

# OFFICERS' Pulse

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## Coverage.

The Hindu  
PIB  
Yojana  
Rajya Sabha TV  
All India Radio

## At a Glance & In Depth.

Polity and Social Issues  
Economy  
International Relations  
Environment  
Science and Tech  
Culture



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

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# News @ a glance

## POLITY

### 1) **SDG India Index 2019**

#### About Sustainable Development Goal India Index

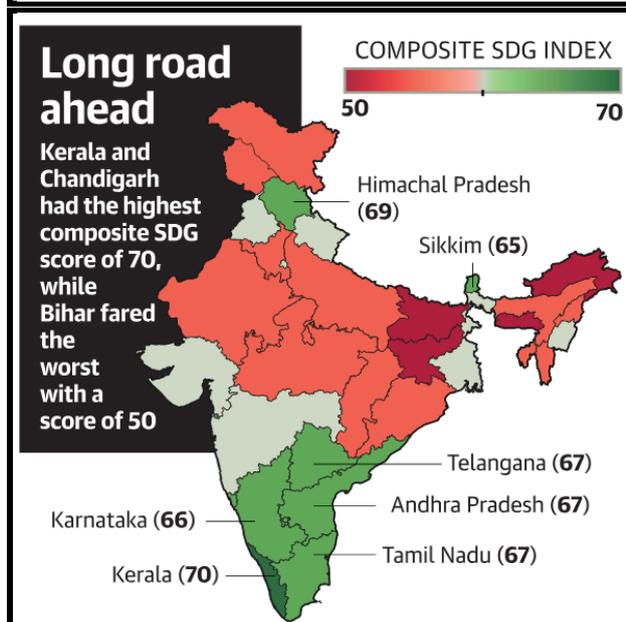
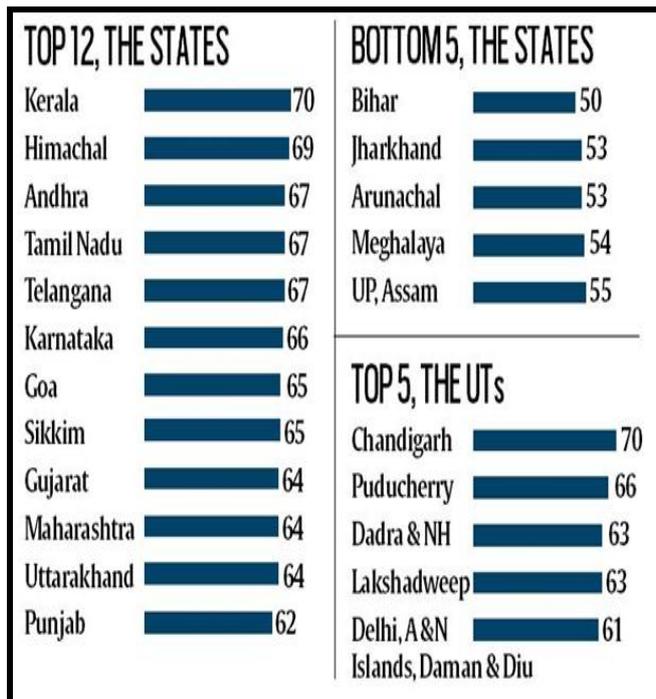
- The **SDG India Index** documents the progress made by India's States and Union Territories towards achieving the **2030 SDG targets**.
  - It has been developed by **NITI Aayog** in collaboration with the **Ministry of Statistics, United Nations in India**, and **Global Green Growth Institute**.
  - The 2019 Index spans **16 out of 17 SDGs** with a qualitative assessment on Goal 17. This marks an improvement over the 2018 Index, which covered only 13 goals.
  - Additionally, this year, the SDG India Index report has a new section on profiles of **all 37 States and UTs**, which will be very useful to analyse their performance on all goals in a lucid manner.
  - A composite score was computed in the **range of 0-100 for each State/UT** based on its aggregate performance across 16 SDGs, indicating the average performance of every State/UT towards achieving 16 SDGs and their respective targets.
  - If a State/UT achieves a score of 100, it signifies it has achieved the 2030 national targets.
  - The higher the score of a State/UT, the closer it is towards achieving the targets.
- The **maximum gains** were made in **Goals 6 (clean water and sanitation), 9 (industry, innovation, and infrastructure) and 7 (affordable and clean energy)**.
  - All three states that were in the 'Aspirant' category (with score/s in the range of 0-49)—**Uttar Pradesh, Bihar and Assam**—have graduated to the '**Performer**' category (50-64).
  - **Five states**—**Andhra Pradesh, Telangana, Karnataka, Goa, and Sikkim**—moved up from the 'Performer' category to the '**Front Runner**' category (65-99).
  - **Kerala** achieved the **first rank in the composite SDG Index** with a score of 70, followed by **Himachal Pradesh** at 69.
  - **Andhra Pradesh, Telangana, and Tamil Nadu** ranked at the **third position** with the score of 67.
  - The **biggest improvers** since 2018 are **UP** (which has moved from the 29th position to the 23rd), **Orissa** (23rd to 15th), and **Sikkim** (15th to 7th).
  - While Bihar has improved its score from 48 in 2018 to 50 in 2019, it still has a long way to go in achieving the targets.

#### Classification criteria based on SDG India Index score is as follows:

- Aspirant: 0 - 49
- Performer: 50 - 64
- Front Runner: 65 - 99
- Achiever: 100>

#### SDG India Index 2019 Highlights:

- India's composite score has improved from 57 in 2018 to **60 in 2019**, thereby showing noticeable progress.



**Importance of the Index:**

- NITI Aayog has the twin mandate to **oversee the implementation of SDGs** in the country and **promote competitive and cooperative federalism** among States and UTs.
- The SDG India Index **acts as a bridge between these mandates**, which embodies the five Ps of the global SDG movement: **people, planet, prosperity, partnership and peace.**
- The Index is available on an online dashboard, which has cross-sectoral relevance across policy, civil society, business and academia.
- The Index is designed to function as a tool for focused policy dialogue, formulation and implementation, and moving towards development action pegged to globally recognizable metrics.
- The Index also supplements NITI Aayog's continuous efforts to encourage evidence-based policymaking by supporting States/UTs to benchmark their progress, identifying priority areas and sharing best practices.
- The Index will also help highlight crucial gaps related to monitoring SDGs and the need for improving statistical systems at the National/State/UT levels.
- Further, the Index highlights the need for improvements in data collection, reporting and methodology.
- NITI Aayog is also exploring partnerships for disaggregating data and developing capacity for real-time monitoring and measuring incremental progress.

**What are the Sustainable goals?**



# SUSTAINABLE DEVELOPMENT GOALS



- The UN General Assembly in its 70th Session considered and adopted the Sustainable Development Goals (SDGs) for the next 15 years.
  - The 17 SDGs came into force with effect from 1st January 2016.
  - Though not legally binding, the SDGs have become de facto international obligations and have the potential to reorient the domestic spending priorities of the countries during the next fifteen years.
  - Countries are expected to take ownership and establish a national framework for achieving these goals.
  - Implementation and success will rely on countries' own sustainable development policies, plans and programmes.
- Why in News?**
- NITI Aayog released the **second edition of the Sustainable Development Goals (SDG) India Index**, which comprehensively documents the progress made by India's States and Union Territories towards achieving the 2030 SDG targets.
- 2) Swachh Survekshan 2020**
- What is Swachh Survekshan?**
- Swachh Survekshan is a **ranking exercise** taken up by the Government of India to **assess rural and urban areas for their levels of cleanliness and active implementation of Swachhata mission** initiatives in a timely and innovative manner.
  - The objective of the survey is to encourage large scale citizen participation and create awareness amongst all sections of society about the importance of working together towards making towns and cities a better place to live in.
  - Additionally, the survey also intends to foster a spirit of healthy competition among towns and cities to improve their service delivery to citizens, towards creating cleaner cities and towns.
  - The **Ministry of Urban Development**, Government of India takes up the Swachh Survekshan in **urban areas**
  - The **Ministry of Drinking Water and Sanitation** takes up the Swachh Survekshan in **rural areas**.
  - The **Quality Council of India (QCI)** has been commissioned the responsibility of carrying out the assessment.

## How is Swachh Survekshan League 2020 different. ... Ek kadam sustainability ki ore

Swachh Survekshan 2019	Swachh Survekshan League 2020
 <b>Annual Survey</b> : Conducted once a year ,on cumulative progress made by the ULBs	 <b>Quarterly Survey</b> : Continuous assessment through quarterly survey followed by final assessment in 2020
 <b>Data capture</b> through Online MIS with <b>multiple data fields</b> for Service Level Progress and Certifications	 <b>Integrated tech enabled data capture</b> for reliable data driven analytics and decision making
 <b>Citizen Centric Engagement</b> through indicators and feedback i.e. citizens can directly contribute to the city's performance	 <b>Citizens Validation</b> of the progress claimed by ULB to ensure continuous and sustained progress.
 <b>Sustainability</b> through Star Rating for Garbage Free City Protocol and ODF, ODF+ and ODF++ protocols for sustainable sanitation	 <b>Institutionalizing Sustainability</b> through Garbage Free City, ODF++ and Water+ protocols for holistic solid & liquid waste management and environmental sustainability

from 'Sustainability' to 'Institutionalizing Swachhata'

### Assessment Method:

- Swachh Survekshan 2020 is evaluated for **each quarter** on the basis of **monthly** updation of **Swachh Bharat Mission-Urban (SBM-U)** online Management Information System (MIS) by cities along with citizen's validation on the 12 service level progress indicators.
- Swachh Survekshan 2020 has been conducted in **3 quarters**:
  - 1) April – June
  - 2) July – September
  - 3) October – December 2019
- The performance of cities in Swachh Survekshan League 2020 is crucial to their ranking in Swachh Survekshan 2020 due to the **25% weightage of the quarterly assessments to be included in the annual survey**.
- Ranks have been assigned in two categories, namely, cities with **population of one lakh and above** (with two sub-categories, i.e. 1-10 lakh and 10 lakhs and above) and **cities with population of less than 1 lakh** (under the < 1 lakh population category, the rankings are given zone and population wise).

### Key Highlights:

- The **cleanest city** is bagged by **Indore** for the fourth time in a row.
- In the **worst performer** category of cities having population more than 10 lakh, **Bhopal** stood second in first quarter

results (April to June), while **Rajkot** grabbed the second spot in second quarter results (July-September) of 'Swachh Survekshan League 2020'.

- The third position was grabbed by Surat in the first quarter and Navi Mumbai in the second quarter.
- In the second quarter, Vadara was ranked fourth, followed by Bhopal, Ahmedabad, Nashik, Greater Mumbai, Allahabad and Lucknow.
- **Among cantonment boards, Tamil Nadu's St.Thomas Mount Cantt** was ranked 1st in quarter 1 whereas Delhi Cantt ranked first in the 2nd quarter.
- **Secunderabad Cantonment Board** in Hyderabad is the **worst performer** among other cantonment boards.

### Why in News?

- The Ministry of Housing and Urban Affairs (MoHUA) has announced the results of the first (April-June) and second (July-September) quarters of Swachh Survekshan 2020.

### 3) Abetment to suicide

#### What is Abetment to suicide?

- Abetment of suicide is an offence under **section 306 of the Indian penal code, 1860**. According to the 306 section of the Indian Penal Code, a person abetting the suicide of another person shall be punished with imprisonment up to 10 years and shall

also be liable to fine. Abetting a suicide is a non-bailable charge.

