance cover from Rs. 1 Lakh to Rs 5 lakh.*

### About:

- With a view to providing a greater measure of protection to depositors in banks the Deposit Insurance and Credit Guarantee Corporation (DICGC) has raised the limit of insurance cover for depositors from the present level of ₹ 1 lakh to ₹ 5 lakh per depositor with effect from February 4, 2020.

### Need for the Move:

- Recent incidents relating to frauds in banks, co-operative banks and deposit-taking non-banking finance companies (NBFCs) raised concerns on safety of depositors' savings.

### Deposit Insurance and Credit Guarantee Corporation (DICGC):

- The DICGC is a **wholly owned subsidiary of RBI**.
- It was established on 15 July 1978 under the Deposit Insurance and Credit Guarantee Corporation Act, 1961 for the purpose of providing insurance of deposits and guaranteeing of credit facilities.
- It provides insurance cover to deposits in all commercial banks including local area banks, payments banks, small finance banks, regional rural banks and co-operative banks.

- Non-deposit taking NBFCs and Primary Cooperative Societies are not covered under DICGC.

### Deposit Insurance:

- The deposit insurance scheme is mandatory for all banks and no bank can voluntarily withdraw from it.
- DICGC covers both principal and interest across all deposits such as savings, fixed deposits, current account, Recurring Deposits and so on.
- **Following deposits are not covered:**
  - ♦ Deposits of foreign governments;
  - ♦ Deposits of Central/State Governments;
  - ♦ Inter-bank deposits;
  - ♦ Deposits of the State Land Development Banks with the State co-operative bank;
- The DICGC was earlier collecting Rs. 1 for every Rs 1,000 insured by it, which may increase due to after revision in insurance cover.
- The premium paid by the insured banks to DICGC is required to be borne by the banks themselves and is not passed on to the depositors.

## REVIEW OF THE OPEN-ENDED PROCUREMENT POLICY

*Recently, the Farmer Union has opposed the proposal regarding review of the open-ended procurement Policy.*

### About:

- Last year, The **Commission for Agricultural Costs and Price (CACP)** recommended to the Central government that **open-ended procurement policy be reviewed**.
- Several farmer bodies in key grain-producing States of Punjab and Haryana has opposed the **move to stop or limit the purchase of wheat and rice at the Minimum Support Price (MSP)**.

### Procurement Policy:

- Under its present policy, the Central government extends price support to the paddy and wheat through the Food Corporation of India (FCI) and the State agencies.
- The procurement policy is open-ended. Under this policy, **whatever wheat and paddy are offered** by farmers, within the stipulated period and conforming to the specifications prescribed by the Centre are purchased at the MSP by the government agencies including the FCI.
- **There are two kinds of Procurement system prevailing in the country:**
  - ♦ **Centralized Procurement System:** Under this system, the procurement of food grains in Central Pool is undertaken

either by FCI directly or State Government agencies procure the food grains and handover the stocks to FCI for storage and subsequent issue. The cost of the food grains procured by State agencies is reimbursed by FCI.

- ♦ **Decentralized Procurement System (DCP):** Under this scheme, the State Government itself undertakes direct purchase of paddy/rice and wheat and also stores and distributes these food grains under NFSA and other welfare schemes. The Central Government undertakes to meet the entire expenditure incurred by the State Governments on the procurement operations as per the approved costing.

### The Objective of Procurement Policy:

- The objective of procurement is to ensure that farmers get remunerative prices and do not have to resort to distress sale.
- It aims at serving the National Food Security Act and other welfare schemes so that subsidized food grains are supplied to the poor and needy.
- It also intends to build buffer-stocks to ensure food grain security.

### Challenges with the Open-Ended Procurement Policy:

- The Commission for Agricultural Costs and Price (CACP) has pointed out that the open-ended procurement policy for rice and wheat has led to:
  - ♦ Mounting food stocks
  - ♦ Adversely affected crop diversification.
  - ♦ Excess stocks are creating **storage problems**.
  - ♦ High financing costs leading to high food subsidy burden.
- **Other reasons include:**
  - ♦ High costs of procurement can lead to **inflation**.
  - ♦ **Large traders benefiting** more than farmers.
  - ♦ **Very few farmers benefit** from procurement policy.

### The Argument Against a Review of the Current Policy:

- Agri-experts believe that the current policy is in the best interests of the country and farmers and any deviation could hurt them.
- **Farmers are managing to survive only because wheat and paddy here are purchased at the MSP.** If this process is stopped or even limited, the situation could worsen for farmers who are already under **financial distress**.
- Most of the crops other than wheat and paddy don't get remunerative price causing huge loss to farmers. Hence, to bring crop diversification, the need is to fix proper remuneration and the assured market.
- Also, the present policy is **necessary for NFSA implementation**.
- **Interstate movement of food grains:** There are few surplus States and production of wheat is limited to a few States. There's an **inter-State movement of food grains — from surplus States to deficit states**.

**Way Forward:**

- Effective implementation of e-NAM and price stabilization fund to unlock market forces, reduce procurement requirement and benefit farmers.
- Implementation of recommendations of **Swaminathan and Shanta Kumar Committee**.

**RBI'S MEASURES TO REDUCE THE COST OF FUNDS FOR BANKS**

*RBI announces unconventional measures like CRR exemption for retail, MSME loans and Long term Repo operations.*

**About:**

- The Reserve Bank of India (RBI) has **exempted banks from maintaining cash reserve ratio (CRR)** for retail loans given to **automobiles, residential housing, and loans to micro, small and medium enterprises (MSMEs)**.
- An amount equivalent to the incremental credit outstanding beginning from the fortnight extending from January 31, 2020 and up to a fortnight extending from July 31, 2020 will be **eligible for deduction from NDTL** (net demand and time liabilities) for the purpose of computing the CRR for a period of five years from the date of origination of the loan or the tenure of the loan, whichever is earlier.
- At present, **CRR is 4% of net demand and time liabilities**. Banks do not earn any interest for maintaining CRR with the RBI.

**What is CRR?**

- **CRR** is a cash reserve ratio under which a certain percentage of the total bank deposits has to be kept in the current account with RBI.
- **NDTL** = Demand and time liabilities (deposits) – deposits with other banks.

**Long Term Repo Operations (LTRO):**

- The RBI has announced its plan conduct long-term repo operations for tenors of one and three years, to inject durable liquidity in the banking system of up to Rs 1 lakh crore, at the prevailing repo rate.
- This new liquidity window will provide banks access to cheaper funding from the RBI for longer tenors and will in turn help bring down interest rates.
- Following this announcement, the yields in the government bonds in these tenors have eased.
- Lower yields on government bonds would also allow for lower yields on corporate credit and help reduce their cost of borrowings.

- However, access to LTRO would depend upon the excess SLR holding for banks and their Liquidity Coverage Ratio levels.

**Repo Rate and SLR**

- **Repo rate** is a rate at which banks borrow from RBI for short periods up to 7 or 14 days but predominantly overnight. RBI manages this repo rate which is the cost of credit for the bank. This becomes a floor below which the short-term interest rates don't go.
- **SLR: Statutory liquidity ratio** is the percentage of the total bank deposits (NDTL) that is invested in certain specified securities predominantly central government and state government securities.

**Benefits of the Moves:**

- **Revitalise the flow of bank credit to productive sectors having multiplier effects** to support growth impulses.
- Reduce interest rate on Loans.
- Better Monetary Policy Transmission.
- Long-term repo operation (LTRO) can **bring down cost of funds for banks, without lowering deposit rates**.
- It enable greater funds available with banks for **corporate bonds which should help the economy**.

**24x7 FOREX MARKET OPERATIONS FOR BANKS**

*Recently, the Reserve Bank of India has allowed banks to offer foreign-currency transactions outside of local market hours.*

**About:**

- The move is in line with recent recommendations of task force under **Usha Thorat**, to reverse the trend of the partially convertible rupee being traded more abroad than in India.
- London has overtaken Mumbai to become the top center for trading the rupee, adding to a sense of urgency among local authorities to deepen the onshore market.

**Importance:**

- This move aimed at **boosting trading volumes at domestic markets**.
- Also, this will also ensure that the offshore prices are more aligned with domestic prices.

**Cons:**

- Analysts say more trading abroad could amplify volatility in the domestic market and reduce the effectiveness of policy actions.



### Task Force on Offshore Rupee Markets

RBI set up a Task Force under Usha Thorat in February, 2019:

#### Key Recommendations:

- To extend onshore market hours to improve access of overseas users;
- To permit Indian banks to freely offer prices to global clients around the clock;
- To enable Rupee derivatives (settled in foreign currency), to be traded in the International Financial Services Centers (IFSC) in India, to begin with on exchanges in the IFSC.
- To allow users to undertake forex transactions up to USD 100 million in OTC currency derivative market without the need to establish underlying exposure.
- Facilitate non-residents to hedge their foreign exchange exposure onshore by:

#### Problems in Offshore Trading:

- Restrictions in participation of non-residents in domestic markets,
- Non-convertibility in the capital account,
- Limited time of operations of domestic exchanges,
- Booming underlying economy,
- The exchange traded currency derivatives (ETCD) market for the rupee is in comparison much smaller, about 10-15% of the forwards market.

#### Impact:

Weakening the onshore rupee as well as huge revenue loss to the economy through the large trading volume migration to other beneficial international markets.

#### Way Forward:

- The policymakers should also continue focusing on internationalising the rupee.
- While the usage of the rupee is quite low in global trades, it can be increased if the sovereign bond issuances overseas take off.
- This can help India find a place in the popular bond indices, thus helping fund flows into the country as well.

### THE MINERAL LAWS (AMENDMENT) BILL, 2020 PASSED

*Recently, Parliament passed The Mineral Laws (Amendment) Bill, 2020 to open up coal mining in the country to non-coal companies while removing restrictions on end-use of the fuel.*

#### About:

- Parliament passed The Mineral Laws (Amendment) Bill, 2020 for amendments in Mines & Mineral (Development and Regulation) Act 1957 and The Coal Mines (Special Provisions) Act, 2015.
- It will amend the current provision in the law that allows only companies in coal mining to bid for coal mines.
- Any company (other than steel and power) meeting the minimum criteria will now be allowed to bid for coal mines in country.

#### Background:

- Of the 204 coal blocks whose allocation was cancelled by the Supreme Court in 2014, only 29 could be auctioned as some of these mines had end-use restrictions - meaning coal produced from them could be used only for the designated captive purpose only and not traded in the market.
- In 2018, the government had allowed commercial mining by private entities but non-coal companies couldn't participate in the auction.
- In August 2019, the government announced 100% foreign direct investment (FDI) under the automatic route in coal mining and lignite mining for captive consumption by steel, power and cement companies.

#### Key Provisions of Bill:

- **Removal of restriction on end-use of coal:** Currently, companies acquiring Schedule II and Schedule III coal mines through auctions can use the coal produced only for specified end-uses such as power generation and steel production. The Amendment bill removes this restriction on the use of coal mined by such companies.
- **Eligibility for auction of coal and lignite blocks:** The Bill clarifies that the companies need not possess any prior coal mining experience in India in order to participate in the auction of coal and lignite blocks.
- **Composite license for prospecting and mining:** Earlier, separate licenses are provided for prospecting and mining of coal and lignite, called prospecting license, and mining lease, respectively. Prospecting includes exploring, locating, or finding mineral deposit. The Bill adds a new type of license, called **prospecting license-cum-mining lease**. This will be a composite license providing for both prospecting and mining activities.
- **Transfer of statutory clearances to new bidders:** Various approvals, licenses, and clearances given to the previous lessee will be extended to the successful bidder for a period of two years. During this period, the new lessee will be allowed to continue mining operations. However, the new lessee must obtain all the required clearances within this two-year period.

- **Advance action for auction:** Under the MMDR Act, mining leases for specified minerals (minerals other than coal, lignite, and atomic minerals) are auctioned on the expiry of the lease period. The Bill provides that state governments can take advance action for auction of a mining lease before its expiry.

### Significance:

- This step will **attract investments and boost domestic coal production**, also it would enable seamless transfer and no production will be lost.
- The opening up of the coal mining sector without any end-use restriction will help not only harness coal reserves in India but also help many leading foreign players establish operations.
- The move will help create an efficient energy market, usher in competition and reduce coal imports, while also ending the monopoly of state-owned Coal India Ltd.
- It will speed up the process of implementation of projects, ease of doing business, democratize the coal sector, simplification of procedure and benefit all the parties in areas where minerals are located.
- It will help India gain access to high-end technology for underground mining used by global miners.
- The coal sector provides employment to over 355,000 people and is a major source of revenue and generates employment in resource-rich states like Jharkhand, Chhattisgarh and Odisha.

### Concerns:

- In India, there is still poor track record of private sector captive miners, due to which the production levels have not been very encouraging as it accounts for only 6-10% of the overall domestic production.
- There will be risk of domination by a handful of large companies, as coal sector is a capital intensive investment and according to industry estimates blocks of 40-50 million tonnes will be viable, which make only large companies able to invest and keep the small companies out of the competition.

### Coal Import in India

- India's coal sector was **Nationalised in 1973** and the country has **world's fourth-largest coal reserves**. India was the **second biggest importer of coal in 2019 with a global share of over 16 percent**, next only to Japan.
- More than 50 percent of India's total primary energy comes from coal. **The plant load factor** at thermal power plants remains **depressed due to the economic slowdown**.
- The coal production is constrained due to many **industrial and regulatory factors**, which raises the import bill and in turn, the **trade deficit**.

- A host of power plants have come up in coastal areas where **imported coal is more competitive than Indian coal due to high transportation costs**.
- In general, most plants blend both low calorific Indian coal and the high calorific imported version to improve productivity. Also, coking coal, one of the most important requirements in manufacturing steel, is not abundantly available in India. So, the entire coal import of India is not substitutable.
- India exports small quantities of coal- 100 million dollars as of 2019, with a 0.1 percent global share. Australia (16 percent) remains the leader, followed by Indonesia (15 percent). **India's coal export prospects look uninspiring due to surging domestic demand, sub-par competitiveness, need for better technology and lack of quality**.
- India has been trying to attract global mining giants and improve competitiveness of the sector. But the government didn't get much success due to **relatively high supply, squeezed sectoral margins, uncertainty in thermal power** etc.

### Way Forward:

- Coal gasification is another area where the government can focus more to **improve productivity, reduce pollution and emissions**. This helps check reduction in calorific value of coal between the extraction stage and the time when it reaches power plants.
- The government should also encourage global mining major for making large investments in other productive sectors like skill development etc.
- With the right technology, coal with high calorific value can be suitably tapped with lesser cost per unit of electricity produced.

### Conclusion:

- Backward integration in the industry is expected to improve reliability and margins for steel and power players.
- The new reforms are expected to improve efficiency and competitiveness by bringing in more capital, transparency, global players and technology.

## FIRST TRANSIT-ORIENTED DEVELOPMENT PROJECT

*The Union Home Minister has laid the foundation stone for the country's first transit-oriented development (TOD) in Delhi.*

### About:

- The project known as **East Delhi Hub project** will include Delhi's tallest tower which will be built in East Delhi three and a half years.

- The project will include a massive open green landscape area, besides a 48-storey signature tower which will be constructed in the first phase of the project. This **signature tower will become Delhi's tallest tower**.
- The project will consist of **mixed-land use**, with 70 per cent of land for residential area, 20 per cent for commercial use and the remaining 10 per cent for the civic amenities.

#### Importance:

- The hub has been designed with a sustainability model and will have the provisions of vertical gardens as well as water-harvesting facilities.
- It will promote the use of public transport over private vehicles, also it will also promote access to amenities within walking distance, thereby decongesting city roads and ensuring a cleaner environment.
- The project will offer "Smart Mobility", "Smart Infrastructure" and "Smart Living".
- Allows decision makers to better understand the linkages between connectivity, accessibility, place quality, and market potential values around a given station.

#### What is Transit-Oriented Development?

Transit-oriented development (TOD) is a planning and design strategy that consists in promoting urban development that is compact, mixed-use, pedestrian- and bicycle-friendly, and closely integrated with mass transit by clustering jobs, housing, services, and amenities around public transport stations.

##### Benefits:

- TOD creates agglomeration effects proven to boost a city's competitiveness.
- Making cities more livable.
- Compact urban development and high-quality public transit also mutually reinforce each other.
- Increasing real estate value.
- Cities can capture a part of these increases in value and use it to finance additional transit improvements, affordable housing, and other initiatives that promote sustainable inclusive growth.
- Enhances access to job opportunities and services for residents at all income levels.
- It makes public transport a more attractive and efficient option, while reducing dependence on private cars and promoting shorter commutes.
- Higher productivity and a smaller carbon footprint.

## NSE KNOWLEDGE HUB

***The National Stock Exchange (NSE) has launched Knowledge Hub, an artificial intelligence-powered learning eco-system.***

#### About:

- The 'NSE Knowledge Hub' has been developed by NSE Academy, a wholly-owned subsidiary of the National Stock Exchange (NSE).
- The NSE Knowledge Hub will curate the content for learners from many internal, external and premium sources for the personalized learning experience.
- It assists the banking, financial, securities and insurance (BFSI) sector in enhancing skills for their employees and helping academic institutions in preparing future-ready talent skilled for the financial services industry.

#### Significance:

- NSE Knowledge Hub brings together the entire ecosystem of learners, content developers, subject matter experts and academicians and learning and development professionals.
- It will **connect Digital India with financial sector**.
- It will bridge the gap on the learning and earning continuum by helping learners in skilling and up-skilling for outcome-based career planning.

#### Artificial Intelligence

- AI is a **constellation of technologies** that enable machines to act with higher levels of intelligence and emulate human capabilities to sense, comprehend, and act. These human capabilities are augmented by the ability to learn from experience and adapt over time.
- In other words, AI enables machines to sense their environment, think, and in some cases learn, to take action in response to the environment and the circumstances underpinning it.

#### How Artificial Intelligence Important for India?

- As the Artificial Intelligence (AI) have huge potential in daily lives, contribute towards ease of doing business, ease of living and to help farmers double their income. It is crime detection, better border control and international trade.
- AI can be used in India for both economic activity and social good.

#### National Stock Exchange (NSE):

- The National Stock Exchange of India Ltd. (NSE) is the **leading stock exchange in India** and the second largest in the world by nos. of trades in equity shares.
- NSE launched electronic screen-based trading in 1994, derivatives trading (in the form of index futures) and internet trading in 2000, which were each the first of its kind in India.

## FIRST URBAN COOPERATIVE TO CONVERT INTO SMALL FINANCE BANK

*Recently, the Reserve Bank of India (RBI) granted in-principle approval to Uttar Pradesh-based Shivalik Mercantile Co-operative Bank Ltd to convert to a Small Finance Bank (SFB), becoming the first Urban Cooperative Bank (UCB).*

### About:

- The scheme on the voluntary transition of Urban Co-operative Bank (UCB) into an SFB was issued in 2018. It was part of the recommendations made by the **High Powered Committee on UCBs led by then deputy governor R Gandhi**.
- These UCBs will also have to comply with the latest guidelines for on-tap licensing of SFBs in the private sector, under which SFBs will have to maintain a minimum net worth of ₹ 100 crore from the date of commencement of business.
- The SFBs are also required to maintain minimum capital adequacy ratio of 15% of its risk weighted assets (RWA) on a continuous basis and increase the minimum paid-up voting equity capital to ₹ 200 crore within five years of the date of commencement of business.
- The 'in-principle' approval implies that the lender now has 18 months to comply with all conditions required to get the final SFB license from the RBI under **Section 22 (1) of the Banking Regulation Act, 1949**.
- Under the scheme, the banks with a minimum net worth of ₹50 crore and capital to risk (weighted) assets ratio of 9% and above are eligible to apply for voluntary transition to SFB.

### Need:

RBI has been encouraging consolidation in the UCB segment because of **poor governance structure, lack of professional managers, weak risk management systems and also lax credit appraisal system**.

### UCBs Conversion into SFBs:

#### Pros:





- After conversion into SFB, it will be able to tap the capital market to raise funds.
- There will be no dual regulation of state government and Reserve Bank of India.

#### Cons:

- Co-operative banks have been wary of converting to SFBs as it would mean **losing the status of a universal bank**, which are supposed to be 'narrow banks'.
- After converting into SFB, the UCBs have to remodel their business plan and do away with a number of products.

- The banks have to increase Priority Sector Lending (comprising loans to agriculture, micro, small and medium enterprises, education, housing, and others) to 70 percent from 40% now. Additionally, 50% of the SFB loan portfolio should constitute loans and advances up to ₹25 lakh.

### SCHEDULED UCBs CAN, BUT SFBs CANNOT

 Open specialised Branches	 Undertake Intraday short selling in government securities
 Undertake foreign exchange businesses	 Provide mobile, internet banking and issue credit cards, among other

### What are Co-operative Banks?

- These banks were born out of the concept of co-operative credit societies where members from a community band together to extend loans to each other, at favourable terms.
- Credit co-operatives (or co-operative banks) are broadly classified into urban or rural co-operative banks based on their region of operation.
- Urban co-op banks are classified into scheduled and non-scheduled banks.
- In the current structure, cooperatives banks are allowed to raise capital only from their customers but have to comply with all other statutory requirements, such as cash reserve ratio (CRR) and statutory liquidity ratio (SLR).

### Difference between Commercial Banks and Urban Co-operative Banks (UCBs):

- Unlike commercial banks, UCBs are only partly regulated by the RBI. While their banking operations are regulated by the RBI, which lays down their capital adequacy, risk control and lending norms, their management and resolution in the case of distress is regulated by the Registrar of Co-operative Societies either under the State or Central government.
- The commercial banks are structured as joint stock companies, while UCBs are structured as co-operatives, with their members carrying unlimited liability.
- In the event UCBs fail, deposits with them are covered by the Deposit Insurance and Credit Guarantee Corporation of India up to a sum of ₹ 5 lakh per depositor (Budget 2020-21), the same as for a commercial bank.

### Small Finance Banks (SFBs):

- These banks are allowed to take deposits of any amount.
- It can lend but the focus will be on small lending.
- It can finance small business units, small and marginal farmers, micro and small industries and unorganized entities.



- It can provide remittances as well as credit cards.
- It is allowed to issue ATM or debit cards.
- SFB has to ensure that 50% of loan portfolio constitutes advances of up to Rs. 25 lakh.
- It can distribute financial products such as mutual funds, insurance and pension.

### Way Forward:

- The commercial banks including the new generation private sector banks have reached out to rural and semi-rural areas.
- The RBI should encourage new banking models to cover the underserved and unbanked areas.

## SUPERVISORY FRAMEWORK FOR UCBs

*Recently, the Reserve Bank of India (RBI) has decided to tighten the Supervisory Action Framework (SAF) for urban co-operative banks (UCBs).*

### About:

- The supervisory action framework seeks an expeditious resolution of UCBs experiencing financial stress.
- A UCB may be placed under supervisory action framework (SAF)
  - when its net NPAs exceed 6 per cent of its net advances or its CRAR falls below 9%,
  - when it incurs losses for two consecutive financial years or has accumulated losses on its balance sheet.
- As soon as this threshold is breached, the regulator may initiate multiple actions depending on severity of stress.

### Action which may be taken by RBI under SAF:

- The RBI may advise the UCB to submit a board-approved action plan for reducing its net NPAs below 6 per cent.
- The RBI can also consider the merger with another UCB.
- Restrict the bank's ability to incur capital expenditure, introduce measures to cut operational and administrative costs.
- Curtailment of sanction or renewal of credit facilities to sectors having high proportion of defaults.
- Put restrictions on declaration or payment of dividend without prior approval.
- The regulator also has option of putting restriction on fresh loans and advances carrying risk-weights more than 100%.
- Cancellation of banking license may be considered by the Reserve bank when continued normal functioning of the UCB is no longer considered to be in the interest of its depositors.

### Other Actions taken by RBI:

- In December 2019, the regulator released final guidelines for setting up a **board of management (BoM) for UCBs**.
- The main functions of the Board of Management (BoM) include recommending action for recovery of NPAs, One Time Settlement and assisting the board in monitoring the same.

### Prompt Corrective Action (PCA)

- PCA is a framework under which banks with weak financial metrics are put under watch by the RBI.
- The PCA framework deems banks as risky if they slip below certain norms on three parameters — capital ratios, asset quality and profitability.

#### Importance:

- PCA is intended to help alert the regulator as well as investors and depositors if a bank is heading for trouble. The idea is to head off problems before they attain crisis proportions.
- Essentially PCA helps RBI monitor key performance indicators of banks, and taking corrective measures, to restore the financial health of a bank.

#### How RBI can initiate action?

- On breach of any of the risk thresholds mentioned above, the RBI can invoke a corrective action plan.
- Depending on the threshold levels, the RBI can place restrictions on dividend distribution, branch expansion, and management compensation.
- Only in an extreme situation, would identify a bank as a likely candidate for resolution through amalgamation, reconstruction or winding up.

### Need:

- The central bank has found major faults in the functioning of cooperative banks like-
  - Major financial violations,
  - Failure of internal controls and systems,
  - Wrongdoing and
  - Under-reporting of its lending exposure.
- The dual control with state governments hampered timely action against weak lenders in this category.

### Significance:

- The SAF, if implemented in a timely manner, may help cooperative banks improve their financial conditions and avert restrictions on basic services like deposit withdrawals that are imposed by the regulator as a last resort.
- This move will help to prevent **PMC Bank-like scams, caused by large exposure to one group**.

**Way Forward:**

- There is also a need for an independent audit system while existing regulations were being reviewed to improve supervision for cooperative banks.

**AGR DUES**

*The apex court directed the telecom companies to make the payments in accordance with its previous order issued on October 24 last year.*

**About:**

- With the court refusing to grant any relief, the telecom companies may have to pay an estimated AGR dues of Rs 1.47 trillion.

**What is Adjusted Gross Revenue (AGR) Issue all about?**

- The telecom sector was liberalised under the National Telecom Policy, 1994 after which licenses were issued to companies in return for a fixed license fee.
- To provide relief from the steep fixed license fee, the government in 1999 gave an option to the licensees to migrate to the revenue sharing fee model.
- Under the revenue sharing model, mobile telephone operators were required to share a percentage of their AGR with the government as annual license fee (LF) and spectrum usage charges (SUC).
- The dispute between DoT and the mobile operators was mainly on the definition of AGR.
- The DoT argued that AGR includes all revenues (before discounts) from both telecom and non-telecom services.
- The companies claimed that AGR should comprise just the revenue accrued from core services and not dividend, interest income or profit on sale of any investment or fixed assets.
- The Supreme Court on October 24, 2019 upheld the definition of AGR as stipulated by the DoT.

**Impact on telcos:**

- The telecom industry is reeling under a debt of over 4 lakh crore and has been seeking a relief package from the government.
- The SC order means that the telcos will have to immediately clear the pending AGR dues, which amount to nearly Rs 1.47 lakh crore.
- Some telcos face the prospect of shutting down business due to the trouble they undergo for not paying the AGR dues on time.

**APIARY ON WHEELS**

*A unique concept of 'Apiary on Wheels', designed by KVIC, was flagged off by the Union Minister of MSME.*

**About:**

- Apiary on wheels is designed by KVIC for easy upkeep and migration of Bee Boxes having live Bee colonies.
- The concept was launched as part of National Honey Mission, 2017.

**Significance:**

- It will make the migration easy, the maintenance easy, easy feeding of bees and it will also help the bees to sustain even in extreme summers.
- It is designed so as to reduce the labour and cost of maintaining and upkeeping Bee Boxes and live bee colonies across India.

**Importance of Bees for the Ecosystem:**

- **Pollinators:** At least 30% of the world's crops and 90% of all plants require cross-pollination to spread and thrive. Their role as pollinators is vital in the growth of tropical forests, savannah woodlands, and temperate deciduous forests.
- **Food source:** Bees produce honey to feed their colonies during the cold winter months. Other than humans, birds, raccoons, opossums, and insects raid beehives for a taste of nutritious honey.
- **Wildlife Habitats:** Bees are known for their elaborate hives, but they also help build homes for millions of other insects and animals.
- **Biodiversity:** As pollinators, bees play a part in every aspect of the ecosystem. If bees disappeared, the animals that depend on these plants for survival would vanish as well.

**BANANA CONTAINER TRAIN**

*First Banana Container Train of India was sent from Tadipatri, Anantpur in Andhra Pradesh to Jawaharlal Nehru Port (JNPT) in Mumbai for export to international markets.*

**About:**

- Agricultural and Processed Food Products Export Development Authority (APEDA) dispatched the first shipment of high quality bananas in refrigerated containers, from Tadipatri, Anantpur in Andhra Pradesh to Jawaharlal Nehru Port (JNPT) in Mumbai for export to international markets.

- The shipment is being sent by "Fruit Train" recently launched by Indian Railways.
- Under Agri Export Policy, Central Government has notified banana clusters in Anantpur and Kadapa districts of Andhra Pradesh.

### APEDA

- The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act, 1985.
- It functions under the Ministry of Commerce and Industry.
- APEDA is mandated with the responsibility of **export promotion and development** of industries relating to scheduled products.
- APEDA has been entrusted with the responsibility to **monitor import of sugar**.

### Agriculture Export Policy:

- **Double agricultural exports** from present USD 30 bn to USD 60 bn by 2022 and reach USD 100 bn in the next few years thereafter, with a stable trade policy regime.
- **Diversify** export basket, destinations and boost high value and value added agricultural exports including focus on perishables.
- **Promote novel, indigenous, organic, ethnic, traditional** and non-traditional Agricultural products exports.
- Provide an institutional mechanism for pursuing market access, tackling barriers and deal with sanitary and phyto-sanitary issues.
- **Double India's share in world agricultural exports** by integrating with global value chain at the earliest.
- **Set up 'Brand India'** to promote exports and establish as strong quality regime for exports, and states will be extensively involved.
- **Attract private investment** into production and processing sector.

### Kisan Rail

- As per of budget 2020-21 announcement, Kisan Rail has been proposed through PPP model for transport of perishable goods.
- In order to preserve perishable goods like milk and their faster transport, a special rail service for farmers has been announced.

## NATIONAL SEED FUNDS NORMS

### *DPIIT working on guidelines for National Seed Fund*

#### About:

- A National Seed Fund was announced in the Budget for 2020-21 to help start-ups and budding entrepreneurs.
- It was one of the major demands of the start-ups during budget formulation.
- The **Department for Promotion of Industry and Internal Trade (DPIIT)** is working on guidelines for the Fund and National Seed Fund Policy.
- Some states and central government departments like Biotechnology Industry Research Assistance Council have their own seed fund scheme but they are small and are not pan-India.
- The department has already held discussions with states, and central government departments that have such schemes in this regard.

#### Benefits of the Fund:

- Most of the start-ups face problem in raising finance or funds in the ideation to the proof of concept stage. The fund proposes to **provide early life funding**, including a seed fund to support ideation and development of early stage start-ups.
- The proposal enables the **transition from idea to product very swiftly**, and hence boost the innovation levels reaching the market.
- Start-up is a category that is in the need of resources and such benefits fortify **more ideas seeing the light of reality**.

#### ESOPs Budget Proposal:

- In order to give a boost to start-up ecosystem, the budget also proposed to ease the burden of taxation on the employees by **deferring the tax payment on ESOPs by five years or till they leave the company or when they sell, whichever is earliest**.
- An employee stock ownership plan (ESOP) is a type of **employee benefit plan** which is intended to **encourage employees to acquire stocks or ownership in the company**. Under these plans, the employer gives certain stocks of the company to the employee for negligible or less costs which remain in the ESOP trust fund, until the options vests and the employee exercises them or the employee leaves/retires from the company or institution.
- They are a **key instrument to attract and retain talent in start-ups**. However, currently, the **allottee of ESOPs has to pay tax twice**—once when ESOPs are converted into company shares (construed as salary income), and when shares are sold off for cash (considered as capital gains).

- Besides the above steps, the budget also proposed to set-up **intellectual property rights digital platform** to guard patents and strengthen business environment.

## KALA KUMBH

*The Ministry of Textiles organised Kala Kumbh exhibition in various parts of the country.*

### About:

- Kala Kumbh a Handicrafts Thematic Exhibition was organised in various parts of the country to promote Geographical Indication (GI) crafts and heritage of India.
- The exhibitions was sponsored by Export Promotion Council for Handicrafts (EPCH).

### Export Promotion Council for Handicrafts (EPCH)

The Export Promotion Council for Handicrafts (EPCH) was established under Companies Act in the year 1986-87 and is a non-profit organisation, with an object to promote, support, protect, maintain and increase the export of handicrafts.

### GI Tags:

- A GI or Geographical Indication is a name or a sign given to certain products that relate to a specific geographical location or origins like a region, town or country.
- Using Geographical Indications may be regarded as a certification that the particular product is produced as per traditional methods, has certain specific qualities, or has a particular reputation because of its geographical origin.
- GI Tag ensures that none other than those registered as authorized users are allowed to use the popular product name. In order to function as a GI, a sign must identify a product as originating in a given place.
- As on August 2019, 178 GI handicraft products were registered from all over India.

## FARM MECHANISATION

*Affordable access to technology at the doorsteps of the farmers is being promoted through SMAM.*

### About:

- The Government of India, Department of Agriculture, Cooperation & Farmers Welfare has introduced Sub Mission of Agricultural Mechanization (SMAM) Scheme during 2014-15.
- The Scheme aims to 'reaching the unreached' by bringing to the small and marginal farmers the benefits of farm mechanisation.

- Promoting 'Custom Hiring Centers',
- Creating hubs for hi-tech and high value farm equipments,
- Creating awareness among stakeholders through demonstration and capacity building activities,
- Ensuring performance testing and certification at designated testing centers located all over the country.

### Technologies Made Available:

- Costly and bigger advance farm machinery** at the door steps of the farmers on rent basis through Custom Hiring Centres (CHC).
- To address air pollution** due to crop burning, a new Central Sector Scheme on '**Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi**' for the period from 2018-19 to 2019-20 has been launched.
- Multi lingual Mobile App "CHC- Farm Machinery"** which helps the farmers for getting rented farm machinery and implements has been launched.

### Constraints in Promotion of Mechanization:

The constraints in promotion of mechanization include

- The varied requirement of equipment for each agro climatic zone,
- The small and fragmented land holding,
- Low investment capacity of the farmers,
- Inadequate irrigation facilities,
- Know how status of the farmers,
- Repairs & maintenance facilities etc.

## INFRASTRUCTURE INVESTMENT TRUSTS

*Union budget proposal provided for tax exemptions for private infrastructure investment trusts (InvITs).*

### About:

- Union budget proposals are set to boost investments in the infrastructure space with tax exemptions for private InvITs, which have emerged as an investment route of choice for large institutional investors.

### What are InvITs?

- An Infrastructure Investment Trust (InvITs) is like a mutual fund, which enables direct investment of small amounts of money from possible individual/institutional investors in infrastructure to earn a small portion of the income as return.
- InvITs work like mutual funds or real estate investment trusts (REITs) in features. InvITs can be treated as the modified version of REITs designed to suit the specific circumstances of the infrastructure sector.



### Need of InvITs:

- InvITs facilitates a steady inflow of private and foreign investments, and thereby augments the capital base available for the growth of infrastructure sector in a sustained manner.
- Given the importance of infrastructure and the paucity of public funds available to stimulate their growth, it is imperative that additional channels of financing are put in place.