- A person is guilty of abetment when:
- He instigates someone to commit suicide (or)
- He is part of a conspiracy to make a person commit suicide (or)
- He intentionally helps the victim to commit suicide by doing an act or by not doing something that he was bound to do

#### Why in News?

- The Supreme Court has held in a judgment that **a person accused of dowry harassment cannot be automatically convicted for abetment of suicide.**

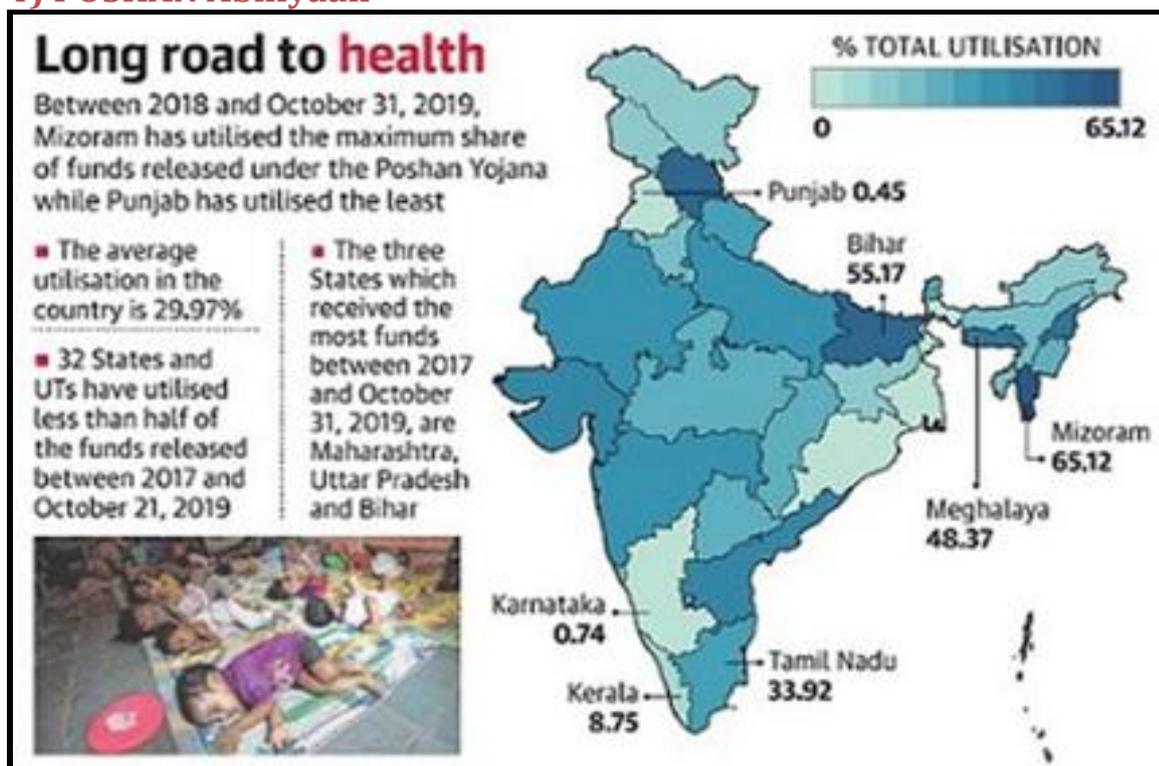
#### News in Detail:

- Merely because an accused is found guilty of an offence punishable under Section 498A of the IPC, the accused cannot be automatically held guilty for the offence punishable under Section 306 (abetment of suicide) of the IPC by employing the presumption under Section 113A of the Evidence Act.
- Unless the prosecution establishes that some act or illegal omission by the accused has driven the deceased to commit the suicide, the conviction under Section 306 would not be tenable.

#### About Poshan Abhiyaan

- POSHAN Abhiyaan (National Nutrition Mission) is a flagship programme of the **Ministry of Women and Child Development (MWCD)**, Government of India, which ensures convergence with various programmes i.e., Anganwadi Services, Pradhan Mantri Matru Vandana Yojana (PMMVY), Scheme for Adolescent Girls (SAG) of MWCD Janani Suraksha Yojana (JSY), National Health Mission (NHM), Swachh-Bharat Mission, Public Distribution System (PDS), Department Food & Public Distribution, Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Ministry of Drinking Water & Sanitation.
- It was launched in 2018 with a total budget of ₹9,046.17 crore for three years. It is meant to benefit more than 10 crore people.
- It is aimed at improving nutritional outcomes among pregnant women, lactating mothers and children by reducing the level of stunting, underweight, anaemia and low birth weight by **2022**.
- NNM targets to **reduce stunting, under-nutrition, anemia** (among young children, women and adolescent girls) and **reduce low birth weight** by **2%, 2%, 3% and 2%** per annum respectively.

#### 4) POSHAN Abhiyaan



### News in Detail:

- Barring Mizoram, Lakshadweep, Himachal Pradesh and Bihar, none of the governments used even half of the sum granted in the past three years.
- The five best performers in terms of fund utilisation were Mizoram (65.12%), Lakshadweep (61.08%), Bihar (55.17%), Himachal Pradesh (53.29%) and Meghalaya (48.37%).
- The worst five performers were Punjab (0.45%), Karnataka (0.74%), Kerala (8.75%), Jharkhand (13.94%) and Assam (23.01%).
- **Why in News?**

- According to an analysis of the data shared in Parliament, The State governments/UTs have utilised a mere 30% of the funds released under the Poshan Abhiyaan, or the National Nutrition Mission, since it was launched in 2017.

## 5) All India Judicial Services

### Why in News?

- **The Vidhi Centre for Legal Policy** in its recent report titled, ‘**A primer on the All India Judicial Service – A solution in search of a problem?**’ has brought forth many arguments against an AIJS.

### Constitutional Provisions of Appointment of Judges:

- The Judges of the **Supreme Court** and the **High Court** are appointed by the **President**. Whereas, under **Article 233** and **Article 234**, the Judges at the **district court** and **lower subordinate** courts are appointed by the **Governor** in consultation with the concerned high court and State Public Service Commission.

### Background of AIJS

- Original constitution didn't provide for the creation of an AIJS.
- After the Swaran Singh Committee's recommendations in 1976, Article 312 was modified by the 42<sup>nd</sup> constitution (amendment) act in 1977 to provide for an AIJS, but it excluded anyone below the rank of district judge.
- And inserted an “all-India judicial services” provision into Article 312 that lays down the legal ground for creation of All-India Services.

### Why in News?

- **The lower judiciary is plagued by a number of issues** like the **large pendency in the cases and the poor quality of its judgment** which is more often than not appealed in higher courts. This is mainly due to a **large number of vacancies in judicial positions, the long delays in the appointment process and lack of transparency in the appointment process**.
- Currently, the appointments of District Judges and Subordinate Judiciary are done by the respective State governments.
- Given the challenges being faced in the lower judiciary, there has been a **growing call for the creation of a unified pan-India judicial service**.

### Pros of AIJS:

- All India Judicial Service (AIJS) would help in **centralizing the recruitment process**. This would help **attract the best talent from all over the country**.
- AIJS can help in a **faster and timely recruitment process** which would help address the high level of vacancy in the judiciary. It will address the problem of a high level of pendency in cases by helping increase the judges: cases ratio in India.
- The AIJS can be implemented with provisions which will help **address the issue of lack of representation for the marginalised in the judicial services**.

### Cons of AIJS

#### Vacancy issue:

- A closer analysis would reveal the fact that it is **only certain High Courts which account for a majority of the approximately 5,000 vacancies**. AIJS has no role in the appointment process of the High courts.

#### Reservation:

- AIJS has been pitched as a solution to lack of representation for the marginalized in the judiciary. **Many States are already reserving posts for marginalized communities and women in the appointment process of the lower judiciary**.
- The creation of AIJS and the subsequent reservation would face some backlash given that many of the communities who currently benefit from the State quotas, may oppose the creation of an AIJS. This is because the **communities recognised as**

**Other Backward Classes (OBC) by State governments may or may not be classified as OBCs by the Central government.** This might lead to the disempowerment of a few communities in the state.

**Local language and customs:**

- **Judges recruited through a centralized process may not know the local languages of the States in which they are posted.** This becomes an important impediment considering the fact that the proceedings of civil and criminal courts are to be conducted in a language prescribed by the respective State governments which in most cases is the state language.
- **The lack of understanding of the local language and customs** are issues that deserve serious consideration since it will **not only lead to longer case disposal times and also may affect the quality of judgments.**

**6) Child Marriage**

- **Why in News?**

- The Supreme Court has held in a recent judgment that the anti-child marriage law does not intend to punish a male aged between 18 and 21 years for marrying a “female adult.”
- **News in Detail:**
- The Supreme Court interpreted **Section 9 of the Prohibition of Child Marriage Act, 2006**, which says: “whoever, being a male adult **above 18 years of age**, contracts a child marriage shall be punishable with rigorous imprisonment which may extend to two years or with fine which may extend to one lakh rupees or with both.”
- The court said neither does the provision punish a child for marrying a woman nor a woman for marrying a male child because decisions regarding marriage are usually taken by the family members of the bride and groom, and women generally have little say in the matter.
- It said the 2006 Act also gives an option for prospective grooms who are between 18 and 21 years old to opt out of marriages.

# ENVIRONMENT

## 1) Iron-snow on Earth's innermost layer

### Why in News ?

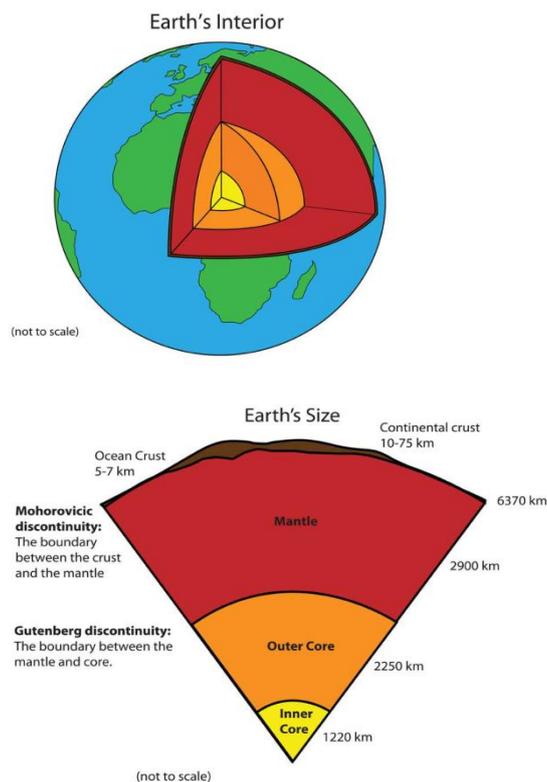
- According to a study published in journal **JGR Solid Earth**, the earth's inner core is capped by snow made of **tiny particles of iron** which are much heavier than any snowflake on Earth's surface.

### Key Findings :

- The iron-snow falls from the molten outer core and piles up in the inner core of the Earth creating stacks that are up to 200 miles thick.
- This finding was unearthed after analyzing signals from seismic waves as they pass through the Earth. **Seismic Waves** are vibrations generated by an earthquake, explosion, or similar energetic source and that propagate within the Earth or along its surface.
- The seismic waves moved much slower than expected when they passed through the base of the outer core.
- However, they moved faster than estimates as they passed through the eastern hemisphere of the top inner core.
- The scientists found out that slurry-like (semi -liquid) composition of the snow pack slows the seismic waves. The variation in snow pile size -- thinner in the eastern hemisphere and thicker in the western -- affected the speed of the waves.
- Earlier studies had also pointed about the existence of slurry layer exists between the inner and outer core
  - The same is supported by the latest data from experiments on core-like materials. The scientists have found that crystallisation is possible and that about 15% of the lowermost outer core could be made of iron-based crystals (snow).
  - These crystals could eventually fall down the liquid outer core and settle on top of the solid inner core.

### Earth's Core:

- The core is found about 2,900 kilometers (1,802 miles) below the Earth's surface, and has a radius of about 3,485 kilometers (2,165 miles).



## 2) In 2019, 95 tiger deaths in India, 22 incidents of poaching, says MoEFCC

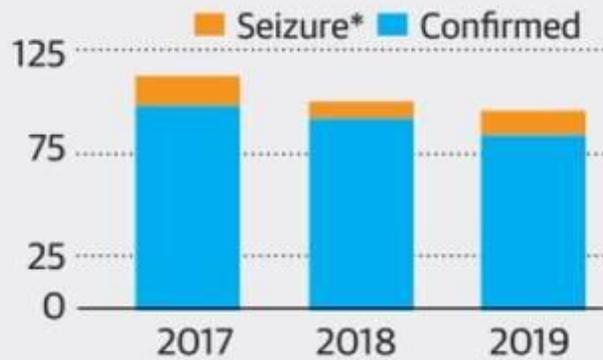
### Why in news?

- According to data from the Ministry of Forest Environment and Climate Change (MoEFCC), there were 84 cases of tiger deaths in the country and 11 cases of seizures (in which a tiger is presumed dead on the basis of body parts seized by authorities). Both put together, the number of tiger deaths in 2019 is 95.
- For the first time in the past three years, the number of tiger deaths in a year in the country has been less than 100.

# Vanishing big cats

Madhya Pradesh recorded 31 tiger deaths in 2019 – the highest in the country, data from the Ministry of Forest, Environment and Climate Change shows. A look at the year-wise trend, location and reason for the deaths

**A new low**  
Only 95 tiger deaths were recorded in 2019, lowest in the last three years



\* presumed dead on the basis of the body parts seized

## State-wise split of deaths in 2019



## Reasons for deaths in 2019



### Other findings

- An analysis of the tiger mortality figures show that 57 of the 95 deaths occurred inside Tiger Reserves, while 38 cases of tiger deaths were recorded outside Tiger Reserves.
- An analysis shows that in 16 out of 22 poaching incidents, which is almost over 70% of cases of poaching, have been reported **outside Tiger Reserves**.
- Top states where tiger deaths happened:

▪ Madhya Pradesh	▪ 31 tiger deaths
▪ Maharashtra	▪ 18 tiger deaths
▪ Karnataka	▪ 12 tiger deaths
▪ Uttarakhand	▪ 10 tiger deaths

- According to experts, tigers are most vulnerable when they are outside Reserves as they are not under surveillance.
- According to the NTCA Member Secretary, **at least three new Tiger Reserves will be added in 2020**. He said that the areas under consideration are in both south Indian and central Indian landscapes.
- **Tiger reserves in India**
- Project Tiger was launched by the Government of India in the year 1973 to save the endangered species of tiger in the country. Starting from nine (9) reserves in 1973-2016 the number is grown up to fifty (50). A total area of 71027.10 km<sup>2</sup> is covered by these project tiger areas.

### 3) One-fifth of the country's forests prone to fires: study

#### India State of Forest Report (ISFR) 2019

- A **biennial** (once every 2 years) report "India State of Forest Report (ISFR)", is published by the **Forest Survey of India (FSI)**, which has been mandated to assess the forest and tree resources of the country including wall-to-wall forest cover mapping. Starting 1987, 16 assessment have been completed so far.
- ISFR 2019 is the **16th report** in the series.
- The **2019 report** for the **first time** has assessed the **qualitative nature of the forest cover**, including listing its

#### biodiversity and the type of plants and trees found.

- It also created a **national forest inventory** for the first time on produce from forests.

#### Highlights of the report

- In the present assessment, the total forest and tree cover of the country is 80.73 million hectares which is **24.56 per cent** of the geographical area of the country.
- As compared to the assessment of 2017, **there is an increase** of 5,188 sq. km in the total forest and tree cover of the country.
- Top three states showing an increase in forest cover are **Karnataka** (1,025 sq. km) followed by **Andhra Pradesh** (990 sq km) and Kerala (823 sq km).
- Area-wise **Madhya Pradesh** has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.
- In terms of forest cover as a **percentage of total geographical area**, the top five States are **Mizoram** (85.41%), Arunachal Pradesh (79.63%), Meghalaya (76.33%), Manipur (75.46%) and Nagaland (75.31%).
- Mangrove cover has been separately reported in the ISFR 2019 and the total mangrove cover in the country is 4,975 sq km. An **increase of 54 sq Km in mangrove cover** has been observed as compared to the previous assessment of 2017. Top three states showing mangrove cover increase are Gujarat (37 sq km) followed by Maharashtra (16 sq km) and Odisha (8 sq km).
- There is an increase of 0.32 million hectare in bamboo bearing area as compared to the last assessment of ISFR 2017.
- The total carbon stock of the country was estimated at 7124 million tons, which is an increase of 42.6 million tons from the last assessment.

#### Forest Proneness to Fire

- **About 21.40%** of forest cover in India is prone to fires, with forests in the north-eastern region and central India being the most vulnerable.
- The forest fire points (FFP) identified during the 13 years add up to 2,77,758. They were analysed using a **moderate**

**resolution imaging spectroradiometer (MODIS)** by overlaying the points coverage over the grid coverage of 5 km x 5 km.

- **Mizoram**, a small State, recorded the highest number of fire alerts (2,795).
- The seven States of the north-eastern region accounted for 10,210 fire alerts, which make up about one-third of alerts in the country.
- Central Indian States also recorded a high number of forest fire alerts, with Madhya Pradesh accounting for 2,723 alerts; Maharashtra 2,516; Odisha 2,213 and Chattisgarh 1,008 alerts between November 2018 to June 2019.
- One of the major reasons for forest fires in the north-east is **slash-and-burn cultivation**, commonly called jhum or jhum cultivation. (a farming method that involves the cutting and burning of plants in a forest or woodland to create a field called a swidden.)
- The reasons for fires here are **man made**, particularly in cases where people visit forests and leave burning bidis, cigarette stubs or other inflammable materials. In cases of natural reasons, the scientist pointed to **thunderstorms** as the most likely cause.

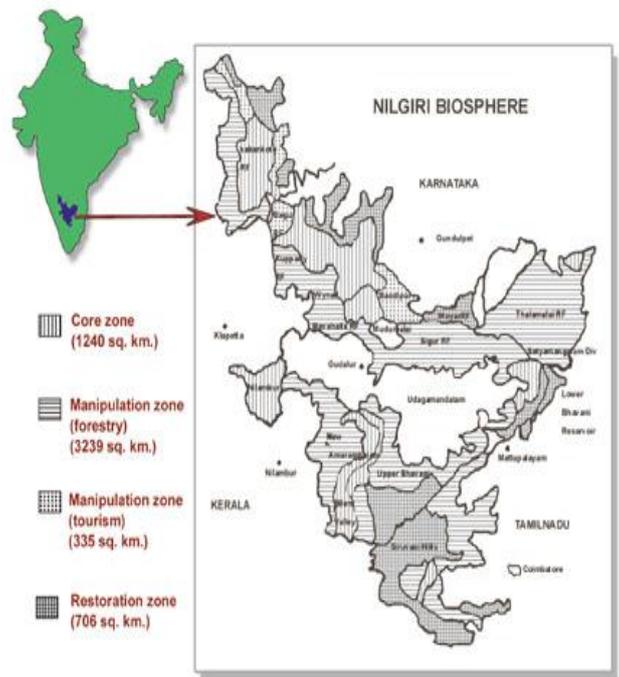
**Decline in North East Forests:**

- The forest cover in the country increased by 3,976 square kilometres (sqkm) but with the sharpest declines in the northeastern States of Arunachal Pradesh, Manipur and Mizoram.

**4) Kerala for steps to curb alien plants' growth in NBR**

**About Nilgiri Biosphere Reserve**

- The Nilgiri Biosphere Reserve was the first biosphere reserve in India established in the year 1986. It is located in the Western Ghats and includes 2 of the 10 biogeographical provinces of India.
- The total area of the Nilgiri Biosphere Reserve is 5,520 sq. km. It is located in the Western Ghats between 76°- 77°15'E and 11°15' - 12°15'N. The Nilgiri Biosphere Reserve encompasses parts of Tamilnadu, Kerala and Karnataka.



- **Mudumalai Wildlife Sanctuary, Wayanad Wildlife Sanctuary Bandipur National Park, Nagarhole National Park, Mukurthi National Park and Silent Valley** are the protected areas present within this reserve.

VEGETATIONAL TYPES OF THE NILGIRI BIOSPHERE RESERVE			
S.No	Forest type	Nature of Vegetation	Area of occurrence
1.	Moist evergreen	Dense, moist and multi storeyed forest with gigantic trees	In the narrow valleys of Silent Valley
2.	Semi evergreen	Moist, deciduous	Nilambur and Palghat division
3.	Thorn	Dense	North east part of the Nilgiri district
4.	Savannah woodland	Trees scattered amid woodland	Mudumalai and Bandipur
5.	Sholas & grasslands	High elevated evergreen with grasslands	South and western catchment area, Mukurthi national park

- The Nilgiri Biosphere Reserve is one of the critical catchment areas of peninsular India.
- Many of the **major tributaries of the river Cauvery** like **Bhavani, Moyar, Kabini and other rivers like Chaliyar, Punampuzha**, etc., have their source and catchment areas within the reserve boundary. Many hydroelectric power projects are present in the Kundah, Bhavani and Moyar basins .
- The sholas and grasslands play a very important role in retaining water and supplying it to these streams. A drastic decline in the sholas and grasslands is one of the reasons for the recent water scarcity in the Nilgiri Biosphere Reserve.

#### What is *Senna spectabilis*?

- *S. spectabilis* is a medium to large tree from tropical America, listed in the Global Compendium of Weeds as an **'environmental weed', 'garden thug',** and **'naturalised weed'**. The species is extremely fast-growing, flowers and sets seed profusely, and re-sprouts readily when cut.



- An adult tree grows up to 15 to 20 metres in a short period of time and every year distributes thousands of seeds after gregarious flowering.
- The thick foliage arrests the growth of other indigenous tree and grass species and causes food shortage for the wildlife population, especially herbivores. Moreover, wildlife will not feed on the leaf of the tree as it is not palatable for them.
- The allelochemicals produced by this plant adversely affect the germination and growth of the native species
- **Why in news?**
- The Forest and Wildlife Department is planning to adopt steps to arrest the rampant growth of invasive plants, especially *Senna spectabilis*, in the forest areas of the Nilgiri Biosphere Reserve (NBR), including the Wayanad Wildlife Sanctuary.
- They are to adopt an integrated method combining physical as well as chemical measures to address the issue.

# ECONOMY

## 1) Merchant Discount Rate (MDR)

### About MDR

- MDR is a fee charged from a merchant by a bank for accepting payments from customers through credit and debit cards in their establishments.
- MDR is distributed between the **card issuing bank**, the lender (bank) which puts the **point-of-sale (POS)** terminal and **payment gateways** such as Mastercard or Visa for their services.
- MDR charges are usually shared in pre-agreed proportion between the bank and a merchant and are expressed in percentage of transaction amount.
- This cost is often passed on to the customer.