### Impact of the Budget Proposal:

- The budget proposal accorded **tax pass through status** to private unlisted InvITs, which were till now available only to publicly listed InvITs.
- **Pass-through taxation** refers to the fact that a pass-through business pays no taxes.
- Pass-through status means that income accruing from such funds is taxed at the investor level and not the fund level.
- The private unlisted InvIT regime was introduced by SEBI in 2019 but did not get the same tax treatment as the listed ones.
- The private InvIT structure with the tax pass through will be more attractive to investors.

## MEASURES TO ATTRACT FOREIGN PORTFOLIO INVESTORS

*Centre woos foreign portfolio investors to help revive growth.*

### About:

- **Abolition of Dividend Distribution Tax (DDT) and letting them claim credit in home jurisdiction:** Foreign funds now won't just pay tax as per rates negotiated under various treaties but can also claim credit in their home jurisdictions on tax outgo in India.
- Withholding tax rate of 5% for FPIs investing in the bond market.
  - ♦ For investments made by FPIs in bond market instruments such as government securities, corporate bonds, municipal bonds, the government has set the withholding tax rate at 5%.
  - ♦ In its absence, the tax would have depended on double taxation avoidance agreement or tax treaties so could go up to 15%. Under the treaty, the tax outgo is capped at 15% for the US.
- **Full tax exemption for sovereign wealth funds** on their interest, dividend and capital gains income for investments in infrastructure and other notified sectors before 31 March 2024 and with a minimum lock-in period of three years.
  - ♦ The notified sectors include roads, highway projects, ports and water supply projects.

- **Increase in investment limit for corporate bonds:** The government also announced its plans to **increase investment limit of foreign portfolio investors (FPI) in corporate bonds** from 9 per cent to 15 per cent.



### DO YOU KNOW?

- **Withholding Tax:** It is a tax levied on income (interest and dividends) from securities owned by a non-resident alien, as well as other income paid to non-residents of a country.
- **Dividend Distribution Tax:** It is a tax levied on dividends that a company pays to its shareholders out of its profits.
- **Sovereign Wealth Fund (SWF):** It is a state-owned investment fund or entity which comprises of pools of money derived from a country's reserves.

## CONTROL CENTER FOR GOODS TRAIN

*The world's second-biggest Operation Control Centre for goods trains began operations in Prayagraj.*

### About:

- The Operation Control Centre will be the 'nerve-centre' of the over 1,800 km-long eastern dedicated freight corridor.
- The control centre will be used as a one stop shop for controlling and monitoring rail systems, including train operations and the power system.
- The Western Freight Corridor will have a similar operation control system at Ahmedabad.

### Eastern Freight Corridor

- The Dedicated Freight Corridor, touted as one of the biggest infrastructure projects in the country, is a 3,360 km stretch consisting of the Eastern and Western corridors.
- The Eastern corridor, which is being funded by the World Bank, will run from Ludhiana in Punjab to Dankuni near Kolkata, traversing Haryana, Uttar Pradesh, Bihar and Jharkhand.

### Benefits of the Freight Corridor:

- The freight corridor will help decongest the existing Indian railway network, while also helping increase the average speed of goods train to 70 kmph, from the existing 25 kmph.
- It will connect the existing ports and industrial areas for faster movement of goods and will help increase the rail share in freight transportation from the existing 30% to 45%.

# 2

# INTERNATIONAL RELATIONS

## BATTLE OF GALLIPOLI

*Turkey's president Recep Tayyip Erdogan criticised India's policy in Jammu and Kashmir, and compared the "struggle" of Kashmiris with the Gallipoli campaign during World War I.*

### About:

- The **Gallipoli campaign**, also known as the **Battle of Çanakkale** or the **Dardanelles campaign**, is considered to be one of the bloodiest of World War I, during which the Ottoman army faced off against the Allied forces (Britain, France, Russia, Italy and the United States).
- In 1915, Winston Churchill devised a plan to take control of the Dardanelles, the strategic strait connecting the Sea of Marmara to the Aegean Sea and the Mediterranean Sea, to reach Constantinople at the mouth of the Bosphorus.
- By taking Constantinople, the Allies hoped to break the Turks, who had entered the war on the side of the Germany.
- **Legacy of the campaign:**
  - ♦ The battle resulted in the emergence of the Mustafa Kemal Atatürk, who helped establish the Republic of Turkey.
  - ♦ The campaign is also seen to have seeded Australian and New Zealand national consciousness.



### About:

- Financial Action Task Force (FATF) is a Paris based, independent, inter-governmental body established in 1989 by the G-7 countries.
- It is a watchdog created for combating money laundering, terrorist financing, human trafficking and other related threats to the integrity of the international financial system.
- The FATF identifies and categorises jurisdictions with deficiencies in strategic Anti Money Laundering or Countering Financing of Terrorism into two lists:
  - ♦ **Black list:**
    - Countries that are supporting terror funding and money laundering activities are placed in this list.
    - These countries are known as Non-Cooperative Countries or Territories (NCCTs).
    - Currently Iran and North Korea are placed under the black list.
  - ♦ **Grey list:**
    - Grey list serves as a warning given to a country that it would be downgraded into the Black list if it fails to take efforts to curb mushrooming of terror funding and money laundering.
    - Pakistan has been placed under the grey list for not meeting its commitments to curb terror financing.

### Impact of being Placed in Black list:

- It would raise the cost of financial transactions for the country and would make it difficult to raise loans from IMF, World Bank etc.
- Overall reduction in international trade due to imposition of economic sanctions.

### Pakistan's Response:

- Lashkar-e-Taiba founder (LeT) and Jamat-ud Dawa (JuD) chief Hafiz Saeed was convicted in terror-financing cases and sentenced to five-and-a-half years in prison.

## USTR TAKES INDIA OFF DEVELOPING COUNTRY LIST

*The office of the United States Trade Representatives (USTR) has updated its list of developing and least-developed countries, removing India from the list of countries that are designated as developing.*

## FATF ON PAKISTAN

*A sub group of terror financing watchdog, FATF, recommended continuation of Pakistan in 'Grey List'.*

**About:**

- In order to confirm US obligations under the WTO Agreement on Subsidies and Countervailing Measures (SCM), countries that have not yet reached the status of a developed country were entitled to special treatment for purposes of countervailing measures.
- This meant that imports from the member countries included in the list by USTR are subject to different thresholds for determining if countervailing subsidies are "de minimis" (too trivial or minor to merit consideration) and whether import volumes are negligible.

**India Out of Developing Countries List:**

- To determine these designations, the USTR relies on data such as World Bank's data on Gross National Income (GNI) and trade data obtained from the Trade Data Monitor. This also contains official data from national statistical bureaus, customs authorities, central banks and other such government agencies.
- Until February 10, 2020, India was on the USTR's list of developing countries, making it eligible for preferential treatment against CVD investigations and de minimis thresholds. It will no longer get this benefit.
- Other countries that were removed from the list include Thailand, Vietnam, Brazil, Indonesia and Malaysia.

**Special 301 Report of USTR**

- The report is prepared annually by the Office of the United States Trade Representative (USTR) that identifies trade barriers to United States companies and products due to the intellectual property laws, such as copyright, patents and trademarks, in other countries.
- USTR has put India in the priority watch list for its alleged IPR violations.

**INDIA-NORWAY**

*India and Norway strengthen partnership on blue economy.*

**About:**

- The India-Norway Task Force on Blue Economy for Sustainable Development was launched recently by the Indian Prime Minister and the Norwegian Prime Minister.
- The two countries also commenced a new collaboration on Integrated Ocean Management & Research.
- As a part of the Joint Initiatives, several projects on combating Marine Litter are already being implemented.

**Blue Economy:**

- According to the World Bank, the blue economy is the "sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem."

**CONFERENCE ON COMBATING DRUG TRAFFICKING**

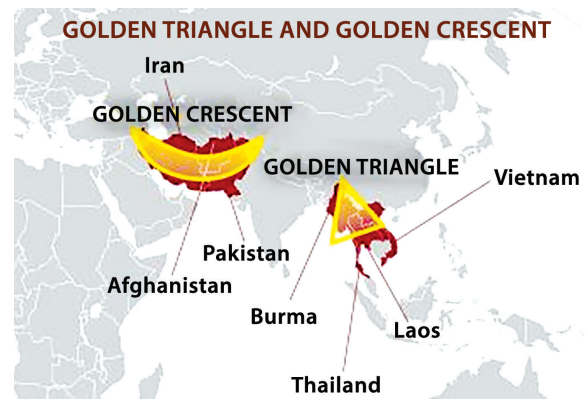
*The BIMSTEC 'Conference on Combating Drug Trafficking' was held in New Delhi.*

**About:**

- The Conference provided an important platform for the Partner Nations to share ideas and exchange best practices required to combat the drug menace in the region

**Problem of Drug Trafficking in BIMSTEC Partner Countries:**

- The geographical proximity to Golden Crescent and Golden Triangle, major opium production regions of the world, puts all the BIMSTEC Partner Nations in a very precarious position.
- India's position is more vulnerable as we are sandwiched between Golden crescent and Golden Triangle.
- Prevalence of large number of **Methamphetamine** manufacturing facilities that are prevalent in some of the BIMSTEC countries which leads to large scale trafficking.



- Methamphetamine is a potent central nervous system stimulant that is mainly used as a recreational drug and less commonly as a second-line treatment for attention deficit hyperactivity disorder (ADHD) and obesity.

**Bay of Bengal Initiative on Multi-Sectoral Technical and Economic Cooperation (BIMSTEC):**

- It is a trans regional grouping involving seven countries in South Asia and South East Asia on the shore or are adjacent to the Bay of Bengal and are dependent on it.

- Members of BIMSTEC are Thailand, Myanmar from South East Asia and Sri Lanka, Bhutan, Bangladesh, Nepal and India from South Asia.
- The organization was formed in 1997, through the **Bangkok declaration** and is headquartered at **Dhaka** in Bangladesh.

## INTERNATIONAL JUDICIAL CONFERENCE 2020

*The Supreme Court of India organized the International Judicial Conference 2020 in New Delhi.*

### About:

- **Theme:** "Judiciary and the changing world"
- The idea of "**Gender Just World**" was introduced at the conference with the:
  - ♦ Aim to make the judicial system accessible to every citizen of the country irrespective of their gender.
  - ♦ Aim to achieve gender equality in areas where women are under represented such as military, mining etc., by granting equal status to women.
- The conference highlighted the need for technology for speedy delivery of justice through mechanisms like:
  - ♦ National Judicial data grid
  - ♦ E-Court Integrated Mission Mode Project
- Other important topics discussed in the conference:
  - ♦ Data protection, protection of Right to Privacy in the age of the internet, fighting the challenges of cybercrimes etc.
  - ♦ Harmonisation of development and environment to achieve sustainable development.

## INDIA-MALDIVES

*Union Home Minister held "extensive deliberations" with his Maldivian counterpart to increase mutual cooperation.*

### About:

- The deliberations, between the two countries, were held to have greater cooperation in the area of security and law-enforcement.

### India-Maldives Relations:

- **Historical:** India and Maldives share ethnic, linguistic, cultural, religious and commercial links since ages.
- **Diplomatic:** India was among the first to recognise Maldives after its independence in 1965 and to establish diplomatic relations with the country.
- **Strategic:** India helped Maldives through **Operation Cactus** in preventing a coup by armed militants in Maldives.

- Except for a brief period between February 2012 and November 2018, relations between the two countries have been close, cordial and multi-dimensional.
- **Expanding cooperation:** There is scope for expansion of bilateral cooperation between the two countries in diverse fields including policing and law enforcement, counter terrorism, counter-radicalisation, organised crime, drug trafficking etc.

## BREXIT

*Brexit Day: Britain bids farewell to the European Union after nearly 50 years.*

### About:

- The United Kingdom stopped being a member of the European Union (EU) after 23:00 GMT on 31 January 2020.

### Background:

- The UK voted in a crucial referendum in 2016 to leave the EU with 52 per cent of the public supporting Brexit.
- The UK will be the first member state to withdraw.

### Components of Brexit Deal:

- Brexit deal includes a customs plan under which, some goods entering Northern Ireland from Great Britain will have to pay EU import taxes.
- **Backstop:** To ensure there would be no border posts or barriers between Northern Ireland and the Republic of Ireland after Brexit.
- **Transition period:** The transition period which is due to last until 31 December 2020 is intended to allow time for the UK and EU to agree their future relationship. During this period, the UK will continue to follow all of the EU's rules and its trading relationship will remain the same.
- The UK is to pay the EU an estimated amount of about **£30bn**.

### European Union

- It is an economic and political union involving 28 European countries that allows free trade between member countries.
- The EU was created by the **Maastricht Treaty**, which entered into force on November 1, 1993.
- It also allows free movement of people, to live and work in whichever country they choose.
- The treaty was designed to enhance European political and economic integration by creating a **single currency (the euro)** a unified foreign and security policy, and common citizenship rights.





# INTERNAL SECURITY

## BIMSTEC DISASTER MANAGEMENT EXERCISE - 2020

*2<sup>nd</sup> BIMSTEC Disaster Management Exercise on flood rescue was held at the Ramachandi Beach, Puri (Odisha).*

### About:

- BIMSTEC DMEx-2020 was held to create **synergy** and **synchronize** efforts to institutionalize regional cooperation among member countries.
- The exercise **stressed upon restoring heritage sites damaged due to disasters**.
- In the backdrop of recent losses suffered in an earthquake in Nepal (2015), damages to Heritage Sites in Gujarat earthquake (2001), the need was felt to protect the Heritage Sites during disasters and build the capacity of NDRF personnel.

### Significance of the Exercise:

- It will help strengthen effective utilization of Search & Rescue Teams for **Disaster Relief & Emergency Response**, including **Emergency Rapid Assessment Teams** and Management of mass casualties, especially in situations involving breakdown of communication and infrastructure.
- Majority of the BIMSTEC countries are situated in **South Asian Region (SAR)** prone to natural disasters such as **foods, cyclones, earthquakes**.

## DEFEXPO 2020

*11<sup>th</sup> edition of DefExpo, a flagship biennial event of the Ministry of Defense was held for the first time in Lucknow.*

### About:

- Defense Expo is an effective platform where India's Defense public sector units, and also India's growing private industry and MSME bring their cutting-edge technological products to be showcased to the World.
- **Theme:** 'India: The Emerging Defense Manufacturing Hub'.
- Focus of DefExpo 2020 was on **"Digital transformation of defense"**.

### Significance of DefExpo:

- It is a platform where defense manufacturing companies from India and abroad showcase their products and services in defense arena.

- It provides Indian defense industry an opportunity to promote its export potential.
- The exhibition will also highlight emergence of **UP** as an **attractive destination** for investment in the defense sector.

### Policy Initiatives for Boosting Defense Production in India:

- **Defense Procurement Procedure (DPP)** has been revised in **2016** wherein specific provisions have been introduced for stimulating growth of the domestic defense industry including private sector.
- A new category of procurement **"Buy Indian-IDDM** (Indigenously Designed, Developed and Manufactured)" has been introduced to promote indigenous design and development.
- **FDI Policy** has been revised and under the revised policy, FDI is allowed under automatic route up to 49% and beyond 49% through Government route.
- An innovation ecosystem for Defense titled **Innovations for Defense Excellence (iDEX)** was launched to create an ecosystem to foster innovation and technology development.
- Under the **"Strategic Partnership (SP)" Model** foreign companies can setup long-term strategic partnerships with Indian entities through a transparent and competitive process.
- For indigenization of components and spares used in Defense Platforms a policy has been notified.
- **Offset guidelines** have been made flexible by allowing change of Indian Offset Partners (IOPs).
- **Defense Products list** requiring Industrial Licenses has been rationalized.

### Way Forward:

- Government announced two Defense Industrial Corridors, in **Uttar Pradesh** and **Tamil Nadu**. It is not clear at this juncture, how the manufacturing ecosystem will evolve.
- There is a need for creating vibrant **American style military-industrial complex**. This would entail greater private participation and create a defense ecosystem involving science and **research institutes**.
- Our Universities need to be scaled-up so that they can contribute meaningful research towards the defense industry.
- Necessary **budgetary allotments** with more allocations for capital expenditure.

## DRDO - BANDHAN

*In DefExpo 2020, the MoU signing ceremony was titled as 'Bandhan'.*

### About:

- During the MoU signing ceremony 'Bandhan', DRDO handed over 15 licenses for Transfer of Technology to 17 industries on DRDO developed technologies.
- The technologies transferred are from the area of electronics, laser technology, armaments, life sciences, materials science, combat vehicles, naval systems, aeronautics, sensors, etc.

### Significance:

- This would enhance cooperation and synergy between industry and Government organizations.
- These high technology products will boost the defense manufacturing sector with self-reliance and enhance the operational capabilities of the Armed Forces.

## EXERCISE AJEYA WARRIOR-2020

*Fifth edition of Joint Military Exercise AJEYA WARRIOR-2020 between India and United Kingdom was conducted at Salisbury Plains, United Kingdom.*

### About:

- Aim:** To conduct company level joint training with emphasis on **counter terrorists operation** in urban and semi-urban areas.
- Training on modern weapon systems, equipment and simulator training was also conducted.
- Exercise AJEYA WARRIOR becomes important exercise in terms of the security challenges faced by both the nations in the realm of changing facets of global terrorism.
- Significance:** The exercise promotes defense cooperation and enhance interoperability.

### Other Joint Exercises between India and UK:

- Navy:** Konkan
- Air Force:** Indradhanush

## HYDROGRAPHIC SURVEY OFFSHORE SRI LANKA

*The Indian Naval Ship (INS) Jamuna has been deployed in the shores of Sri Lanka to carry out a joint Hydrographic survey.*

### About:

- India and Sri Lanka together are to carry out Hydrographic survey and also shore based survey activities for a period of 2 months.
- The ship has been deployed based on a mutual agreement between the two countries to carry out a joint hydrographic survey off the south-west coast of Sri Lanka.
- A Hydrographic survey is a method through which hydrographic data that affect maritime navigation, marine construction, dredging, offshore oil exploration/offshore oil drilling is collected.

### INS Jamuna:

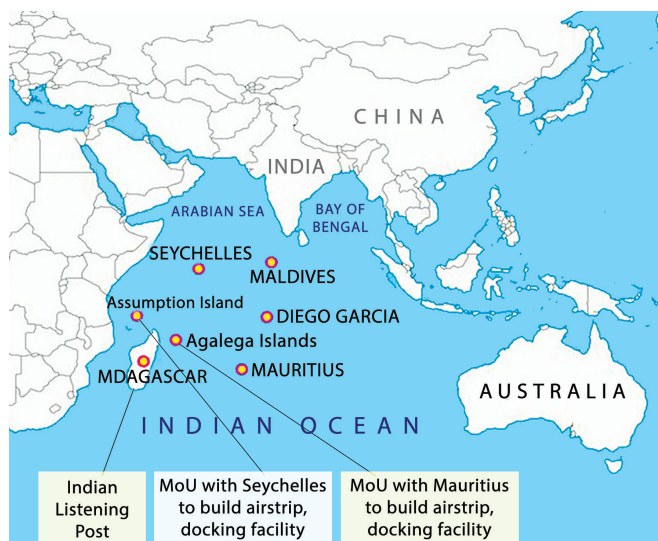
- INS Jamuna (J16) is a hydrographic survey ship under the Southern Naval Command of Indian Navy.
- Built by Goa Shipyard Limited, it is a **Sandhayak-class survey ship**, indigenously designed and constructed.
- Currently 8 Indian Naval Ships are deployed in the hydrographic surveys other than INS Jamuna.

## OPERATION VANILLA

*Indian Navy has launched 'Operation Vanilla' to provide humanitarian assistance and disaster relief at Madagascar.*

### About:

- "Operation Vanilla" was conducted by **INS Airavat** to deliver relief material such as food, clothing, medicines, and water to Madagascar.



- Madagascar was devastated by **Cyclone Diane**, a tropical cyclone which originated North-west off the Mauritius coast in the South-western Indian Ocean.

- This is part of India's policy of "Security and Growth for All in the Region (**SAGAR**)" for the IOR islands.
- It also reflected the growing strategic importance of the Indian Ocean Islands within the framework of the Indo-Pacific concept.

### SAGAR Programme

- SAGAR is a term coined by Prime Minister in 2015 during his Mauritius visit with a focus on blue economy.
- It is a maritime initiative which gives priority to Indian Ocean region for ensuring peace, stability and prosperity of India in Indian Ocean region.
- The goal is to seek a climate of trust and transparency; respect for international maritime rules; sensitivity to each other's interests; peaceful resolution of maritime issues; and increase in maritime cooperation.

### Vanilla Islands:

- Vanilla Islands is a grouping of six island nations in south-west Indian Ocean which joined hands in 2010 to integrate their efforts to boost tourism.
- Mayotte, Comoros, Mauritius, Seychelles, Reunion and Madagascar are its members.

### PENINSULAR COMMAND

*Chief of Defense Staff (CDS) talked about merging the Western and the Eastern Command of the Indian Navy into a single command, to be called the Peninsular Command.*

#### About:

- Keeping in mind the security threats, the CDS has said the security of peninsular India should remain under **one integrated theatre command**.
- A study will look at allocating some assets of the Army and the IAF for deployment under the Peninsular Command.

#### Integrated Theatre Commands:

- An integrated theatre command envisages a unified command of the **three Services**, under a **single commander**, for geographical theatres that are of security concern.
- Theaterisation means putting specific units of personnel from the three services — Army, Navy and Air Force — under a common theatre commander so they fight as a cohesive unit.
- Both the **US and China** follows a theatre command doctrine.
- The integrated theatre commander will not be answerable to individual Services
- **DB Shekatkar committee** recommended the creation of 3 integrated theatre commands — northern for the China

border, western for the Pakistan border and southern for the maritime role.

- There are only **two tri-service** commands – Andaman and Nicobar Command (ANC) and the Strategic Forces Command, which looks after nuclear assets.

### SAMPRITI-IX EXERCISE

*A Joint Military Exercise "SAMPRITI" between India and Bangladesh was held at Umroi, Meghalaya.*

#### About:

- It is an important **bilateral defense cooperation** endeavor between India and Bangladesh and will be the ninth edition of the exercise which is hosted alternately by both countries.



- During SAMPRITI-IX a Command Post Exercise (CPX) and a Field Training Exercise (FTX) will be conducted.
- The troops of both the armies practiced for Counter Terrorist operations.

### MULTI LAYERED AIR DEFENCE SYSTEM

*U.S. Department of State has approved the potential sale of a \$1.867 billion Integrated Air Defense Weapon System (IADWS) to India.*

#### About:

- The Integrated Air Defense Weapon System, also known as the **National Advanced Surface to Air Missile System (NASAMS)**, provides integrated air missile defense.
- NASAMS constitute the 5<sup>th</sup> layer of Air Defence Systems.
- It will be deployed to protect vital assets in the National Capital region of Delhi including President's house, Parliament etc.

### Multi-layered Air Defense System:

- India is developing a multi-layered air defense system for its cities besides air defense system for tactical battle areas.
- The layered approach focuses on developing protection depending on
  - ♦ Origin of the threat (range of missiles)
  - ♦ Capabilities for interception (altitude).

### 1<sup>st</sup> Layer: 2-Tier Ballistic Missile Defense System

- The 1<sup>st</sup> layer comprises of outermost layer of protection aimed at intercepting aerial threat from ballistic missiles that have ranges up to 5000 km (ICBMs)
- DRDO is developing a 2-tier ballistic missile defense system that can intercept ballistic missiles at altitudes both outside (exo) and inside (endo) the atmosphere.
  - ♦ **1<sup>st</sup> layer - Endo:** The single stage, solid rocket propelled Advanced Air Defense interceptor missile (Ashwin) is primarily designed to intercept enemy missiles in the endo-atmosphere at altitudes of 20-40 kilometers.
  - ♦ **2<sup>nd</sup> layer - Exo:** Prithvi Air Defense Vehicle known as Pradyumna Ballistic Missile Interceptor is designed to destroy missiles with ranges 300-2000 km at exo-atmosphere (about 80km altitude).

### 2<sup>nd</sup> Layer - S-400 Defense System:

- S-400 defense system can intercept all types of aerial targets including aircraft, UAVs, ballistic and cruise missiles up to the range of 400km, at an altitude of up to 30km.

### 3<sup>rd</sup> Layer - Barak-8 Long and Medium Range SAM:

- Barak-8 is a medium-range surface-to-air missile system being developed jointly by India and Israel. It will have an interception range of 70-100 km.

### 4<sup>th</sup> Layer - Akash Medium-Range Surface to Air Missile System:

- India has 2 regiments of the indigenous Akash systems which are capable of multi-target engagement. It can strike targets up to a range of 25km and altitude of 18,000m.

### 5<sup>th</sup> Layer - NASAMS:

- It renders quick-reaction 3-dimensional protection at low altitudes of 5 km to various types of aerial threats ranging from drones to ballistic missiles.
- **Components of NASAMS:**
  - ♦ 12 multi-missile launchers to launch both advanced medium-range air-to-air missiles AMRAAMs and Stinger surface-air-missiles
  - ♦ Sentinel X-band 3D radars
  - ♦ 4 Fire Distribution Centers
  - ♦ Advanced electro-optical/infrared sensor system vehicles.

## 2 BILLION KILOMETERS TO SAFETY CAMPAIGN

*UNHCR's new 2 Billion Kilometres to Safety campaign invites the public to step in solidarity with refugees.*

### About:

- UNHCR traced the journeys of refugees around the world and calculated that collectively, people forced to flee travel approximately two billion KM every year to reach the first point of safety. 57% of UNHCR refugees came from three countries- Syria (6.7 mn), Afghanistan (2.7 mn), South Sudan (2.3 mn).
- Turkey, Pakistan, Uganda, Sudan, Germany are the top refugee hosting countries. The campaign will encourage people to support refugees by championing individual acts of solidarity.
- The campaign invites people to act in solidarity and run, walk or cycle to achieve a cumulative total of two billion kilometres.

### The United Nations High Commissioner for Refugees:

- It is a United Nations agency with the mandate to protect refugees, forcibly displaced communities and stateless people, and assist in their voluntary repatriation, local integration or resettlement to a third country.
- UNHCR serves as the 'guardian' of the **1951 Refugee Convention** and its **1967 Protocol**.

## NATIONAL CONSULTATION ON BEIJING +25

*2020 marks 25 years of adoption of Beijing Platform for Action.*

### About:

- Ministry of Women & Child Development (MWCD), The National Commission for Women (NCW) and UN Women organized a National Consultation on the Review of Beijing+25, to galvanize all stakeholders to implement actions that remove the barriers to gender equality.

### Objectives of the Consultation:

- To bring together civil society and the women and youths of India, in a public conversation on the urgent actions needed for the realization of gender equality.
- To assess progress and challenges to the implementation of the Beijing Declaration.
- Prioritise actions required to realize gender equality and the empowerment of women by 2030.

### Beijing Declaration and Platform for Action (1995)

It was adopted during the **Fourth World Conference on Women** held at Beijing in 1995. It is determined to advance the goals of equality, development and peace for all women everywhere in the interest of all humanity.





# POLITY & GOVERNANCE

## BHUVAN PANCHAYAT V 3.0 WEB PORTAL

*Bhuvan Panchayat V 3.0 Web portal launched by the Government.*

### About:

- The Bhuvan Panchayat V 3.0 web Geo portal is an easy to use Geo portal developed for:
  - Database visualization,
  - Data analytics,
  - Generation of automatic reports,
  - Model based products and services
- It will benefit **Public, Panchayati Raj Institutions (PRIs)** and different stakeholders belonging to the **gram panchayats**.
- The launch is part of the advanced Space-based Information Support for Decentralised Planning (SISDP) project.

### SISDP Project by ISRO:

- ISRO launched SISDP project to assist Gram Panchayats at grassroot level with basic planning inputs derived from satellite data for preparing developmental plans, its implementation and monitoring the activities.
- For the first time, thematic database on 1:10,000 scale for the entire country is available with high integrated High Resolution satellite data for planning like:
  - LU/LC (Land use and land cover),
  - Drainage,
  - Settlements,
  - Transportation network.

### Space based Information Support for Decentralised Planning (SISDP)

- Space based Information Support for Decentralised Planning at Panchayat level (SIS-DP) is a national initiative of preparing basic spatial layers useful in planning process at grassroot levels as per 73<sup>rd</sup>, 74<sup>th</sup> constitutional amendment of local self-governance.
- This project is the collaboration of ISRO and Ministry of Panchayat Raj.
- NRSC (National Remote sensing centre) is the lead centre to execute the project in collaboration with various State Remote Sensing Centres.
- The geodatabase, products and services prepared under this project are expected to be **disseminated through Bhuvan geoportal**.

### Bhuvan Portal-Indian Geo-Platform of ISRO

- Bhuvan (Sanskrit for Earth) is a Geoportal of ISRO, allowing host of services covering visualization, free data download, thematic map display and analysis, timely information on disaster and project specific GIS applications.
- The portal was launched in 2009 and is available in English, Hindi, Tamil and Telugu.
- Bhuvan, as a platform, is open and can be used by a diverse user community such as Central and State Governments Departments, Academia and Industry.

## CONSTITUTION (SCHEDULED TRIBES) ORDER (AMENDMENT) BILL, 2019

*Lok Sabha clears Bill to include more tribes in Karnataka in ST category.*

### About:

- The bill seeks to include the **Parivara and the Taliwara** communities in the Scheduled Tribes (ST) category to ensure they get a reservation and other benefits provided by the government.
- The Siddi tribes would also be included in the category.

### Parivara and Taliwara Tribes:

- Parivara and Taliwara are socially, politically, economically and educationally backwards communities.
- They have characteristic features similar to that of the Nayaka tribe which are already included in the list of Scheduled Tribes (ST) of Karnataka.

### Siddi Tribe:

- The Siddi tribes of Karnataka are believed to have descended from the Bantu people of Southeast Africa who were treated as slaves by Portuguese merchants.
- They are predominantly found in the states of western coast of Gujarat, Maharashtra and Karnataka states.
- They are primarily Muslims although some are Hindus and others belong to the Catholic Church.
- They are included in the list of Particularly Vulnerable Tribal Groups (PVTG's).

### Constitutional Provisions Regarding Inclusion in ST Category

- Constitution **does not** define as to who are the persons who belong to scheduled castes and scheduled tribes.
- However, Articles 341 and 342, empower the **President of India** to draw up a list of these castes and tribes.
- Scheduled castes and scheduled tribes are those castes or tribe as the President may by public notification specify.
- **If such a notification is related to a state, then also President will notify the same.** However, it can be done after consultation with the governor of the state.
- Any inclusion or exclusion from the presidential notification of any caste, race, or tribe can be done by **Parliament** by Law.

## MATRIBHASHA DIWAS

*Ministry of Human Resource Development celebrated Matribhasha Diwas on 21<sup>st</sup> February, 2020.*

### About:

- MHRD along with educational institutions and language institutions is celebrating the Matribhasha Diwas for the past three years.
- The theme of the programme is '**Celebrating our Multilingual Heritage**' reflecting the spirit of 'Ek Bharat Shreshth Bharat'.
- This year also the educational institutions organized activities like Elocution, Debating, Singing, Essay writing competitions, painting Competitions, Music and dramatic performances, Exhibitions, Online resources and activities as well as events exploring the cognitive, economic, social and cultural activities of multilingual society, Exhibitions depicting linguistic and diverse wealth of India **in at least two languages and also more.**

### International Mother Language Day (IMLD)

- It is a worldwide annual observance forming a part of UNESCO's calendar of events, held on 21st February to promote awareness of linguistic and cultural diversity and multilingualism.
- It was first announced by UNESCO on 17th November, 1999. It was formally recognized by the United Nations General Assembly (UNGA) in 2008.
- The latter called upon its member states "to promote the preservation and protection of all languages used by people of the world".

### Objectives of Matribhasha Diwas:

- Like IMLD, In India, it was decided to celebrate Matribhasha Diwas on 21<sup>st</sup> February every year, to promote the use of mother tongues and to achieve the following objectives:
  - ♦ Highlight the linguistic diversity of our country;
  - ♦ Encourage usage, not only of the respective mother tongue but other Indian languages as well.
  - ♦ To understand and draw attention to the diversity of cultures in India and the consequent forums of literature, craft, performing arts, scripts and other forms of creative expression.
  - ♦ To encourage the learning of languages other than one's own mother tongue.

## RESTRUCTURING OF MINISTRY OF EXTERNAL AFFAIRS

*The Ministry of External Affairs (MEA) has undertaken a major overhaul of its departments and reporting structure.*

### About:

- The overhaul will effectively empower 7 different Additional Secretaries and reorganise their tasks along themes like culture, trade, development, and consolidated geographical divisions for better coordination.
- Further, **among other changes, following regions have been merged** to be managed by different AS respectively:
  - ♦ All of Europe.
  - ♦ All of Africa and West Asia.
  - ♦ All of the Indian Ocean and Indian Pacific Ocean.

### The Rationale behind the Move:

- The idea is to make the ministry more responsive to the multiplicity of tasks that constitute 21st century diplomacy.
- Furthermore, more senior diplomats will be freed up so that they can serve as strategic interlocutors rather than mere overseers.
- **Burdened by routine:** Secretary-level officials are "overburdened and overworked" with day-to-day duties, and lack much-needed time to strategize.
  - ♦ In the new structure, additional secretaries will be empowered to look at more long-term solutions and give political direction to their assigned portfolios.
- **Leveraging soft power:** With the help of ICCR, the revamp will consolidate the government's push to promote its cultural, heritage, history, tourism objectives and showcase the diaspora.
  - ♦ Further, it will also help in acting **as the government's "soft power" vehicle.**

### Criticism regarding the Restructuring:

- **Strategic goals:** There is less discussion on whether strategic goals have been updated and how the new capabilities mesh with expected outcomes.
- **Need for technical expertise:** Apart from organisational change, inducting outside expertise in areas such as trade and economics, and cultural power and development partnerships is also needed as the contours of these issues are more technical than diplomatic.
- **Over-emphasis of soft-power:** India is focusing on shaping the preferences of others in terms of culture, instead of focusing on other important issues like sharing the technology layer powering Aadhaar, in which many other countries have been showing an interest.

### Conclusion:

There are still many gaps in India's external relations as follows:

- The MEA's staff strength is low.
- It continues to lag in trading negotiations.
- An even larger percentage of Indians remain unaware of their government's worldview.
- The MEA has yet to work out a means to tap the large pool of expertise that resides in the civil society.
- Attracting the best to the diplomatic service requires its own strategy. But the most important issue remains the creation of a sense of strategic thinking that permeates the structure of the foreign ministry, **and in this regard, the restructuring will help.**

### ICCR: Indian Council for Cultural Relations

- The Indian Council for Cultural Relations (ICCR) was founded in 1950 by Maulana Abul Kalam Azad, independent India's first Education Minister.
- **Its objectives are to:**
  - ♦ Actively participate in the formulation and implementation of policies and programmes pertaining to India's external cultural relations;
  - ♦ To foster and strengthen cultural relations and mutual understanding between India and other countries;
  - ♦ To promote cultural exchanges with other countries and people, and to develop relations with nations.