- A **point of sale terminal** (POS terminal) is an **electronic device** used to **process card payments** at retail locations.

### About RuPay

- RuPay is a card payment scheme launched by the **National Payments Corporation of India (NPCI)**, the umbrella organisation that powers retail payments in the country.
- It has been conceived to fulfill RBI's vision to offer a domestic, open-loop, multilateral system which will allow all Indian banks and financial institutions in India to participate in electronic payments.
- The name, derived from the words '**Rupee and 'Payment'**', emphasises that it is **India's very own initiative for Debit and Credit Card payments**.
- Presently, RuPay has collaborated with almost 600 international, regional and local banks across the country.

### Advantages of RuPay Card

- **Lower cost and affordability:** Since the transaction processing will happen domestically, it would lead to lower cost of clearing and settlement for each transaction.
- **Customized product offering** - being a domestic scheme is committed towards development of customized product and service offerings for Indian consumers.

- **Protection of information related to Indian consumers:** Transaction and customer data related to RuPay card transactions will reside in India.
- **Provide electronic product options to untapped/unexplored consumer segment:** There are under-penetrated/untapped consumers segments in rural areas that do not have access to banking and financial services. Right pricing of RuPay products would make the RuPay cards more economically feasible for banks to offer to their customers. In addition, relevant product variants would ensure that banks can target the hitherto untapped consumer segments.
- **Inter-operability between payment channels and products:** RuPay card is uniquely positioned to offer complete inter-operability between various payments channels and products. NPCI currently offers varied solutions across platforms including ATMs, mobile technology, cheques etc and is extremely well placed in nurturing RuPay cards across these platforms.

### Why in News?

- MDR charges on transactions through RuPay cards and UPI payments for businesses with over ₹50 crore annual revenues were waived off from January 1, 2020.

### News in Detail

- The decision to choose RuPay and UPI may promote these home-grown digital payment pathways over those promoted by foreign companies, including VISA and MasterCard.
- RBI and banks will absorb these costs from the savings that will accrue to them on account of handling less cash as people move to these digital modes of payment.

### Concerns

- The Payments Council of India — an industry lobby group — had said an MDR waiver would hurt companies in the payments system.
- It argued that the cost should be borne by the government instead of banks, which

would have no incentive to promote digital payments without MDR revenues.

- Zero MDR would disincentivize banks to issue RuPay cards and they would instead prefer Visa and Mastercard.

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

### About DICGC

- DICGC is a **wholly owned subsidiary of RBI**.
- The functions of the DICGC are governed by the provisions of '**The Deposit Insurance and Credit Guarantee Corporation Act, 1961**' (DICGC Act) and '**The Deposit Insurance and Credit Guarantee Corporation General Regulations, 1961**' framed by the Reserve Bank of India.
- It was established for the purpose of providing insurance of deposits and guaranteeing of credit facilities.
- DICGC insures all bank deposits, such as saving, fixed, current, recurring deposits except the following types of deposits
  1. Deposits of foreign Governments;
  2. Deposits of Central/State Governments;
  3. Inter-bank deposits
  4. Deposits of the State Land Development Banks with the State co-operative banks;
  5. Any amount due on account of and deposit received outside India
  6. Any amount which has been specifically exempted by the corporation with the previous approval of the RBI.
- Banks covered by Deposit Insurance Scheme.
  1. All commercial banks, Local Area Banks, and Regional Rural Banks.
  2. Co-operative Banks
- The DICGC **insures principal and interest** upto a maximum amount of Rs. **100,000 (since 1993)** of each deposit in a bank.
- The DICGC Act empowers the Corporation to raise this limit with the prior approval of the Central Government.
- The **premium** paid by the insured banks to the Corporation is required to be **absorbed by the banks** themselves so that the benefit of deposit insurance protection is made available to the depositors **free of cost**.

### Why in News?

- The government is vetting a proposal from the Deposit Insurance and Credit Guarantee Corporation (DICGC) to increase the deposit insurance limit.

### News in Detail

- The demand for increase in deposit insurance grew stronger after the RBI imposed various restrictions, including a cap on deposit withdrawal, for accounts held with the PMC Bank in the last week of September due to financial irregularities.
- This caused panic among depositors and there were rumours about the safety of the banking system.

## 3) e-Bkraya

### Why in News?

- The Ministry of Finance launched an **e-auction platform** called e-Bkraya to aid debt recovery.

### News in Detail

- It is a common e-auction platform to sell 1.73 lakh properties, worth ₹2.3 lakh crore, that have been attached by PSBs (Public Sector Banks) over the last three years.
- The platform is open for bidding by general customers across the country, with photographs, videos and documentation of all uploaded properties. So far, 35,000 properties have been uploaded.

## 4) National Infrastructure Pipeline

### What is the National Infrastructure Pipeline?

- It is estimated that India would **need to spend \$4.5 trillion on infrastructure by 2030** to sustain its growth rate.
- The endeavour of the National Infrastructure Pipeline (NIP), is to make this happen in an efficient manner.
- Well-planned NIP will enable more infra projects, grow businesses, create jobs, improve ease of living, and provide equitable access to infrastructure for all, making growth more inclusive.

### Why in News?

- The Finance Minister has outlined plans to invest more than ₹102 lakh crore on infrastructure projects by 2024-25, with the **Centre, States** and the **private sector** to share the capital expenditure in a **39:39:22 formula**.

### News in Detail

- This would be a significant increase over the last six years, when the Centre and States together spent ₹51 lakh crore on infrastructure.
- This is the expenditure needed to achieve a \$5 trillion economy by 2024-25.
- A task force of senior bureaucrats chaired by Economic Affairs Secretary **Atanu Chakraborty** identified ₹102 lakh crore projects in 18 States as part of a National Infrastructure Pipeline.
- Another ₹3 lakh crore worth of projects are likely to be added soon.
- Almost a quarter of the capital expenditure is going to the energy sector, with ₹24.5 lakh crore expected to be invested in power, renewable energy, atomic energy and petroleum and natural gas.
- Going forward, the task force will continue to monitor progress and will also have the flexibility to change course, with the power to drop selected projects and pick up new ones.

## 5) Carbon tax in India

- **About Carbon tax**
- Carbon tax can be called a tax on carbon or an environmental tax that is levied on carbon content of the fuel.
- The fundamental concept behind carbon tax is **to prevent the overuse of fossil fuels and limit it to a certain level.**
- In addition it helps to pave ways for non carbon or less carbon technologies.
- Countries which have implemented or proposed carbon tax are as follows; **Finland (first implementer** of carbon tax on national level), France, Denmark, Netherlands, Sweden, Australia (Recently proposed) ,Norway, Switzerland, Canada, US, etc.

### Indian scenario

- To prevent over the use of high carbon intensive fuels; in 2010, the Government of India had set up a policy on carbon tax (**Rs. 50.00 for each metric ton of coal used** in India – domestic or imported both).
- The tax currently stands at Rs.400/tonne.
- In addition, it helps to create a **National Clean Energy Fund** for financing research

and innovative clean energy technologies in the country.

### Why in News?

- The Prime Minister's Office (PMO) has proposed waiving a tax on coal to help finance pollution-curbing equipment, according to documents, but the move would also make coal more competitive in price with solar and wind energy.

## 6) India-Malaysia Comprehensive Economic Cooperation Agreement (IMCECA)

### About the Agreement

- The Comprehensive Economic Cooperation Agreement (CECA) was signed between India and Malaysia in **2011.**
- The agreement **includes trade in goods, services and investment, and economic cooperation.**
- The market access commitments under the CECA provide for more liberal tariff concessions, including faster timelines and reduced exclusion lists, than in the ASEAN-India Trade in Goods Agreement.
- The CECA includes economic cooperation in areas such as infrastructure development, creative industries, tourism, SMEs (small and medium enterprises), business facilitation, science and technology, and human resource development.

### Why in News?

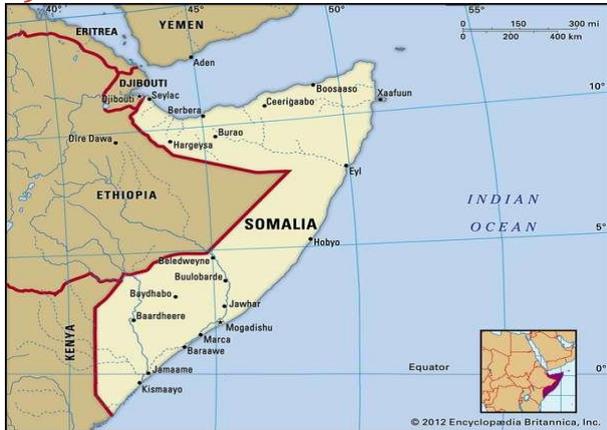
- Government has slashed import duty on refined palmolein from 50 per cent to 45 per cent and crude palm oil (CPO) from 40 per cent to 37.5 per cent.

### News in Detail

- A notification in this regard has been issued by the finance ministry.
- The duty cut has been made under the ASEAN agreement and the India-Malaysia Comprehensive Economic Cooperation Agreement (IMCECA).
- The domestic palm oil refining industry has opposed the move saying it will hurt them and oilseeds farmers.

# International Relations

## 1) Somalia



### Location

- Somalia is the **easternmost country of Africa**, on the **Horn of Africa**.
- It extends from just south of the Equator northward to the Gulf of Aden and occupies an important geopolitical position between sub-Saharan Africa and the countries of Arabia and southwestern Asia.
- The capital, **Mogadishu**, is located just north of the Equator on the Indian Ocean.

### Why in News?

- A bomb blast in Somali capital Mogadishu killed at least 90 people.
- The al-Qaeda-linked Islamist terrorist group, **al-Shabaab** claimed responsibility for this attack.

## 2) Visit Nepal 2020



### Why in News?

- India's Minister of State for Tourism attended the inauguration of Visit Nepal 2020.

### News in Detail

- Visit Nepal 2020 is the **largest economic diplomacy initiative** of Nepal.
- The initiative is important as it will open Nepal's tourism economy which has emerged as an arena of interface between India and China.
- Nepal aims to utilise this initiative to generate investment for infrastructure development and also develop the tourism sector that is crucial for Nepal's economy.
- As part of the initiative, India, Nepal and China will hold the first-ever trilateral tourism expo in February.
- The year 2020 was chosen as the national tourism year of Nepal after the year 2011.

### Background

- Nepal's tourism sector suffered a major setback with widespread destruction of infrastructure in the Himalayan region during the April 2015 earthquake which destroyed many bridges and roads in the mountainous districts.
- The tourism sector of Nepal has come into focus of regional diplomacy as both India and China have repeatedly highlighted plans to develop the sector while advancing respective national diplomatic goals.
- The country is uniquely positioned on the global tourism map as the home of several key Hindu and Buddhist places of worship and the tallest peaks of the Himalayan range.

## 3) Islamic Revolutionary Guard Corps (IRGC)

### About IRGC

- Iran's Islamic Revolutionary Guard Corps (IRGC) was set up in 1979 to defend the country's Islamic system, and to provide a counterweight to the regular armed forces.
- It has since become a major military, political and economic force in Iran.
- It also controls the paramilitary **Basij Resistance Force**, which has helped suppress domestic dissent, and the powerful bonyads, or charitable foundations, which run a considerable part of the economy.

- The IRGC exerts influence elsewhere in the Middle East by providing money, weapons, technology, training and advice to allied governments and armed groups through its **shadowy overseas operations arm, the Quds (Jerusalem) Force.**
- The US accuses the Quds Force of supporting terrorist organisations and being responsible for attacks in Iraq and elsewhere in the Middle East.
- IRGC has been designated as a **Foreign Terrorist Organization by the U.S.**
- **Saudi Arabia** and **Bahrain** have added IRGC and Quds Force as organisations suspected of involvement in funding terrorism.

#### Why in News?

- On 3 January 2020, the US killed the Quds Force's powerful commander, Major General Qasem Soleimani, in a drone strike in Baghdad, Iraq.



#### 4) Notice To Airmen (NOTAM)

##### About NOTAM

- A notice to airmen (NOTAM) is a notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.
- NOTAMs are communicated by the issuing agency using the fastest available means to all addressees for whom the information is assessed as being of direct operational significance.
- NOTAMs are issued by national authorities for a number of reasons, such as: air-shows, flights by important people such as heads of state, Military exercises, obstacles near airfields, closed runways, etc.

#### Why in News?

- US aviation regulator FAA, in a notice to airmen (NOTAM), warned America's airlines and their pilots that there is risk involved in operating flights in Pakistan airspace due to "extremist or militant activity".

#### 5) Kuala Lumpur Summit - Perdana Dialogue

##### About KL Summit 2019

- Kuala Lumpur Summit is an international platform for Muslim leaders, intellectuals and scholars from around the world to discuss and exchange ideas about the issues revolving in the Muslim world.
- The KL Summit will be known as **The Perdana Foundation for Civilisational Dialogue (Perdana Dialogue)** starting from January 2020.
- It is being interpreted as an attempt by non-Arab Muslim countries to offer a viable alternative to the Saudi-dominated Organisation of Islamic Cooperation (OIC), even though Malaysia denied such aspirations.
- The five key nations of the initiative are Malaysia, Turkey, Qatar, Iran, and Indonesia. Leaders from several other countries also attended the meeting.
- Pakistan's Prime Minister Imran Khan was pressured by the Saudis to withdraw from the meeting at the last minute.



#### Why in News?

- Abu Dhabi Crown Prince visited Pakistan, amidst criticism of the UAE for siding with Saudi Arabia to put pressure on Pakistan to skip a key conference of Muslim nations in Malaysia.

# SCIENCE and TECHNOLOGY

## 1) IIT-G offers new tech to tap energy from water

### Why in News?

- A team of researchers at the Indian Institute of Technology-Guwahati (IIT-G) has **developed materials that can produce energy from flowing or stagnant water** in households.

### News in Detail

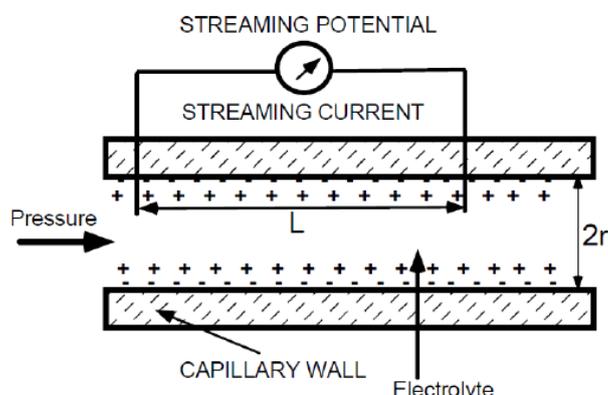
- The **decentralised energy model** involving a large number of small generation devices can generate energy in every household and the excess energy thus produced can be evacuated to energy-deficient areas nearby.
- The team employed:
  1. **“electro-kinetic streaming potential”** to harvest energy from flowing tap water and
  2. **“contrasting inter-facial activities”** entailing different types of semiconducting materials to generate power from stagnant water.

### What is Electrokinetics?

- Electrokinetic phenomena are a family of several different effects that occur in heterogeneous fluids, or in porous bodies filled with fluid, or in a fast flow over a flat surface.
- The term heterogeneous here means a fluid containing particles.

### What is electro-kinetic streaming potential?

- A streaming current and streaming potential are two interrelated electrokinetic phenomena studied in the areas of surface chemistry and electrochemistry.
- They are an electric current or potential which originates when an electrolyte is driven by a pressure gradient through a channel or porous plug with charged walls.



- The research team demonstrated that when fluids stream through tiny channels that are charged, they can generate an electrical voltage, which may be harnessed through miniaturised generators.

### Energy from stagnant water

- In order to extract power from stagnant water, devices were fabricated by employing **doped graphene flakes**.
- The **“complementary charge transfer activities”** of doped graphene flakes based devices generate power just upon dipping in any kind of water source, like lake, river or seawater.
- Graphene is the sheet produced by oxidation followed by reduction of natural graphite flakes.
- The graphene oxide was doped with boron and nitrogen, separately, and the two forms of graphene were loaded into two filter papers that served as electrodes in an electrochemical cell.
- Dipping the two filter papers into water produces potential upto 570 millivolt.

### Blue energy

- The generation of **energy from water** in various forms – river flow, ocean tides, stagnant water, and even raindrops, is now known as “blue energy”.
- While hydroelectric power from rivers is the traditional form of blue energy, there have been efforts to harness the power of water in other ways in recent years.

### Significance of the research

- While the power generated currently is too small for practical applications, the research findings brings us a step closer to realising simple, safe and reliable

alternative power sources that can eventually reduce the load on the centralised grid, and contribute to energy self-sufficiency.

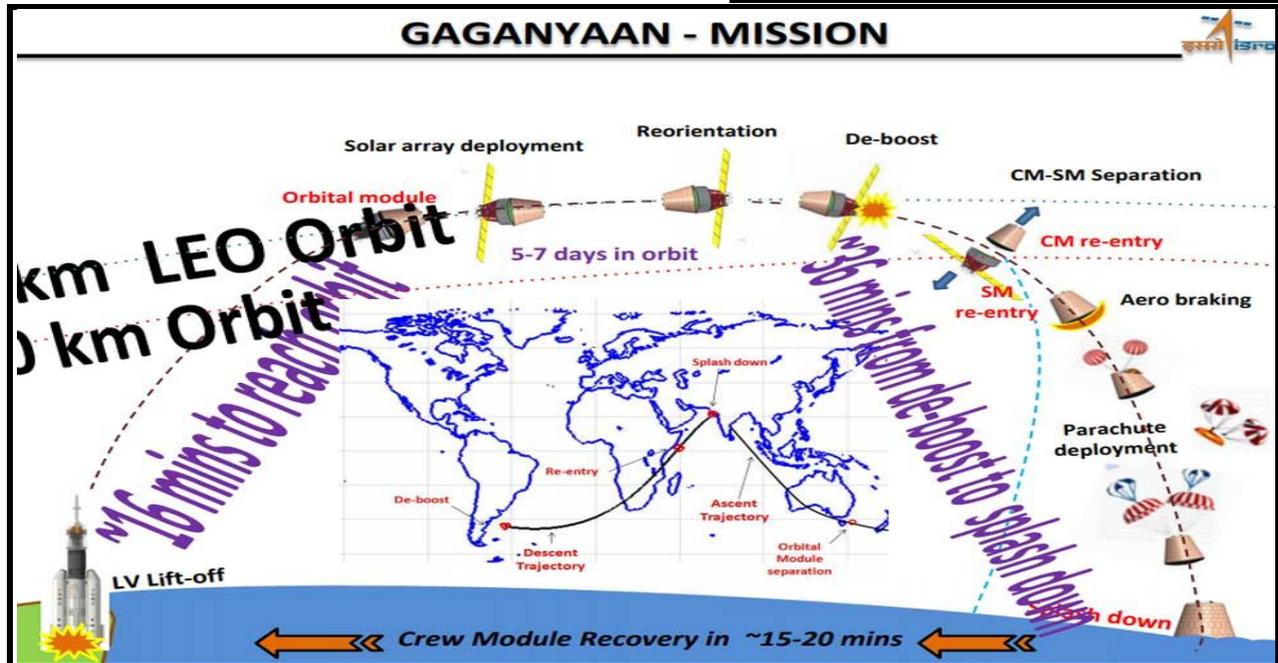
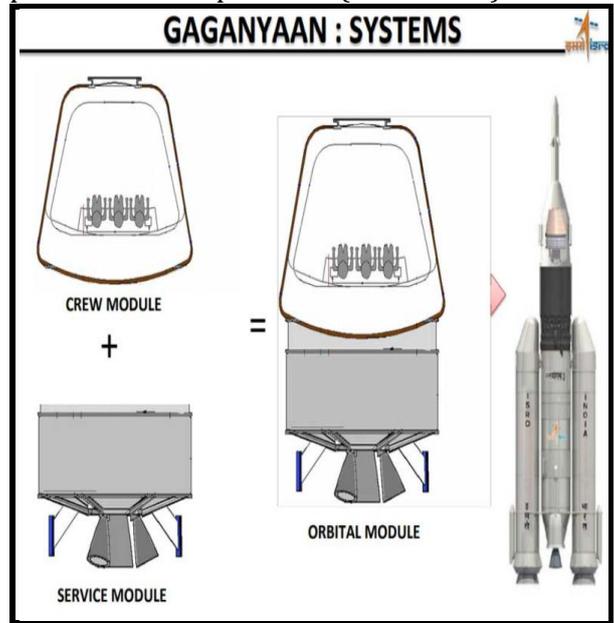
## 2) Mission Gaganyaan

### About the mission

- Gaganyaan, announced by the Prime Minister Narendra Modi in August 2018, is the ₹10,000-crore **first Indian Human Space Flight Programme (HSP)** scheduled for 2022.
- It is designed to have **3-7 crew members** spend **3-7 days in space** in a **400-km orbit (Low Earth Orbit or LEO)**.
- With this, **India could potentially become the fourth country to send a man to space**, after the erstwhile USSR, the US and China. (Denmark also has a manned space flight scheduled for 2022)
- The first of the two pre-Gaganyaan flights with a humanoid will be launched in December 2020 along with some of the six shortlisted microgravity experiments.
- GSLV Mk III**, the three-stage heavy lift launch vehicle, will be used to launch

Gaganyaan as it has the necessary payload capability.

- ISRO expects the space mission to generate 15,000 jobs.
- Gaganyaan (3m × 2.70m) **would be smaller in size** than the current Russian **Soyuz** (7.2m × 2.7 m in diameter), Chinese **Shenzhou** (9.25m × 2.8 m), NASA's planned **Orion** spacecraft (3.3m × 5 m).



- ISRO signed an agreement with Russia's **Glavkosmos** to select and train Indian astronauts for the space mission.

### Why in News?

- Four pilots from the Indian Air Force (IAF) were shortlisted to receive training as astronauts of Gaganyaan.

### News in Detail

- They were shortlisted after a series of fitness and endurance tests.
- The initial tests were conducted in the IAF's **Institute of Aerospace Medicine**, Bangalore, and Russia.

- The four will leave in the third week of January to be trained at the Yuri Gagarin Cosmonaut Centre in Moscow, Russia, as per an agreement signed between the space agencies of the two countries last year.

### 3) Chandrayaan-3

#### Why in News?

- The Chandrayaan-3 mission, which will consist of a **lunar rover and a stationary lander**, has been approved by the Indian government.