### DIRECT TAX VIVAD SE VISHWAS BILL, 2020

*Lok Sabha has passed the Vivad se Vishwas Bill, 2020 which aims to settle pending direct tax disputes in the country.*

#### About:

- Direct Tax Vivad se Vishwas Bill, 2020 seeks to provide taxpayers a lucrative opportunity to settle direct tax disputes

within the current financial year by waiving interest and penalty on their pending taxes.

- The Bill provides a mechanism for resolution of pending tax disputes related to income tax and corporation tax.
- In essence, the Bill is aimed at resolving direct tax related disputes in a speedy manner.
- Vivad se Vishwas Scheme, is for direct tax related disputes, exactly what Sabka Vishwas did for indirect tax related disputes.

#### Key Provisions:

- **Objective:** The Bill provides a mechanism for resolution of pending tax disputes related to direct taxes (Income Tax and Corporate Tax) in simple and speedy manner.
- **Reduce Litigation:** According to the Finance Ministry, at present there are 4.83 lakh pending direct tax cases worth Rs.9 lakh crore in the courts. Through this scheme, the government wants to recover this money in a swift and simple way.
- **Addressing Revenue Shortfall:** The government is witnessing a big shortfall in revenues, especially tax revenues, hence, increasing revenues in one of the priorities of the **government**.
  - ♦ Direct Tax collections have been lower than their budget targets due to the overall economic slowdown and a cut in the corporate tax rate in September, 2019.
- **Mechanism:** In case of payment of tax, a taxpayer would be required to pay only the amount of the disputed taxes and will get complete waiver of interest, penalty and prosecution provided he/she pays by March 31, 2020.
  - ♦ But, if the tax arrears relate to disputed interest or penalty only, then 25% of disputed penalty or interest will have to be paid.
  - ♦ Those who avail this scheme after March 31, 2020 will have to pay some additional amount.
- However, the scheme will remain open till June 30, 2020.
- **Immunity to Appellant:** Once a dispute is resolved, the designated authority cannot levy interest or penalty in relation to that dispute.
- Further, no appellate forum can make a decision in relation to the matter of dispute once it is resolved.
- **Revival of Disputes:** However, if an appellant provides false information or violates the Income Tax Act, 1961, then case of dispute can be revived.

#### Criticism by the Opposition, and the Government's Response:

- **Criticism:**
  - ♦ Opposition criticised the Bill first for the use of Hindi words in its name, arguing that this was government's way to impose Hindi on the non-Hindi speakers,

- ♦ And also argued that the Bill treats honest and dishonest people equally.
- **Government's response:**
  - ♦ The official name of the Bill is Direct Tax Vivad Se Vishwas Bill. However, in her Budget speech, the Finance Minister had mentioned the English name of the scheme — No Dispute, But Only Trust.
  - ♦ The finance minister said that the name has nothing to do with imposing Hindi.

### Conclusion: Rational behind the Scheme:

- According to reports, over Rs 9 lakh crore worth of direct tax disputes are pending in the courts.
- Therefore, the government hopes to recover a big chunk of this in a swift and simple way, while offering the taxpayers the relief of not having to fight the case endlessly.
- Given a big shortfall in revenues, especially tax revenues, the scheme makes a lot of sense.

## UNION CABINET APPROVES FORMATION OF 22<sup>ND</sup> LAW COMMISSION

*The Union Cabinet has approved Twenty-second Law Commission of India for a period of three years.*

### About:

- The 22<sup>nd</sup> Law Commission will be constituted for a period of three years from the date of publication of its Order in the Official Gazette.

### Law Commission of India

- The Law Commission of India is a **non-statutory body** constituted by the Government of India from time to time. (i.e. neither constitutional nor statutory body)
- The Commission was originally constituted in **1955** and is re-constituted every three years.
- The tenure of twenty-first Law Commission of India was upto 31<sup>st</sup> August, 2018.
- The Law Commission has so far submitted 277 reports.
- The Commission submits reports to the government on various matters of a legal nature. The reports **are not binding** on the government, which can either reject or accept them.
- The various Law Commissions have been able to make important contribution towards the progressive development and codification of Law of the country.
- **Composition:** It will consist of:
  - ♦ A full-time Chairperson;
  - ♦ Four full-time Members (including Member-Secretary)

- ♦ Secretary, Department of Legal Affairs as ex-officio Member;
- ♦ Secretary, Legislative Department as ex officio Member; and
- ♦ Not more than five part-time Members.

### Benefits of Law Commission:

- The Government will have the **benefit of recommendations from a specialised body** on different aspects of law which are entrusted to the Commission for its study and recommendations, as per its terms of reference.
- The Law Commission shall, on a reference made to it by the Central Government or suo-motu, undertake **research in law and review of existing laws in India** for making reforms therein and enacting new legislations.
- It shall also undertake studies and research for bringing **reforms in the justice delivery systems** for elimination of delay in procedures, speedy disposal of cases, reduction in cost of litigation etc.

### Terms of Reference of the Law Commission of India:

- Identify laws which are no longer needed or relevant and can be immediately repealed;
- Examine the existing laws in the light of Directive Principles of State Policy and suggest ways of improvement and reform.
- Consider and convey to the Government its views on any subject relating to **law and judicial administration** that may be specifically referred to it by the Government through Ministry of Law and Justice (Department of Legal Affairs);
- Consider the requests for providing research to any foreign countries as may be referred to it by the Government through Ministry of Law and Justice (Department of Legal Affairs);
- Take all such measures as may be necessary to harness law and the legal process in the service of the poor;
- Revise the Central Acts of general importance so as to simplify them and remove anomalies, ambiguities and inequities.

## EASE OF LIVING INDEX AND MUNICIPAL PERFORMANCE INDEX

*Ministry of Housing & Urban Affairs launched Ease of Living Index and Municipal Performance Index 2019.*

### About:

- The Ministry of Housing and Urban Affairs unveiled the Ease of Living Index (EoLI) 2019 and the Municipal Performance Index to help assess the progress made in cities and empower them to use evidence to plan, implement and monitor their development.



- Both these indices are designed to assess quality of life of citizens in 100 Smart Cities and 14 other Million Plus Cities.

### Municipal Performance Index 2019:

- It seek to assess the performance of municipalities based on five enablers namely Service, Finance, Planning, Technology and Governance which have been further divided into 20 sectors which will be evaluated across 100 indicators.
- This will help Municipalities in better planning and management, filling the gaps in city administration, and improving the liveability of cities for its citizens.

### Ease of Living Index:

- Ease of Living Index is aimed at providing a holistic view of Indian cities - beginning from the services provided by local bodies, the effectiveness of the administration, the outcomes generated through these services in terms of the liveability within cities and, finally, the **citizen perception** of these outcomes.
- The key objectives of the Ease of Living Index are four-folds**
  - Generate information to guide evidence-based policy making.
  - Catalyse action to achieve broader developmental outcomes including the SDG.
  - Assess and compare the outcomes achieved from various urban policies and schemes.
  - Obtain the perception of citizens about their view of the services provided by the city administration.
- EoLI 2019 will facilitate the assessment of ease of living of citizens across three pillars:**
  - Quality of Life
  - Economic Ability
  - Sustainability
- For the first time, as part of the Ease of Living Index Assessment, a **Citizen Perception Survey** is being conducted on behalf of the Ministry (which carries 30% of the marks of the Ease of Living Index).
- This survey is being administered both online and offline.

### EMPOWERED 'TECHNOLOGY GROUP'

*The Union Cabinet has approved the setting up of an empowered technology group to help address issues such as "sub-optimal industrial development".*

#### About:

- Cabinet has approved constitution of a 12-Member 'Technology Group' with the 'Principal Scientific Adviser' to Government of India as its Chair.

### Mandate of 'Technology Group':

- Mapping of technology and technology products,
- Commercialisation of dual use technologies developed in national laboratories and government R&D organisations,
- Developing an indigenisation road map for selected key technologies
- Selection of appropriate R&D programmes
- Render the best possible advice on latest technologies.
- Develop in-house expertise in aspects of policy and use of emerging technologies
- Ensure sustainability of public sector technology developed/ being developed at PSUs, national labs and research organisations.

### Need for the 'Technology Group'/Issues Faced by Technology Sector

- Silo-centric approaches to development of technology
- Technology standards either not developed or applied, leading to sub-optimal industrial development
- Dual use technologies not being optimally commercialised
- R&D programs not aligned to efforts at technology development
- Need for mapping of technologies important for applications in society and industry.

### Three Pillars of the Work of 'Technology Group'

- The three pillars of the work of the Technology Group include:
  - Policy Support;
  - Procurement Support; and
  - Support on Research and Development proposals.

### RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN

*The HRD Ministry has approached the Prime Minister's Office (PMO) to flag alleged corruption by an ex-joint secretary and a professor of the Tata Institute of Social Sciences (TISS) in the implementation of the Rashtriya Uchchatar Shiksha Abhiyan (RUSA), a central higher education scheme for states.*

#### About:

- According to sources, an audit by TISS found serious irregularities in expenditure of over Rs 2 crore where advances were periodically drawn for various purposes, including organising conferences and seminars within the country and abroad, to meet project expenditure.
- The audit found that the advances withdrawn and bills submitted to the ministry also did not tally with each other, hinting to alleged collusion.

**RUSA:**

- Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is a Centrally Sponsored Scheme (CSS), launched in 2013 aims at providing strategic funding to eligible state higher educational institutions.
- **Components:**
  - ♦ RUSA would create new universities through upgradation of existing autonomous colleges and conversion of colleges in a cluster.
  - ♦ It would create new model degree colleges, new professional colleges and provide infrastructural support to universities and colleges.
  - ♦ Faculty recruitment support, faculty improvements programmes and leadership development of educational administrators are also an important part of the scheme.
  - ♦ In order to enhance skill development the existing central scheme of Polytechnics has been subsumed within RUSA.
  - ♦ A separate component to synergise vocational education with higher education has also been included in RUSA.
  - ♦ Besides these, RUSA also supports reforming, restructuring and building capacity of institutions in participating state.

**Implication of the Finding of the Alleged Corruption Regarding Implementation of RUSA:**

- The alleged corruption undermines the Centre's efforts to streamline functioning of higher educational institutions in states, as RUSA aims to improve the quality of such institutions by ensuring conformity to prescribed norms and standards.

**ANTICIPATORY BAIL**

*Recently, a constitutional bench of SC ruled that the protection of anticipatory or pre-arrest bail cannot be limited to any time frame or "fixed period".*

**About:**

- Supreme Court held that the discretionary power of the court to grant anticipatory bail cannot be curtailed, and the protection could continue **till the end of the trial**.

**Anticipatory Bail**

- **Section 438 (anticipatory bail)** of the Code of Criminal Procedure deals with grant of bail to person apprehending arrest.
- A person who discerns that he may be arrested by the police for a non-bailable offence, can file an application for anticipatory bail.
- A bail under Section 438 is a bail before arrest and a person cannot be arrested by the police if the anticipatory bail has been granted by the court.

**Rationale Behind the Judgment:**

- According to the SC, denial of anticipatory bail amounts to deprivation of the fundamental right to personal liberty in a free and democratic country.
- History of our Republic and the freedom movement show how the likelihood of arbitrary arrest and indefinite detention and the lack of safeguards played an important role in rallying the people to demand independence.
- Whereby, the spectre of arbitrary and heavy-handed arrests: too often, to harass and humiliate citizens, and oftentimes, at the interest of powerful individuals (and not to further any meaningful investigation into offences) led to the enactment of Section 438.

**Bail**

- Denotes the provisional release of an accused in a criminal matter in which the court is yet to announce a judgment.
- The expression 'bail' means a security deposited to appear before the court for release.
- The primary objective of arrest is to ensure that the accused in a criminal case appears before the court for the conveyance of justice. However, if the person's presence can be guaranteed for the court trial without putting the person in a jail, it would be unfair and unjust to violate a person's liberty. Thus, bail can be granted as a conditional liberty to the accused.

- However, it is open for a court to impose appropriate conditions for grant of anticipatory bail if the specific facts or the features of the offence involved demand it.

**Types of Bail in India**

There are commonly 3 types of bail in India which a person can apply depending upon the stage of the criminal matter:

- **Regular Bail:** A regular bail can be granted to a person who has already been arrested and kept in police custody. A person can file a bail application for regular bail under Section 437 and 439 of the CrPC.
- **Interim Bail:** Interim bail is a bail granted for a short period of time. Interim bail is granted to an accused before the hearing for the grant of regular bail or anticipatory bail.
- **Anticipatory Bail:** A person who discerns that he may be arrested by the police for a non-bailable offence, can file an application for anticipatory bail. It is like an advance bail obtained under Section 438 of the CrPC. A bail under Section 438 is a bail before arrest and a person cannot be arrested by the police if the anticipatory bail has been granted by the court.

## CENTRAL ADMINISTRATIVE TRIBUNAL (CAT)

*The annual All India Conference of the Central Administrative Tribunal was held at Vigyan Bhawan, New Delhi on 16th February 2020.*

### About:

- The Central Administrative Tribunal was established in 1985 by an Act of Parliament namely Administrative Tribunals Act, 1985 as sequel to the 42<sup>nd</sup> amendment of the Constitution of India inserting Article 323A.
- **Jurisdiction:** It adjudicating disputes and complaints with respect to Recruitment and Conditions of Service of the persons appointed to the Public Services and Posts in connection with the affairs of the **Union** or other authorities under the control of the Government of India.
- Apart from above, the Tribunal also has the jurisdiction on the employees of Public Sector Undertakings/ Organizations notified by the Government.
- Members of the defence forces, officers, Supreme Court staff, the Parliament's secretarial staff are not covered under the CAT.
- **Benches:** There are 17 Benches and 21 Circuit Benches in the Central Administrative Tribunal all over India.
- It enjoys the status and power of the High Court.
- In disposing of cases, it follows the principles and norms of natural justice.
- Appeals against its orders lie only with the Supreme Court of India.

### Issues Discussed Relating to the Functioning of the Tribunal:

- There is a need for in house judicial impact assessment by CAT.
- **Training:** Judicial learning is also very important since the law is in the realm of ambiguity.
- **Transparency:** with the help of the IT Department and use of artificial intelligence in the functioning of the Tribunal, transparency may be promoted.
- Work in the direction of commitment towards 'maximum governance, minimum government', and the principle of "perform, reform, and transform."
- Necessity of the Benches at Jammu & Kashmir and Ladakh.
- **There is also need to improve the**
  - ♦ Quality of adjudication and rate of disposal,
  - ♦ Service condition of Members and
  - ♦ Infrastructural aspect of the Tribunal's Benches (i.e shortage of members).

### Way Ahead:

- CAT must be equipped with the proper knowledge, attitude and approach, to live up to the expectations of the litigant public.

## NATIONAL COMMISSION FOR SCHEDULED TRIBES (NCST)

*16<sup>th</sup> Foundation of Day of National Commission for Scheduled Tribes (NCST)" organised by National Commission for Scheduled Tribes (NCST).*

### About:

- National Commission for Scheduled Tribes (NCST) was set up with effect from 2004 by amending Article 338 and by inserting a new article 338A in the Constitution through the Constitution (89th Amendment Act, 2003).
- It inter-alia enjoins upon the Commission to oversee the implementation of various safeguards provided to Scheduled Tribes under the Constitution or under any other law for time being in force or under any other order to the Govt. and to evaluate the working of such safeguards.
- **Composition:** The Commission comprise a Chairperson, a Vice Chairperson and three full time members (including one lady member).
- **Tenure:** The term of office Chairperson, Vice Chairperson and Members of NCST is three years from the date of assumption of charge.
- The Chairperson has been given the rank of Union Cabinet Ministries, the Vice Chairperson have the rank of a Minister of State and other Members have the rank of a Secretary to the Government of India.

### Duties and Functions of NCST:

Constitution of India under **Clause (5) of Article 338A** has assigned the following duties and functions to the Commission:

- To **investigate and monitor all matters relating to the safeguards** provided for the Schedule Tribes under the Constitution or under any other law for the time being in force or under any order of the Government and to evaluate the working of such safeguards.
- To **inquire into specific complaints** with respect to the deprivation of rights and safeguards of the Scheduled Tribes.
- To participate and advice in the **planning process of socio-economic development** of the Scheduled Tribes and to evaluate the progress of their development under the Union and any State.
- To present to the President, annually and at such other times as the Commission may deem fit, **report** upon the working of those safeguards.

- To make in such reports, recommendations as to the **measures** that should be taken by the Union or any State for **effective implementation of those safeguards** and other measures for the protection, welfare and socio-economic development of the Scheduled Tribes.
- To **discharge such other function** in relation to the protection, welfare and development and advancement of the Scheduled Tribes as the President may subject to the provisions of any law made by Parliament by rule specify.

## FINANCIAL CRUNCH IN MGNREGA

*The Centre Government faces funds crunch for Gandhi National Rural Employment Guarantee Act (MGNREGA).*

### About:

- The biggest employment generating programme, MGNREGA scheme has received a serious setback due to financial crunch.
- By the end January 2020, More than 96% of the allocated money has already been spent or is needed to pay pending dues, with less than ₹2,500 crores left to sustain the scheme for the next two months.
- A number of economists have recommended that putting money into the hands of rural consumers via MGNREGA is key to kick-starting the economy.
- However, this year's budget allocation was ₹ 60,000 crore, lower than the amount spent in the previous year.
- As a matter of fact, the situation on the ground may be worse as States do not always enter pending payments into the information system.
- States are running out of funds for the MGNREGA scheme, as centre is yet to release funds for the pending dues.
- For example, in Rajasthan, worker's wages have not been paid since the end of the October, 2019.

### Concerns in MGNREGA:

- Lack of Interest due to Low wage rate
- **Insufficient budget allocation:** The funds have dried up in many states due to lack of sanctions from the Central government which hampers the work in peak season.
- **Regular payment delays:** Despite the order of the Supreme Court and initiatives and GO (Government Order) by the Union Ministry of Finance, no provision has yet been worked out in the MIS for calculation of full wage delays and payment of compensation for the same.
- **Corruption and Irregularities:** The scheme is marred by the corrupt practices like the actual funds that reach the beneficiaries are very little compared to the funds allocated for the welfare schemes.

### Key Facts about MNREGA

- **The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**, also known as Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS) is Indian legislation enacted on August 25, 2005.
- The MGNREGA provides a **legal guarantee for one hundred days** of employment in every financial year to adult members of any **rural** household willing to do public work-related **unskilled manual work** at the statutory minimum wage.
- **The Ministry of Rural Development (MRD)**, Govt of India is monitoring the entire implementation of this scheme in association with state governments.
- Within 15 days of submitting the application or from the day work is demanded, wage employment will be provided to the applicant.
- Right to get **unemployment allowance** in case employment is not provided within fifteen days of submitting the application or from the date when work is sought.
- Receipt of wages within fifteen days of work done.
- Variety of permissible works which can be taken up by the Gram Panchayaths.
- MGNREGA focuses on the economic and social empowerment of women.
- MGNREGA provides "Green" and "Decent" work.
- Social Audit of MGNREGA works is mandatory, which lends to accountability and transparency.
- MGNREGA works address the climate change vulnerability and protect the farmers from such risks and conserve natural resources.
- The Gram Sabha is the principal forum for wage seekers to raise their voices and make demands. It is the Gram Sabha and the Gram Panchayat which approves the shelf of works under MGNREGA and fix their priority.
- **Funding:** Funding is shared between the centre and the states. The central government bears 100% of the cost of unskilled labour, 75% of the cost of semi-skilled and skilled labour, 75% of the cost of materials and 6% of the administrative costs.
- **Discrimination:** The cases of discrimination against the women and people from the backwards groups are reported from several regions of the country.
- **Non-payment of unemployment allowance:** There are a huge number of unemployment allowances being shown in the Management Information System (MIS) currently.
- **Inadequate awareness:** There is a lack of awareness among the public for this scheme and the government needs to work for more awareness and rights of the people especially women.



- **Poor infrastructure building:** The issue of poor quality of assets.

### Way Ahead:

- **Social auditing:** Social audits of the scheme are carried out as per rules and there is an effective implementation of the provisions of the delay compensation system. Under the scheme's compensation clause, agencies responsible for the delay are expected to pay 0.05% of wages per day after closure of muster roll.
- **Participation of women:** The participation of women must be increased through raising awareness about MGNREGA.
- **Utilisation of funds:** The Department of Rural Development should analyse reasons for poor utilisation of funds and take steps to improve the same. In addition, it should initiate action against officers found guilty of misappropriating funds under MGNREGA.
- **Regular monitoring:** The frequency of monitoring by National Level Monitors (NLMs) should increase and appropriate measures should be taken by states based on their recommendations. The National Level Monitors (NLMs) are deployed by the Ministry of Rural Development for regular and special monitoring of MGNREGA and to enquire into complaints regarding mis-utilisation of funds, etc.
- **Training of functionaries:** Training and capacity building of elected representatives and other functionaries of PRIs must be done regularly as it will facilitate their involvement in the implementation of MGNREGA.

## MEDICAL EQUIPMENT NOTIFIED AS 'DRUGS'

*From April 1 2020, all medical devices would be treated as drugs and would be regulated under the Drugs and Cosmetics Act of 1940.*

### About:

- The Ministry of Health and Family welfare has notified that medical equipment would qualify as 'drugs' under Section 3 of the Drugs and Cosmetics Act, 1940 from 1<sup>st</sup> April, 2020.
- Ministry has also released the Medical Devices Amendment Rules, 2020, for **mandatory registration of medical devices**.
- The aim is to regulate all medical devices so that they meet certain standards of quality.
- Besides it will also make medical device companies accountable for quality and safety of their products.
- Once notified, the manufacture, import and sale of all medical devices will need to be certified by the **Central Drugs Standard Control Organisation (CDSCO)**.

- The CDSCO will also be the nodal authority to investigate complaints related to the quality and safety aspects of medical devices and can suspend the registration or cancel licences of firms.

### Devices Covered:

- All devices, including instruments, apparatus, appliances and implants, whether used alone or in combination for various purposes like diagnosis, prevention, monitoring, treatment, alleviation of any disease, investigation, replacement or modification or support of the anatomy among others, will be regulated under the legislation.
- At present, only 23 categories medical devices are regulated under the law.

### Drugs Technical Advisory Board (DTAB)

- Drugs Technical Advisory Board (DTAB) is the highest statutory decision-making body on technical matters related to drugs in the country.
- It is constituted as per the Drugs and Cosmetics Act, 1940.
- It is part of the Central Drugs Standard Control Organization (CDSCO) in the Ministry of Health and Family Welfare.

### Central Drugs Standard Control Organisation (CDSCO)

- The Central Drugs Standard Control Organization (CDSCO) is the Central Drug Authority for discharging functions assigned to the Central Government under the Drugs and Cosmetics Act.
- CDSCO has six zonal offices, four sub-zonal offices, 13 port offices and seven laboratories under its control.
- **Major functions of CDSCO:**
  - ♦ Regulatory control over the import of drugs,
  - ♦ Approval of new drugs and clinical trials,
  - ♦ Meetings of Drugs Consultative Committee (DCC) and Drugs Technical Advisory Board (DTAB),
  - ♦ Approval of certain licenses as Central License Approving Authority.

## Medical Devices Amendment Rules, 2020, for Mandatory Registration of Medical Devices:

- The medical devices referred shall be registered with the **central licensing authority** via an online portal established by the CDSCO for the purpose.
- The manufacturer of a medical device or any person who imports any medical device will have to upload the information related to that medical device for registration on the "Online System for Medical Devices" established by the CDSCO for this purpose.

- Further, the notification also provides timelines for medical devices that will be notified under the Act with effect from April 1 — 30 months for low and moderate risk devices (Classes A and B), 40 months for moderately high and high risk devices (Classes C and D).
- Upon the expiry of these time periods, all provisions of the Medical Devices Rules 2017 will apply to the respective devices.

### Way Ahead:

- The need of the hour are comprehensive reforms to strengthen the regulatory mechanism in relation to patients' safety.
- These may include guidelines for the approval of devices including clinical investigation requirements, oversight of marketing and promotion, putting in place a robust and functioning system of adverse event reporting accessible to the public, rules for voluntary and statutory recalls, and patient compensation scheme.

## MAJOR PORTS AUTHORITY BILL, 2020

*Major Port Authorities Bill 2020 is introduced in the Lok Sabha by the Ministry of shipping.*

### About:

- The Cabinet had given its nod to Major Ports Authority Bill that will **replace the Major Port Trusts Act, 1963** governing country's 12 major ports.
- It seeks to provide autonomy to India's major ports and improve their efficiency and competitiveness.
- The Bill seeks to provide for regulation, operation and planning of Major Ports in India and to vest the administration, control and management of such ports upon the Boards of Major Port Authorities.
- This will empower the Major Ports to perform with greater efficiency on account of full autonomy in decision making and by modernizing the institutional framework of Major Ports.
- **The 12 major ports are:**
  - ◆ Deendayal (erstwhile Kandla),
  - ◆ Mumbai, JNPT,
  - ◆ Marmugao,
  - ◆ New Mangalore,
  - ◆ Cochin,
  - ◆ Chennai,
  - ◆ Kamarajar (earlier Ennore),
  - ◆ V O Chidambarnar,
  - ◆ Visakhapatnam,
  - ◆ Paradip and
  - ◆ Kolkata (including Haldia).



### Rationale Behind the New Law:

- The existing law has no provision to deal with the disputes with private companies and PPP operators.
- Further, major port sector has not seen the required level of fixed assets creation to pare the country's high logistic costs owing to legacy issues including the TAMP's archaic regulatory grip.
- Also, one reason why investment in port services via the PPP route has not been very remunerative for the private investors is the high revenue share — close to 40 per cent in some cases — that port trusts pocket.
- Therefore, the Major Ports Authority Bill, 2020 has been proposed to address the above issues, and increase the overall efficiency of the Major Ports of India.

### Key Provisions of Major Port Authorities Bill 2020:

- **Compact:** The Bill is more compact in comparison to the Major Port Trusts Act, 1963 as the number of sections has been reduced to 76 from 134 by eliminating overlapping and obsolete Sections.
- **Simplified composition of Board:** The new Bill has proposed a simplified composition of the Board of Port Authority which will comprise of **11 to 13 Members** from the present 17 to 19 Members representing various interests.
- A compact Board with professional independent Members will strengthen decision making and strategic planning.
- The role of Tariff Authority for Major Ports (TAMP) has been redefined. **Port Authority has now been given powers to fix tariff** which will act as a reference tariff for purposes of bidding for PPP projects.

- PPP operators will be free to fix tariff based on market conditions. The Board of Port Authority has been delegated the power to fix the scale of rates for other port services and assets including land.
- **An Adjudicatory Board** has been proposed to be created to carry out the residual function of the erstwhile TAMP for Major Ports, to **look into disputes between ports and PPP concessionaires**, to review stressed PPP projects and suggest measures to review stressed PPP projects and suggest measures to revive such projects and to look into complaints regarding services rendered by the ports/ private operators operating within the ports would be constituted.
- The Boards of Port Authority have been delegated full powers to enter into contracts, planning and development, fixing of tariff except in national interest, security and emergency arising out of inaction and default. In the present MPT Act, 1963 prior approval of the Central Government was required in 22 instances.
- The Board of each Major Port shall be entitled to create **specific master plan** in respect of any development or infrastructure established or proposed to be established within the port limits and the land appurtenant thereto and such master plan shall be independent of any local or State Government regulations of any authority whatsoever.
- **Provisions of Corporate Social Responsibility (CSR)** & development of infrastructure by Port Authority have been introduced.
- Provision has been made for safeguarding the pay & allowances and service conditions including pensionary benefits of the employees of major ports and Tariff of Major Ports.

#### The Tariff Authority for Major Ports (TAMP)

- It was constituted in April 1997 to provide for an independent Authority to regulate all tariffs, both vessel related and cargo related, and rates for lease of properties in respect of Major Port Trusts and the private operators located therein.
- The Major Ports Trust Act, 1963 was amended by Port Laws (Amendment) Act 1997 to constitute the TAMP.

#### Benefits of New Bill:

- Apart from addressing the lacunas of the present law, the new law not only will help boost India's EXIM (export-import) trade, but also generate employment.
- Thereby, promoting the expansion of port infrastructure and facilitating trade and commerce, by infusing professionalism in the governance of major ports.

- The Bill is aimed at reorienting the governance model in central ports to **landlord port model** in line with the successful global practice.
- This will also help in bringing **transparency** in operations of Major Ports.

### NATIONAL COMMISSION FOR HOMOEOPATHY BILL, 2019

*The Union Cabinet has approved amendments in the National Commission for Homoeopathy Bill, 2019.*

#### About:

- National Commission for Homoeopathy Bill, 2019 seeks to repeal the Homoeopathy Central Council (HCC) Act, 1973.
- It seeks to repeal the Homoeopathy Central Council Act, 1973 and provide for a medical education system which ensures:
  - ♦ Availability of adequate and high quality homoeopathic medical professionals,
  - ♦ Adoption of the latest medical research by homoeopathic medical professionals,
  - ♦ Periodic assessment of medical institutions, and
  - ♦ An effective grievance redressal mechanism.
- Presently, the Bill is pending in Rajya Sabha.

#### Need/Benefits of the Bill:

- Eradicate the bottlenecks in functioning of the Medical Council of India.
- Bringing Regulatory reforms in the field of Homoeopathy education.
- Ensure Transparency and accountability for protecting the interest of the general public.
- Promote availability of affordable healthcare services

#### Medical Council of India

- The Medical Council of India (MCI) is a statutory body for establishing uniform and high standards of medical education in India till formation of National Medical Commission from 14 October 2019.
- The Council grants recognition of medical qualifications, gives accreditation to medical schools, grants registration to medical practitioners, and monitors medical practice in India.
- The NITI Aayog has recommended the replacement of Medical Council of India (MCI) with National Medical Commission (NMC).
- The decision has been approved by most states and NMC bill was passed by parliament and approved by President on 8 August 2019.

### Key Provisions of the National Commission for Homoeopathy Bill, 2019

- **Constitution of the National Commission for Homoeopathy (NCH):** The NCH will consist of 20 members, appointed by the central government.
  - ♦ A Search Committee will recommend names to the central government for the post of Chairperson, part time members, and presidents of the three autonomous boards set up under the NCH.
  - ♦ These posts will have a maximum term of four years.
  - ♦ The Search Committee will consist of six members including the Cabinet Secretary and three experts nominated by the central government (of which two will have experience in the homoeopathic field).
- **Functions of the NCH include:**
  - ♦ Framing policies for regulating medical institutions and homoeopathic medical professionals,
  - ♦ Assessing the requirements of healthcare related human resources and infrastructure,
  - ♦ Ensuring compliance by the State Medical Councils of Homoeopathy of the regulations made under the Bill, and ensuring coordination among the autonomous boards set up under the Bill.
- **Autonomous boards under the supervision of the NCH:**
  - ♦ The Homoeopathy Education Board
  - ♦ The Medical Assessment and Rating Board for Homoeopathy
  - ♦ The Board of Ethics and Medical Registration for Homoeopathy
- **Advisory Council for Homoeopathy:** Under the Bill, the central government will constitute an Advisory Council for Homoeopathy.
- **Entrance examinations:**
  - ♦ There will be a uniform National Eligibility cum-Entrance Test for admission to under-graduate homoeopathy education in all medical institutions regulated by the Bill.
  - ♦ The Bill proposes a common final year National Exit Test for the students graduating from medical institutions to obtain the license for practice.
  - ♦ Further, there will be a uniform Post Graduate National Entrance Test which will serve as the basis for admission into post-graduate courses at medical institutions.
- The Bill also proposes a **National Teachers' Eligibility Test** for postgraduates of homoeopathy who wish to take up teaching homoeopathy as a profession.
- **Appeal on matters related to professional and ethical misconduct:**

- ♦ State Medical Councils will receive complaints relating to professional or ethical misconduct against a registered homoeopathic medical practitioner.
- ♦ If the medical practitioner is aggrieved of a decision of the State Medical Council, he may appeal to the Board of Ethics and Medical Registration for Homoeopathy.
- ♦ If the medical practitioner is aggrieved of the decision of the Board, he can approach the NCH to appeal against the decision.
- ♦ Appeal of the decision of the NCH lies with the central government.

### OVERSEAS CITIZEN OF INDIA AND FUNDAMENTAL RIGHTS

*Recently, the Union government has told the Delhi High Court that Overseas Citizen of India (OCI) cardholders do not enjoy fundamental rights guaranteed by the Constitution, including the right to freedom of speech and expression.*

#### About:

- The government's response came in a plea filed by former Ranbaxy executive Dinesh Thakur seeking the right to seek information under the RTI Act.
- **Petitioner's argument:**
  - ♦ The petitioner, had sought the right to seek information under the Right to Information (RTI) Act.
  - ♦ He argued that OCI cardholder have the right to make donations to religious institutions without seeking permission, stating that such a right is vested by the Constitution.
  - ♦ Therefore, on this logic, he sought an exemption from seeking permission under FCRA, 2010 (Foreign Contribution Regulation Act) to make donations to religious institutions.
- **Government's response:**
  - ♦ OCI card holders have merely been granted statutory rights under the Citizenship Act, 1955.
  - ♦ That is, for OCI cardholders, all their rights under Citizenship Act, 1955 fall in the category of statutory rights and not fundamental or constitutional rights.
  - ♦ The grant of the limited right is by the Central government by notification under Section 7B of the Citizenship Act.
  - ♦ Therefore, what right is granted depends on the policy of the Central government.

#### Center's Response Vs Judiciary's Observation:

- The Centre's stand may be in conflict with the observation made by the same Delhi High Court in 2018.



- The Court observed that OCI cardholders have the right to enjoy the fundamental rights of equality and freedom of speech like other Indian citizens.
- **Further**, The Supreme Court has also in many cases located the **right to information** in both **Articles 19(1)(a)** of the Constitution, that is granted to citizens, and **Article 21** – the right to life, which is **guaranteed to all natural persons**.

## POLICE MODERNISATION

*Modernization of police forces is a continuous and ongoing process.*

### About:

- Issues related to Police Forces and Recommendations to address them
- **Overburdened police force:**
  - ♦ In 2016, State police forces had 24% vacancies (about 5.5 lakh vacancies). Hence, while the sanctioned police strength was 181 police per lakh persons, the actual strength was 137 police per lakh persons.
  - ♦ Apart from the core function of maintaining law and order, police personnel carry out various other functions such as traffic management, disaster rescue and removal of encroachments.
  - ♦ **The Second Administrative Reforms Commission (2007)** recommended that these functions should be carried out by other government departments or private agencies.
- **Poor quality of investigation:**
  - ♦ The Law Commission (2012) observed that one of the reasons for low conviction rates in India is poor quality of investigation by police.
  - ♦ The police lack training and expertise required to conduct professional investigations.
  - ♦ They also have insufficient legal knowledge and inadequate forensic and cyber infrastructure.
  - ♦ Second ARC recommended that states should have **specialised investigation units** within the police force for better investigation of crimes.
- **Police accountability:**
  - ♦ In India, control over the police force vests with the political executive. This has led to abuse of police personnel and interference with their decision-making authority.
  - ♦ To allow the police operational autonomy while maintaining accountability, the Supreme Court, issued guidelines to the central government and state governments (and Union Territories) in the year 2006 in **Prakash Singh vs Union of India Case**.
- **Police infrastructure:** Modern policing requires a strong communication support, state-of-art or modern weapons, and a high degree of mobility. CAG Audits have found shortages as well as outdated weaponry with State Police forces.