#### About the mission

- Chandrayaan-3 will be almost a repetition of the July 2019 Chandrayaan-2 mission in the configuration of spacecraft, the landing spot on the moon and the experiments to be conducted on the lunar surface.
- It **does not include an orbiter module** like Chandrayaan-2.
- The Chandrayaan-3 lander and rover are estimated at ₹250 crore and will go to the moon on a propulsion model. The GSLV Mark III vehicle costs around ₹350 crore.
- The launch of the nearly ₹600-crore Chandrayaan-3 is targeted for the end of 2020 or early 2021.
- Although scores of landers sent by Russia, the U.S. and the Chinese have explored moon's surface, so far, no other agency has landed in the southern hemisphere of the moon. ISRO hopes to be still the first to do so.
- **Mastering soft-landing**
- Indian moon lander Vikram may have most likely crashed on the moon because the **navigation control and guidance mechanism** in the penultimate phase was not designed to handle the large spike in speed that developed in the last 3-5 minutes of its descent.
- This problem has been corrected in the new modules of Chandrayaan-3.

### 4) DRDO Young Scientists Laboratories (DYSL)

#### About DRDO

- Defence Research and Development Organisation (DRDO) was established in **1958** by amalgamating **Defence Science Organisation** and some of the technical development establishments.

- It is under the administrative control of the **Ministry of Defence**, Government of India.
- It has a network of **52 laboratories** which are engaged in developing defence technologies covering various fields, like aeronautics, armaments, electronics, land combat engineering, life sciences, materials, missiles, and naval systems.

#### Why in News?

- Five new defence laboratories led by under-35 directors and young military scientists were formally launched to drive the country's war technologies of the future under the DRDO.

#### News in Detail

- The DYSLs are located in **Bengaluru, Mumbai, Chennai, Kolkata and Hyderabad**.
- Each lab is working on a key advanced technology of importance to the development of **futuristic defence systems**.
- The identified areas of work for these laboratories are **Artificial intelligence, Quantum technologies, Cognitive technologies, Asymmetric technologies and Smart materials**.
- Research in the area of rapidly evolving Artificial Intelligence will be carried out at Bengaluru.
- The all-important area of Quantum Technology will be based out of IIT Mumbai.
- The future is dependent on Cognitive Technologies and IIT Chennai will house the lab embarking in this area of research.
- New and futuristic area of Asymmetric Technologies, which will change the way wars are fought, will be based out of the campus of Jadavpur University, Kolkata.
- The research in the hot and critical area of Smart Materials and their applications will be based out of Hyderabad.
- The establishment of DYSLs will be a big leap forward for the DRDO from the goal of making India self-reliant to making it **future ready in defence technologies**.
- To realise the goals of these laboratories, Directors of DYSLs are empowered with Financial and Administrative authorities at par with any director of a DRDO laboratory.

#### Need for DYSLs

- The impact of science and technology on defence systems remains undisputed.

- A country needs to have a technology edge in its operational, tactical and strategic warfare.
- Yet, today's rapidly evolving technology is challenging the traditional norms of technology assessment and forecasting.
- The pace of innovation is such that, today's technology needs to be evaluated and its future potential ascertained with unimaginable immediacy.
- No longer can we wait to evaluate a technology till maturity for implementation and then investment.
- Speed of assessment, rapid prototyping, pace of evaluation and focused development are necessary for us to remain relevant in the field of cutting edge technology.
- Young and agile scientists with zeal and enthusiasm are the key to match the pace of technological innovation.
- The nation needs to recognize their speed, their enthusiasm and their ability to innovate.

## 5) 107th Indian Science Congress

### About Indian Science Congress Association

- The Indian Science Congress Association (ISCA) owes its origin to the foresight and initiative of two British Chemists, namely, Professor J. L. Simonsen and Professor P.S. MacMahon.
- It occurred to them that scientific research in India might be stimulated if an annual meeting of research workers somewhat on the lines of the British Association for the Advancement of Science could be arranged.
- The first meeting of the Congress was held from January 15-17, 1914 at the premises of the Asiatic Society, Calcutta.

### Why in News?

- 107th Indian Science Congress is scheduled to be held at the University of Agricultural Sciences, GKVK Campus, Bangalore, Karnataka from 3-7th January, 2020.

### News in Detail

- The Congress is a major focal point for scientists, researchers and academicians interested in various aspects of science discoveries and technologies.
- The five-day long event aims to bring together science fraternity across the world to discuss scientific innovation and research.
- The **Kolkata-based** ISCA has been the organiser of the congress since 1914, and is funded by the Union Department of Science and Technology.
- The theme for the congress this year is '**Science and Technology: Rural Development**'.
- To emphasise the focal theme, the function will include a **Farmer's Science Congress** for the first time in the history of Indian Science Congress, providing a platform for innovative farmers.
- The farmer's congress will cover themes ranging from farmers innovation on integrated agriculture and entrepreneurship for doubling farmers income, climate change, biodiversity, conservation, ecosystem services & farmers empowerment to agrarian distress, rural bio-entrepreneurship, policy issues.
- A two day event 'Rashtriya Kishore Vaigyanik Sammelana' (Children's Science Congress) aims to provide a unique opportunity for children to view selected projects and interact with the student delegates and children will also have the opportunity to listen, interact with eminent scientists and Nobel Laureates.
- It also includes Women Science Congress.

# ART AND CULTURE

## 1) Gujarati Patola Sarees

### Why in News?

- **Khadi and Village Industries Commission (KVIC)**, inaugurated the **first Silk Processing Plant** at Surendranagar in Gujarat which would increase the sale and availability of raw material for **Gujarati Patola Sarees** locally.

### About:

- Patola is a **double ikat woven sari**, usually made from silk, made in Patan, Gujarat, India.
- They are very expensive, once worn only by those belonging to **royal and aristocratic families**. Patola-weaving is a closely guarded family tradition.
- It is said that this technique is taught to no one in the family, but only to the sons.
- It can take six months to one year to make one sari due to the long process of dying each strand separately before weaving them together.

### Design and pattern

- The patterns include :
- In **Jain and Hindu communities**, double ikat sarees with entire designs of **parrots, flowers, elephants, and dancing figures** are generally used.
- In **Muslim communities**, saris with **geometric designs and flower patterns** are typical, being worn mostly for weddings and other special occasions.
- **Maharashtrian Brahmins** wear saris woven with plain, dark coloured borders and body, and a **bird design** called **Nari Kunj**.



About **Khadi & Village Industries Commission (KVIC)**:

- The **Khadi and Village Industries Commission (KVIC)** is a **statutory body** established by an **Act of Parliament** (Khadi and Village Industries Commission Act of 1956). The KVIC is charged with the planning, promotion, organisation and implementation of programs for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development.

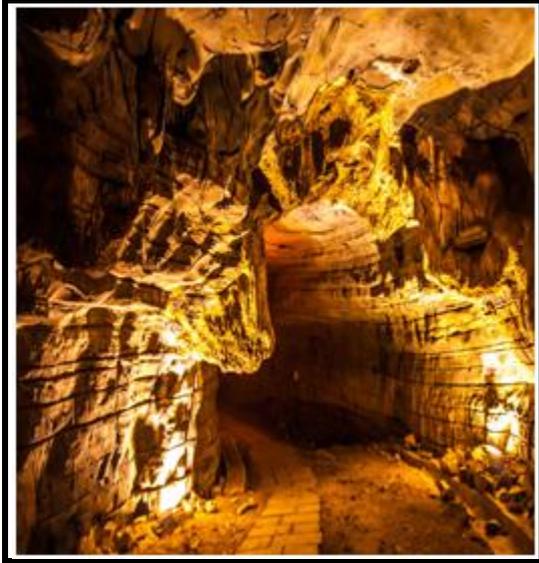
### The objectives of KVIC are:

- The social objective of providing employment.
- The economic objective of producing saleable articles.
- The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit.

## 2) Belum Caves

### About:

- The Belum Caves are located near Belum Village in Kurnool District, **Andhra Pradesh**.
- It is the **second largest caves on the Indian Subcontinent** after the **Krem Liat Prah caves in Meghalaya**.
- This cave system is known for its speleothems, such as stalactite and stalagmite formations.
- It has long passages, galleries, spacious caverns with fresh water and siphons. The caves consist of **black limestone**.
- This cave system was formed over the course of tens of thousands of years by the constant flow of underground water from the now-disappeared river Chitravathi.
- It is one of the centrally protected Monuments of National Importance.
- There are indications that **Jains** and **Buddhists monks** occupied these caves centuries ago. Many **Buddhists relics** were found inside the caves.



- **Why in News?**
- The Belum Caves Festival has been postponed to January after the dates clashed with Governor Biswa Bhusan Harichandan's visit to the district.

# PIB ANALYSIS

## 1) Street Lighting National Programme (SLNP)

### About the SLNP:

- The SLNP is a government scheme to promote energy-efficiency in India. **Energy Efficiency Services Limited (EESL)**, a joint venture of PSUs under the Power Ministry, is the implementing agency for SLNP.
- EESL, launched in 2015, has already replaced 50 lakh street lights with LED bulbs in more than 500 cities of India.
- To bring in mass-scale transformation, EESL has adopted a unique strategy by joining hands with states, municipal bodies and Urban Local Bodies (ULBs).
- Under the programme, EESL replaces the conventional street lights with LEDs at its own costs, with no upfront investment by the municipalities, thereby making their adoption even more attractive.

### Objectives of SLNP:

- Mitigate climate change by implementing energy-efficient LED-based street lighting.
- Reduce energy consumption in lighting which helps DISCOMs to manage peak demand.
- Provide a sustainable service model that obviates the need for upfront capital investment as well as additional revenue expenditure to pay for the procurement of LED lights.
- Enhance municipal services at no upfront capital cost of municipalities.

### Why in News?

- The Government of India's UJALA & Street Lighting National Programme (SLNP) complete five successful years.

## 2) World Braille Day

### About World Braille Day:

- Every year **January 4th** is celebrated as World Braille Day in order to mark the birth anniversary of **Louis Braille**. Louis Braille is credited with inventing the Braille language. **Braille is a tactile writing system used by people who are visually impaired.**
- The declaration to celebrate the day was given by the UN in 2018. The UN Convention on the Rights of Persons with

Disabilities (UNCPRD) cites Braille as a means of communication; and regards it as essential in education, freedom of expression and opinion, access to information and social inclusion for those who use it.

### What is the need to celebrate?

- The World Braille Day spreads awareness about Braille script and other accessible forms of communication, as most of the public places such as hospitals fail to provide their material in Braille.
- Despite 2.2 billion people with visual impairment in the world, most of the schools do not offer classes in Braille and a lot of countries do not even recognize this as a part of their educational curriculum.
- The 2006 **Convention on the Rights of Persons with Disabilities** considers Braille essential for education.
- Hence, the celebration of the World Braille Day is intended to spread awareness amongst people regarding the necessity and importance of including the language at a more global level.

### Why in News?

- All India Radio News and its regional units in Pune and Nagpur have observed World Braille Day in an innovative way by broadcasting news read by visually impaired students and officers. The news was scripted in Braille and read live.

## 3) Savitribai Phule

### About:

- Savitribai Phule was an Indian social reformer, educationalist, and poet. She played an important role in improving women's rights in India. She is regarded as the mother of Indian feminism.

### Some of her works:

- She worked to abolish the discrimination and unfair treatment of people based on caste and gender.
- She campaigned against child marriage. and started the **Mahila Seva Mandal** to raise awareness about women's rights. She supported widow remarriage too.

- She and her husband, **Jyotirao Phule**, opened a school for women in Pune during 1848.
- Savitribai opened a clinic in 1897 for victims of the bubonic plague that spread across Maharashtra .
- She also set up “**Balhatya Pratibandhak Griha**” for pregnant rape victims and helped deliver and save their children
- Savitribai Phule was also a prolific author and poet. She published **Kavya Phule** in 1854 and **Bavan Kashi Subodh Ratnakar** in 1892, and also a poem entitled "**Go, Get Education**" in which she encouraged those who are oppressed to free themselves by obtaining an education.
- She is regarded as an important figure of the social reform movement in Maharashtra. All her efforts, though diverse, had a unanimous effect of posing a brave and pioneering challenge to the caste system and patriarchy.