### Supreme Court Guideline in Prakash Singh vs Union of India Case (2006)

In September 2006, the court issued various directions to the centre and states including:

- **Constitute a State Security Commission** in every state that will lay down policy for police functioning, evaluate police performance, and ensure that state governments do not exercise unwarranted influence on the police.
- **Constitute a Police Establishment Board** in every state that will decide postings, transfers and promotions for officers below the rank of Deputy Superintendent of Police, and make recommendations to the state government for officers of higher ranks.
- **Constitute Police Complaints Authorities** at the state and district levels to inquire into allegations of serious misconduct and abuse of power by police personnel.
- **Provide a minimum tenure** of at least two years for the DGP and other key police officers (e.g., officers in charge of a police station and district) within the state forces, and the Chiefs of the central forces to protect them against arbitrary transfers and postings.
- **Ensure that the DGP of state police** is appointed from amongst three senior-most officers who have been empanelled for the promotion by the Union Public Service Commission on the basis of length of service, good record and experience.
- **Separate the investigating police** from the law and order police to ensure speedier investigation, better expertise and improved rapport with the people.
- **Constitute a National Security Commission** to shortlist the candidates for appointment as Chiefs of the central armed police forces.

### Underutilisation of funds for modernisation

- ♦ Both centre and states allocate funds for modernisation of state police forces.
- ♦ These funds are typically used for strengthening police infrastructure, by way of construction of police stations, purchase of weaponry, communication equipment and vehicles.
- ♦ However, there has been a persistent problem of underutilisation of modernisation funds.

### Steps taken by the government related to police reforms:

- **Police** and **'law and order'** fall under the category of subjects within the domain of the State as per Entry 2 of List II of the VII<sup>th</sup> Schedule in the Constitution of India. Thus, the principal responsibility for managing these subjects lies with the State Governments.

- **Modernisation of State Police Forces (MPF) Scheme:** The focus of the scheme is to strengthen police infrastructure at cutting edge level by construction of secure police stations, training centres, police housing (residential), equipping the police stations with the required mobility, modern weaponry, communication equipment and forensic set-up etc.
- **Crime & Criminal Tracking Networking System (CCTNS):**
  - ♦ The Union Government has created an all India digital network –Crime & Criminal Tracking Networking System (CCTNS) in 15152 out of 15985 police stations of the country which has digitised police processes like registering complaints, FIRs, Investigation details, etc.
  - ♦ **Objective of CCTNS:**
    - **Creating Centralized Databases:** Creating State and Central levels databases on crime and criminals starting from FIRs.
    - **Sharing Real-time Information:** Enable easy sharing of real-time information/intelligence across police stations, districts and States.
    - **Prevention:** Improved investigation and crime prevention.
    - **Citizen Portals:** Improved service delivery to the public/stakeholders through Citizen Portals.
- **Interoperable Criminal Justice System (ICJS):** In addition, the Government has launched Interoperable Criminal Justice System (ICJS) which integrates the process of speedy justice by facilitating data-exchange between the courts, police, prosecution, jails and the forensic laboratories.
- **Investigation Tracking System for Sexual Offences (ITSSO) Portal:**
  - ♦ With a view to achieve the objectives of completion of police investigation within two months of filing FIR by police for sexual assaults, Government has facilitated monitoring of timelines in police investigation through the Investigation Tracking System for Sexual Offences (ITSSO) Portal, using CCTNS data.
  - ♦ ITSSO is available to law enforcement agencies and gives details on pending cases.
- **National Database of Sexual Offenders (NDSO):**
  - ♦ The Government has also launched a National Database of Sexual Offenders (NDSO) for law enforcement officers.
  - ♦ NDSO allows tracking of repeat and habitual sex offenders as well as initiate preventive measures against sexual offences.
- A **Cyber Crime Portal** is also functional.

### Way Ahead:

- Over the years, the technology and modus of crimes have changed, and, society too has moved on, raising the expectations of the public — befitting the progress of a modern nation. The time is now ripe to look beyond the Supreme Court's recommended police reforms and fashion

out-of-the-box remedies, like crime & criminal tracking networking system (CCTNS), etc. and an early review of the entire criminal justice system.

## RESERVATION IN PROMOTION NOT A FUNDAMENTAL RIGHT: SC

*Reservation in promotion in public posts cannot be claimed as a fundamental right, the Supreme Court reiterated in a judgment.*

### About:

- The court said that "Article 16(4) and 16(4A) empower the State to make reservation in promotion for SC, ST but it is for the state government to decide whether this was necessary.
- The Constitution does not confer any fundamental right to claim reservation in the matter of promotions in public posts, the Supreme Court has ruled adding a state cannot be compelled to do so if it chooses not to.
- That is, no mandamus can be issued by the court directing the State government to provide reservations.
- However, if they (state) wish to exercise their discretion and make such provision, the State has to collect quantifiable data showing inadequacy of representation of that class in public services.
- The judgment also clarified that even though collection of data regarding the inadequate representation of members of the Scheduled Castes and Scheduled Tribes, as noted above, is a pre requisite for providing reservations, but it is not required when the State Government decided not to provide reservation.
- Furthermore, if the decision of the State Government to provide reservations in promotion is challenged, the State concerned shall have to place before the Court the requisite quantifiable data and satisfy the Court that such reservations became necessary on account of inadequacy of representation of Scheduled Castes and Scheduled Tribes in a particular class or classes of posts without affecting general efficiency of administration as mandated by Article 335 of the Constitution.

### Article 16(4) and 16(4-A)

- Article 16(4) empowers the state to make any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the state, is not adequately represented in the services under the state.
- By way of the 77<sup>th</sup> Amendment Act, a new clause (4A) was added to Article 16, empowering the state to make provisions for reservation in matters of promotion to Scheduled Caste/Scheduled Tribe employees if the state feels they are not adequately represented in services.

### Article 335 of Constitution of India

Article 335 of Constitution of India: "Claims of Scheduled Castes and Scheduled Tribes to Services and Posts"

It states that the claims of the members of the Scheduled Castes and the Scheduled Tribes shall be taken into consideration, consistently with the maintenance of efficiency of administration, in the making of appointments to services and posts in connection with the affairs of the Union or of a State.

### M Nagaraj & Others vs Union of India & Others (2006)

- The court upheld the constitutional validity of the 77<sup>th</sup>, 81<sup>st</sup>, 82<sup>nd</sup>, and 85<sup>th</sup> Amendments, which were aimed at reversing the judgments in Indra Sawhney and other cases.
- In this judgment, the Supreme Court had held that it is not mandatory for the State to make reservations for scheduled castes or scheduled tribes (SC/STs) in matter of promotions.
- However, if the State wishes to exercise its discretion, it has to gather quantifiable data showing backwardness of the class and inadequacy of representation of that class in public employment.
- For making reservations in promotion, states also need to comply with the requirement of maintaining administrative efficiency as per Article 335.
- It was further held that the State is required to adhere to the ceiling-limit of 50 percent and abstain from obliterating the creamy layer or extending the reservation indefinitely.

## RESERVATION TO SCHEDULED TRIBES IN SCHEDULED AREA

**The Supreme Court questioned the Andhra Pradesh government's decision to provide 100 per cent reservation to Scheduled Tribes for teacher posts in Scheduled Areas.**

### About:

- The Supreme Court has mentioned that the 100% reservation would deprive other backward communities (including SCs, OBCs) of availing reservation benefits and opined that allowing it may facilitate misuse.
- The notification to provide a 100% reservation to Scheduled Tribes (STs) for teacher posts in Scheduled Areas was issued by then governor of the Andhra Pradesh.
- The Supreme Court also questioned the availability of data based on which the Governor of the Andhra Pradesh decided that ST is the only deprived group in the area.

- Article 16 (4) of the Constitution empowers the state to make any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the state, is not adequately represented in the services under the state.
- The Supreme Court ruled that the Governor's decision can't be above the law while referring to its judgment in **Indira Sawhney case** of 1992 which mentioned that the reservation limit should not exceed 50 % except in exceptional circumstances.
- The bench said the problem was that the benefits were not percolating to those really deserving it.

### Scheduled Areas

- The scheduled areas can be declared by President by order.
- The President at any time can order that the whole or part of a scheduled area ceases to be a scheduled area.
- Further, President can also by order alter the boundaries of the scheduled areas.
- No separate law/act is needed to establish, change boundaries or discontinue a scheduled area.
- **Criteria:** The criteria for declaring any area as a "Scheduled Area" under the Fifth Schedule are:
  - ◆ Preponderance of tribal population,
  - ◆ Compactness and reasonable size of the area,
  - ◆ A viable administrative entity such as a district, block or taluk, and
  - ◆ Economic backwardness of the area as compared to the neighbouring areas.
- At present, 10 States namely Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan and Telangana have Fifth Schedule Areas.
- The Fifth Schedule of the Constitution deals with the administration and control of Scheduled Areas as well as of Scheduled Tribes residing in any State other than the States of Assam, Meghalaya, Tripura and Mizoram.

## SC RULING ON CRIMINALISATION OF POLITICS

**The Supreme Court has ordered political parties to publish the entire criminal history of their candidates for Assembly and Lok Sabha elections along with the reasons that goaded them to field suspected criminals over decent people.**

### About:

- The Supreme Court has ordered all political parties to state the reason for giving election tickets to criminal record holders.

- The contempt petition was filed due to the general disregard shown by political parties to a 2018 Constitution Bench **judgment (Public Interest Foundation v. Union of India)** to publish the criminal details of their candidates in their respective websites and print as well as electronic media for public awareness.

### SC Direction:

- The information should be published in a local and a national newspaper as well as the parties' social media handles.
- It should mandatorily be published either within 48 hours of the selection of candidates or less than two weeks before the first date for filing of nominations, whichever is earlier.
- It ordered political parties to submit compliance reports with the Election Commission of India within 72 hours or risk contempt of court action.
- The judgment is applicable to parties both at the Central and State levels.
- The published information on the criminal antecedents of a candidate should be detailed and include the nature of the offences, charges framed against him, the court concerned and the case number.

### Other Major Landmark Judgments with Respect to Electoral Reforms

#### Jan Chaukidari v Union of India:

- In this case, SC upheld that those who are in lawful police or judicial custody, other than those held in preventive detention, will forfeit their right to stand for election.
- Section 62(5) of Representation of People Act lays down that right to vote is not available to a prisoner, except a person under preventive detention. Thus, all prisoners who are not under preventive detention can neither vote nor can they contest elections.

#### Lily Thomas v Union of India:

- SC ruled that any Member of Parliament (MP), Member of the Legislative Assembly (MLA) or Member of a Legislative Council (MLC) who is convicted of a crime and given a minimum of two-year imprisonment, loses membership of the House with immediate effect.
- This is in contrast to the earlier position, wherein convicted members held on to their seats until they exhausted all judicial remedies in lower, state and the supreme court of India.
- Further, Section 8(4) of the Representation of the People Act, which allowed elected representatives three months to appeal their conviction was declared unconstitutional.

### Rationale behind Publishing of Criminal Records of the Candidates:

#### Increasing criminalization of politics in India:

- In 2004, 24% of the Members of Parliament had criminal cases pending against them; in 2009, that went up to 30%; in 2014 to 34%; and in 2019 as many as 43% of MPs had criminal cases pending against them.
- Criminals often facing heinous charges like rape and murder, encroaching into the country's political and electoral scenes.
- To ensure the accountability of political parties and enhance transparency.
- **Right to know:** Lack of information about such criminalization among the citizenry hampers citizen's right to know and is a threat to the basic structure of the constitution.

### Way Forward:

- De-criminalisation of politics cannot be achieved by judicial fiat alone.
- Making a parliamentary legislation to curb criminalisation of politics may help to deliver constitutional governance.
- Political parties may refrain from giving tickets to such candidates.

### THREE CAPITAL MODEL FOR ANDHRA PRADESH

*Recently, Andhra Pradesh assembly approved a bill to create three state capitals viz. Amravati, Visakhapatnam, and Kurnool.*

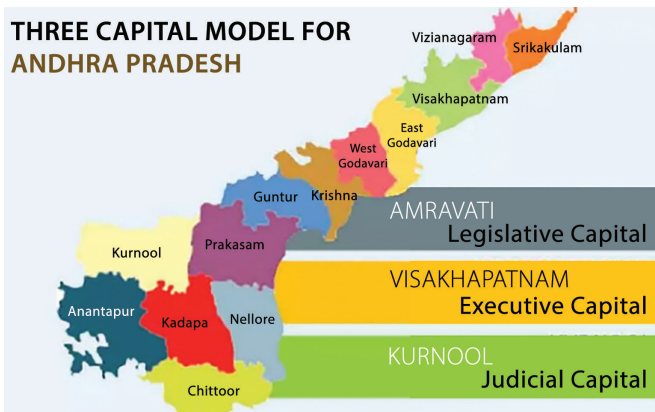
#### About:

- In 2014, an expert committee appointed by the Ministry of Home Affairs proposed the decentralised development for state. This idea was further reiterated by experts' committee led by retired IAS officer G N Rao.
- In this direction, the state assembly has recently passed a bill to decentralise power into three capitals for the state.

#### What is Three Capital Formulae?

- The idea has its genesis in the South- African governance model of three capitals for— legislative, executive and judicial functioning. For Andhra, the proposed capitals are:
  - **Visakhapatnam**, which already has infrastructure to be executive capital without much investment.
  - **Amaravati** as the legislative capital and,
  - **Kurnool** as the judiciary capital.
- This step is expected to decentralise the development of the State.

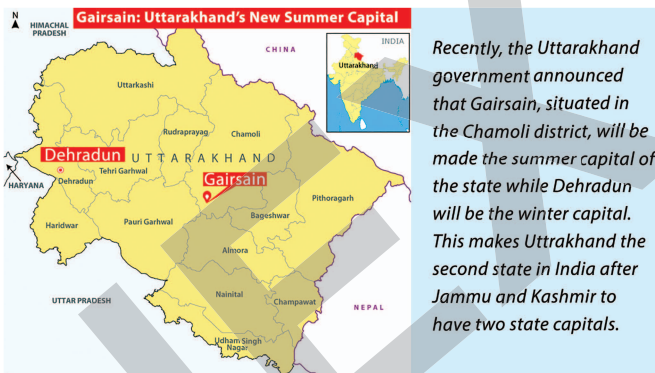




### Which other Indian States have more than One Capital?

#### Among Indian states,

- **Maharashtra:** It has two capitals– Mumbai and Nagpur (which holds the winter session of the state assembly).
- **Himachal Pradesh:** It has capitals at Shimla and Dharamshala (winter).
- Earlier, the former state of Jammu & Kashmir had Srinagar and **Jammu (winter)** as capitals. However, the erstwhile state has now been reorganised into two union territories viz. Union Territory of Jammu & Kashmir and UT of Ladakh.



### Benefits of having Multiple Capitals:

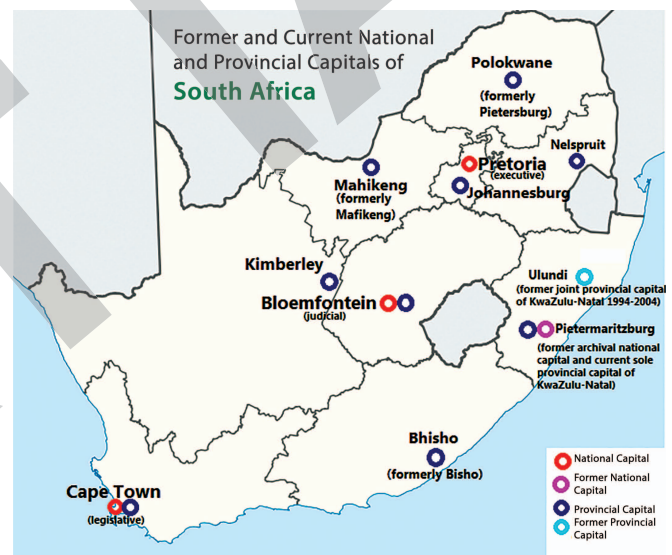
- The physical locations of the three state capitals are spread over the elongated shape of the state. Kurnool is on the western side; Amravati is centrally located and Vishakhapatnam is on the eastern corner. It will usher in **decentralisation and inclusive development** of all regions in the state.
- Governmental activities are the fulcrum around which several developmental activities spring up and boost local economy. Three economies would get built in three different regions and bring in greater productivity and employment for locals.
- From the urbanisation angle, it is better to work against a primate city with high population density and move in favour of mid-sized cities with decent economies.

#### Cons:

- Governmental arms, especially the bureaucracy and ministers are required to do frequent consultations. Separation and distance of the two will hamper coordination among them during assembly sessions.

### Three Capital Model of South Africa

- In South Africa, the unique feature of its trio of capitals arose out of the settlement at the end of the second Anglo-Boer War (1899-1902).
- It was fought between British empire and two Boer states (the South African Republic and the Orange Free State) over the Empire's influence in South Africa.
- Later, in 1910 the union resulted in creation of South Africa with governmental powers decentralised into three of its major cities: Pretoria, Cape Town, and Bloemfontein.



### Other Countries in the World also have Implemented the Concept

- **Sri Lanka:** Sri Jayewardenepura Kotte is the official capital and seat of national legislature, while Colombo is the de facto seat of national executive and judicial bodies.
- **Malaysia:** It has its official and royal capital and seat of national legislature at Kuala Lumpur, and Putrajaya is the administrative centre and seat of national judiciary.

### Way Forward:

- Decentralisation and inclusive development will not get significantly served by this mere single step of three state capitals. What would really deliver those goals are functional and financial decentralisation and empowerment down to the third tier of governance that make local bodies' self-governing institutions.



# SOCIAL ISSUES

## E-MASIHA

*The union government has launched E-MASIHA, a health facility-related mobile app for the Indian Haj pilgrims.*

### About:

- It stands for **E-Medical Assistance System for Indian Pilgrims Abroad**, an online system to create and maintain the complete health database of Indian pilgrims along with doctors' prescriptions, medical treatment as well as medicine disbursements, has been developed to deal any emergency in Makkah-Madinah.

### Digitalization of Haj Pilgrimage:

- This initiative is a part of **"Ease of Doing Haj"**, which will make the entire Haj process digital, transparent and affordable.
- India has become the first country in the entire world which has made the **entire Haj 2020 process 100 percent digital**.
- Apart from E-MASIHA, other facilities like Online application, E-Visa, Haj mobile app, **"E-luggage pre-tagging"** providing all information in India itself regarding accommodation/transportation in Makkah-Madinah have been provided to Indian Muslims going for Haj.
- For the first time facilities have been provided for **digital pre-tagging of baggages of pilgrims**.
- Haj Group Organisers (HGOs) have also been connected with 100 percent digital system which has ensured transparency in their functioning and it has also ensured better facilities to Indian Haj pilgrims.
- For the first time, a portal of HGOs has been developed which contains all the details of HGOs, their packages, etc.

## GLOBAL GENDER GAP INDEX

*World Economic Forum (WEF) has recently released Gender Gap Index-2019 that shows India has slipped to 112<sup>th</sup> position.*

### About:

- **India has moved downwards four places** in terms of gender equality amid increasing disparity in terms of women's participation in the development of the country.
- Projecting current trends into the future, the overall global gender gap will close in 99.5 years, on average.

- The Global Gender Gap index considers developments across 4 sector:
  - ♦ Political empowerment
  - ♦ Economic participation
  - ♦ Health
  - ♦ Education

### Key Takeaways from the Index:

- **Economic:** There is a sharp deterioration in the economic opportunity gap, especially in women's under-representation in emerging roles.
- **Health:** An alarming statistic is that India is at 150<sup>th</sup> position on the very bottom of the Health and Survival sub-index.
- **Political empowerment:** Only 25% of the seats in parliaments around the world are occupied by women, and only 21% of the ministers are women.

## World Economic Forum

- The World Economic Forum is a not for profit, independent International Organization for Public-Private Cooperation.
- The Forum strives in all its efforts to demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance.

## STATE OF THE WORLD'S CHILDREN REPORT

*The United Nations Children's Fund (UNICEF) has released its 'State of the World's Children' report for 2019.*

### About:

- **U5MR:** As per UNICEF's State of the World's Children Report 2019, the Under 5 Mortality Rate in India is 37 per 1,000 live births against the global average of 39 per 1,000 live births in 2018.
- **Major causes affecting nutrition:** As per this report, globalization, urbanization, inequities, humanitarian crises and climate shocks are driving unprecedented negative changes in the nutrition situation.
- Among countries in **South Asia, India fares the worst (54%)** on prevalence of children under five who are stunted, wasted or overweight.
- As per the Sample Registration System (SRS), the top 3 reasons of child mortality in India are: Prematurity & low birth weight (29.8%), Pneumonia (17.1%), Diarrheal diseases (8.6%).

### Steps taken by Government:

- **POSHAN Abhiyaan:** The Abhiyaan targets to reduce stunting by 2%, under-nutrition by 2%, anaemia by 3% and reduce low birth weight by 2% per annum respectively.
- **Pradhan Mantri Matritva Vandana Yojana (PMMVY):** It providing cash compensation against wage loss.
- **Vatsalya Maatri Amrit Kosh:** It was launched as a national human milk bank and lactation counseling centre at Lady Hardinge Medical College.
- **Mothers Absolute Affection (MAA) Programme:** To generate awareness among the masses about the importance of breastfeeding.
- **Integrated Child Development Services (ICDS):** To improve the nutritional and health status of children in the age-group 0-6 years.
- **Mission Indradhanush:** It is targeted to immunize children who are either unvaccinated or partially vaccinated.
- **Intensified Mission Indradhanush (IMI) 2.0** is rolled-out as per road-map for achieving 90% full immunization coverage across the country.

## GLOBAL FORUM ON CHILDHOOD PNEUMONIA

*Recently, the first-ever Global Forum on Childhood Pneumonia got held in Barcelona, Spain.*

### About:

- The Global Forum sets out to agree on practical pathways that governments and their partners can take to meet the Sustainable Development Goal on child survival and the **Global Action Plan for Pneumonia and Diarrhea (GAPPD)** target of three child pneumonia deaths per 1,000 live births.

### What is Pneumonia?

- Pneumonia is an infection in one or both lungs. **Bacteria, viruses, and fungi cause it.**
- The infection causes inflammation in the air sacs in your lungs, which are called alveoli. The alveoli fill with fluid or pus, making it difficult to breathe.
- The **germs that cause pneumonia are contagious.** This means they can spread from person to person.
- **Pneumonia tends to be more serious for children under the age of five, adults over the age of 65,** people with certain conditions such as heart failure, diabetes, or COPD (chronic obstructive pulmonary disease), or people who have weak immune systems due to HIV/AIDS, chemotherapy (a treatment for cancer), or organ or blood and marrow stem cell transplant procedures.

### Effects of Pneumonia:

#### International:

- **Pneumonia is the single biggest infectious killer of children,** claiming over 800,000 lives annually. Yet pneumonia remains a neglected disease both nationally and globally.
- **Outdoor air pollution contributes to 17.5 percent- or nearly one in five- pneumonia deaths among children under five worldwide,** according to a study by the Institute for Health Metrics and Evaluation.
- Household pollution from the indoor use of solid cooking fuels contributes to an additional 1,95,000 (29.4 percent) deaths.

#### India:

- **Fourteen percent of under-five deaths in India-** approximately 1, 27,000 deaths annually- happen due to pneumonia. In 2013, this figure was about 1, 78,000.
- It is estimated that **half of these deaths are in the northern belt of the country.** The **current pneumonia mortality rate is five per 1,000 live births** and the target is to reduce this to less than three by 2025.

### Global Forum on Childhood Pneumonia

- It is a major opportunity to ensure that pneumonia is at the forefront of national and global health agendas; galvanize national action, and mobilize the donor community to increase awareness of the scale of the pneumonia challenge.
- Various organizations and institutions like- ISGlobal (Barcelona Institute for Global Health), Save the Children, UNICEF, Every Breath Counts, Bill & Melinda Gates Foundation, "la Caixa" Foundation, USAID, Unitaidd and Gavi have made contributions to address one of the greatest and gravest health challenges facing children around the world.

### Global Action Plan for Pneumonia and Diarrhea (GAPPD)

- **Aim-** to reduce the incidence of severe pneumonia and diarrhoea, reduce the number of children under-five who are stunted, and end preventable childhood deaths from pneumonia and diarrhea by 2025.
- It was **initiated by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF),** which proposes a cohesive approach to ending preventable pneumonia and diarrhea deaths.
- It brings together critical services and interventions to create healthy environments, promotes practices known to protect children from disease and ensures that every child has access to proven and appropriate preventive and treatment measures.



## ENLARGED THYROID GLANDS AMONG KORKU TRIBALS

*Doctors remove massive enlarged thyroid glands among the Korku tribals living in Amravati's Melghat region in annual surgery camp.*

### About:

- Korkus, mainly women, see **exceptional large growths of thyroid glands, known as goiter (caused by IODINE DEFICIENCY)**, weighing over one to two kilograms.
- This is **probably due to genetic factors in this tribe as their staple diet is fish, a rich source of iodine**, and there is availability of iodised salt too.
- However, **regular annual surgery camps have led to the smaller growths** in tribe though goiter remains prevalent.

### Korku Tribes

- The Korku are an **Adivasi ethnic group** predominantly found in the Khandwa, Burhanpur, Betul and Chhindwara districts of **Madhya Pradesh** and adjoining areas near the **Melghat Tiger Reserve of Maharashtra**.
- They speak the **Korku language**, which is a member of the **Munda languages** and is written using **Devanagari**.
- They are classified as a **Scheduled Tribe** by the Indian government.

### Goiter

- Goiter is an abnormal enlargement of the thyroid gland. Women are more prone to thyroid disorders and also more likely to develop goiters.
- **Causes:** The most common cause of goiters worldwide is a lack of iodine in the diet.
  - ♦ **Iodine is essential for the production of thyroid hormones**, and is found primarily in seawater and in the soil in coastal areas. In the absence of iodine, the thyroid gland enlarges in an effort to obtain more iodine.
- **Mechanism:** The thyroid gland produces two main hormones — thyroxine (T-4) and triiodothyronine (T-3). These hormones help regulate body's metabolism. They maintain the rate of metabolism of fats and carbohydrates, help control the body temperature, influence heart rate, and help regulate the production of proteins.
- **The pituitary gland and hypothalamus** control the rate at which T-4 and T-3 are produced and released.
  - ♦ The hypothalamus, located at the base of the brain that acts as the body's thermostat, signals the pituitary gland to make a hormone known as **thyroid-stimulating hormone (TSH)**.

- **Graves' disease:** A goiter can sometimes occur when the thyroid gland produces **too much thyroid hormone (hyperthyroidism)**. In Graves' disease, antibodies produced by the immune system mistakenly attack the thyroid gland, causing it to produce excess thyroxine. This overstimulation causes the thyroid to swell.
- **Hashimoto's disease:** A goiter can also result from an **underactive thyroid (hypothyroidism)**. Like Graves' disease, Hashimoto's disease is an autoimmune disorder which damages the thyroid so that it produces too little. Sensing a low hormone level, the pituitary gland produces more TSH to stimulate the thyroid, which then causes the gland to enlarge.
- **NOTE:** The thyroid gland also produces calcitonin — a hormone that helps regulate the amount of calcium in the blood.

## COMPENSATION TO SURVIVORS OF HUMAN TRAFFICKING

*A report titled "UNCOMPENSATE VICTIMS". Released by Sanjog revealed the details of compensation awarded to survivors of trafficking.*

### About:

- Sanjog is a technical resource organization that works to combat trafficking and gender based violence.

### Background:

- In 2011, the SC constituted a panel on this issue which submitted its report in 2019. The panel has asked the apex court to direct the NCRB to compile data on missing children and women to identify the areas prone to trafficking.
- According to **NCRB reports**, between 2011 and 2018, a total of 35,983 cases of human trafficking were recorded in India.
- Of these recorded cases, only 82 human trafficking victims were awarded compensation.

### Human Trafficking in India:

- **Main causes:** According to the NCRB study, the common causes of trafficking were forced marriages, child labor, domestic help and sexual exploitation, among others.
- **Trafficking hotspots:** The highest incidence of children and women being trafficked were observed from the cities of Mumbai and Kolkata.
- According to **UNODC Global report 2018** on trafficking; Madhya Pradesh recorded the maximum number of cases of missing children while Maharashtra reported the most cases of missing women.



- **Legal recourse for compensation:** The Section 357-A of Code of Criminal Procedure has provisions to compensate victims who suffered because of a crime.
- **Nirbhaya Fund:** In 2012, following the Nirbhaya gang-rape and murder case, the government announced 1,000 crore Nirbhaya fund to compensate survivors of rape, acid burns and trafficking among other forms of violence.

### Constitutional & Legislative Provisions Related to Trafficking in India:

- **Constitutional safeguard:** Trafficking in Human Beings or Persons is prohibited under Article 23 (1).
- **Indian Penal Code:** Section 370 and 370A IPC provides for comprehensive measures to counter the menace of human trafficking. Sections 372 and 373 deals with selling and buying of girls for the purpose of prostitution.
- **Other legislative measures:**
  - ♦ Immoral Traffic (Prevention) Act, 1956
  - ♦ Protection of Children from Sexual offences (POCSO) Act
  - ♦ Prohibition of Child Marriage Act, 2006,
  - ♦ Bonded Labor System (Abolition) Act, 1976,
  - ♦ Child Labor (Prohibition and Regulation) Act, 1986,

### International Conventions on Trafficking:

- **UN Convention:** India has ratified the United Nations Convention on Transnational Organized Crime (UNTOC) which has Protocols for Prevention, Suppression and Punishment of Trafficking in Persons, particularly Women and Children.
- **SAARC Convention:** India has ratified the SAARC Convention on Preventing and Combating Trafficking in Women and Children for Prostitution.
- **Bilateral mechanism** between India and Bangladesh for dealing with cross border trafficking.

#### National Crime Record Bureau

- NCRB was set-up in 1986 under the Ministry of Home Affairs to function as a repository of information on crime and criminals.
- It was set up based on the recommendations of the National Police Commission (1977-1981) and the MHA's Task Force (1985).
- NCRB brings out the annual **Crime in India report**.

## NATIONAL ORGANIC FOOD FESTIVAL

*The Ministry of Food Processing Industries (MoFPI) with the Ministry of Women and Child Development (MoWCD) hosted the first National Organic Food Festival in New Delhi.*

### About:

- The festival aimed at strengthening organic food produce in the country and encouraging women entrepreneurs in manufacturing organic produce.
- **Theme:** Unleashing India's Organic Market Potential.
- Apart from showcasing organic products, the event will focus on facilitating business linkages and linkages to market and supply chain and empowering women entrepreneurs through pre-arranged B2B and B2G meetings.
- Training on organic certification and FSSAI regulations will be organized as well to familiarize producers with the regulatory processes.

### Organic Farming

Organic farming is a type of agriculture that avoids the use of synthetic fertilizers, pesticides, and other chemical inputs. Organic farming systems rely on crop rotation, crop residues, animal manures, legumes, green manure, biofertilizers, biopesticides, etc.

#### Advantages of organic farming over other forms of farming:

- Increases soil fertility, high value crops leading to sustainable development.
- Preserves indigenous species.
- Reduces subsidy burden on Governments.
- Thwarts the desertification of arable land.
- Revitalizes ground water level.
- Reduces risk to the food chain.
- Stops the serious health hazards caused due to chemical fertilizers & pesticides.
- It also promotes tourism as it has already been started in north-east where resorts are marketing themselves as completely organic where tourists can pluck, cook and relish fresh organic food from their kitchen gardens.
- Income benefit as there is demand for organic food.

### India's Organic Market Potential:

- The organic sector is growing at a speed of **17% per year**. India has the world's **9<sup>th</sup> largest** organic farming country in the world.
- India produced around 1.70 million tones of certified organic products in 2017-18.
- On the demand side, increasing disposable incomes, increasing awareness around health and wellness and increasing acceptability are driving the growth in the organic food segment.
- Organic products are exported to countries like the USA, the EU countries, Canada, Switzerland, Australia, Israel, South Korea, Vietnam, Japan, New Zealand, etc.

### Government Initiatives on Organic Farming in India:

- **National Project on Organic Farming (NPOF)** – assistance to input production (large compost plants and bio-fertilizers), Quality control of organic inputs, Human resource development through trainings, PGS facilitation, Biological soil health assessment and awareness creation.
- **National Horticulture Mission (NHM)** and **Rashtriya Krishi Vikas Yojana (RKVY)**: Offers financial assistance to States for adoption and certification of vermin-compost production.
- Government is promoting bio-fertilizers through various schemes of **National Mission of Sustainable Agriculture (NMSA)/Paramparagat Krishi Vikas Yojana** and **National Mission on Oilseeds and Oil Palm (NMOOP)** and **Indian Council of Agricultural Sciences (ICAR)**.
- **Soil Health Management (SHM) which promotes Integrated Nutrient Management** is one of the components under **National Mission for Sustainable Agriculture (NMSA)**.
- **National Centre of Organic Farming**, Ghaziabad is organizing the training programmes for farmers in Saansad Adarsh Grams (SAGs) from 2015-16

### NEONATAL DEATHS: NHM REPORT

**National Health Mission (NHM) Report says that Madhya Pradesh has the highest percentage of newborn deaths.**

#### About:

- According to the National Health Mission (NHM), Madhya Pradesh has recorded the highest percentage of newborn deaths of 11.5% against the total admissions to government-run sick newborn care units (SNCUs) in the past three years across the country, a rate ominously spiralling since 2017, according to the National Health Mission (NHM). The country's average is 7%.

#### Madhya Pradesh in Comparison with Other States:

- Although admissions of neonates in the Madhya Pradesh have dropped from April 2017 to December 2019 — remaining lower than West Bengal, Rajasthan and Uttar Pradesh — the percentage of deaths at 12.2% surpassed Bihar's last year.
- In Bhopal, the capital city of Madhya Pradesh, one in every five children admitted to a unit died in the three years — the highest death percentage of 19.9% in the State, ten times above the NHM's mandated key performance indicator of below 2%.
- Within the same time period, West Bengal reported maximum neonatal deaths (34,344) in the country but reported the declining percentage of deaths (from 9.2% in 2017 to 8.9% in 2019) which coincided with a decrease in admissions at hospitals.

#### Factors behind the Surge:

- Staff crunch, low community referrals, absence of a special neonatal transport service to health centres, and the non-availability of enough units to cater to increasing institutional deliveries had contributed to the spike in the percentage of deaths.
- Only one against the required five (82% shortfall) of surgeons, gynaecologists, physicians and paediatricians are available at hospitals.
- With increasing institutional deliveries in the State (80.8% as per the National Family Health Survey-4, 2015-2016), the number of neonatal care units has not increased proportionally.
- Further, the health of children and mothers is not tracked in a systematic way by one platform, and services are often given randomly.

#### Scenario in Tribal and Rural areas of MP:

- Most tribal (31 out of 51) districts in Madhya Pradesh report low nutrition and weak maternal health levels and thus death percentage of more than 10.
- The absence of community referrals, significantly aided by Accredited Social Health Activist (ASHA) workers is lacking in rural and tribal areas as only one in ten sick neonates born outside a hospital is taken to an SNCU.
- It is majorly due to the absence of transport, inability to identify a disease by parents, and lack of awareness.

#### Sex Ratio in Admissions at Hospitals:

- Madhya Pradesh has recorded an abysmal sex ratio in admission (number of girls admitted against 1,000 boys) at 663 in the three years against the country average of 733.

#### Cases of Underreporting:

- The NHM data also reveals the cases of underreporting in 43 districts where government officials didn't report more than 50% of deaths of children under five to keep clean records.

#### What is Neonatal Mortality Rate (NMR)?

- NMR is the probability of dying during the first 28 days of life, expressed per 1,000 live births.
- According to the Sample Registration System, neonatal deaths in India mainly occur owing to premature births and low birth weight (35.9%), pneumonia (16.9%), birth asphyxia and birth trauma (9.9%), other non-communicable diseases (7.9%), diarrhoea (6.7%), congenital anomalies (4.6%) and infections (4.2%). Under the United Nations' Sustainable Development Goals, each country, including India, has aimed to bring down neonatal mortality to at least 12 per 1,000 live births. In 2018, it stood at 23 for India.

## GODAVARI AND KAVERI RIVER LINKING PROJECT

*Recently, the Ministry for Water Resources has stated in the Rajya Sabha that the NWDA prepared a draft Detailed Project Report (DPR).*

### About:

- The DPR prepared by the National Water Development Agency (NWDA) is related to the transfer of water from **Godavari River to the Krishna, the Krishna to the Pennar and the Pennar to the Cauvery**. The NWDA draft guidelines have been sent to the concerned states.
- The Godavari-Cauvery link comprises three components namely the Godavari (Inchampalli/Janampet)- Krishna (Nagarjunasagar), the Krishna (Nagarjunasagar) – Pennar (Somasila) and the Pennar (Somasila)–Cauvery.
- It envisaged the diversion of 247 tmcft of unutilized water in the **Indravati sub-basin of the Godavari basin** to meet the requirements between the Godavari and the Cauvery rivers.
- The linking of Godavari and Cauvery involves the participation of Maharashtra, Telangana, Andhra Pradesh, Karnataka and Tamil Nadu.

### Criticism:

- According to some experts, the linking of rivers would mean a more efficient distribution of water and reduction of flooding is fundamentally flawed.



- The river-linking project would amount to changing geography, ecological implications would be huge for the present and more so for the future generations.

### Way Forward:

- The interlinking of rivers has been conceptualized to solve a variety of water problems encountered in different parts of the country round the year to ensure water and food security by enhancing irrigation and water supply and additionally providing benefits of hydropower generation and to mitigate flood havoc and drought severity.
- The interlinking of rivers initially appears to be a costly proposition in ecological, geological, hydrological and economical terms, but the net benefits coming from it will far outweigh these costs or losses in the long run.

### Conclusion:

- The benefits of inter-linking rivers can be conceptualized in terms of irrigation potential, drinking, and industrial water supply and hydropower generation, apart from the benefits accrued from mitigating flood havoc and drought severity. The intangible benefits and damages further complicate the analysis.
- Several conflicting issues associated with the interlinking of rivers were identified in terms of ecological, environmental, hydrological, social, transboundary and political issues.
- Multiple criterion decision making (MCDM)** techniques are presented to resolve the conflicting goals and issues connected to a particular river inter-link.

### National Water Development Agency (NWDA)

- The National Water Development Agency was set up on 17<sup>th</sup> July 1982 by the Government of India as a **Society under Societies registration act 1860** under the Ministry of Water Resources to study the feasibility of the links under Peninsular Component of National Perspective Plan.
- The NWDA is fully funded by the Government of India.

### The functions of the Agency at present are as follows:

- To carry out detailed survey and investigations of possible reservoir sites and inter-connecting links to establish the feasibility of the proposal of Peninsular Rivers Development and Himalayan Rivers Development Components.
- To carry out detailed studies about the quantum of water in various Peninsular River systems and Himalayan River systems which can be transferred to other basins/States after meeting the reasonable needs of the basin/States in the foreseeable future.
- To prepare a detailed project report of river link proposals under the National Perspective Plan for Water Resources Development after concurrence of the concerned States.



## GROUNDWATER MANAGEMENT

*The Government of India and the World Bank signed a \$450 million loan agreement to support the national programme to arrest the country's depleting groundwater levels and strengthen groundwater institutions.*

### About:

- **7 states:** The **World Bank-supported Atal Bhujal Yojana (ABHY)** – **National Groundwater Management Improvement Programme** will be implemented in the states of Gujarat, Maharashtra, Haryana, Karnataka, Rajasthan, Madhya Pradesh, and Uttar Pradesh and cover 78 districts. These states span **both the hard rock aquifers of peninsular India and the alluvial aquifers of the Indo-Gangetic plains.**
- **Selection Criteria:** They were selected based on several criteria, including the degree of groundwater exploitation and degradation, established legal and regulatory instruments, institutional readiness, and experience in implementing initiatives related to groundwater management.
- **Impact:** The programme will, among others, **enhance the recharge of aquifers and introduce water conservation practices; promote activities related to water harvesting,** water management, and **crop alignment;** create an **institutional structure for sustainable groundwater management;** equip communities and stakeholders to **sustainably manage groundwater.**
- **Water Budgets and Water Security Plans:** The programme will **introduce a bottom-up planning process** for community-driven development of water budgets and Water Security Plans (WSPs). **Water budgets will assess surface and groundwater conditions** (both quantity and quality) and identify current and future needs. The **WSP, on the other hand, will focus on improving groundwater quantity** and incentivize selected states to implement the actions proposed.
- **Crop management and diversification:** Crop management and diversification will be the other focus areas. Studies indicate that a **one percent increase in the area irrigated with groundwater leads to a 2.2 percent increase in greenhouse gas (GHG) emissions.** The programme will support the adoption of **micro-irrigation systems,** including **sprinkler and drip irrigation** to increase productivity and support farmers to shift to low water-intensive crops.
- **Funding:** To facilitate this process, **the government will transfer a significant portion of the money (nearly 80 percent) to local governments,** including districts and gram panchayats, as incentives for achieving targets in groundwater management. The **remaining funds will be used for providing technical support** for the sustainable management of groundwater and strengthening institutional arrangements in the selected states.

### Background

- Ground water contributes to nearly 65% of total irrigated area of the country and nearly 85% of the rural drinking water supply. The ground water resources face two types of challenges.
  - ♦ **Quantitative:** Due to the increasing demands of growing population, urbanization and industrialization. Intensive, and unregulated ground water pumping in many areas has caused rapid and widespread decline in ground water levels.
  - ♦ **Qualitative:** Deteriorating ground water quality in some parts of the country.

### About Atal Bhujal Yojana (ABHY):

- **Atal Bhujal Yojana (ATAL JAL)** is a **Central Sector Scheme** of the **Ministry of Jal Shakti** to improve ground water management through community participation. The scheme is to be implemented **over a period of 5 years** (2020-21 to 2024-25).
- The **Department of Water Resources, River Development & Ganga Rejuvenation,** Ministry of Jal Shakti is adopting a mix of **'top down' and 'bottom up' approaches** in identified ground water stressed blocks in **seven states,** representing a range of geomorphic, climatic and hydrogeologic and cultural settings.
- The scheme aims to improve ground water management through community participation in identified priority areas in seven States, viz. **Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.**
- **ATAL JAL has Two Major Components:**
  - ♦ Institutional Strengthening and Capacity Building Component.
  - ♦ **Incentive Component for incentivising the States** for achievements in improved groundwater management practices.
- Of the total outlay, **50% shall be in the form of World Bank loan** and will be repaid by the Central Government. The **remaining 50% shall be through Central assistance from regular budgetary support.** The entire World Bank's loan component and Central assistance shall be passed on to the states as grants.

## RADIO-TAGGING OF INDIA PANGOLIN

*The Madhya Pradesh forest department has radio-tagged an Indian Pangolin (Maniscrassicaudata) for the first time.*

### About:

- Two rescued Indian Pangolin were radio-tagged and released in the **Satpura Tiger Reserve** six months ago.



- This is the **first-ever case of successful rehabilitation effort** of the species where the released individuals are **monitored in the wild using telemetry** to ensure a better success rate.
- **Radio-tagging involves attaching a transmitter** to an animal to monitor its movements. Several wild animals — **tigers, leopards, and migratory birds** — have been tagged over the decades.
- The **Special Task Force of the Madhya Pradesh Forest Department** has been actively working to curb wildlife poaching in the State.
- The radio-tagging is part of a **joint project by the department and non-profit, the Wildlife Conservation Trust (WCT)** that also involves the species' monitoring apart from other activities. The fieldwork is supported by the **YES Bank under its CSR initiative**.
- Tagging the animal will help understand the **habits of the reclusive, nocturnal animal** and develop an effective conservation plan for it.
- Animal tracking **has been used since the 1800s** to formulate wildlife action plans. Starting with **bird banding in the USA**, we've now moved on to genetic markers, **pop-up satellite tags, and nanotechnology**.



Radio-tagging of India Pangolin

### Pangolins in India:

- The Indian pangolin **resembles an ant-eater** but dons a **thick scaly skin**. Pangolins are among the **most trafficked wildlife species in the world**.
- **Scaly Animal:** Pangolins evolved scales as a **means of protection**. When threatened by big carnivores like lions or tigers they usually curl into a ball. The scales **defend them against dental attacks from predators**.
- **Dwindling Population:** This unique protection mechanism has **now become the main cause of the pangolin's disappearance**. The **scales are in high demand in China**, where they are used in **traditional Chinese medicine**. Pangolin meat is also in high demand in **China and Southeast Asia**.
- Consequently, pangolins have seen a **rapid reduction in population globally**. The projected population declines range from 50 percent to 80 percent across the genus.
- **Habitat:** Out of the 8 species, **India is home to two species of Pangolin**.

- The **Chinese Pangolin** (*Manis pentadactyla*) is found in **northeastern India**,
- **Indian Pangolin** (*Manis crassicaudata*) is distributed in other parts of the country as well as Sri Lanka, Bangladesh, and Pakistan.
- **Protection Status:** Both these species are protected and are listed under the **Schedule I Part I of the Wild Life (Protection) Act, 1972** and under **Appendix I of the Convention on International Trade in Endangered Species (CITES)**.
- **IUCN Red List:**
  - Indian and Philippine Pangolins: Endangered;
  - Chinese and Sunda Pangolins: Critically Endangered
- Being an elusive **nocturnal species** found in low population densities, **very little information is available on the behavior and ecology of the Indian pangolin**.
- **World Pangolin Day:** World Pangolin Day is **celebrated every year on February 15**. It is an international attempt to raise awareness about pangolins and bring together various stakeholders to help protect this unique animal from extinction. **February 15, 2020**, is the 9<sup>th</sup> World Pangolin Day.

### JAL JEEVAN MISSION (JJM)

*Government in Rajasthan has sought changes in the norms of Jal Jeevan Mission (JJM), as it seeks higher Central assistance for water scheme.*

#### About:

- **Concerned Authority:** The Mission was announced in August 2019. It is a central government initiative under the **Ministry of Jal Shakti**.
- **AIM:** The chief objective of the Mission is **to provide piped water supply (Har Ghar Jal) to all rural and urban households by 2024**.
- **Cost:** Both centre and states will work towards achieving Jal Jeevan Mission's objective. The expenditure on scheme would cost around more than Rs.3.5 lakh crore **and recently** under **Har Ghar Nal Se Jal** programme announced by **Finance Minister Nirmala Sitharaman in her Budget 2019-20 speeches allocated Rs 11,500 crore for Jal Jeevan Mission for the year 2020-21**.
- **Objective:** It also aims to create local infrastructure for rainwater harvesting, groundwater recharge and management of household waste water for reuse in agriculture.
- **Focussed Area:** The Mission will **converge with other Central and State Government Schemes to achieve its objectives of sustainable water supply management across the country**.
- **Mission:** The Jal Jeevan Mission will be based on a community approach to water as an **'Andolan'** to achieve the target of

functional household tap connection by 2024. The mission will include information, education and communication as key components. The mission is meant to create a people's movement for water, making it everyone's priority.

- **Need and significance: India has 16% of the world population, but only 4% of freshwater resources.** Depleting groundwater level, overexploitation and deteriorating water quality, climate change, etc. are major challenges to provide potable drinking water.
- It is an urgent requirement of water conservation in the country because of the decreasing amount of groundwater level.
- Therefore, the Jal Jeevan Mission will focus on integrated demand and supply management of water at the local level.

### Benefits of the Mission:

- Household pipeline water supply.
- Clean and drinkable water.
- Recharge of groundwater level.
- Better local infrastructure.
- Less water-borne diseases.
- Less water wastage.

## SUPER YEAR OF BIODIVERSITY

*India and Norway to work jointly towards mitigating marine plastic litter and micro plastics.*

### About:

- India marks the beginning of super year of Biodiversity with the hosting of the 13<sup>th</sup> Conference of Parties (COP) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

### Why 2020 could be a 'Super-Year' For Biodiversity:

- Environmentalists are calling 2020 a 'super-year' for Biodiversity because of **several upcoming international policy meetings that have the potential to set nature on a path to recovery.**
- In Super Year, **the SDGs of Climate, Ocean, Gender, life below water and land are to be implemented.** Several major initiatives to achieve these SDGs were taken by the United Nations. This year all such initiatives are to be given special focus such as:
  - ♦ **Gender Equality:** The Beijing Programme of Action marks 25th anniversary in 2020. It was framed in 1995 at the fourth United Nation World Conference on Women and the 64<sup>th</sup> session of the United Nations Commission on the Status of Women is to be held in March 2020.

- ♦ **Climate Action:** The COP 26 is to be held in Glasgow in 2020 to address the gaps that were undermined at COP 25 and the first Global Transport on Sustainable Transport is to be held in May 2020.
- ♦ **Life Below Water:** The Strategic Plan for Bio Diversity 2011-20 comes to an end in 2020. In 2019, the Inter-governmental Science Policy platform published the Global Assessment of State of Biodiversity and Ecosystem services that listed 20 Biodiversity Targets. They are now to be taken for implementation in 2020 as the plan end in 2020 and also The IUCN (International Union for Conservation of Nature) is to hold World Conservation Congress in Marseille, France in June 2020 which is being organized once on 4 years.
- ♦ 2020 also marks the end of the UN Decade on Biodiversity, which aimed to halt the loss of wild species.

### Agreement between India and Norway:

- India and Norway agreed to jointly tackle concerns related to oceans, environment and climate matters.
- India and Norway declared the **2020-30 decade as the "Decade of rapid action on Climate Change and Environment."**
- Actions that target climate change and air pollution at the same time pose a win-win situation. The two sides recognized that such actions should be stepped up, and agreed to work together to raise this agenda.
- **Universal ratification of Kigali Amendment to the Montreal Protocol** shall allow realization of its full potential as it could prevent up to **0.40C of warming by end of the century.**
- Phasing down of HFCs and facilitating a smooth transition towards energy efficient solutions and technologies.
- **Establishment of the Joint Task Force on Blue Economy** for Sustainable Development by signing a Letter of Intent on integrated ocean management including sustainable Blue Economy initiatives.
- Implementation of the Stockholm Convention on Persistent Organic Pollutants and on the minimisation of discharge of marine litter.
- Joint commitment to support global action to address plastic pollution and exploring the feasibility of establishing a new global agreement on plastic pollution.
- They agreed to work together to deliver an ambitious, strong, practical and effective global biodiversity framework at **COP15 of CBD to be held in Kunming, China, in 2020.**
- Discussion on the conservation of migratory species of wild animals took place where they recognized the importance of integrating ecological connectivity into the post-2020 global biodiversity framework.

### Conclusion:

- Countries worldwide are taking initiatives in saving the wildlife across the globe which will help in enabling transformative progress towards conservation and sustainable use of wild animals and plant species.

## URBAN BENTTOED GECKO: CYRTODACTYLUS URBANUS

*Guwahati, the largest city in the Northeast, has yielded a new species of lizard – the urban bent-toed gecko.*



### About:

- The new species of lizard, zoologically named **Cyrtodactylus urbanus**, is **markedly different in molecular structure, blotch and colour** from the *Cyrtodactylus guwahatiensis*, or the **Guwahati bent-toed gecko**, that was **discovered two years ago**.
- All bent-toed geckos in Northeast India were thought to be a single species**, the *Cyrtodactylus khasiensis* found primarily in the Khasi Hills of Meghalaya.
- Though the urban bent-toed gecko **falls within the khasiensis group**, it **differs from other members of this group in mitochondrial sequence data** as well as aspects of morphology such as the number and arrangement of certain pores in males, the number of mid-ventral scales and colour pattern.
- The study on the urban bent-toed gecko also provided additional information on the **Guwahati bent-toed gecko**, the **first of the two Cyrtodactylus endemic to the areas** covered by the city and the fourth from Assam.
- Guwahati is home to 26 species of amphibians, 57 species of reptiles, 214 species of birds and 36 species of mammals.
- The city provides that edge for urban biodiversity to thrive because it encompasses **18 hills, eight reserve forests, two wildlife sanctuaries and a Ramsar site (wetland)** besides the Brahmaputra river.

## WILDFIRES IN THE MUKURTHI NATIONAL PARK

*Preparing for the summer and peak fire season, the forest department has begun work on construction of fire lines in the Mukurthi National Park (MNP).*

### About:

- Fire lines are described as an **artificially formed break in foliage or forest cover to control the spread of wildfires** by limiting the amount of combustible vegetation available.

### How Fire Lines will be formed?

- The **removal of invasive trees**, such as wattle is set to be stepped up in the **Mukurthi National Park (MNP)** specially in the **Kolaribetta Peak and Korakundah Forest Ranges** in the Nilgiris division of the national park.

### About Mukurthi National Park (MNP):

- Mukurthi National Park is **located in the Nilgiris district of the state of Tamil Nadu**. The park was **previously known as Nilgiri Tahr National Park**.
- Mukurthi National Park is part of the **Nilgiri Biosphere Reserve** which is India's first Biosphere Reserve.
- The Park is **sandwiched between the Mudumalai National Park and the Silent Valley National Park**.
- As part of the Western Ghats, it is a **UNESCO World Heritage Site** since 1 July 2012. The area was **declared as a wildlife sanctuary** on 3 August 1982 and the entire area of Mukurthi National Park was declared as a **Reserve forest** in the year of 1886. It was **upgraded to a National Park** in the year of 1990.

### Nilgiri Tahr

- The Nilgiri Tahr scientifically named '**Nilgiritragus hylocrius**' is a caprine ungulate that is **endemic to the Nilgiri Hills and the southern portion of the Western Ghats** in the south Indian states of **Tamil Nadu and Kerala**.
- The Nilgiri Tahr is an endangered species listed in **Schedule I of the Indian Wildlife (Protection) Act 1972** and assessed as **endangered by the IUCN** using the 1994 Red List Category.
- It is the state animal of Tamil Nadu.
- It is also known by the name **Nilgiri Ibex or simply Ibex**. Locally the animal is called '**Varayaadu**'.
- Its closest relatives are the **sheep belonging to the genus 'Ovis'**.
- The Nilgiri Tahr is **different from the other species of Tahr** namely the Himalayan Tahr and the Arabian Tahr.
- The **males are found to be larger than the females**, and have a darker color when mature.

- Major attraction of the park is **Nilgiri Tahr**. The area **contains a viable population of Nilgiri Tahr**. Besides that **Sambhar, barking deer, Nilgiri marten, otter, jungle cat, jackals etc.** are the commonly found animals.
- The natural vegetation consists of vast stretches of grasslands interspersed with numerous isolated, compact sharply defined and small woodland '**Shoals**'.



- The park is **characterized by montane grasslands and shrublands** interspersed with sholas in a high altitude area of high rainfall, near-freezing temperatures and high winds.
- A fascinating feature of the Mukurthi National Park is its **endemism and relationship with the Himalayan flora and fauna**.
- The Mukurthi dam has been built at the foot of this hill under **Pykara hydro electricity scheme**.
- **Billithadahalla, Pykara and Kundah rivers** flow through the park.
- **Kollaribetta is the highest point** (2630 mt). Other major peaks are Mukkurthi (2556 mt) and Nilgiris (2477 mt).

## CAUVERY DELTA REGION TO BE DECLARED AS PROTECTED AGRICULTURAL ZONE (PAZ)

*Recently, the state assembly of Tamil Nadu passed a bill to declare Cauvery delta region as Protected Agriculture Zone.*

### About:

- Cauvery delta region has been historically **exploited for hydrocarbons**.
- Declaring the region as Protected Agricultural Zone is an **attempt by Tamil Nadu government to offer farmers of this region relief from further hydrocarbon exploitations**.

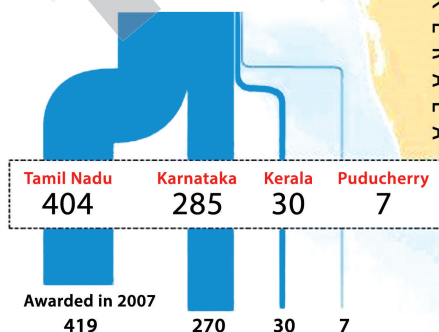
**Cauvery stretches over 802 km with origin at Tala-cauvery of Karnataka's Kodagu district**

**In 2007, after 16 years, the Cauvery tribunal gave its final award**

The tribunal held valid the agreements of 1892 and 1924 executed between the government of Madras and Mysore. Both Karnataka and Tamil Nadu were unhappy with the verdict

### THE SPLIT: 2018

(in thousand million cubic feet)



## What is a Protected Agricultural Region?

- Although, agricultural scientists such as M.S. Swaminathan have for long mooted such zones similar to special economic zones, Tamil Nadu is most recent to legislate this.
- Once designated as "Protected Agricultural Region", the area is **preserved for the availability of agricultural lands for farming by constraining non-agricultural development** such as hydrocarbon projects in the region.
- States like **Rajasthan** (Indira Gandhi Canal Area), **Kerala** (Kuttanad wetlands), Uttarakhand and Punjab-Haryana belt already have similar kind of protections.

## How is this Step Important?

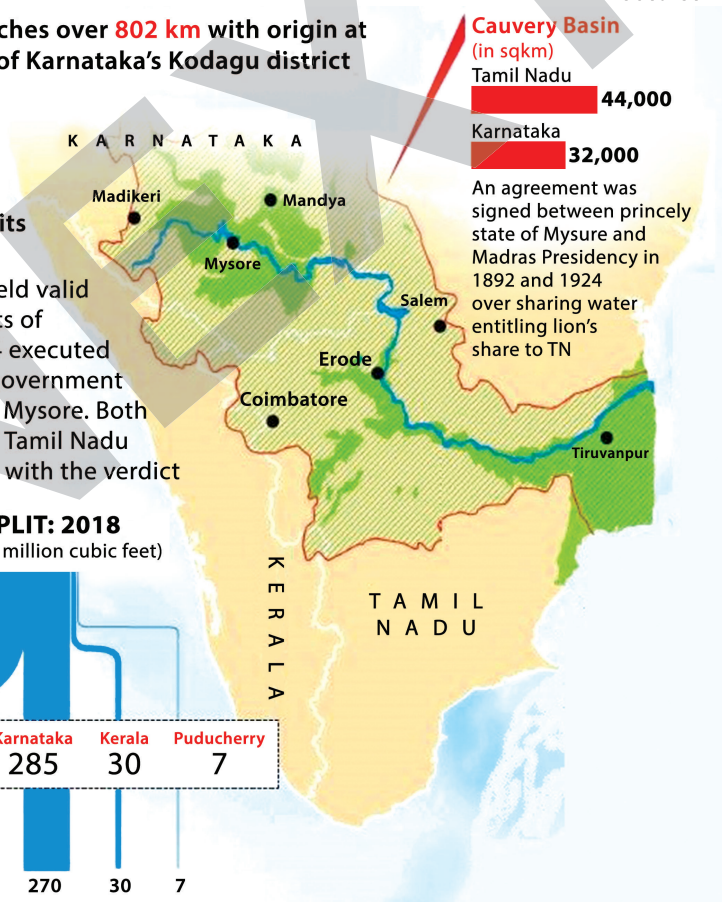
- By announcing the Cauvery delta region, also the **"rice bowl of Tamil Nadu"**, this step will go a long way:
  - ♦ It will help in recognizing the farmer concerns about hydrocarbon exploration.
  - ♦ It will accord primacy to food security.
- The proposed Authority is mandated to make suggestions that will help in:
  - ♦ Fostering the infrastructure for food security, Recommending schemes for irrigation and flood management.
  - ♦ Facilitating the promotion of agro-based and allied industries.

- ♦ To come out with measures for augmenting water resources, efficient water use in agriculture including micro-irrigation.

- Thus, the proposed authority will help in formulating measures to provide "sustainable employment opportunities" to agricultural labourers.

## What are the Challenges Ahead?

- **Legal:** Whether the State government is empowered to enact a law that will have bearing on natural resources such as petroleum, which comes under the Union List.
- **Stakeholder:** In the proposed Authority which will be **headed by the Chief Minister**, farmers are poorly represented.
- **Efficacy of project:** Without improving the Cauvery irrigation network or implementing the Cauvery modernisation project, the delta might be forced to remain like an "archaeological monument".





- **Business environment:** The proposed bill may have implications for the State's investment climate which is equally important.

#### Importance of Cauvery Delta Basin (CDB)

- CDB is only in the delta that has consistent and reliable production of paddy (rice), thus holds importance for **securing food security** of states especially Tamil Nadu.
- It produces 33 lakh tonnes of grains in 28 lakh acres.

#### Way Ahead:

- Cauvery Delta Region has seen multiple protests for a decade over methane, hydrocarbon, oil and natural gas projects, which required acquisition of fertile lands and well drilling — proposals which has potential for groundwater contamination.
- This step of securing the area is a right step, however, just as agriculture is important to the State, industry is equally important, thus there is need to foster a balance between the two without compromising the primacy of food security and farmers welfare.

### EURASIAN OTTER FOUND IN CHILIKA LAKE

*Researchers have found the presence of a viable population of Eurasian Otter in the brackish water lagoon of Odisha's Chilika Lake.*

#### About:

- The presence of Eurasian Otter in Eastern coast of India is a new finding.
- Otters are **mammals** living in variety of habitats ranging from marine to freshwater environments. They are shy and have elusive habits and are invariably associated with water.
- They are known as **fishing cats due to their fish hunting practices in water**. It has specialised features like **partially webbed feet** and **water-resistant fur** that helps it to thrive in wetlands.
- **IUCN status** – Near threatened

- **Wildlife (Protection) Act, 1972** – Listed in the Schedule II.

#### India has Three Species of Otters

- The smooth-coated otter.
- The Asian small-clawed otter
- The Eurasian otter (*Lutra lutra*).
  - ♦ Out of these three, the smooth-coated otter is the most widely distributed in India, with several well-documented records.
  - ♦ Small-clawed Otter are restricted to the Himalayas, to the north of the Ganges and to southern India.
  - ♦ The occurrence of all three species has been reported from northeast India and the Western Ghats.
  - ♦ In most of their distribution range, otters occur along with gharial (*Gavialis gangeticus*), crocodile (*Crocodylus palustris*), Ganges river dolphin (*Platanista gangetica*), and several species of turtles.

#### Protection and Threat to the Eurasian Otter:

Otters are killed for their fur, which is dense and very durable, it is considered the 'diamond' of the fur business. In India, the nomadic hunting tribes such as **Gilhara, Badiya and Jogis** are known to regularly kill otters for their skin and flesh. Illegal trade of otter pelts is rampant in many parts of south Asia, particularly in India, Nepal, and Bangladesh mainly for export to rich markets like China.

#### About Chilika Lake:

- Chilika Lake is the **largest brackish water lake** along the east coast of India.
- It is considered to be the **largest lagoon in India** and counted amongst the largest lagoons in the world.
- It is the largest wintering ground for migratory waterfowl found anywhere on the Indian sub-continent.
- On account of its rich bio-diversity, Chilika lake was designated as a **"Ramsar Site"**.
- The **Nalaban Island**, the core of the Chilika Lake, is notified as a **Bird Sanctuary** under Wildlife (Protection) Act, 1972.

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# SCIENCE & TECHNOLOGY

## FOUR-FOLD JUMP IN LI-ION BATTERY IMPORTS SINCE 2016

*Recently, the Union Science Ministry has revealed that India has four-fold its imports of lithium-ion (Li-ion) batteries and more than tripled its import bill on the product.*

### About:

- Indian manufacturers source **Li-ion batteries from China, Japan, and South Korea** and the country among the largest importers in the world.
- The **Indian Space Research Organization (ISRO)** manufactures such batteries but volumes are limited and they are restricted for use in space applications.
- China dominates the Li-ion battery market.** Around three-quarters of battery cell manufacturing capacity is in China, and Chinese companies have unparalleled control of required domestic and foreign battery raw materials and processing facilities.
- NOTE:** Lithium-ion batteries are commonly used in laptops, mobile phones, iPods, etc. **Electric vehicles are expected to account for a significant share in the growth of the Li-ion battery demand in India** though reports say this is unlikely at least until 2025 because electric cars are still significantly costlier than their combustion-engine counterparts.

### Background:

- During the Global Mobility Summit held in September 2018, Prime Minister had outlined the vision for the future of mobility in India based on the 7-C model.
- Mobility has the potential to drive the economy forward and positively impact the lives of citizens both in urban and rural areas.

### Steps taken by Government to Promote Li-ion Batteries:

- In June 2018, **Central Electro Chemical Research Institute (CECRI)**, under the Council of Scientific & Industrial Research (CSIR) and RAASI Solar Power Pvt. Ltd signed a Memorandum of Agreement for the transfer of technology for India's first lithium-ion (Li-ion) battery project.
- To promote indigenous development of such batteries, the Union Cabinet in 2019 approved a program, called a **National Mission on Transformative Mobility and Battery Storage** in the NITI Aayog to "drive clean, connected, shared, sustainable and holistic mobility initiatives".

- Promoting Electric vehicles:** The government has announced investments worth \$1.4 billion to make India one of the largest manufacturing hubs for electric vehicles by 2040.

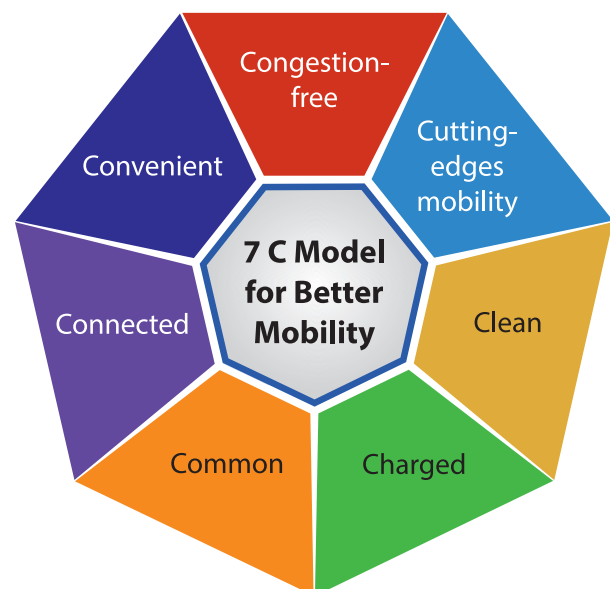
### National Mission on Transformative Mobility and Storage (NMTMS)

#### Composition:

- The multi-disciplinary "National Mission on Transformative Mobility and Battery Storage" with an **Inter-Ministerial Steering Committee will be chaired by CEO NITI Aayog.**
- The Steering Committee will be comprised of Secretaries from Ministry of Road Transport and Highways, Ministry of Power, Ministry of New and Renewable Energy, Department of Science and Technology, Department of Heavy Industry, Department for Promotion of Industry and Internal Trade, and Director General, Bureau of Industrial Standards.

#### Role of the NMTMS:

- A **Phased Manufacturing Program (PMP)** will be launched to localize production across the entire Electric Vehicles (EV) value chain including batteries and other components.
- The National Mission on Transformative Mobility and Battery Storage will determine the contours of PMP, and will finalise the details of such a program.
- The Mission will coordinate with key stakeholders in Ministries/Departments and the states to integrate various initiatives to transform mobility in India.



### Advantages of Li-ion Cell:

- The **energy density of lithium-ion is typically twice that of the standard nickel-cadmium.**
- **Lithium-ion is a low maintenance battery** and there is **no memory and no scheduled cycling** is required to prolong the battery's life.
- In addition, the **self-discharge is less than half compared to nickel-cadmium.**

### Disadvantages of Li-ion Cell:

- **Subject to aging**, even if not in use - storage in a cool place at 40% charge reduces the aging effect.
- **Toxic gases:** Lithium-ion batteries can produce dozens of dangerous gases when overheated, some of which can cause strong irritation to the skin, eyes and nasal passages and can even be fatal, and can also harm the wider environment.
- **Dangers of explosion:** An overheated battery can also explode as was seen when Dell recalled four million laptops in 2006 and Samsung recalled its Galaxy Note 7 devices over problems with battery fires.
- Requires protection circuit to maintain voltage and current within safe limits.
- Transportation restrictions - shipment of larger quantities may be subject to regulatory control. This restriction does not apply to personal carry-on batteries.
- **Expensive to manufacture vis-à-vis nickel-cadmium cell:** Li-ion batteries are about 40 percent higher in cost than nickel-cadmium.
- **Not fully mature:** The battery technology as well as the metals and chemicals used in the battery are changing on a continuing basis.

## SOLAR ORBITOR'S MISSION

*Recently, a new collaborative mission between ESA (European Space Agency) and NASA namely Solar Orbiter, to study the Sun has been launched.*

### About:

- Solar Orbiter is equipped with ten instruments that can capture observations of the **sun's corona** (which is its atmosphere), **the poles, solar disk and its magnetic field** (in different wavelengths of light, like ultraviolet, visible light and X-rays).
  - ♦ Observations of the poles could explain why the sun's magnetic field changes, alternating over an 11-year period. When the magnetic field is active, it produces dark sunspots on the sun's surface.
- The orbiter will take the pictures of **sun's north and south pole**, which could allow scientists for the first time to **observe**

**the concentrated source of solar wind** and to survey how its surface changes over time.

- The spacecraft will use **Venus's and the Earth's gravity** to swing itself out of the ecliptic plane — the swath of space, roughly aligned with the Sun's equator, where all planets orbit.
- Earlier, in 2018 NASA launched the **Parker Solar Probe** to find out how the sun churns **space weather** in our solar system.
  - ♦ It is tracing the flow of energy that heats and accelerates the sun's corona and solar wind; determining the structure and dynamics of the plasma and magnetic fields at the sources of the solar wind; and exploring mechanisms that accelerate and transport energetic particles.

### What is Solar Wind?

- It is a stream of charged particles that flow through our solar system, affecting satellites and electronic devices on Earth.
- When bursts of solar wind hit Earth, they can spark space weather storms that interfere with our GPS and communications satellites- at their worst, they can even threaten astronauts.