#### Why in News?

- PM pays tribute to Savitribai Phule on her jayanti.

## 4) Integrated Railway Helpline

### About:

- To overcome the inconvenience over multiple helpline numbers for grievances and enquiry during railway travel, Indian Railway has integrated railway helplines into single number 139 for the passengers for quick grievance redressal and enquiry during their journey.
- As the new helpline number 139 will take over all the existing helpline numbers (except 182- *To provide round the clock security related assistance to passengers, including women passengers* )
- The Helpline 139 will be available in **twelve languages**. It will be based on IVRS (Interactive Voice Response System).
- There is **no need of a smart phone to call on 139**, thus, providing easy access to all mobile users.
- **Why in News?**
- Indian Railway has announced one integrated Helpline number “139” for any help, enquiry and grievances redressal during travel.

# News in Depth

## AIR NEWS

### 1) Mobile Aided Note Identifier (MANI)

#### Why in News?

- RBI Governor launched the “Mobile Aided Note Identifier (MANI)”, a mobile application for aiding visually impaired persons to identify the denomination of Indian Banknotes.

#### Features:

- Capable of identifying the denominations of Mahatma Gandhi Series and **Mahatma Gandhi (New) series** banknote by checking front or reverse side/part of the note including half folded notes **at various holding angles and broad range of light conditions** (normal light/day light/low light/ etc.).
- Ability to identify the denomination through **audio notification in Hindi/English** and **non-sonic mode** such as vibration (suitable for those with vision and hearing impairment).
- After installation, the mobile application does not require internet and works **in offline mode**.

- This mobile application **does not authenticate a note as being either genuine or counterfeit**.

### 2) ISRO's Thoothukudi Launch Port

#### Why in News?

- Indian Space Research Organisation will establish a second launch port in Thoothukudi district in Tamilnadu exclusively to launch **small satellite launch vehicles**.

#### What are Small Satellite Launch Vehicles?

- The Small Satellite Launch Vehicle (SSLV) is a launch vehicle being developed by the ISRO with payload capacity to deliver **500 kg to Low Earth orbit or 300 kg to Sun synchronous orbit** for launching small satellites, with the capability to support multiple orbital drop-offs.
- On December 2018, the **Vikram Sarabhai Space Centre (VSSC) at Thumba** completed the design for the vehicle. The maiden flight is expected in early 2020.
- After entering the operational phase, the vehicle's production and launch operations will be done by a consortium of Indian firms along with **New Space India Limited**

# Hindu Editorial Analysis

## 1) Minimising the housing divide

### Status of Housing in rural areas:

- Housing in rural areas have consistently suffered from various factors which are as follows,
  1. Shortages in the supply of housing and a lack of redevelopment of collapsible or dilapidated units.
  2. Dilapidated (in a state of disrepair or ruin as a result of age or neglect) units have contributed towards a high level of housing amenities deprivation, especially because they cannot safely be connected with electricity or solar energy, latrines, and drinking water, owing to associated structural risks.
  3. Lack of meaningful market interventions, including supply of developed land and financing for housing.
  4. Due to incompatibilities in supply and demand, millions of Indians dwell in unsecured housing.
    - This doesn't mean that India never pursued effective poverty alleviation measures, but that the interventions it carried out have hardly worked in minimising urban-rural divides.

### Way forward:

- If India is to have a real chance to minimise the housing development divide, it requires an integrated housing development strategy for the rural context, to be implemented in "mission mode".
  - Such a mission should have
    1. A definite time frame
    2. Accountability in terms of implementing such a mission agenda on a continuous basis, with social audits at multiple levels of governance.
    3. Realistic resource allocation is required given the cost of redevelopment and new housing units besides other development costs of drinking water supply, household latrines, energy, and drainage connectivity.
    4. Penetration of the market, including the cooperative sector for the supply of critical inputs such as land and finances, is the need of the hour.

5. Public-private-partnership projects should be encouraged on public or government-owned lands, with fiscal and other incentives.
6. Land owners should be encouraged to develop incentive-based affordable housing projects.
7. The people facing housing poverty must be made partners with whom micro finance and self-help groups could be tied in.
8. Menial occupation workers and low-income earners being the most affected, development interventions must focus on rural and urban areas with due consideration for new construction and redevelopment of existing, life-threatening units.
  - Former President APJ Abdul Kalam had proposed the concept of Provision of Urban Amenities to Rural Areas (PURA), which is a framework to mitigate the country's socioeconomic problems and create a common development platform for rural and urban areas.
  - The objective of this goes beyond the mere creation of economic infrastructure and employment opportunities in rural areas which includes social infrastructure also.
  - To further this paradigm, access to good housing, including housing amenities, should become a priority.

## 2) A week test: On Swachh ranking of cities

### About Swachh Survekshan:

- Refer polity section

### What is the issue?

- Though the competitive spirit it unleashes among States may seem appealing, but in reality, the problems confronting urban India require
  1. large-scale infrastructure creation,
  2. full adherence to legal requirements on waste management, and
  3. transparent technical audits.
  - Many cities remain clueless on handling their waste.
  - Example: rising mountain of garbage at the Ghazipur landfill in Delhi.

### Survekshan 2020 targets:

- 100% processing and safe disposal of waste,
- complete faecal sludge and septage management, and
- Wastewater treatment and reuse.

#### Way forward:

#### Go beyond perception management and adopt sustainability:

- Retooling Swachh Survekshan 2020 to go beyond perception management and adopt sustainability is essential to make it a genuine contest.
1. The Urban and Housing Affairs Ministry has sanctioned funds under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) to help States set up facilities necessary to manage waste. States should ask for extended funding under such schemes to create the infrastructure for a future-focused clean-up.
  2. Also measures should be taken to reduce waste.
  3. The emphasis worldwide is on creating a circular economy centred at the principle of material recovery from all kinds of waste, reuse, recycling and reduced pressure on natural resources.
- A sound ranking of cities and towns would naturally give the highest weightage to this dimension of sustainable management, replacing symbolism with an environmentally sound approach.
  - Such rigour in policy formulation can make the Centre's goal of eliminating single-use plastic by 2022 seem more realistic, and industry would find a compelling reason to switch to alternatives.

### 3) A persisting variance: On sustainable goals index

#### About SDG index:

- Refer Polity section

#### What does SDG Index 2019 indicate?

- The South's Kerala, Tamil Nadu, Andhra Pradesh, Telangana and Karnataka are joined by Himachal Pradesh, Sikkim and Goa as the best performers .
- The northern/north-central and north-eastern States are moving towards achieving the U.N.-mandated goals by 2030.
- Poor performers such as Uttar Pradesh have shown advances in the indices —

measured between 2018-19 — especially in adopting cleaner energy and improving sanitation.

- But the regional divide is obvious in basic livelihood goals such as
  - 1) “eradication of poverty”
  - 2) “good health and well being”
  - 3) “industry, innovation and infrastructure”.
- This points to **variances in both State governance and in administrative structures** and implementation of welfare policies.
- **Southern states Vs Northern states:**
  - The South, led by Kerala and Tamil Nadu, has done much more in orienting administrative institutions to deliver on basic welfare.
  - This in turn leads to actions on health care, education, poverty eradication and hunger, with a governance structure tuned to competitively monitoring actions on these fronts.
  - Despite not being much difference in the governance structure, in Bihar and Uttar Pradesh outcomes have remained relatively poor.
  - The western States, especially Gujarat and Maharashtra, are also better off in economic growth and industry, indicating a diversified economy, higher employment ratios, skilled labour and better entrepreneurial culture.

#### Major fault line in India:

- A major fault-line in India is in achieving gender equality.
- Except Himachal Pradesh, Kerala and Jammu & Kashmir being middle in performing, the rest of the country falls short of this parameter.

#### Reasons for this fault line:

- Low sex ratio (896 females per 1,000 males),
- poor labour force participation and presence in managerial positions (only 17.5% and 30%, according to the report),
- high level of informality of labour,
- a major gender pay gap (females earn 78% of wages earned by males in regular salaried employment),
- lack of adequate representation in governance (14.4% in Parliament, but 44.4% in local government) besides high crime rates against women and girls are

among the major national level indicators that have contributed to this.

#### **What should be done?**

- States should strive hard to achieve gender equality but immediate steps such as enhancing women's participation in governance through parliamentary reservations would go a long way in addressing several of the issues faced by them.

### **4) Governance index: On study of States of governance**

#### **Context:**

- The nation-wide comparative study of States on governance is carried out by the Government of India, as Good Governance Index (GGI).

#### **About Good Governance Index:**

- It serves as a welcome exercise to incentivise States to competitively deliver on public services to the citizens.
- **Is this the first time!**
- This is not the first time that benchmarking of States has been carried out. Different agencies including NITI Aayog, the government's policy think-tank, are evaluating the States on different parameters.

#### **Significant findings of GGI:**

- **South being ahead of several parameters:**
- Tamil Nadu is ranked first whose strength has been the ability to ensure stable and smooth delivery of services without much difficulty.
- Tamilnadu is not the only southern State to have put up an impressive performance.
- Three categories of states
  - 1) Big states
  - 2) Northeast and hill states
  - 3) Union territories
- Three of its neighbours are among the top 10 of the big 18 States.

#### **BIMARU states:**

- The term BIMARU – an abbreviation for Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh – was coined in 1980 by the

demographer Ashish Bose in a paper he wrote in the early 1980s.

- Of the nine sectors, Rajasthan, a “BIMARU” State, has finished within the top 10 in five sectors, Madhya Pradesh in four and Uttar Pradesh in three.
- In agriculture and allied sectors, almost all the “BIMARU” States are within the top 10 category and in human resources development, U.P. and Bihar figure.
- In the composite ranking, Chhattisgarh and Madhya Pradesh are ranked fourth and ninth, respectively.
- The key message is that these northern States can catch up with others in due course of time, if the political leadership shows the will to overcome historical obstacles and stays focused on development.

#### **Shortcomings:**

- Some indicators — farmers' income, prevalence of micro irrigation or water conservation systems and inflow of industrial investment — have been left out.
- The indicator, “ease of doing business”, has been given disproportionate weight in the sector of commerce and industries, to the virtual exclusion of growth rate of major and micro, small and medium enterprises.
- An unending debate over which indicators process-based or outcome-based should get more importance in the design of such a study.

#### **What is noteworthy?**

- The Centre has made an attempt to address the problem of the absence of a credible and uniform index for an objective evaluation of the States and Union Territories.
- It goes without saying that the GGI requires fine-tuning and improvement.
- But that does not take away the inherent strength of the work that has been accomplished, keeping in mind India's size and complexity.

# RSTV Big Picture

## 1) Ensuring Water Security



### Why in news?

- Prime Minister Narendra Modi has recently released the operational guidelines of Jal Jeevan Mission which is centre govt's initiative to provide Functional Household Tap Connections to every rural household by 2024.
- Out of 17.87 crore rural households in the country about 14.6 crore which accounts for 81.67 percent are yet to have household tap connections for water.

### What is the background?

- The Jal Jeevan Scheme will be implemented through institutional mechanism at four levels - national, state, district and gram panchayat or its sub committees.
- Women will play a bigger role in this scheme and the paani samitis or the user group will decide about the user fee for sustainability of the scheme.