### What is space weather?

- It refers to conditions on the sun, in the solar wind, and within Earth's magnetosphere, ionosphere and thermosphere that can influence the performance and reliability of space-borne and ground-based technological systems and can endanger human life or health.
- **NOTE:** Geospace is a term used for Earth's near space environment. Understanding how the geospace region responds to a variety of solar drivers is the key to predicting space weather and also the earth's weather

### Some noticeable effects produced by Magnetic storms from the sun:

- Aurora borealis, the northern lights, and aurora australis, the southern lights
- Communication disruptions
- Radiation hazards to orbiting astronauts and spacecraft
- Current surges in power lines
- Orbital degradation
- Corrosion in oil pipelines

### Coronal Mass Ejections

- A Coronal Mass Ejection (or CME) is a giant cloud of solar plasma that is blown away from the Sun often during strong, long-duration solar flares.
- When the Sun isn't very active during solar minimum, coronal mass ejections are rare.
- When the Sun's activity increases towards solar maximum, coronal mass ejections become more common.



- A coronagraph, used to detect solar flares, produces a solar eclipse by covering the Sun with a small disk.
- Coronal mass ejections are very faint and cannot be observed otherwise.
- The SOHO and STEREO missions have white-light coronagraphs onboard to detect coronal mass ejections.

#### Some other Important NASA Mission to Study the Sun

- Parker Solar Probe
- **ICON:** Ionospheric Connection Explorer (ICON)
- **IRIS:** Interface Region Imaging Spectrograph
- **SDO:** Solar Dynamics Observatory
- **SOHO:** The Solar and Heliospheric Observatory
- **SAMPEX:** Solar Anomalous and Magnetospheric Particle Explorer
- **STEREO:** Solar Terrestrial Relations Observatory
- **TRACE:** Transition Region and Coronal Explorer
- **RHESSI:** Reuven Ramaty High Energy Solar Spectroscopic Imager

## A-SAT AND ADTCR

*In Republic Day's Parade, India showcased its Anti-Satellite (ASAT) missile and also Air Defence Tactical Control Radar (ADTCR).*

### About:

- In addition, the IAF's newest inductions, Chinook heavy-lift helicopters and Apache attack helicopters, also been displayed during the parade.
- The Army showcased its recent induction, the 155-mm Dhanush towed howitzer and K9-Vajra self-propelled artillery gun.

### About Anti-Satellite Missile:

- In 2019 the DRDO, as part of Mission Shakti, shot down a live satellite in Low Earth Orbit (LEO) of 300 km using a modified interceptor of the Ballistic Missile Defence (BMD) system (namely, Anti-Satellite (ASAT) missile) in 'hit to kill' mode with 10-cm accuracy.
  - ♦ **India used Kinetic Kill**, a space technology in which India has developed capability.
- The test proved to be a major breakthrough in demonstrating the ASAT technology and that the ASAT weapons "play a critical role in providing the necessary strategic deterrence".
- The covert technology of 'hit to kill' developed for the first time in India for such applications enables it to destroy an **enemy satellite** by directly colliding with it with pin-point accuracy.

- The successful demonstration has placed India at par with the elite club of three nations, US, Russia, and China that possess this capability.

### Soft Kill and Hard Kill

- Space weapons can be categorised into two groups based on their capabilities: "**soft kill**" and "**hard kill**."
- Hard-kill space weapons include Kinetic Energy Weapons (KEWs), while soft-kill space weapons include electronic-warfare measures (e.g. jamming) and Direct Energy Weapons (DEWs) such as lasers.
- **NOTE: Kinetic Energy Weapons** are those where the destructive force comes from the kinetic energy of the projectile impacting at very high speeds.

### Outer Space Treaty

- The principal international Treaty on space is the 1967 Outer Space Treaty. India is a signatory to this treaty, and ratified it in 1982.
- **The key principles are:**
  - ♦ The exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind;
  - ♦ Outer space shall be free for exploration and use by all States;
  - ♦ Outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;
  - ♦ States shall not place nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or station them in outer space in any other manner;
  - ♦ The Moon and other celestial bodies shall be used exclusively for peaceful purposes;
  - ♦ Astronauts shall be regarded as the envoys of mankind;
  - ♦ States shall be responsible for national space activities whether carried out by governmental or non-governmental entities;
  - ♦ States shall be liable for damage caused by their space objects; and states shall avoid harmful contamination of space and celestial bodies.

### About Air Defence Tactical Control Radar (ADTCR):

- Air Defence Tactical Control Radar (ADTCR) is used for volumetric surveillance, detection, tracking and friend/foe identification of aerial targets of different types, and transmission of prioritized target data to multiple command posts/weapon systems.
- The radar is capable of detecting very small targets and low flying targets. The system employs Active Phased Array Technology with Digital Beam Forming, distributed Digital Receivers and IFF Mark XII.



- The Radar System, power & cooling systems, operator shelter, communication equipment, etc. is configured on two High Mobility Vehicles. The Radar can be deployed in plain lands, deserts and in the mountain regions for the purpose of tactical early warning for Ground-based Weapon Systems.

## DARK FIBER

*Recently, the major telecom companies like Bharti Airtel, Vodafone Idea and Reliance Jio have approached Bharat Broadband Network Ltd (BBNL) to use the dark fiber.*

### About:

- The hitherto unused infrastructure will be used by these companies to expand their presence in rural India and offer 4G as well as other long-term evolution (LTE) mobile telephony services.

### What is Dark Fibre?

- Dark fiber refers to unused fiber-optic cable. Often times companies lay more lines than what's needed in order to curb the costs of having to do it again and again. The dark strands can be leased to individuals or other companies who want to establish optical connections among their own locations.
- Dark fiber services are provided by **Local Exchange Carriers (LECs)** to maintain optical fiber transmission capacity between customer locations where light for fibers is provided by the customers.
- Dark fiber is also known as **unlit fiber**.

### Significance

- Dark fiber can provide a point-to-point connectivity solution that offers a secure way to deliver high-speed data applications.
- It can be scalable. It allows the organization to create its own network without the need to invest in fiber-optic infrastructure.
- It is private and secure.

### Bharat Broadband Network Ltd (BBNL):

- Bharat Broadband Network Limited is a Special Purpose Vehicle set up under Companies Act by the Government of India with an authorized capital of Rs. 1000 Cr. It has been mandated to create the **National Optical Fiber Network (NOFN)** in India.
- **Objectives**
  - To carry on the business of establishment, management and operation of National Optical Fibre Network (NOFN) which has been envisaged by the Government of India to

provide high speed broadband connectivity to all gram panchayats.

- To provide access to bandwidth in a non-discriminatory manner to all eligible service providers to enable them to provide services in rural areas.

## DECADAL FORECAST SYSTEM

*At the 6<sup>th</sup> International Conference on Climate Services, the Ministry of Earth Sciences (MoES) has announced that India is planning a 'decadal forecast' system.*

### About:

- As per the proposal, the system will be based on a coupled climate model and designed along the lines of the **United Kingdom's Met Office** to ensure better predictability in the climate time scale.
- The **World Meteorological Organization** has set up global producing centers, coordinated by the U.K. Met Office, for annual to decadal projections that are already providing global-scale information.
- The system would be explored as a research program to be taken up by the Indian Institute of Tropical Meteorology, Pune along with collaboration from the India Meteorological Department and other entities.
- This system will be using a coupled climate model by utilizing signals emanating from deep oceans to predict decadal climate changes.

### What is Decadal Forecast?

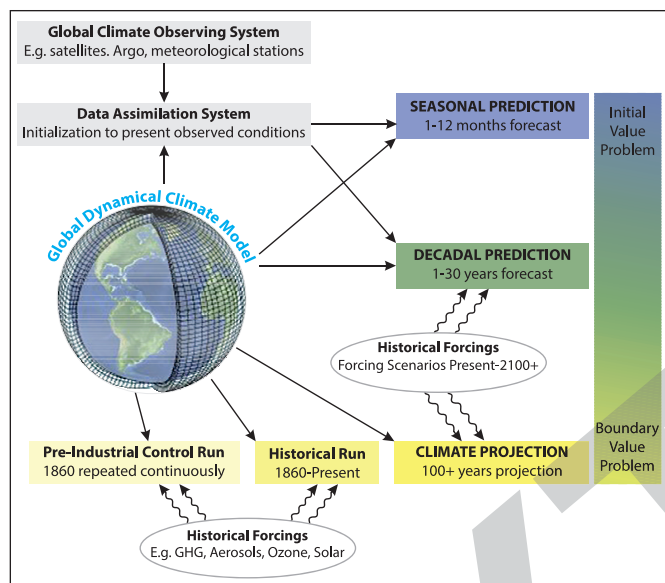
- Decadal forecasts are designed to predict fluctuations in the climate system over the next few years and is also known as **'near-term' climate predictions**.
- They take into account natural variability as well as human influences. This is achieved by initializing climate models with observations of the current climate state, in addition to specifying changes in radiative forcing due to greenhouse gases, aerosols (both volcanic and anthropogenic), and solar variability.

### International Conference on Climate Services:

- ICCS is the world's premiere climate services event, organized jointly by the Climate Services Partnership and the Global Framework for Climate Services, an international effort coordinated by the World Meteorological Organization.
- Support is provided by the UK Department for International Development Asia Regional Resilience to a Changing Climate (ARRCC) Programme and the CGIAR Research Program on Climate Change, Agriculture and Food Security.

**Need:**

- **Multiple Challenges:** There were a number of gaps in the understanding of regional climate variability and its connections to global phenomena like **Indian Ocean Dipole**.
- **For longer-range prediction for 10 or 20 years:** Once it is successfully established for long-range forecasting at the national level, it can later be downscaled to the state or even district-level.

**GAGANYAAN**

*Recently, the four Indian pilots chosen as candidate-astronauts for Mission Gaganyaan began their 12-month training in Russia.*

**About:**

- The training program includes comprehensive and biomedical training of the Indian candidates, which will be combined with regular physical practices.
- At the end of all training modules in India and Russia, one or two of the four will be finally named to circle the earth in the first crewed Gaganyaan, which is planned around 2022.

**About Gaganyaan Project:**

- It is the ₹10,000-crore **Indian human space flight scheduled for 2022**. It is designed to have 3-7 crew members spend 3-7 days in space in a 400-km orbit.
- The spacecraft, which is being developed by the Indian Space Research Organisation (ISRO), consists of a service module and a crew module, collectively known as the Orbital Module.

- ISRO's **Geosynchronous Satellite Launch Vehicle GSLV Mk III**, the three-stage heavy-lift launch vehicle, will be used to launch Gaganyaan as it has the necessary payload capability.

**GSLV MK III:**

- GSLV Mk III is a three-stage heavy lift launch vehicle developed by ISRO. The vehicle has two solid strap-on rockets, a core liquid booster and a cryogenic upper stage.
- GSLV Mk III is designed to carry a 4-ton class of satellites into Geosynchronous Transfer Orbit (GTO) or about 10 tons to Low Earth Orbit (LEO).
- The powerful cryogenic stage of GSLV Mk III enables it to place heavy payloads into LEO's of 600 km altitude.

**Significance:**

- It will be for the first time that India will launch its manned mission to space, making the country **fourth in line** to have sent a human to space.
- The mission will enable ISRO to achieve higher levels of reliability in launch and satellite technology. It will help in providing employment to 15,000 people and out of them, 861 will be from ISRO.

GSLV MK III		
Stage of the GSLV	Engine	Fuel
<b>C25:</b> Cryogenic Upper Stage	C25 is powered by CE-20, India's largest cryogenic engine, designed and developed by the Liquid Propulsion Systems Centre.	28 tonnes of LOX + LH <sub>2</sub>
<b>S200:</b> Solid Rocket Boosters	The two S200 solid rockets which provide huge initial thrust were developed at Vikram Sarabhai Space Centre.	205 tonnes of HTPB (nominal)
<b>L110:</b> Core Liquid Stage	Powered by two Vikas engines designed and developed at the Liquid Propulsion Systems Centre.	110 tonnes of UDMH + N <sub>2</sub> O <sub>4</sub>

**PICK OF THREE**

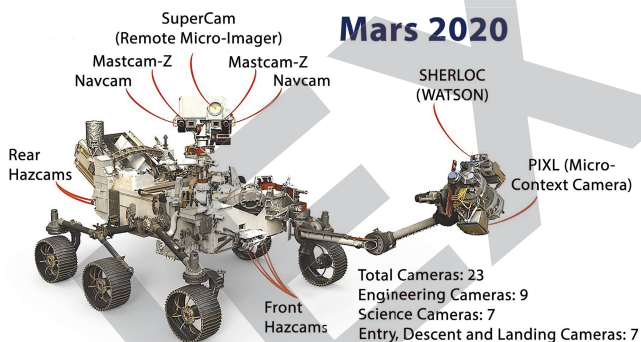
- ▶ The final three will go to space on Gaganyaan
- ▶ 12-14 months needed to select astronauts once process begins
- ▶ 3 months needed for evaluation (psychological and medical tests)
- ▶ Key requirements: Ability to deal with isolation, handle physiological changes caused by extreme temperatures and disorientation during spaceflight, decision-making aptitude.
- ▶ India will pick three sets of three astronauts for the programme
- ▶ After initial training in India, astronauts will be sent to Russia for advanced training.

## SUPERCAM ON MARS 2020 ROVER

*NASA has sent a new laser robot SuperCam as one of seven instruments aboard the Mars 2020 rover.*

### About:

- The robot is used for studying mineralogy and chemistry from up to about 7 meters away. It might help scientists find **signs of fossilized microbial life on Mars**.
- It fires a pulsed laser beam out of the rover's mast to vaporize small portions of rock from a distance.. It also includes a microphone so scientists can listen each time the laser hits a target.
  - ♦ SuperCam looks at rock textures and chemicals to find those that formed or changed in the water on Mars long ago.
  - ♦ SuperCam looks at different rock and "soil" types to find ones that could preserve signs of past microbial life on Mars- if any ever existed.
  - ♦ For the benefit of future explorers, SuperCam identifies which elements in the Martian dust may be harmful to humans.
  - ♦ Scientists can learn about how atmospheric molecules, water ice, and dust absorb or reflect solar radiation. This helps predict Martian weather better.



### Mars 2020 Mission:

- The Mars 2020 rover mission is part of **NASA's Mars Exploration Program**, a long-term effort of robotic exploration of the Red Planet.
- The Mars 2020 mission addresses high-priority science goals for Mars exploration, including key questions about the potential for life on Mars.
- The mission also provides opportunities to gather knowledge and demonstrate technologies that address the challenges of future human expeditions to Mars.
  - ♦ These include testing a method for producing oxygen from the Martian atmosphere, identifying other resources (such as subsurface water), improving landing

techniques, and characterizing weather, dust, and other potential environmental conditions that could affect future astronauts living and working on Mars.

## YARAVIRUS

*Recently, the researchers have discovered a new virus namely, Yaravirus from Lake Pampulha, an artificial lagoon in the city of Belo Horizonte, Brazil.*

### About:

- **The Yaravirus infects amoeba** and has genes that have not been described before, which could now challenge how DNA viruses are classified till yet.
- Because of the Yaravirus's small size, it was unlike other viruses that infect amoeba and it was named as a tribute to **Yara**, the "**mother of waters**" in the mythological stories of the **Tupi-Guarani indigenous tribes of South America**.
- DNA viruses are classified based on the protein that makes up their shell, or capsid. The Yaravirus' capsid doesn't resemble any previously known protein.
- Moreover, about 90 percent of the genes of the virus has been defined as '**orphan genes**' which do not bear any resemblance with over 8500 publicly available metagenomes.
- The Yaravirus does not pose any threat to humans for now - that's because Yaravirus doesn't infect human cells.

### What is a Virus?

- Virus, an parasites of small size and simple composition that can infect animals, plants, or bacteria.
- Viruses lack the capacity to thrive and reproduce outside of a host body. But, once it infects a susceptible cell it can hijack the cell machinery to produce more viruses.
- Viruses consist of genetic material, RNA or DNA (but never both), surrounded by a coat of protein, lipid (fat), or glycoprotein.
- The entire infectious virus particle, called a **virion**, consists of the nucleic acid and an outer shell of protein.
- Furthermore, when certain genes carried by cancer-causing viruses integrate into the DNA of a normal animal cell, the normal cell can be converted to a cancer cell.
- Viruses are also considered the most abundant biological entity on the planet.

### Do we have any Medicine for Viruses?

- In general, viruses can be hard to treat. That's because they live inside the body's cells, which shelter them from medicines. Also antibiotics don't work on viruses.

- However, medicines to treat viruses exist. Called antivirals, they work in different ways. Some, for example, block the entry of a virus into a host cell. Others interrupt the virus as it attempts to copy itself.

#### Can Virus be useful for Humans?

Since many viruses can infect a large number of different cell types, genetically modified viruses often are used to carry foreign DNA into a cell. This approach provides the basis for a growing list of **experimental gene therapy treatments**.

## YELLOW RUST

*Recently, the Punjab Agriculture and Farmers' Welfare Department issued an advisory about Yellow Rust disease in wheat crops.*

#### About:

- The advisory was followed by a similar advisory from the **Indian Institute of Wheat and Barley Research (IIWBR)** after Yellow Rust was detected in wheat crops in parts of Punjab and Haryana.
  - ♦ According to the IIWBR advisory, if farmers observe yellow rust in patches in their wheat fields, they should spray fungicides.
- **NOTE:** Last year, a new variety of wheat called **HD-3226** or **Pusa Yashasvi** was released by the **Indian Agricultural Research Institute**, which had higher levels of resistance against major rust fungi such as the yellow/stripe, brown/leaf and black/stem.

#### What is Rust Disease?

- Rust disease is caused by a fungal parasite that needs living plants to survive.
- Rust diseases occur most often in mild, moist conditions.
- Rust is spread by spores that are transferred from infected plants to healthy plants. These spores can be transferred either by the wind or by water, which is why rust disease often spreads after watering. Wet surfaces are also needed to cause infections.

#### Yellow Rust Disease:

- Yellow rust or stripe rust is a fungal disease which attacks the leaves of wheat crop. It appears as yellow stripes of powder or dust on leaves and leaf sheaths of the wheat crop. This yellow powder comes out on clothing or fingers when touched.
- The rust colonies in the leaves drain the carbohydrates from the plant and reduce the green leaf area.

- In India, it is a major disease in the Northern Hill Zone and the North-Western Plain Zone and spreads easily during the onset of cool weather and when wind conditions are favorable. Rain, dew and fog along with humid and warm conditions favor the disease's development.
- The disease can **spread rapidly under congenial conditions** and affects crop development, and eventually the yield.
  - ♦ **As per Bayer Crop Science**, yield due to the disease can be affected by between 5 and 30 per cent.

#### Other Disease related to Wheat

- Powdery mildew
- Loose smut
- Brown rust
- Black rust
- Flag smut
- Hill bunt or Stinking smut
- Karnal bunt
- Leaf blight
- Foot rot
- Head scab/Fusarium leaf blotch (Snow Mold)
- Helminthosporium leaf blotch (Spot Blotch)
- Seedling blight

#### Disease Management:

- Rust diseases can be controlled by eradication of alternate hosts, by pruning or surgical excision of infected tissues, by protection of foliage from infection with fungicides, and by the use of resistant species.

## ISRO TO LAUNCH GISAT-1

*Recently, ISRO has unveiled its plan to launch a new earth observation satellite 'GISAT-1'.*

#### About:

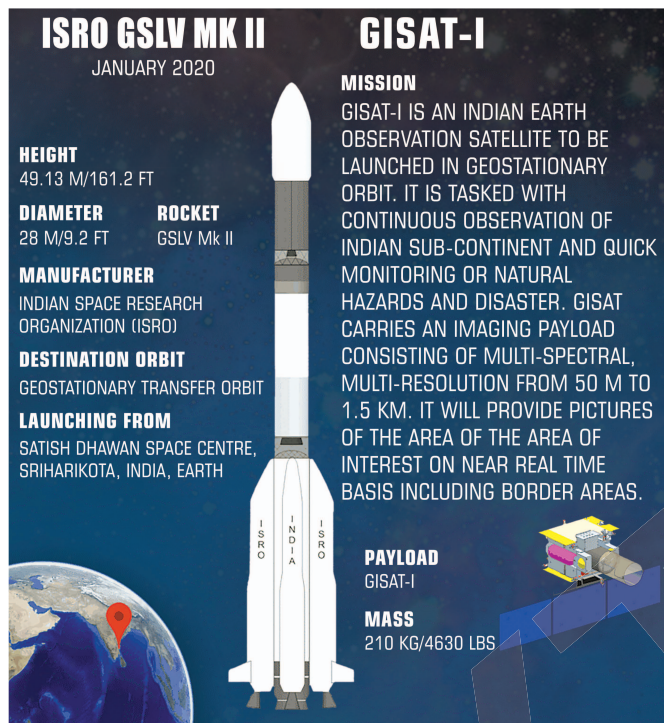
- In an attempt to enhance its real-time observations capabilities, India has recently decided to launch GISAT-1.
- The satellite will be launched by **ISRO'S** Geosynchronous Satellite Launch Vehicle (**GSLV-F10**) from the launch pad of **Sriharikota**, Andhra Pradesh.

#### What is GSAT-1?

- GISAT-1 — Geo Imaging Satellite —is the first of two planned Indian EO spacecraft to be placed in a geostationary orbit (**around 36,000 km**).
- It weighs around **2100 kg**.
- The rocket consists of **three stages** and four liquid engine strap-on rocket motors.



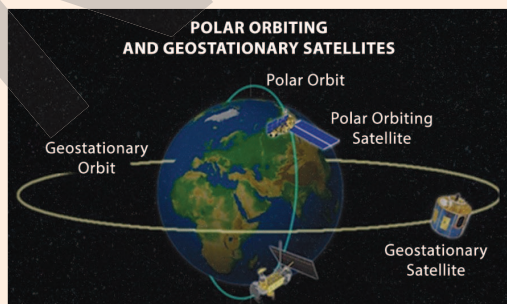
- It is capable of scanning the **entire Indian** subcontinent **every 30 minutes**.
- It will take near **real-time images** of the area intended for **weather and natural disaster forecasting**.



- Thus, the high-resolution cameras on board satellite will help to keep a constant watch on changes in the geographical condition of the country.

### What is Geostationary Orbit?

- It is a geosynchronous orbit with an inclination of **zero**, meaning, it **lies on the equator**.
- It is ideal for certain kinds of communication satellites and meteorological satellites.
- It is also called the Clarke orbit.
- From earth, the satellite in geostationary orbit apparently looks to be in a fixed spot all the time.



- Thus, **all geostationary satellites are geosynchronous** while **Not all geosynchronous satellites are geostationary**.

## ALTITUDE CHANGES AFFECT CLIMATE IMPACT OF AIRCRAFT

*Recently, a London-based research found that changing the altitude of flights can reduce the climate effects of aviation contrails.*

### About:

- Aircrafts leave a white streak of contrails that are bad for the climate due to their carbon dioxide (CO<sub>2</sub>) emissions.
- An Imperial College London-led research has recently found that flight altitude changes of just 2000 feet could lessen their effect.

### What are Aviation Contrails?

- When hot exhaust gases from aircraft meet the cold, low-pressure air of the atmosphere, they produce white streaks in the sky called '**condensation trails**', or contrails.
- It includes black carbon particles, which provide surfaces on which moisture condenses to form ice particles.

### Why Aviation Contrails are Bad for Environment?

- Contrails and the clouds they help form have as much of a warming impact on the climate as aviation's cumulative carbon dioxide (CO<sub>2</sub>) emissions, because of an effect known as '**radiative forcing**'.
- This is where the **balance is disrupted** between radiation coming to the Earth from the Sun and heat emitted from the surface of our planet going out to space, forcing a change in the climate.

### How Altitude Change can Help in Climate Impact?

- Research suggests that altering the altitude of less than 2 per cent of flights can reduce the aircraft-linked climate change by almost 60 per cent.
- Contrails only form and persist in thin layers of the atmosphere that have very high humidity.
- With small changes to flight altitudes aircrafts can avoid regions that forms contrails.
- Unlike CO<sub>2</sub> that have an impact in the atmosphere for hundreds of years, contrails are short-lived, and thus could be quickly reduced.

### Way Ahead:

- Black carbon particles are produced by incomplete fuel combustion, thus, there is need for new and more efficient engine combustion technology that can help in reducing their impact.
- This, combined with small altitude changes, can go a long way in reducing the overall contrail harm.

## NETHERLAND BANS SYRI DIGITAL IDENTIFICATION SCHEME

*Recently, a Dutch court has ruled against an identification mechanism called SyRI due to data privacy and human rights concerns.*

### About:

- The SyRI scheme was developed in 2014 by the Dutch Ministry of Social Affairs in an attempt to weed out people who are most likely to commit fraud and receive government benefits.
- However, a court in the Netherlands has recently put a ban on this initiative just for being invasive and **violative** of fundamental **right to privacy**.

### What is SyRI?

- SyRI or **System Risk Indicator** was developed in an attempt Legislation passed by Dutch Parliament.
- It allows government agencies to share data on welfare recipients such as taxes, land registries, etc **with a private company**.
- It uses an algorithm to analyse data for cities and calculate risk scores.
- It has been **alleged to exclusively targeted** at neighborhoods with mostly low-income and minority residents.
- Based on analyzed data, selective rollouts are conducted in targeted neighborhoods, while elevated risk scores are sent to relevant government arms, which stores these on government databases for a maximum of two years.

### What is the Implication of this Judgement?

- This is one of the first times a court anywhere has stopped the use of digital technologies and abundant digital information by welfare authorities on human rights grounds.
- By applying universal human rights standards, this Dutch court is setting a standard that can be applied by courts elsewhere.

### Privacy in India

- In an attempt to balance social interest with personal privacy, the Supreme Court in India gave verdict on **Aadhaar judgment in 2018**.
- It sets limits on the Aadhar ID's usage.
- Although the Aadhaar judgment was about data collection and not regarding algorithmic decision-making.
- Besides, the government has also proposed The **Personal Data Protection Bill, 2019** which seeks to provide for protection of personal data of individuals.

- The litigation and its outcome are likely to inspire activists in other countries to file similar legal challenges to address the risks of emerging digital welfare systems.

### Way Ahead:

- The Dutch court's verdict becomes more important at a time when identity, citizenship and privacy are pertinent questions in India.
- There is need to put legal definition on usage of the open-ended terms like '**National security**' or '**reasonable**' as they may lead to intrusion of the state into the private lives of citizens. In this regard, implementing Justice BN Srikrishna committee report on the data protection laws will be a welcome step in the right direction.

## SUTRA PIC PLAN

*Recently, the department of Science and Technology, MoS&T has unveiled SUTRA PIC for research on 'indigenous' cows.*

### About:

- In an attempt to **develop products** as well as **improve the genetic quality** of indigenous cattle breeds, the department of Science and Technology under **Ministry of Science and Technology (MoS&T)** has recently unveiled SUTRA PIC.
- The programme will be conducted in association with other institutions like- Department of Biotechnology, the Council of Scientific and Industrial Research, the Ministry for AYUSH etc as partners.

### What is SUTRA PIC?

SUTRA PIC or **Scientific Utilisation Through Research Augmentation-Prime Products from Indigenous Cows** is a research initiative aimed at:

- Performing scientific research on complete characterization of milk and milk products derived from Indian indigenous cows.
- Conducting scientific research on **nutritional and therapeutic properties** of curd and ghee prepared from indigenous breeds of cows **by traditional methods**;
- Development of **standards for traditionally processed dairy products** of Indian-origin cow.

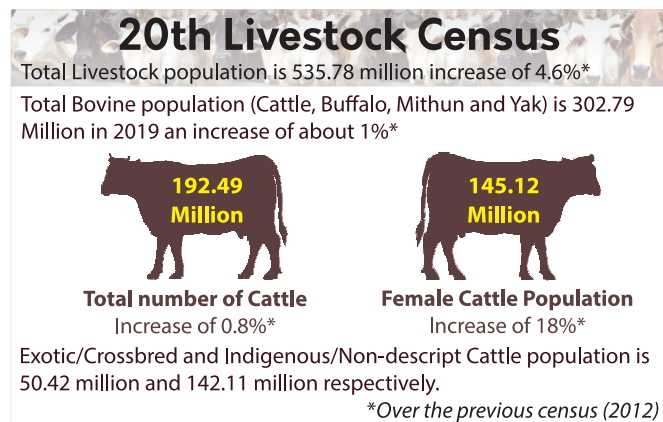
### Who are Eligible for Funding?

- Researchers from academic organisations.
- Capable voluntary organisations (NGOs) **active in India** with proven record of accomplishment.

### What are the Major Themes?

- Uniqueness of Indigenous Cows,
- Prime-products from Indigenous Cows for Medicine and Health,

- Prime-products from Indigenous Cows for Agricultural Applications,
- Prime-products from Indigenous Cows for Food and Nutrition,
- Prime-products from indigenous cows-based utility items.



### Why is it Important?

- India had 192.49 million cattle and 43 registered native cattle breeds. The population of indigenous cattle has been decreased by 8.94% in comparison to the population of exotic/crossbreds which has seen an increase by 20.18% from last census of 2012.
- The reasons for depletion of native breeds includes:
  - Cross-breeding with exotic breeds
  - Economically less viable,
  - Losing utility,
  - Reduction in herd size
  - Large-scale mechanization of agricultural operation.

### What is Panchagavya?

- It is an Ayurvedic panacea and is a mixture of five (pancha) products of the cow (gavya) — milk, curd, ghee, dung and urine.
- Its proponents believe it can cure, or treat a wide range of ailments.

## DATA CENTRE PARKS

**Recently, the union government under the Budget 2020-21 has proposed to enable private firms to build data centre parks in country.**

### About:

- Currently there is no large-scale foreign investment in data centres in the country. There is no policy or framework right now on how these global data centres hubs can be created in India. If the government has a clear cut policy around it,

India could essentially become a data centre hub for global enterprises.

- The new policy on data centre parks is expected to incentivize setting up data centres, similar to some US states that have relaxed taxation on data centre providers.

### Objective:

- Minimize the opposition to data localization requirements by businesses by making the local data centers far more viable economically.
- Make it attractive for small businesses to host their data in well-managed, world class data centers. This goes well with the government's thrust on MSMEs and digital India.
- Make India a favored destination for global data centers, as the demand explodes.

### Significance:

- This proposal could help India become a major global data centre, but only with a supportive policy and infrastructure framework.
- According to Research and Markets, US data centre market is expected to reach revenue of \$69 billion by 2024. Meanwhile, India data centre market is expected to reach values of approximately \$4 billion by 2024.
- Data centres are capital intensive businesses so it still makes sense to operate from major cities where overhead costs are distributed across a larger facility while smaller markets may not attract enough customer base.
- The government's focus on enhanced digital connectivity, emerging technologies such as machine learning and artificial intelligence, along with the allocation towards quantum computing are sure to provide a fillip to India's economy.
- Data management and protection that will come along with data centre parks will play an important role in protecting the citizen's data from cyberattacks and breaches. Moreover, the execution of intelligent data management platforms will help in creating positive outcomes from the data.
- Localized data centers which can be accessed and controlled from a centralized system will significantly improve data privacy and security allowing the free flow of data within borders.

### Way Ahead:

- As and when the data center parks— even in a limited manner in major cities— becomes a reality, the enterprise IT managers have to calculate the new economics—either of moving to a captive/hosted data center or negotiating a better cost structure with large cloud service providers.



## ENSEMBLE METHODS IN MODELLING AND DATA ASSIMILATION' (EMMDA)

*Recently, the NCMRWF under Ministry of Earth Science organised an international conference on EMMDA.*

### About:

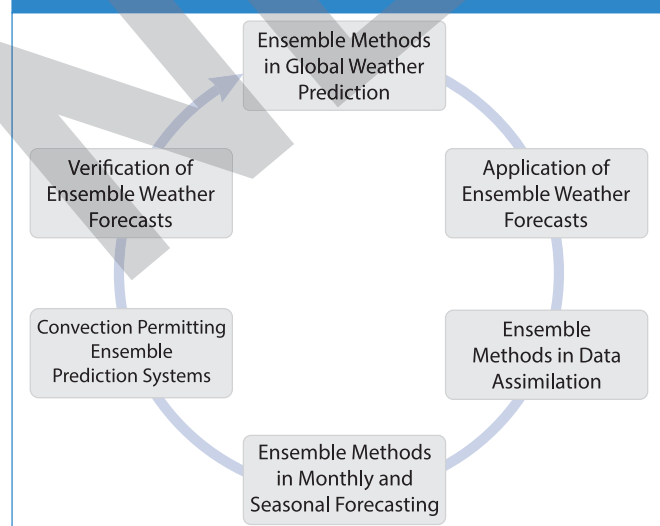
- In an attempt to improve the weather, forecast skill, a three-day international conference on "Ensemble Methods in Modelling and Data Assimilation (EMMDA) has been organised by National Centre for Medium-Range Weather Forecasting (NCMRWF).
- It aims at employing the state of the art numerical prediction systems and adaptation of latest data assimilation techniques.

### What is Ensemble Prediction System (EPS)?

'Ensemble Prediction System' is a system of **providing probabilistic forecasting** of weather. In this, a number of similar models, called the ensemble members, are run from slightly different initial conditions.

- It requires high computational resources and in turn provides the flow dependent forecast uncertainty in terms of probability.
- It helps the end users in making decisions and plan their actions suitably.
- The forecasts from EPS provide more accurate probabilistic forecasts of extreme weather events.
- It helps the planners and administrators in taking timely actions.
- **Note:** India has recently operationally implemented **two global EPS** which have highest resolution in the world. It also has a regional EPS of horizontal resolution 4 km which covers the Indian region.

### MAJOR THEMES OF THE CONFERENCE



### National Centre for Medium-Range Weather Forecasting (NCMRWF)

It is a **national agency** for weather forecasting under the Ministry of Earth Sciences, Government of India.

- It provides medium range weather forecasts.
- It also offers Agro-Advisory Service (AAS) to the farmers.
- It is located in **Noida, Uttar Pradesh**.

Overall, NCMRWF strives to continuously **develop advanced numerical weather prediction systems**, with increased reliability and accuracy over India and neighbouring regions through research, development and demonstration of new and novel applications, maintaining highest level of knowledge, skills and technical bases.

### Way Ahead:

- Although remarkable success has been achieved in weather forecasting, it is well known that some amount of uncertainty associated with numerical weather prediction is inevitable.
- Through conference, the discussion on latest techniques used in Data Assimilation, Ensemble Methods, or use of Probabilistic Forecasts will go a long way in developing new applications from Ensemble Products. The discussions will also lead to development of newer algorithms and will be useful for societal applications related to weather/climate.

## DUSTING USING DRONES IS ILLEGAL

*Recently, an environmentalist highlighted that usage of drones in for agro-chemical spraying has increased and would create lot of problems.*

### About:

- The environmentalist mentioned that **aerial spraying is illegal and impacts a larger area**, while **decreasing the efficacy on the target pests**, for example - **Kasargod in Kerala** faced the negative consequences of aerial spraying of Endosulfan (a pesticide) for over 25 years.
- **The main concerns are:** The farmers and sprayers ignore and/or cannot follow safety precautions under adverse weather and wind conditions. The drift of spraying can take a fine hazardous chemical beyond the range of applications.
  - The **Insecticide Act does not allow aerial spraying**. Drones and unmanned machines can be hazardous tools for spraying hazardous chemicals in many ways. Allowing aerial spraying, using drones and unmanned, remote-controlled vehicles can be catastrophic.
- Drone manufacturers, suppliers, and the entire network have to be cautioned against using drones for aerial spraying of agrochemicals.



### Legal Provisions:

- In response, the Union Government has clarified that drone-spraying is illegal.
  - As per the provisions of the **Insecticides Act 1968**, aerial application of pesticides need approval/permission from the Central Insecticides Board (CIB).
  - Further, no permission/ approval has been granted by the CIB in the past for the use of drones to spray pesticides.

### Central Insecticides Board (CIB)

It was established under Section 4 of the Insecticides Act, 1968

#### Objectives of CIB:

To minimize the risk to human being or animals involved in the use of insecticides and the safety measures necessary to prevent such risk.

#### Functions of CIB:

- Advise the Central Government on the **manufacture of insecticides** under the Industries (Development and Regulation) Act, 1951 (65 of 1951).
- Specify the uses of the **classification of insecticides** on the basis of their toxicity as well as their being suitable for aerial application.
- Advise tolerance limits** for insecticides residues and establishment of **minimum intervals between the application** of insecticides and harvest in respect of various commodities.
- Specify the shelf-life of insecticides.
- Suggest colorization, including coloring matter which may be mixed with concentrates of insecticides, particularly those of highly toxic nature.
- Carry out such other functions as are supplemental, incidental or consequential to any of the functions conferred by the Act or the Rules.

### What is Drone Technology?

- Drones are basically known as **unmanned aerial vehicles (UAVs) or unmanned aircraft systems (UAS)**.
- Essentially, a drone is a **flying robot** that can be remotely controlled or fly autonomously through **software-controlled flight plans in their embedded systems**, working in conjunction with onboard sensors and GPS.
- Uses:** UAVs were most often associated with **military and intelligence gathering**. Drones are now also used in a wide range of civilian roles ranging from **search and rescue, surveillance, traffic monitoring, weather monitoring, and firefighting**, to **personal drones and business drone-based photography, as well as videography, agriculture, and even delivery services**.

## ISRO TO LAUNCH AN UNPRECEDENTED 10 EARTH IMAGING SATELLITES

*Recently, Indian Space Research Organisation (ISRO) in its annual report 2019-2020, has outlined its plan to launch several Earth Observation (EO) satellites during 2020-21.*

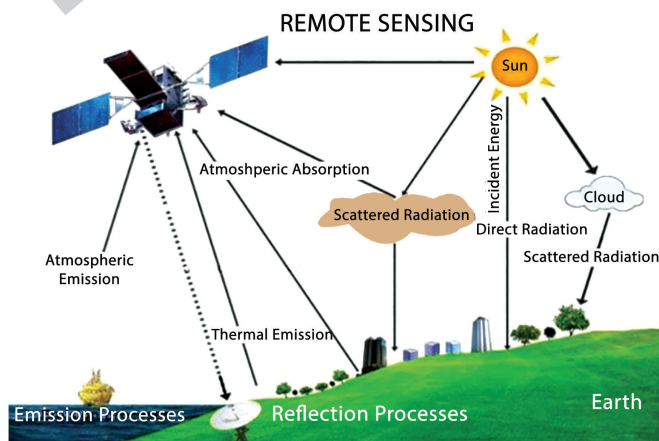
### About:

- ISRO has released its annual report highlighting the various projects in the pipeline for next year.
- It is in this regard, ISRO has revealed its plan to launch 10 Earth Observation (EO) satellites during 2020-21.

### What is Remote Sensing?

- Remote Sensing is the technology to **observe the Earth's surface** from a distant position by observation equipment on-board satellites and aircrafts.
- When any substance on the Earth receives the electromagnetic wave such as sunlight, the **sub-stances reflects waves** in the form of electromagnetic radiation.
- It can be measured without touching the substance directly.
- It is measured by **measuring the reflected** or radiated wavelength of electromagnetic wave and its intensity with sensors on-board satellites and aircraft.

## WHAT IS REMOTE SENSING?



### What are Earth Observation Satellites?

- Earth observation satellites are remote-sensing Satellites whose orbit are determined such that the satellite must observe periodically the same point on the Earth (orbiting) at the same time (solar synchronous).
- The data from these satellites are used for several applications covering agriculture, water resources, urban planning, rural development, mineral prospecting, environment, forestry, ocean resources and disaster management.

- Satellite imagery and expertise are also used to support global humanitarian efforts and sustainable development projects.

### Some Important Satellites of India:

- **GISAT-1:** In an attempt to improve its Geo Imaging prowess, ISRO has proposed to launch Satellite in Geostationary orbit.
  - It is primarily meant for near real-time imaging of India and its sub-continent.
- **OCEANSAT-3:** It will provide continuity of ocean colour data with improvements to continue and enhance operational services like potential fishery zone and primary productivity.
- **RISAT-2BR2:** It is a high agility X-Band Synthetic Aperture Radar-based satellite.
  - It will provide all-weather, day/night imaging services from space.
- **RISAT-1A and 2A:** It is next satellite in series of RISAT.
- **RESOURCESAT-3/3A:** It aims to provide continuity of data service on an operational basis in the area of Land and Water resources management.
- **RESOURCESAT-3S/3SA:** These satellites will provide data services for earth resource monitoring with improved resolution and a wide swath.
- **HRSAT:** It will be a constellation of three satellites.
  - It aims to facilitate mapping for urban and rural planning.
  - It will be also used for augmenting precision farming and disaster management, etc.
- **INSAT-3DS:** These satellites will provide data for enhanced meteorological observations, monitoring of land and ocean surfaces.
  - It will help in generating a vertical profile of the atmosphere for weather forecasting and disaster warning.
- **Microsat-2A:** These satellites will meet the demands for cartographic

applications such as- land recording, urban and rural management etc.

- It will also help in coastal land use and regulation, utility mapping, and other GIS applications.
- **NISAR:** It is the joint project of NASA & ISRO. It aims to provide:
  - Global coverage of the earth's biomass, cryosphere.
  - The data will also be used for surface dynamics and coastal studies.
  - It will have life span of over 3-5 years.

### Earth Observation Satellites of India

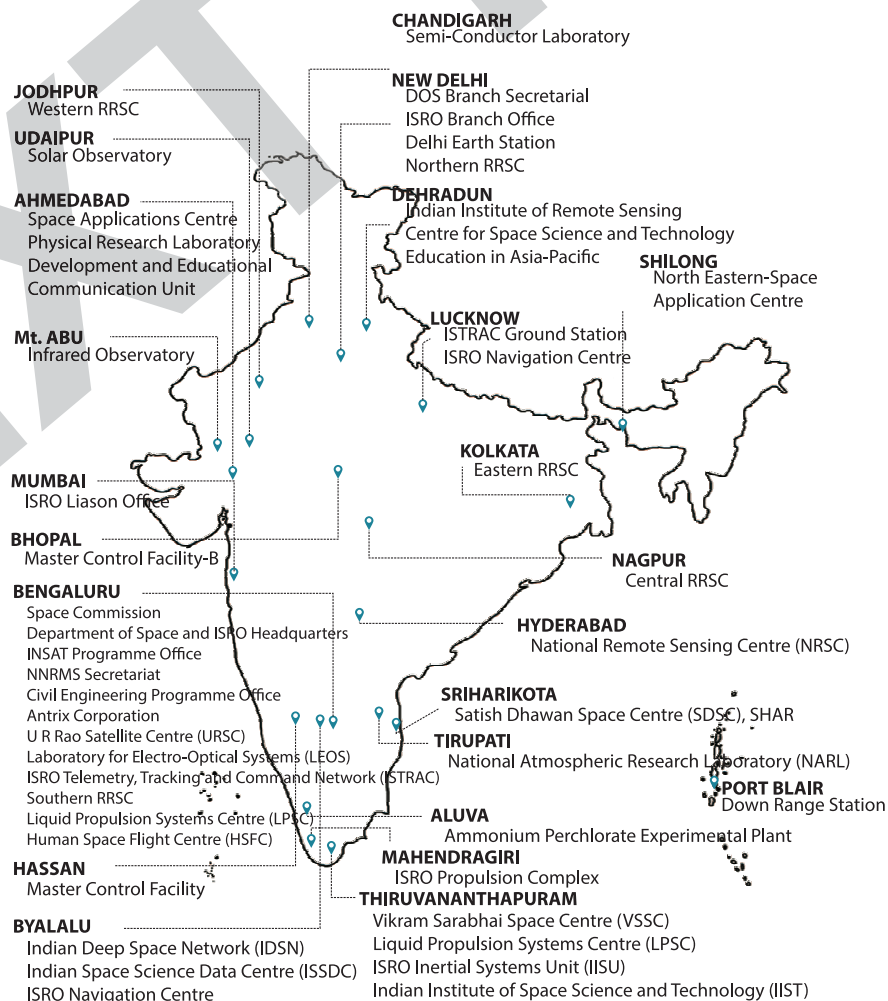
After the successful demonstration flights of Bhaskara-1 and Bhaskara-2 satellites launched in 1979 and 1981, respectively, India began to develop the indigenous Indian Remote Sensing (IRS) satellite program.

Starting with Indian Remote Sensing (IRS)-1A in 1988, over the years, ISRO has launched many operational remote sensing satellites.

**Sun-synchronous orbit:** RESOURCESAT-1, 2, 2A; CARTOSAT-1, 2, 2A, 2B; RISAT-1 and 2; OCEANSAT-2; Megha-Tropiques; SARAL and SCATSAT-1.

**Geostationary orbit:** INSAT-3D, Kalpana and INSAT 3A, INSAT -3DR.

## SPACE CENTRES IN INDIA





# ETHICS

## POLITICAL ETHICS: FREEBIES IN ELECTIONS

*In every election, the political parties come out with certain promises related to disbursement of things or services once they come to power after the elections.*

### About:

- Distribution of freebies and doles in election or pre-election existence is a deeply ingrained tradition which is accustomed to democratic India.
- Freebies often takes the form of cash, bribes, free rice, saris, or loan waivers and its mandatory practice by parties has predominantly overtaken the centre stage in all election campaigns.

### How Fair is the Legality of Manifesto of Political Party?

- The distribution of freebies was unsuccessfully challenged before the Madras High Court and also before the Supreme Court in Subramaniam Balaji vs State of Tamil Nadu.
- It was argued that the distribution of freebies was not only unconstitutional but also violates Section 123 of the Representation of People Act (RPA), 1951.
- **Section 123 of the RPA, 1951 defined "bribery"** to include any gift, offer or promise by a candidate or his election agent or by any other person that has the effect of inducing a voter to vote for him.
- Supreme Court in his judgement in 2013 rejected this contention on the ground that **Section 123** applied only to a candidate and not to a political party.

- Gifts made by a political party would not amount to a bribe and a corrupt practice.
- The Supreme Court rejected all the arguments on the ground that various policy decisions to distribute mixers, grinders and fans etc., were administered through district collectors and there were sufficient checks, because government expenditure is subjected to audit by the CAG.
- It upheld the distribution of freebies and it also held that **it does not amount to a corrupt practice under Section 123.**
- However, there is an ambiguity here that if an independent candidate wants to give freebies, it would be a corrupt practice. If the candidate of a political party promises the same gift, it would not be so, because that promise was not made by him, but the inducement comes from the party.
- Supreme Court directed election commission to ensure in the **model code of conduct** that political parties will not make such promises in the election manifesto. And if there is any promise, the parties have to comply with that if voted to power.
- The **new model code of conduct** clearly says that political parties **will not** make such announcement as their election manifesto.
- Finally, we can say that currently there is no legal way to control the government for making announcement like freebies.

## COWS AND LAPTOPS FOR VOTES

### 2018

Telangana assembly polls, BJP promised about waiving off farms loans of up to Rs 2 lakh, give free laptops to college students and give cows for free

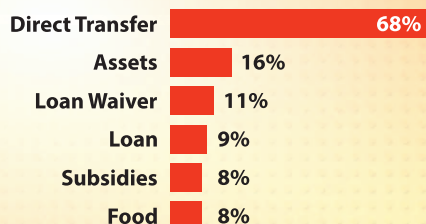
In its manifesto for the 2018 Assembly polls in Mizoram, it was promised to provide free laptops to students

BJP, during Karnataka's 2018 polls campaign, vowed free smart phones to women and free laptops to students

AIADMK in its manifesto in May 2016 promised coupons, free laptops and farm loan waivers

## Rise of Freebies in Manifestos

### CATEGORIES OF WELFARE



### WHAT YOU CAN GET

Laptops or tablets, grinders, mixers, fans, gold coin, cash transfers, lands and houses, among other

## TARGET GROUPS

Urban and rural youth, marginalised sections, farmers, women and senior citizens and tribals

### EC GUIDELINES ON MANIFESTO

According to the Ec's guidelines, the election manifesto shall not contain anything repugnant to the Ideas and principles enshrined in the Constitution





## ETHICAL ARGUMENTS

### Arguments in Favour of Distribution of Freebies:

- **Welfare of the maximum:** John Stuart Mill's 'Utilitarian' principle argues for the governments to follow the dictum of the 'greatest good of the greatest number'. According to which governments should ensure the welfare of the maximum population without impinging basic human rights of any.
- **Social Justice:** Redistribution of resources is a way to attain social justice for the marginalised and the disenfranchised.
  - ♦ According to **John Rawl's theory** of distributive justice, social inequality could be justified only if the individuals are well off than they would have been in an equal distribution.
  - ♦ **E.g. Namibia's UBI program**, the Basic Income Grant (trialled in 2007-2012), reduced household poverty rates from 76% of residents before the trial started to 37% after one year.
- **Government duties:** It is the duty of the government to cater to the basic rights of the people.
  - ♦ As per the '**Social Contract**' theory, individuals have consented, to surrender some of their freedoms and submit to the authority of the ruler in exchange for protection of their remaining rights
  - ♦ **E.g.** without social security, the poverty rate for Americans 65 and older would be 52.67% instead of the current 14.6%.
- **National progress:** The provision of free services should be seen as investment in people who will contribute as empowered citizens to national growth.
  - ♦ **Amartya Sen** stressed the importance of education and investment in a sound social infrastructure to attain and sustain growth
- **Individual empowerment:** The welfare of the marginalised sections of the society to a healthy way of living is in itself a goal to be fulfilled.
  - ♦ **Immanuel Kant** believed for humanity as an end in itself and not as a means to growth or anything else.

### Arguments against the Distribution of Freebies:

- **Disincentivises work:** It has been argued that when people are provided things and services free of cost, they are disincentivised to work, to be successful, and to gain skills etc.
- **Elizabeth Anderson, Professor of Philosophy and Women's Studies**, says that a UBI would cause people "to abjure work for a life of idle fun and depress the willingness to produce and pay taxes of those who resent having to support them."
- **Burden on public purse:** The resources of the government that could have been put up in capital investments are distributed in the form of freebies. It prevents the sustained investments that are needed for the national growth.

- ♦ **For eg. In 2017**, states of Uttar Pradesh, Maharashtra, Punjab and Karnataka, announced farmer loan waivers, with estimated cost of about US\$13.6 billion.

- **Burden on taxpayer:** There is a moral hazard of spending taxpayer money in services that don't cater to them in anyway. When the taxpayers don't see direct connection between the payment of taxes and the provision of services, grow reluctant to pay them.
- **Democratic corruption:** Doling out freebies has been a way for politicians to garner votes. Governments can be formed by swaying voters on the basis of which party promises the most lucrative freebies.
- **Temporary panacea:** Redistributive policies of giving out material benefits, is a mere temporary panacea to mitigate some of the sufferings of the people that emanates from their social and economic marginalization.

### Recommendations:

- **Scrutinise Manifestos:** Election Commission should inspect all these manifestos and give suitable instructions to the political parties.
- **Judicial Accountability:** A judicial mechanism for ensuring accountability of the ruling parties towards its election manifestos at both national level and state level is essential.
- **Legally binding manifesto:** Manifesto should be legally binding document on the parties to implement the promises made before the pre-elections so as to avoid the impractical claims.
- **Fiscal roadmaps:** The manifesto should lay down the fiscal roadmaps to achieve targets and the impact of such commodity on the financial reserves.
- **Enforce Model Code of Conduct (MCC):** MCC should get a legislative backing, in order to facilitate enforceability.

### Conclusion:

- In a country like India where a considerable section of people remains perennially deprived from basic necessities and fundamental requisites of a decent life, social safety nets like subsidized food grains and gas connection, mid-day meals in schools and agricultural subsidies, gives much needed respite to the poverty-stricken populace.
- But the social welfare regime gets degenerated into freebies when cash, liquor, colour TVs, mobile phones, laptops and loan waivers are granted by the governments solely as a strategy for wooing the electorates in order to reap political benefits.
- It is crucial to delineate the debilitating impact of this vicious phenomenon which has the propensity to derail the very objective of a democratic political order, which is to bring long-term qualitative improvement in the lives of all sections of people.



## ART OF GATKA

*On Republic Day in Malviya Nagar, about 50 boys and girls, demonstrated the skills of Gatka, a Sikh martial arts form to commemorate Baba Deep Singh's 338th birth anniversary.*

### About:

- **Gatka**, also called '**Khutka**', is a traditional martial art, played with **wooden sticks**.
- **Propagated by:** After the **fifth guru, Guru Arjan Dev**, was killed by the Mughals, **Guru Hargobind**, his son, propagated the idea of **learning Gatka** to fight oppression.
- **Developed by:** Later, in the 17<sup>th</sup> century, **Guru Gobind Singh**, known as the **master of weaponry**, developed it further.
- It is used to **showcase self-defence and fighting skills** and taught to remind children of their heritage, to keep them agile and fit, and to ensure that the spirit of fearlessness is kept alive.
- **Mind Art:** The moves keep a person physically agile, courageous, and sharp, but also mentally alert to respond quickly calling it **mind art**.



- **Weapons:** Over 100 traditional weapons, besides swords, are used.
  - ♦ **Wrist arm movements** are very important in Gatka. The **Chakra**, a round weapon with little wooden balls, has a number of wrist moves.
  - ♦ The **Soti** is a long wooden stick, while the **Tega** is a long, broad sword.
- **Music:** All moves are made to the beats of **the Dhol and Nagara**, both percussion instruments.
- It is open to people of all faiths and communities but no one should misuse it.

- Now in its revival phase, it was **earlier considered a diminishing art by UNESCO**.

## CHINDU YAKSHAGANAM

*Chindu Yakshaganam is a traditional dance ballet form popular in Telangana.*

### About:

- **Origin:** It traces its origin to **Madiga Community** who were earlier not permitted to perform beyond their own community but now it has gained popularity.
- It is a drama type art which is very near to Yakshaganam widely performed in Telangana, India.
- **Influence:** Most of the stories narrated are from 'Bhagavatam' and their presentation is interspersed with leaps and jumps and hence sometimes called **Chindu Bhagavatam**.
- They use musical instruments like harmonium, cymbals and Dholak.
- **Contemporary significance:** Due to the Government's developmental and welfare programmes, the services of Chindu Bhagavatas are borrowed to propagate programmes like protection of environment, sanitation, family planning, literacy, awareness of TB, AIDS and so on.

### Yakshagana

- Yakshagana (music of the heavenly yakshas) is a colourful form of **popular theatre** from Karnataka, which combines singing, dancing, energetic dance, and acrobatics.
- Yakshagana mostly deals with heroic sequences from **the Puranas** and the great epics, **the Mahabharata and the Ramayana**.

## CONSERVATION PLAN FOR KONARK TEMPLE

*Union Culture Minister has said that a plan to restore and preserve the nearly 800-year-old Konark Sun Temple in Odisha would be drawn up soon.*

### About:

- The 13<sup>th</sup> Century temple, which is a UNESCO World Heritage Site, had been filled with sand and sealed by the British authorities in 1903 in order to stabilise the structure.

### Konark Temple:

- **Location:** Sun Temple, also known as the Black Pagoda, is situated in the north eastern corner of Puri and is dedicated to Sun God.
- It was built in red sandstone (Khandolite) and black granite by King Narasimhadeva I (AD 1236-1264) of the Ganga dynasty.
- There are three images of the Sun God at three different sides of the temple, positioned in proper direction to catch the rays of the sun at morning, noon and evening.
- The entire complex follows the design pattern of a huge chariot drawn by seven spirited horses on twelve pairs of elaborately decorated wheels.

### HAMPI

*SC backs move to demolish restaurants and other buildings constructed in Virupapura Gaddi, near Hampi site.*

#### About:

- Virupapura Gaddi is an oval islet formed by the Tungabhadra River and located west of the Hampi World Heritage site.
- It is declared a protected area.

#### Hampi:

- Hampi, in the state of Karnataka, India, is the site of the once-magnificent capital of the Vijayanagara Empire. The ruins are a UNESCO World Heritage site.
- It was the capital of South Indian Vijayanagara Empire from the fourteenth to seventeenth centuries and became the pilgrimage centre of the Hindu religion.

### KAMBALA

*A video showing a Kambala jockey, Srinivasa Gowda, surfaced leading to his comparison with the world record holder Usain Bolt.*

#### About:

- Kambala is an annual buffalo race, a tradition in **Dakshina Kannada and Udupi districts' farming community, originated around 800 years back.** This area is called Tulunadu (Land of Tulu Language).
- **Belief:** It is believed to be celebrated to please the Gods for a good harvest. The festival is dedicated to Kadri's Lord Manjunatha, an incarnation of Lord Shiva.

#### Controversy:

- It was banned last year after animal rights group PETA approached the Karnataka High Court, citing animal cruelty

in bull taming and buffalo racing but legalized by Karnataka government again.

#### Jallikattu

- Jallikattu is a traditional bull-chasing sport of Tamil Nadu which is organised during the harvest festival Pongal.
- The sport is more than two millennia old. There are references to Jallikattu in Sangam literature too.

### HISTORICAL GASTRONOMICA – THE INDUS DINING EXPERIENCE

*National Museum held an exhibition on Harappan kitchens to give visitors a taste of the Indus Valley Civilisation.*

#### About:

- The exhibition showcased panels on the kitchens, cookware and food prevalent in the Indus Valley Civilisation, which dates back to over 5,000 years.
- Apart from that, tasting menus made **from ingredients that have been found by archaeologists** at the Indus Valley sites was organized.

#### Indus Valley Civilization:

- The Indus Valley Civilization, also known as the Harappan Civilisation, was an ancient civilization located in what is Pakistan and northwest India today, on the fertile flood plain of the Indus River and its vicinity.
- It lasted from 3300 BCE to 1300 BCE, and in its mature form from 2600 BCE to 1900 BCE.

### SCHEME FOR PENSION AND MEDICAL AID TO ARTISTES

*Ministry of Culture under Government of India is implementing a 'Scheme for Pension and Medical Aid to Artistes'.*

#### About:

- It is to improve financial and socio-economic status of the old aged artistes and scholars (of the age 60 years and above) including various Folk Artists.
- An amount of maximum Rs. 4000/- per month is being given to each beneficiary.
- The Scheme also envisages to provide medical aid facility to these Artistes and his/her spouse.
- The funds under the scheme are released directly to the beneficiaries.

## KILIKI LANGUAGE

*An effort is being made to popularize Kiliki, the language of the Kaalakeya tribe in Rajamouli's superhit film Baahubali.*

### About:

- Kiliki language is a **fictional language** developed solely for the film.
- A website was launched to help anyone learn the language on International Mother Language Day on February 21.

### Kalakeya:

- The Kalakeyas are a class of Asura in Hindu mythology. They were a powerful, ferocious and cruel clan of the Danavas.

## NAGARDHAN EXCAVATIONS

*Recent archaeological excavations at Nagardhan near Nagpur have provided concrete evidence on the life, religious affiliations and trade practices of the Vakataka dynasty.*

### About:

- The oval shaped clay sealings excavated from Nagardhan belongs bears the name of queen Prabhavatigupta in the Brahmi script, along with the depiction of a conch.

### Importance of Nagardhan Excavations:

- Archaeological evidences have revealed the power Queen Prabhavatigupta held and Vakataka dynasty's religious affiliations —
- It shows the types of houses and palaces of the rulers, coins and sealings circulated during their reign, and their trade practices.
- These sealings could have been used to trade with Iran and beyond through the Mediterranean Sea.
- The Vakataka rulers followed the Shaiva sect of Hinduism but the presence of the conch is a sign of the Vaishnava affiliation.

### Vakataka Dynasty

- It originated in the Central Deccan in the mid-3<sup>rd</sup> century CE.
- They were the most important successors of the Satavahanas in the Deccan and contemporaneous with the Guptas in northern India.
- The Buddhist caves constructed by this dynasty in the fifth and sixth centuries, the magnificent Ajanta Caves, are a well-known UNESCO site.

## NAGOPA JATARA

*The month-long Nagoba jatara festival concluded in Telangana.*

### About:

- Nagoba Jatara is a tribal festival held in Keslapur village, Telangana, India.
- It is the second biggest tribal carnival and celebrated by Mesaram clan of Gond tribes from Maharashtra, Chhattisgarh, Orissa, Karnataka, Jharkhand and Madhya Pradesh.
- They worship the serpent god (their clan god) and other gods in his symbolic presence.
- The **Gusadi Dance** performance by dancers from the Gond tribe is a major special attraction of the event.

## REVIVAL OF DYING TRIBAL LANGUAGE

*The Asur tribe has been using mobile radio to transmit local news and songs to popularize their Asuri language.*

### About:

- The Asuri language figures in the list of UNESCO Interactive Atlas of the World's Languages in Danger.
- There are only 7,000 to 8,000 Asur tribals left in the community (total population around 23000 in the region) who are well conversant in their language.

### Asur Tribe:

- Asur tribes found living primarily in the Indian state of Jharkhand, pockets of Bihar, West Bengal and a few other states.
- Asur is among the nine **Particularly Vulnerable Tribal Groups (PVTGs)** found in Jharkhand.
- The Asurs claim to be descendants of Mahishasur, the buffalo-demon whom Goddess Durga kills after a spirited fight lasting nine nights.

## T J ALONE COMMITTEE FOR DARA SHIKOH

*The Ministry of Culture recently set up a seven-member panel of the Archaeological Survey of India (ASI) to locate the grave of the Mughal prince Dara Shikoh (1615-59).*

### About:

- The panel is headed by T J Alone, Director-Monument at ASI and has been given 3 months.
- The grave is believed to be buried somewhere in the Humayun's Tomb complex in Delhi.

**Dara Shikho (1615-59):**

- He was the eldest son of Shah Jahan and was killed after losing the war of succession against his brother Aurangzeb.
- He is described as a “liberal Muslim” who tried to find commonalities between Hindu and Islamic traditions.
- He translated into Persian the Bhagavad Gita as well as 50 Upanishads.
- The 'Dara Shikoh' is a collection of paintings and calligraphy assembled from the 1630s until his death.

**Archaeological Survey of India**

- The Archaeological Survey of India (ASI), under the Ministry of Culture, established in 1861 is the premier organization for the archaeological researches and protection of the cultural heritage of the nation.
- It regulate all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958.
- It also regulates Antiquities and Art Treasure Act, 1972.

**WORLD HERITAGE LIST FOR THE YEAR 2020**

*Government of India has submitted two nomination dossiers namely 'Dholavira: A Harappan City' and 'Monuments and Forts of Deccan Sultanate' for inclusion in the World Heritage List for the year 2020.*

**About:**

- World Heritage Sites are cultural and/or natural sites considered to be of 'Outstanding Universal Value', which have been inscribed on the World Heritage List by the **World Heritage Committee** supported by the UNESCO World Heritage Centre.
- The UNESCO seeks to protect and preserve such sites through the **1972 Convention Concerning the Protection of the World Cultural and Natural Heritage**.
- India has 30 Cultural sites, 7 Natural sites and 1 mixed site in the World Heritage sites.

**Dholavira: A Harappan City**

- The City of Dholavira located in Khadir island of the Rann of Kutch belonged to matured Harappan phase.
- The site demonstrates the ingenuity of Harappan people to evolve a highly organised system of town planning with perfected proportions, interrelation of functional areas, street-pattern and an efficient water conservation system to survive against harsh hot arid climate.

**Monuments and Forts of Deccan Sultanate':**

- It is a serial property comprising of four components –
  - ♦ Bahmani Monuments at Gulbarga, Karnataka
  - ♦ Bahmani and Barid Shahi Monuments at Bidar
  - ♦ Adil Shahi Monuments at Bijapur, Karnataka
  - ♦ Qutb Shahi Monuments at Hyderabad, Andhra Pradesh.
- These sites demonstrate the exemplary convergence of national and international styles of Islamic architecture and their intersections with the prevalent Hindu architecture.
- These also showcase an impregnable defense mechanism, unique water supply and distribution system, a unique sewage disposal mechanisms and extraordinary acoustical system.

**TRIPURA TRIBAL AREAS AUTONOMOUS DISTRICT COUNCIL (TTAADC)**

*The Tripura Tribal Areas Autonomous District Council (TTAADC) has moved resolutions to codify the customary laws of three tribal clans.*

**About:**

- The council introduced separate bills to adopt the law of the **Mizo, the Kaipeng and the Malsom** communities to redress their long-standing demands.
- Even after the codification, the customary laws have limited jurisdiction and can only deal with elected civil law matters.

**The Tripura Tribal Areas Autonomous District Council (TTAADC):**

- It is an Autonomous District Council for the areas predominantly having tribal population of the Tripura.
- The council attempts to introduce internal autonomy in tribal compact areas and thereby protect the social, economic and cultural interests of the tribal population.

**Sixth Schedule and Autonomous District Councils**

- The Sixth Schedule consists of provisions for the administration of tribal areas in Assam, Meghalaya, Tripura and Mizoram, according to Article 244 of the Indian Constitution.
- ADCs are bodies representing a district to which the Constitution has given varying degrees of autonomy within the state legislature.
- The governors of these states are empowered to reorganise boundaries of the tribal areas.
- The ADCs are empowered with civil and judicial powers.



## 100 YEARS OF JAMSHEDPUR CITY

*Recently, the Vice-President has released commemorative Postal Stamp and Coffee Table Book on completion of 100 years of Jamshedpur city.*

### About:

- **Jamshedpur city situated in the southeastern Jharkhand state of northeastern India.** It lies at the junction of the **Subarnarekha and Kharkai rivers**. Subarnarekha is the principal river of Jamshedpur, which flows from west to southeastern part of the territory.
- The **city is sometimes called Tatanagar**, named for industrialist Jamsetji Nasarwanji Tata, whose company opened a steel plant there in 1911.
- The **physiography of Jamshedpur establishes that the is a part of the Chhota Nagpur plateau**. The region is formed of the sedimentary, metamorphic and igneous rocks belonging to the Dharwarian period. The Dalma range, an important feature in the topography of Jamshedpur, extends from west to east and is covered with dense forests.
- Jamshedpur is also called the **'Pittsburgh of India'**. Among the important minerals found in Jamshedpur are - Copper, Iron Ore, Gold Kynite, Uranium.
- The seeds of industrialization in India were sown in Jamshedpur when **Jamsetji Tata chose this site to set up India's first steel plant**. Since then industrialization in India has come a long way and industry has been a significant contributor to the nation's GDP.
- Netaji Subhas Chandra Bose was the President of the Jamshedpur Labour Association from 1928 to 1937.
- In 1925, Mahatma Gandhi had visited Jamshedpur with the twin objectives of seeing India's first steel city and resolving some labor problems that had arisen at that time.

## ANDHRA PRADESH'S FRUIT TRAIN

*Recently, a 'fruit train' was flagged off from Tadipatri Railway Station in Anantapur district (Andhra Pradesh).*

### About:

- This 'fruit train' (exclusive air-conditioned container rake) is said to be the first of its kind in the country, carrying a load of 980 metric tonnes of locally grown bananas (especially Green

Cavendish) to the Jawaharlal Nehru Port (JNPT) in Mumbai, from where the consignment will be exported to Iran.

- ♦ The consignment is shipped by **Container Corporation of India Ltd.**

### Significance:

- This helps save both time and fuel as 150 trucks would have been required to send a consignment of this size by road to JNPT, which is over 900 km away before the temperature-controlled containers are loaded on ships.
- This train will be crucial to enhance the productivity, quality of produce, post-harvest treatment and packing, providing market linkage and ensuring higher prices with a regular increase in income year-on-year.

### Container Corporation of India Ltd. (CONCOR)

- It was incorporated in March 1988 under the Companies Act.
- In addition to providing inland transport by rail for containers, it has also expanded to cover the management of Ports, air cargo complexes and establishing cold-chain.
- It promotes containerization in India by developing a multimodal logistics support for India's International and Domestic containerization and trade.

### Banana Production in India

- Bananas are the fifth largest agricultural commodity in world trade after cereals, sugar, coffee, and cocoa. India, Ecuador, Brazil, and China alone produce half of the total bananas in the world.
- According to FAO estimates, India occupies the highest area under banana in the world. It may be noted that 11 percent of the total global area under banana belongs to India. India ranks first in banana production, contributing about 23% in the world pool of banana production.
- **The major banana producing states** of India are Tamilnadu, Maharashtra, Karnataka, Gujarat, Andhra Pradesh, Assam, and Madhya Pradesh.
- The productivity per hectare in India is more than twice that of the world. The state of Maharashtra is the largest producer of banana in the country with 27% of total Indian production and it has the highest productivity.
- Even though nearly 23% of total world output is produced in India, the export is negligible when compared to other countries. The exports of Indian Banana are mainly to UAE, Saudi Arabia, and other Gulf countries.

- Popular varieties of Banana are - Dwarf Cavendish, Robusta, Monthan, Poovan, Nendran, Red banana, Nyali, Safed Velchi, Basrai, Ardhapuri, Rasthali, Karpurvalli, Karthali, and Grand Naine, etc.
- **Agro-climatic requirements:**
  - Temperature range of 15°C – 35°C with a relative humidity of 75-85%.
  - It prefers tropical humid lowlands and is grown from the sea level to an elevation of 2000 m.
  - Rainfall with an average of 650-750 mm.
  - Deep, rich loamy soil with a pH between 6.5 – 7.5 is most preferred for banana cultivation.

## ANNIVERSARY OF THE ISLAMIC REVOLUTION

*Recently, Iran marked the anniversary of its 1979 Islamic Revolution.*

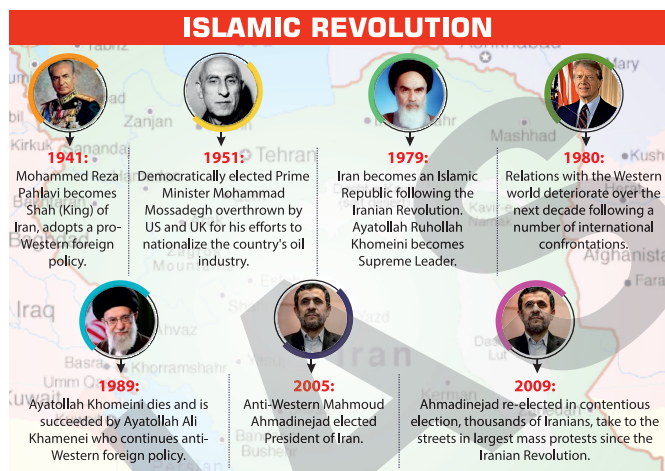
### About: Iran's 1979 Islamic Revolution

- The **country's 1979 Islamic Revolution** toppled the U.S.-backed reign of **Shah Mohammad Reza Pahlavi** and brought hard-line Shiite clerics to power.
- Iran's Islamic Revolution began with widespread **unrest over the rule of Shah Mohammad Reza Pahlavi**, who later fled the country in 1979.
- After days of mass demonstrations and confrontations between protesters led by **Ayatollah Ruhollah Khomeini** and the Iranina security forces, the government was toppled. Iran later would vote to become the **Islamic Republic**, a **Shiite theocracy with Khomeini as its first supreme leader**.
- The anniversary festivities start every year on **February 1** – the day Ayatollah Ruhollah Khomeini returned home from France after 14 years in exile.
- The 10-day anniversary festivities, known as the **"Ten Days of Dawn,"** conclude on February 11, when Shah Mohammad Reza Pahlavi's government collapsed after brief clashes between some army units and revolutionary gunmen, following nationwide protests.