### Why is the policy a timely intervention?

- In 1951, per-capita water availability in India was just over 5,000 cu m per year. In 2011, it was 1,545 cu m.
- The figure has almost certainly come down since.
- Should it drop below 1,000 cu m per year, India will formally become a water-scarce

country for the first time in its 5,000-year history.

- If water availability is a problem, inequality in access is even more so.
- India has 180 million rural households.
- About 33 million have access to piped water; a little over 145 million don't.
- In any community, water is intensely political.
- Modi hopes to decentralise water source revival, recharge and distribution, with the community taking control.
- Particularly exciting will be the mandatory participation of women — the biggest gainers from assured supply — in water management.

### What are the operational guidelines?

- Time bound completion of schemes taken up under National Rural Drinking Water Programme (NRDWP) has been proposed by providing Functional Household Tap Connection (FHTC) to every rural household.
- No extension of time or cost escalation will be allowed except for the cost towards retrofitting the same to provide FHTCs.
- Priority to cover water quality affected habitations under JJM will be given.
- For the implementation of JJM, following institutional arrangement has been proposed:
  - 1) National Jal Jeevan Mission at the Central level;
  - 2) State Water and Sanitation Mission (SWSM) at State level;
  - 3) District Water and Sanitation Mission (DWSM) at district level; and
  - 4) Gram Panchayat and/ or its sub-committees i.e. Village Water Sanitation Committee (VWSC)/ Paani Samiti at village Level.
- Extra budgetary resources will be made available for JJM and is proposed to be allocated along with Gross Budgetary Support among States/ UTs as per the allocation criteria.
- Good performance of the States/ UTs will be incentivized out of the fund not utilized

by other States at the fag end of the financial year.

- The fund released by Central Government to the State Governments is to be deposited in one Single Nodal Account (SNA) that will be maintained by SWSM along with State matching share to be transferred within 15 days of Central release.
- Public Finance Management System (PFMS) should be used for tracking the funds.
- The physical and financial progress of the mission is proposed to be monitored through IMIS and fund utilization through PFMS.
- No expenditure towards centage charges, O&M cost of the schemes like electricity charges, salary of regular staff and purchase of land, etc. will be allowed out of Central share.
- **Imbibing the spirit of 73rd Amendment of Constitution of India, Gram Panchayats or its sub-committees will play a crucial role in planning, designing, execution, operations and maintenance of the in-village infrastructure.**
- To bring in sense of ownership and pride among rural communities, 5% capital cost contribution towards in-village water supply infrastructure in hilly, forested, and more than 50% SC/ ST dominant population villages, and 10% in the remaining villages is proposed.
- Communities to be rewarded by providing 10% of the in-village infrastructure cost of the scheme which will be maintained by them as a revolving fund to meet any unforeseen expenditure due to break down, etc.
- To handhold and facilitate the implementation of in-village infrastructure and community participation process, Gram Panchayat and/ or its sub-committee, Implementation Support Agencies (ISAs), viz. Self-Help Groups (SHGs)/ CBOs/ NGOs/ VOs, etc. is proposed to be identified and empanelled by state government and engaged by SWSM/ DWSM as per the requirement.
- In order to ensure faster implementation with 'speed and scale' in a time-bound manner for providing FHTC in every rural household by 2024, it is proposed to forge

partnership with all stakeholders in water sector namely; voluntary organizations, sector partners, professionals in water sector, foundations and CSR arms of various corporates.

- **What is the objective?**
- JJM aims at providing potable water in adequate quantity i.e. 55 litre per capita per day (lpcd) of prescribed quality i.e. BIS Standard of IS: 10500 on regular basis.
- Assured availability of safe drinking water in the household premises will improve the health and thereby socio-economic condition of the rural population and will also bring down the drudgery of rural women, especially girls.

#### **What is the process of execution?**

- Every village is to prepare a village action plan (VAP) which will be essentially having three components namely;
  - water source & its maintenance
  - water supply and
  - grey water management.
- Village action plan will be aggregated at district level to formulate the District action plan which will be aggregated at **State level to formulate the State action plan.**
- **State action plan will give a holistic view especially covering projects like regional grids, bulk water supply and distribution projects to address the needs of water stressed areas and will also have a plan for ensuring drinking water security in the State.**
- SWSM will decide rate contracts and empanel reputed construction agencies/ vendors through **centralized tendering** and also to prepare design templates for expeditious implementation.
- Mandatory source sustainability measures like rain water harvesting, groundwater recharge and other water conservation measures as along with grey water management (including reuse) are proposed to be undertaken in convergence with MGNREGS and grants under Finance Commission, State Finance Commission, District Mineral Development Fund (DMF), etc.
- It has been proposed to assess and pool the fund available for drinking water supply from various sources be it, Government such as MPLADS, MLALADS, DMDF or

donations whether at State level or village level be strictly utilized as per the approved plans.

- This helps in preventing creation of parallel water supply infrastructure deviating from the approved plan.
- The guidelines also propose that **States will have a definite O&M policy especially to meet with the O&M requirements like monthly energy cost of the PWS scheme**, by ensuring cost recovery from user groups and thereby avoiding any unwanted burden on public exchequer.

#### What are the structural changes?

- JJM envisages a structural change in the provision of drinking water supply services.
- **The service provision should change to 'utility based approach' centered on 'service delivery'.**
- Such a reform is proposed in the guidelines so as to enable the institutions to function as utilities focusing on services and recover water tariff/ user fee.
- Measuring water to ascertain the availability and the quality using sensors based IoT technologies is also proposed in the guidelines.
- **Functionality assessment of the schemes implemented under JJM** will be done by Department/ NJJM.
- The guidelines also list support activities like HRD, IEC, Skill Development, etc. to be taken up under JJM.
- **Conclusion**
- Water Quality Monitoring and Surveillance is proposed to be an important component under JJM wherein setting up and maintenance of water quality testing labs by the PHE Department and surveillance activities by community will be taken up so as to ensure that the water supplied is of prescribed quality and thereby definition of functionality under JJM is adhered to.

## 2) Higher Education Quality Mandate

#### Why in news?

- Aiming to improve the quality in Higher Education Institutions the University Grants Commission has

adopted the Higher Education Quality Improvement Programme Mandate.

- 5 verticals of Quality Mandate developed by UGC cover evaluation reforms, eco friendly and sustainable university campuses, human values and professional ethics, faculty induction and academic research integrity.

#### What is the background?

- **Innovation and human capital**– the two pillars of **labour productivity and GDP growth**, largely depends on the quality of higher education. According to the **India Skills Report-2019**, only 47% of Indian graduates are employable, which is exacerbated by startlingly low Faculty Figures.
- Of the 17 Sustainable Development Goals (SDGs), adopted in 2015, SDG4 is dedicated to education.
- Higher education is mentioned in target 4.3 of SDG4 – “By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.”

#### What are the structural flaws?

##### Faculty storage:

- Faculty vacancies at government institutions are at 50% on average. The problem lies in increased demand, and stagnant supply.
- The number of institutions has surged in India since the 2000s, while the number of students doing PhD has remained constant.
- Meanwhile, there are over 1,00,000 India-born PhDs in universities around the world, kept away by paltry salaries and poor funding.
- Indian R&D expenditure at 0.62% of GDP is one of the lowest in emerging economies.

##### Publications of Research:

- Faculty are under pressure to produce a certain number of papers to Gain Promotion.
- This often makes them publish papers in journals that may not be of high quality.
- This also means that there is more emphasis on publishing papers than on teaching.

##### Lack of quality faculty:

- Teaching and research in any university depends on the quality of faculty as well as the quality of students.

- The quality of teaching depends on the quality of teachers.
- For teachers to impart knowledge to students they must have a broad knowledge of their subject matter as well as enthusiasm and a desire for learning throughout the course of their career.

#### **Raising Expenses:**

- Quality education is expensive in India.
- India has severely under-invested in education over the last 40 years, not much have been invested in R&D, and today even the top institutions are having very poor laboratory facilities.

#### **Large scale expansion:**

- We expanded education very rapidly – India has larger number of institutions than China, both in terms of colleges and universities.
- In the process of standardisation of such institutions, India has erred by creating one single framework, where examinations became the only way to judge merit.
- This led to the mushrooming of coaching classes and anybody who could get ranks by studying in such coaching institutes were celebrated.

#### **Lack of leadership:**

- The heads of universities are often appointed with Political Motivations.
- Vice-Chancellors are selected merely because they have the right political connections in the Ministry of Human Resource Development in the case of central universities, or appropriate political or caste affiliations in the concerned state.
- Also, in many cases, they pay huge amounts of money for the posts that are most visible symbols of the university system.

#### **What are the UGC mandates?**

- The University Grants Commission (UGC) of India is a statutory body set up in 1956, and is charged with coordination, determination and maintenance of standards of higher education.

#### **The UGC's Mandate Includes:**

- Determining and maintaining standards of teaching, examination and research in universities.
- Framing regulations on minimum standards of education.
- Overseeing distribution of grants to universities and colleges in India.

- Providing scholarships/fellowships to Beneficiaries.
- Monitoring conformity to its regulations by universities and colleges.
- Serving as a vital link between the Union and state governments and institutions of higher learning.

#### **Why is UGC a failure?**

- Though the number of universities and student enrolment has been increasing, the quality of education is still lagging behind, which is attributed to UGC.
- UGC's policies suffer from two diametrically opposite issues—under-regulation and over-regulation. While it lets smaller substandard institutions slip by as deemed universities, it also instigates witch-hunts against reputed deemed universities.
- Hence, it is argued that UGC has not only failed to fulfil its mandate but also has not been able to deal with emerging diverse complexities.

#### **What is the quality mandate in 2019?**

- The quality mandate aims at evolving higher education system to equip the country's next generation with vital skills, knowledge and ethics for leading a rewarding life.
- UGC released five documents concerning the 5 verticals of Quality Mandate, which covers-
  - 1) Evaluation Reforms
  - 2) Eco-Friendly and Sustainable University Campuses
  - 3) Human Values & Professional Ethics
  - 4) Faculty Induction
  - 5) Academic Research Integrity
- **SATAT**– Framework for Eco-Friendly and Sustainable Campus development in Higher Educational Institutions.
- **Mulya Pravah** – Guidelines for Inculcation of Human values and Professional Ethics in Higher Educational Institutions.
- **Guru-Dakshta** – A guide to Faculty Induction Programme (FIP) to improve student centricity.
- **Consortium for Academic and Research Ethics (UGC-CARE)** to continuously monitor and identify quality journals across disciplines.
- **'Paramarsh'** – To mentor aspirant institutions for promoting quality assurance in higher education and facilitate

National Accreditation and Assessment Council (NAAC) Accreditation.

#### **What is the way forward?**

- India is one of the youngest nations in the world, where the college-age group is growing at large. Where as in the QS World University Rankings-2015, only two Indian universities were featured in the top 200, while just 10 made it into the top 700.
- Therefore, the quality of education should be oriented more towards employability than rote learning.
- Information and Communication Technology (ICT)- should be utilized to improve the quality of higher education.
- India shall consider moving towards Learning Outcome based curriculum framework.

- Continuous internal evaluation- can help in identifying Behavioural outcome of individuals.
- In terms of faculty selection and promotion – it should be based on proper selection committee.
- Brain Drain from the country – shall be reduced by appropriate schemes.

#### **Conclusion**

- China solved this problem by attracting Chinese-origin PhDs back home with dollar salaries and monetary incentives for published research. With the advent of Artificial Intelligence (AI), almost 40-50% of existing jobs would be heavily automated. This is the right time for the Indian Higher Education institutions to improve their quality to match international standards and enhance the employability of the students.

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