### Reasons for the Islamic Revolution:

- By the late 1970s, the Iranian economy had stagnated, and inflation led to a higher cost of living. Iranians all over the country were dissatisfied with the regime and viewed it as having failed on its economic promise coupled with corruption and incompetence among public officials.
- Further, the regime of **Mohammad Reza Shah Pahlavi** was very oppressive and used the **SAVAK**, who were the American-trained secret police, for mass murder, torture, and imprisonment of those against his government.

- The Shah's ideology that westernization was the tool for Iran's progress was seen as having failed, and the **Iranians felt that they should turn back to Islam**.



### Aftermath of the Iranian Revolution:

- Strict dress codes were implemented and rigorously enforced.
- Iraq felt threatened by Iran and, to avoid the possibility of a Shia revolution in Iraq, **the country invaded Iran in 1980**, a war that lasted for **eight years**. The war served to unite Iranians against the US-supported Iraq forces.

### How it Changed the Geopolitical Outlook?

- Khamenei led the wave of revolutionary purists who firmly believed in non-compromising on revolutionary ideals.
- The Revolutionary Guards in Iran have risen in status to be a political and economic force.
- Sanctions placed on Iran by the US increasingly isolated Iran, which still persists.

## BHARAT PARV

*The annual event Bharat Parv is being celebrated from 26<sup>th</sup> to 31<sup>st</sup> January, 2020 at Red Fort, Delhi.*

### About:

- This event has been organized by **Ministry of Tourism** to celebrate the spirit of India by showcasing and promoting its diversity in culture.
- The objective of Bharat Parv is to encourage Indians to visit different tourism places of India and to inculcate the spirit of 'Dekho Apna Desh'.
- The Central theme of this year's Bharat Parv is **'Ek Bharat Shreshtha Bharat'** and **'Celebrating 150 Years of Mahatma Gandhi'**.

- Bharat Parv have showcased many attractions like Tableaux of the Republic Day parade, performance by armed forces bands, and Cultural Performances from different regions of the country.

## GADHIKA PRODUCTS

*Amazon has been witnessing a crowd of online shoppers for ethnic art and products ever since Gadhika products were launched on the e-commerce platform by the Scheduled Castes and Scheduled Tribe Development Department in December 2019.*

### About:

- **Gadhika products** are **natural forest produce and eco-friendly handicraft** made from bamboo, coconut and coconut shell, and ornaments, food products, clothes, Wayanad turmeric, honey, pickles, puttukutti, etc.
- They have been **hand-crafted by artisans and others** belonging to **various tribes and the Scheduled Castes of Kerala**.
- The acceptance for the tribal products was also visible at the **tribal festival Gadhika** that concluded in **Kannur (Kerala)**.
- The sale of products has **evoked a huge response online** and in exhibitions, the government has decided to **give ₹50,000** to each entrepreneur as grant to increase the production and improve quality.



### Gadhika Festival:

- It is organised jointly by the **Scheduled Caste/Scheduled Tribe Welfare Department of Kerala** and the Kerala Institute for Research Training and Development studies of Scheduled Castes and Scheduled Tribes (KIRTADS).
- The annual festival is aimed at **conserving ethnic art forms** and to develop a **market for products** of the SC/ST communities in the State.

## BIMSTEC DMEX-2020

*Recently, the Field Training Exercise of 2<sup>nd</sup> BIMSTEC Disaster Management Exercise on flood rescue was held at the Ramachandi Beach, Puri (Odisha).*

### About:

- This is the first of its kind exercise that held at the coastal city of Puri (Odisha).
- The delegates and rescue teams of five-member nations namely - India, Bangladesh, Nepal, Sri Lanka & Myanmar, of BIMSTEC group participated in this exercise with great zeal and enthusiasm.
- A Heli-born rescue operation was carried out to demonstrate the coordination among various stakeholders to deal with an emergency situation.

### Significance:

- This exercise was organized to highlight the historicity and diversity cultural heritage sites in the BIMSTEC region, which aims to provide a platform for member states to evaluate existing capabilities, share best emergency response practices, improve existing emergency preparedness and strengthen regional response mechanism and also to conduct risk assessment in the context of cultural heritage sites at the time of disaster.
- Considering the huge impact of the flood disaster, BIMSTEC member countries offered assistance to the Government of India for the flood rescue & relief operation. Government of India accepted the assistance offered by BIMSTEC member nations and thus participated in this joint field exercise.
- The rescue teams of various member nations responded professionally as per the situation and demonstrated quick response using the latest flood rescue gadgets/equipment for rescuing the marooned people.

### Bay of Bengal Initiative for Multi-Sectoral Technical and BIMSTEC

- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional organization comprising seven Member States lying in the littoral and adjacent areas of the Bay of Bengal constituting a contiguous regional unity.
- This sub-regional organization came into being on 6 June 1997 through the Bangkok Declaration. It constitutes seven Member States: five deriving from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka, and two from Southeast Asia, including Myanmar and Thailand.
- **Objective:** Building such an alliance was to harness shared and accelerated growth through mutual cooperation in different areas of common interests by mitigating the onslaught of globalization and by utilizing regional resources and geographical advantages.



## Multiple Choice Questions

1. With reference to *Cyrtodactylus urbanus* consider the following statements:
  1. It is a type of gecko recently discovered in Khasi Hills.
  2. It falls within *khasiensis* group but has different mitochondrial sequence data from other members in the group.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
2. With reference to Mukurthi National Park, consider the following statements:
  1. It is a part of Nilgiri Biosphere Reserve in the northwest corner of Karnataka.
  2. Pykara and Kundah rivers flow through this park.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
3. With reference to The Future of Earth, 2020 Report, consider the following statements:
  1. The report has been prepared with the aim of reducing carbon footprint and halting global warming below 2 degree Celsius by 2050.
  2. The report has been prepared by Indian Institute of Science in collaboration with Global Environment Facility.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
4. 'Toxic Air: The Price of Fossil Fuels' report is released by
  - (a) The Greenpeace Southeast Asia
  - (b) The Intergovernmental Panel on Climate Change
  - (c) Global Green Growth Institute
  - (d) United Nations Environment Programme
5. With reference to forest fires in India, consider the following statements:
  1. MODIS sensor invented by NASA is used to detect forest fires in India.
  2. 40% of the country's forest cover is extremely prone to fire.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
6. With reference to Banana Production, consider the following statements:
  1. India occupies the highest area under banana in the world.
  2. Banana productivity per hectare in India is more than twice that of the world.
  3. Banana is the largest traded agriculture commodity in world.
 Which of the statements given above is / are correct?
  - (a) 1 and 2 only
  - (b) 2 and 3 only
  - (c) 3 only
  - (d) 1 and 3 only
7. With reference to Container Corporation of India Ltd. (CONCOR), consider the following statements:
  1. It is involved in establishing cold-chain infrastructure in India.
  2. It promotes multimodal logistics support for India's Domestic containerization and trade only.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
8. With reference to Gatka, consider the following statements:
  1. It is a traditional theatre of Haryana and Punjab.
  2. It is now considered a diminishing art by UNESCO.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
9. With reference to Atal Bhujal Yojana, consider the following statements:
  1. Prime aim of the scheme is to ensure clean drinking water to all the villages.
  2. It is supported by the New Development Bank.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
10. With reference to Jal Jeevan Mission, consider the following statements:
  1. Aim of the scheme is to provide piped water supply to all rural households by 2024.
  2. It is an initiative of Ministry of rural development.
  3. The Mission will converge with other Central and State Government Schemes to achieve its objectives of sustainable water supply management.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 and 3 only
  - (c) 3 only
  - (d) 1 and 3 only
11. With reference to Pangolins, consider the following statements:
  1. They are nocturnal species.
  2. Scales on the body of Pangolins have evolved as the protective mechanism.
  3. Pangolins have shown rapid increase in the population in last decade.
 Which of the statements given above is / are correct?
  - (a) 1 and 2 only
  - (b) 2 and 3 only
  - (c) 2 only
  - (d) 1, 2 and 3
12. With reference to Pangolins, consider the following statements:
  1. Indian Pangolin is found in north eastern India and Bhutan only.
  2. Chinese Pangolin is categorized as Critically Endangered under IUCN Red List.
 Which of the statements given above is / are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2



13. Which of the following institutions are involved in preparation of State of India's Bird 2020 report:

1. National Biodiversity Authority
2. National Centre for Biological Sciences
3. Wetlands International South Asia

Select the correct answer using the codes given below:

- (a) 1 and 2 only                      (b) 2 and 3 only  
(c) 3 only                              (d) 1, 2 and 3

14. With reference to Protected Agricultural Zone, consider the following statements:

1. These are declared under the National Biodiversity Act, 2002.
2. Only organic farming is allowed in Protected Agricultural Zone.

Which of the statements given above is / are correct?

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

15. Purified Terephthalic Acid (PTA) is used in manufacturing of which of the following?

1. Cushions
2. Sportswear
3. Spun yarn
4. Bed sheets

Select the correct answer using the codes given below:

- (a) 1 and 2 only                      (b) 2 and 3 only  
(c) 2 only                              (d) 1, 2, 3 and 4

16. With reference to anti-dumping, consider the following statements:

1. It is a protectionist tariff not allowed by World Trade Organisation.
2. Recently Indian government has imposed anti-dumping duty on import of Purified Terephthalic Acid.

Which of the statements given above is / are correct?

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

17. With reference to Deposit Insurance and Credit Guarantee Corporation (DICGC), consider the following statements:

1. It is a statutory body established for the purpose of providing insurance of deposits and guaranteeing of credit facilities.
2. It provides insurance cover to deposits in local area banks, payments banks and small finance banks.
3. Currently DICGC provides insurance cover only upto 1 lakh for depositors in commercial banks.

Which of the statements given above is / are correct?

- (a) 1 and 2 only                      (b) 2 and 3 only  
(c) 2 only                              (d) 1, 2 and 3

18. With reference to cash reserve ratio (CRR) in Indian banking system, consider the following statements:

1. CRR can be used as a qualitative control tool by Reserve Bank of India.
2. Banks earn interest equal to LIBOR for maintaining CRR with the Reserve Bank of India.

Which of the statements given above is / are correct?

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

19. With reference to cash reserve ratio (CRR) in Indian banking system, consider the following statements:

1. Currently commercial banks need to keep 4% of net demand and time liabilities as CRR.
2. The Reserve Bank of India (RBI) has exempted banks from maintaining cash reserve ratio (CRR) for retail loans given to automobiles and residential housing.

Which of the statements given above is / are correct?

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

20. Which of the following measures by Reserve Bank of India can lead to reduction in interest rates by banks on loans?

1. Exemption of banks from maintaining cash reserve ratio (CRR) for retail loans given to some sectors
2. Announcement of Long Term Repo Operations
3. Reduction of the statutory liquidity ratio

Select the correct answer using the codes given below:

- (a) 1 and 3 only                      (b) 2 and 3 only  
(c) 2 only                              (d) 1, 2 and 3

21. With reference to Convention on Migratory Species (CMS), consider the following statements:

1. India has also signed a legally binding MOU with CMS on the conservation and management of Siberian Cranes.
2. India hosted the 13th Conference of the Parties to CMS (COP 13) in 2020.

Which of the statements given above is / are correct?

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

22. Which of the following species have been added in Appendix I of Convention on Migratory Species (CMS)?

1. Bengal Florican                      2. Jaguar
3. Tope Shark

Select the correct answer using the codes given below:

- (a) 1 and 2 only                      (b) 2 and 3 only  
(c) 2 only                              (d) 3 only

23. 'Gandhinagar Declaration' recently seen in news is:

- (a) an India USA Joint declaration after US President visit to India
- (b) a declaration adopted at 13<sup>th</sup> Convention on Migratory Species
- (c) a declaration of UN on Women's day demanding gender equality
- (d) an India China Joint declaration after Chinese President visit to India

24. Which of the following city is called as the 'Pittsburgh of India'?

- (a) Jamshedpur                      (b) Manesar  
(c) Gurugram                      (d) Salem

25. Which of the following personality was the President of Jamshedpur Labour Association?

- (a) M K Gandhi                      (b) C Rajagopalachari  
(c) Chittaranjan Das                      (d) Subhas Chandra Bose

- 26.** With reference to Bharat Parv, consider the following statements:
1. Aim of the event is to celebrate the spirit of India by showcasing and promoting its diversity in culture.
  2. This event has been organized by Ministry of Culture.
- Which of the statements given above is / are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 27.** With reference to the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), consider the following statements:
1. The organization came into being through Bangkok Declaration.
  2. All its members are from South Asia.
- Which of the statements given above is / are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 28.** The Bhuvan Panchayat Portal is developed for:
- (a) Customer grievance redressal  
(b) Database visualization and data analytics  
(c) Facilitating sanitation drive at Panchayat level  
(d) Collection of Gram Sabha minutes of meeting by Ministry of rural development
- 29.** Consider the following statements regarding the Space based Information Support for Decentralised Planning (SISDP):
1. SISDP will be useful in planning process at Municipality level.
  2. This project is the collaboration of NASA and Ministry of Panchayat Raj.
  3. National Remote sensing centre is the lead centre to execute the project.
- Which of the statements given above is / are correct?
- (a) 1 and 2 only (b) 2 and 3 only  
(c) 1 and 3 only (d) 1, 2 and 3
- 30.** Consider the following statements:
1. Constitution does not define as to who are the persons who belong to scheduled castes and scheduled tribes.
  2. President of India by notification can declare a tribe as Scheduled Tribe.
  3. Any inclusion or exclusion from the presidential notification of any caste, race, or tribe can be done only Parliament.
- Which of the statements given above is / are correct?
- (a) 1 and 2 only (b) 2 and 3 only  
(c) 1 and 3 only (d) 1, 2 and 3
- 31.** With reference to Siddi tribes, consider the following statements:
1. They are predominantly found in the states of West Bengal and Orissa.
  2. They are included in the list of Particularly Vulnerable Tribal Groups.
  3. They belong to Muslim as well as Hindu religion.
- Which of the statements given above is / are correct?
- (a) 1 and 2 only (b) 2 and 3 only  
(c) 1 only (d) 1, 2 and 3
- 32.** With reference to International Mother Language Day, consider the following statements:
1. International Mother Language Day is announced by UNESCO but has not been formally recognised by the United Nations General Assembly.
  2. India boycotted the 2020 International Mother Language Day celebration.
- Which of the statements given above is / are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 33.** Indian Council for Cultural Relations was founded by:
- (a) M K Gandhi (b) Maulana Abul Kalam Azad  
(c) Rajiv Gandhi (d) Lal Bahadur Shastri
- 34.** E-MASIHA mobile app recently seen in news has been developed for:
- (a) to track progress of Integrated Child Development Scheme  
(b) to track progress of USTTAD scheme  
(c) to create and maintain the complete health database of Indian Haj pilgrims  
(d) to create database of Good Samaritans
- 35.** With reference to Pneumonia disease, consider the following statements:
1. Pneumonia is caused by viruses only and not by bacteria.
  2. The germs that cause pneumonia are not contagious.
- Which of the statements given above is / are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 36.** Consider the following statements regarding the Global Action Plan for Pneumonia and diarrhoea:
1. It was initiated by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF).
  2. It aims to reduce the number of children under-five who are stunted.
- Which of the statements given above is / are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 37.** With reference to Korkus Tribe, consider the following statements:
1. They are predominantly found in Madhya Pradesh and Maharashtra.
  2. They are classified as Particularly Vulnerable Tribal Groups.
- Which of the statements given above is / are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 38.** With reference to Graves' disease, consider the following statements:
1. It occurs when thyroid gland produces abnormally less thyroid hormone.
  2. In this disease antibodies produced by the immune system mistakenly attack the thyroid gland.
- Which of the statements given above is / are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2

39. Hashimoto's disease is related to:  
 (a) Hypothyroidism  
 (b) Hyperthyroidism  
 (c) Excessive secretion of Calcitonin  
 (d) Excessive body temperature due to viral infection
40. With reference to Yakshagana, consider the following statements:  
 1. It is a colourful form of popular theatre from Orissa.  
 2. Yakshagana mostly deals with heroic sequences from the Puranas and the great epics, the Mahabharata and the Ramayana.  
 Which of the statements given above is / are correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) Neither 1 nor 2
41. Chindu Yakshaganam is a traditional dance ballet mostly performed in  
 (a) Karnataka (b) Telangana  
 (c) Tamil Nadu (d) Kerala
42. With reference to Konark temple, consider the following statements:  
 1. It is first UNESCO World Heritage Site in India.  
 2. It was built by King Narasimhavarman I of Ganga dynasty.  
 Which of the statements given above is / are correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) Neither 1 nor 2
43. Virupapura Gaddi recently seen in news is:  
 (a) an oval islet formed by the Tungabhadra River  
 (b) a temple of Lord Shiva at Hampi  
 (c) earliest capital of Ganga dynasty  
 (d) shikhar of Virupaksha Temple
44. With reference to Kambala, consider the following statements:  
 1. It is an annual buffalo race in Tulunadu.  
 2. It has been mentioned in Sangam literature.  
 Which of the statements given above is / are correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) Neither 1 nor 2
45. With reference to Kiliki language, consider the following statements:  
 1. It was spoken by Kakatiyas of Orugallu.  
 2. It has been listed as the critically endangered in UNESCO's Atlas of the World's Languages in Danger.  
 Which of the statements given above is / are correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) Neither 1 nor 2
46. With reference to Nagoba Jatara, consider the following statements:  
 1. It is a tribal festival held in Telanagana.  
 2. It is celebrated by Mesaram clan of Gond tribes.  
 3. Gond tribes perform Gusadi Dance at Nagoba Jatara.  
 Which of the statements given above is / are correct?  
 (a) 1 and 2 only (b) 2 and 3 only  
 (c) 1 only (d) 1, 2 and 3
47. With reference to the Asur Tribe, consider the following statements:  
 1. They are included in Particularly Vulnerable Tribal Groups (PVTGs)  
 2. Asur tribes found living primarily in the Indian state of Nagaland.  
 3. All members belonging to Asuri tribe are well conversant in Asur Language.  
 Which of the statements given above is / are correct?  
 (a) 1 and 2 only (b) 1 and 3 only  
 (c) 1 only (d) 1, 2 and 3
48. With reference to 'Scheme for Pension and Medical Aid to Artistes', consider the following statements:  
 1. It is being implemented under Ministry of Health and Family Welfare.  
 2. It is to improve financial and socio-economic artists between age group of 40 to 60.  
 3. The Scheme envisages to provide medical aid facility to spouse of Artists.  
 Which of the statements given above is / are correct?  
 (a) 1 and 3 only (b) 2 only  
 (c) 3 only (d) 2 and 3 only
49. T J Alone Panel recently seen in news has been formed to:  
 (a) to locate the grave of the Mughal prince Dara Shikoh  
 (b) to assess the condition of minorities in India  
 (c) to assess the projects under the National Infrastructure Pipeline  
 (d) to assess the impact of Corona Virus Pandemic on Indian economy
50. With reference to Small Finance Banks, consider the following statements:  
 1. These banks are allowed to take deposits only up to 1 Crore per depositor.  
 2. They have to ensure that 50% of loan portfolio constitutes advances of up to Rs. 25 lakh.  
 Which of the statements given above is / are correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) Neither 1 nor 2
51. With reference to Cooperatives banks, consider the following statements:  
 1. They need not to comply with Statutory Liquidity Ratio.  
 2. Members of Cooperatives banks carry unlimited liability.  
 Which of the statements given above is / are correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) Neither 1 nor 2
52. With reference to the "Outer Space treaty", consider the following statements:  
 1. It restricts states from placing nuclear weapons or other weapons of mass destruction in outer space.  
 2. India has signed but yet to ratify this treaty.  
 Which of the statements given above is/are correct?  
 (a) 1 only (b) 2 only  
 (c) Both 1 and 2 (d) Neither 1 nor 2

53. What is K9-Vajra, sometimes seen in news?
- Nuclear submarine
  - Heavy-lift helicopters
  - Towed howitzer
  - Self-propelled artillery gun
54. Which of the following are implications of Sun's Magnetic storms?
- Corrosion in oil pipelines
  - Orbital degradation
  - Current surges in power lines
  - Radiation hazards to orbiting spacecraft
- Choose the correct answer using the code given below:
- 1 and 3 only
  - 2 and 4 only
  - 1, 2 and 3 only
  - 1, 2, 3 and 4
55. Consider the following statements:
- India is one of the world's leading exporters of Li-ion batteries.
  - Li-ion batteries are commonly used in laptops, mobile phones and electric vehicles.
  - Li-ion batteries are energy efficient and cost effective than the nickel-cadmium cell.
- Which of the statements given above is/are correctly matched?
- 1 and 2 only
  - 2 only
  - 1 and 3 only
  - 1, 2 and 3
56. Consider the following statements about the Solar Orbiter's Mission:
- Japan Aerospace Exploration Agency (JAXA) has launched this sun-observing satellite.
  - It will help to understand how Sun creates and controls the heliosphere.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
57. With reference to India State of Forest Report (ISFR) 2019, consider the following statements:
- The Ministry of Environment, Forest and Climate Change publishes it annually.
  - North-eastern states have shown the highest gain in forest cover.
  - The current assessment has shown an increase in the total carbon stock in country's forest.
- Which of the statements given above is/are correct?
- 1 and 2 only
  - 2 only
  - 3 only
  - 1, 2 and 3
58. With reference to the Mission Shakti, consider the following statements:
- This anti-satellite missile mission was carried out by the Indian Space Research Organisation (ISRO) using indigenous technology.
  - India is only the second country to acquire such a specialised and modern capability.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
59. With reference to Dark fibre, consider the following statements:
- It is a subset of secret websites that exist on an encrypted network.
  - It is a private and secure way to deliver high-speed data applications.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
60. Consider the following statements about GISAT-1:
- It is a communication satellite.
  - It will be placed in a geostationary orbit.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - 1 and 2 only
  - None of the above
61. Consider the following statements about 'condensation trails', or contrails:
- It only forms in thin layers of the atmosphere that have very high humidity.
  - They are long-lived, thus have long lasting impact on the atmosphere.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
62. Which of the following country has recently banned SyRIdigital identification scheme for being invasive and violative of fundamental right to privacy?
- Britain
  - Netherland
  - United States of America
  - Canada
63. What is Yellow Rust?
- It is a fungal disease, which attacks the leaves of wheat crop
  - It is a fungal disease, which attacks the spikes of wheat crop.
  - It is a fungal disease, which attacks the leaves of sugarcane crop
  - It is a bacterial disease, which attacks the leaves of rice crop
64. With reference to the Gaganyaan Project, consider the following statements:
- It is rs.100, 000 crores Indian human space flight scheduled for 2022.
  - Indian Space Research Organisation (ISRO's) Polar Satellite Launch Vehicle (PSLV) launch vehicle will be used to launch this mission.
  - With its success, India will be fourth in line to have sent a human to space.
- Which of the statements given above is/are correct?
- 1 and 2 only
  - 2 and 3 only
  - 3 only
  - 1, 2 and 3
65. With reference to Decadal Forecast System, consider the following statements:
- It is used to predict fluctuations in the climate system over the next few years.
  - For near-term climate predictions, it takes into account only natural variability.



Which of the statements given above is/are correct?

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

66. With reference to Geosynchronous Satellite Launch Vehicle (GSLV) Mk III, consider the following statements:

1. It is a four-stage heavy lift launch vehicle developed by ISRO.
2. It was used to launch Chandrayaan-2 mission.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 only  
(c) 1 and 2 only (d) None of the above

67. In context of SUTRA PIC plan, consider the following statements:

1. It is an initiative by Department of Animal husbandry, dairy and fisheries.
2. It aims to improve the genetic quality of indigenous cattle breeds.

Which of the statements given above is/are correct?

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

68. What is COVID-19, sometimes seen in news?

- (a) Anti-tank gun  
(b) Mission to study Sun's corona  
(c) Zoonotic viral disease  
(d) Highly contagious viral disease of livestock

69. With reference to Yaravirus, consider the following statements:

1. It has genes that have not been described before.
2. It can infect plants, animal and human cells.

Which of the statements given above is/are correct?

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

70. Recently, NASA has sent a laser robot SuperCam on Mars 2020 rover to

- (a) Study surface of Mars from polar orbit.  
(b) Study Red Planet's atmosphere and climate history  
(c) Find water on Mars.  
(d) Find signs of fossilized microbial life on Mars.

71. Ensemble Prediction System (EPS), sometimes seen in news is used for

- (a) Stock market prediction  
(b) Improve airways traffic conditions  
(c) Weather forecasting  
(d) Diagnosing mental disorders.

72. With reference to the "Operation Vanilla", consider the following statements:

1. It is an anti-piracy initiative to reduce the disruption of shipping routes and de-stabilising of the Indian Ocean maritime environment.
2. It is part of India's policy of "Security and Growth for All in the Region (SAGAR)" for the Indian Ocean Region islands.

Which of the statements given above is/are correct?

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

73. The "World Development Report" is published by which of the following?

- (a) World Bank (b) World Economic Forum  
(c) The Economist (d) International Monetary Fund

74. Which of the following are environmental and ecological benefits of organic farming system?

1. Revitalizes ground water level
2. Sustainable development
3. Reduces risk to the food chain
4. Preserves indigenous species

Choose the correct answer using the code given below:

- (a) 1 and 3 only (b) 2 and 4 only  
(c) 1, 2 and 3 only (d) 1, 2, 3 and 4

75. Consider the following statements about the Coastal Regulation Zone (CRZ) rules:

1. They help to regulate the inter-tidal zone, land part of the coastal area and the ocean part.
2. They restrict all kinds of human and industrial activities close to the coastline to protect the fragile coastal ecosystem.
3. These are mandated and enforced under the Environment Protection Act.

Which of the statements given above is/are correctly matched?

- (a) 1 only (b) 2 and 3 only  
(c) 3 only (d) 1, 2 and 3

76. Consider the following statements:

1. Andaman and Nicobar Command is the only integrated theatre command in India.
2. The Strategic Forces Command has operational control of the country's nuclear assets.
3. DB Shekatkar committee recommended creation of integrated theatre commands.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 only  
(c) 1 and 3 (d) 1, 2 and 3

77. With reference to the Integrated Air Defence Weapon System (IADWS), consider the following statements:

1. It is an Indo-Israeli surface-to-air missile system.
2. It is also called as the National Advanced Surface to Air Missile System (NASAMS-II).

Which of the statements given above is/are correct?

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

78. With reference to the "Medical Termination of Pregnancy Act", consider the following statements:

1. Abortion is a criminal offence in India under the Indian Penal Code (IPC).
2. Only married couples can legally terminate a pregnancy.
3. Women seeking abortion have the final say, whether abortion can be carried out or not.

Which of the statements given above is/are incorrect?

- (a) 1 and 2 only (b) 2 only  
(c) 1 and 3 (d) 1, 2 and 3 only

79. With reference to Bharatiya POSHAN Krishi Kosh, consider the following statements:

1. It is an initiative by Department of Agriculture and Farmer Welfare.
2. Under this, an Agro-Food Atlas that is a repository of diverse crops across India's agro-climatic zones will be developed.

Which of the statements given above is/are correct?

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

80. The 'State of the World's Children Report' is released by which of the following?

- (a) CRY - Child Rights and You  
(b) World Health Organisation  
(c) United Nations Children's Fund  
(d) Children Internationals

81. With reference to the Global Hunger Index (GHI), consider the following statements:

1. It is used to measures malnutrition across world.
2. It is published annually by the International Food Policy Research Institute (IFPRI).

Which of the statements given above is/are correct?

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

82. With reference to Innovations for Defence Excellence (iDEX) scheme, consider the following statements:

1. It aims to create an ecosystem to foster innovation and technology development in aerospace.
2. It is funded and managed by Defence Innovation Organization (DIO).

Which of the statements given above is/are correct?

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

83. With reference to the 'International Judicial Conference 2020', consider the following statements:

1. It was organized by the Bar Council of India.
2. It focused on achieving gender equality in all areas by granting equal status to women.

Which of the statements given above is/are correct?

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

84. With reference to the 'Bay of Bengal Initiative on Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)', consider the following statements:

1. It was formed through the Bangkok declaration.
2. All South Asian and South East Asian countries adjacent to the Bay of Bengal are its members.

Which of the statements given above is/are correct?

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

85. With reference to the 'National Crime Record Bureau (NCRB)', consider the following statements:

1. It is a statutory body.
2. It creates and maintains a National repository of fingerprints of all criminals.

Which of the statements given above is/are correct?

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

86. Consider the following statements about the 'Gadhika Festival':

1. This traditional festival is celebrated annually in Gujarat.
2. It is aimed at conserving ethnic art forms and to develop a market for products of the SC/ST communities

Which of the statements given above is/are correct?

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

87. It is a Sandhayak-class hydrographic survey ship, indigenously designed and constructed by Goa Shipyard Limited and currently deployed on the shores of Sri Lanka to carry out a joint Hydrographic survey. The above-mentioned descriptions are pointing towards which of the following?

- (a) INS Kalvari (b) INS Vikrant  
(c) INS Jamuna (d) INS Chakra

88. With reference to the "Ease of Living Index", consider the following statements:

1. It is jointly published by NITI Aayog and the World Bank.
2. It assessed all Indian cities to measure quality of life of citizens.
3. Quality of life, economic ability and sustainability are used as indicators for measuring this index.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 and 3 only  
(c) 3 only (d) 1, 2 and 3

89. Which of the following joint exercises are conducted between India and UK?

1. Konkan 2. SAMPRITI-IX  
3. Indradhanush 4. AJEYA WARRIOR

Choose the correct answer using the code given below:

- (a) 1, 2 and 3 only (b) 2, 3 and 4 only  
(c) 1, 3 and 4 only (d) 1, 2, 3 and 4

90. Consider the following statements about the "Law Commission of India":

1. It is a non-constitutional and non-statutory body.
2. It's reports and recommendations on legal matters are binding on the government.

Which of the statements given above is/are correct?

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

91. Consider the following statements about the Financial Action Task Force (FATF):

1. This inter-governmental body was established by the Organisation for Economic Co-operation and Development (OECD).
2. It work as a watchdog for combating terrorist financing and human trafficking to maintain integrity of the international financial system

Which of the statements given above is/are correct?

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



## Subjective Questions

### GS Paper-I

1. Preservation of traditional art forms in India requires comprehensive social security schemes for artists. Discuss. (10 marks)
2. What is coronal mass injections? Discuss its association with other forms of solar activity.

### GS Paper-II

3. Discuss the issues associated with Assisted Reproductive Technology (ART) in India. How can the newly proposed Assisted Reproductive Technology Regulation Bill 2020 address these issues? (15 marks)
4. Students' perception of the masculinity of science school subjects has an important role to play in the huge gender gap in science. Discuss. Suggest some measures to bridge this gender gap in science. (10 marks)
5. Supreme Court recently ruled in favour of granting permanent commission to women in the Army. In the context of this ruling do you think that it is the right time to allow women in a combat role in Army? (10 marks)
6. How can the approach adopted in POSHAN Abhiyan help in addressing the issue of malnutrition in India? Comment. (10 marks)
7. India-USA relations require an appropriate strategy of mutual engagement by capitalizing on synergies and sidestepping roadblocks. Discuss. (15 marks)
8. The traditional "supply-side" top-down governance architecture though having political checks and balances with statutes, rules, and procedures; has a limited impact on ensuring transparency and accountability. In the context of the given statement discuss the importance and benefits of social audit for governance in India. (10 marks)

### GS Paper-III

9. One of the themes of the Union Budget 2020-21 is "Aspirational India". Analyze measures proposed in Budget 2020-21 under this theme. (15 marks)
10. Comment on the important Direct Tax Concessions given in the Union Budget 2020-21. (15 marks)
11. How can the implementation of agriculture-related central model laws by state governments help the farm sector in India? (15 marks)
12. India's aspiration to become a \$5 trillion economy depends critically on strengthening the invisible hand of markets together with the hand of trust that can support markets. Comment. (15 marks)
13. Do you agree with the view that well-intended Government interventions in the economy sometimes lead to more harm than good? Give reasons in support of your arguments. (10 marks)

14. The current environment for international trade presents India an unprecedented opportunity to create jobs through labor incentive export trajectory by specializing in some industries. Discuss. (15 marks)
15. What is Thalonomics? Discuss its significance in the Indian context. (10 marks)
16. Account for the performance of the Central Public Sector Enterprises (CPSEs) that had undergone strategic disinvestment. Is privatization of the profit-making CPSEs prudent? (15 marks)
17. Discuss the different costs associated with the use of fossil fuels. Suggest some innovative alternatives to reduce the costs associated with the use of fossil fuels. (15 marks)
18. Mangroves exhibit various evolutionary adaptations and have great importance for the ecosystem. Comment. (10 marks)

### GS Paper-IV

19. Distribution of freebies and doles in election or pre-election is a deeply ingrained tradition that is accustomed to democratic India. Discuss the ethical implications of the distribution of freebies. (10 marks)
20. You are the Superintendent of Police in a district. In the past few months, the incidents of protest have increased in your area. Recently, one such incident took place where 10 to 15 local women began to blockade a six-lane highway connecting to other states. In no time more locals joined and it became a continuous sit-in protest. Further, it has been reported that organizers have used children as young as eight to ten years to shout slogans against the government. Many children had to miss school; many would have reached late for their exams while a few may have even missed the same. Even ambulances had to take longer routes through traffic jams. In the wake of the above situation, the Supreme Court took up the matter on the participation of children which led to the death of a four-month-old infant who was brought to the protest by his mother. The Court said that "We have the highest respect for motherhood, highest concern for children and they should not be treated badly". On the other hand, some mothers of children argue that children also have a right to protest. However, it is argued the Right to Life under Article 21 of the Constitution of the baby was violated as newborn babies need a lot of care as they cannot express their pain in particular. Thus, bringing the children to protest even when the conditions are unfavorable to the children is violative of their child rights and natural justice." Identify the Ethical issues involved and enumerate the course of action which you will take. (25 marks)



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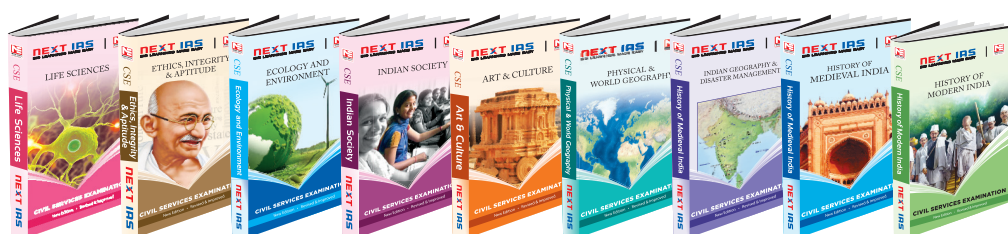
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