

## WEEKLY UPDATES – (4<sup>th</sup>-10<sup>th</sup> Sept)

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## ENVIRONMENT

### Wayanad Forest Survey

**Context:** As many as 67 species of reptiles and 59 species of amphibians were identified in the first herpetofaunal survey that concluded recently in the South Wayanad Forest Division in Kerala.

- Of these, four amphibians and three reptiles were spotted for the first time in the forest division.
- Of the 126 species identified, 48 amphibians and 21 reptiles are endemic to the Western Ghats.

#### Key Discoveries

- The important amphibian species recorded during the survey include
  - Starry Night Frog, bearing a constellation of blue dots on its obsidian body
  - Miniature Night Frog, the tiniest frog in the country
  - Endangered species such as Malabar Torrent Toad and Red Stream Toad
  - The Naked Dancing Frog, previously associated only with areas in the Wayanad Wildlife Sanctuary, was also sighted during the survey.
  - The survey commenced with the recording of the Green Tree Frog and culminated with a compendium of 59 amphibians, of which over 80% are uniquely found in the Western Ghats. Of the 67 reptile species sighted, 21 are unique to the Western Ghats.
- Species like the Wayanad Dravidogecko, Nilgiri Spiny Lizard, and the Nilgiri Forest Lizard added depth to the survey's significance.
- The presence of Shieldtail snake, predominantly from Wayanad, brought forth the region's crucial role in global conservation discussions.

#### 'Protect Treasure Troves'

- There is need for studies on these amphibian and reptilian species which are mostly neglected.
- The South Wayanad Forest Division was appreciated for its biodiversity, which surpassed even well-known sanctuaries due to its diverse habitats.



### Wayanad Wildlife Sanctuary (WWS)

- ✓ WWS is a wildlife sanctuary in Wayanad, Kerala, India with four hill ranges namely Sulthan Bathery, Muthanga, Kurichiat and Tholpetty.
- ✓ **Species:** gaur, Asian elephant, deer and tiger are found there.
- ✓ It is the second largest wildlife sanctuary in Kerala.
- ✓ Established in 1973, the sanctuary is now an integral part of the Nilgiri Biosphere Reserve.
- ✓ It is bounded by the protected area network of Nagarhole National Park and Bandipur National Park in Karnataka in the northeast, and on the southeast by Mudumalai National Park in Tamil Nadu.
- ✓ It is part of the Deccan Plateau.
- ✓ **Vegetation :** Predominantly of the south Indian moist deciduous teak forests and west-coast semi-evergreen trees.
- ✓ The wildlife sanctuary comes under Protect Elephant.
- ✓ **Scheduled tribes :** Paniyas, Kurubas, Adiyans, Kurichiyas, Ooralis and Kattunaikkans.

## POLITY

### India, Bharat And A Host Of Implications

**Context:** The tradition of using India in English and Bharat in Hindi is wise and constitutionally correct; why change it?

- There are historical, ideological, constitutional and international implications associated with the words Bharat and India.
- A political dimension has been added to these names/words arising out of some Opposition parties coming together under the banner and acronym INDIA (for the ‘Indian National Developmental Inclusive Alliance’).
- For these parties in the Opposition, the unprecedented use of ‘President of Bharat’ instead of ‘President of India’ (as seen in an invitation card by the President to the heads of States and governments and Chief Ministers for an official banquet on the occasion of the G-20 summit) is on account of the Narendra Modi government’s concern that ‘INDIA’ may become politically potent.

#### History

A brief look at the controversy raised by the Muslim League over the name India in 1947 would be in order. The transfer of power from the British to Indian hands in 1947 was through the British Parliament’s Indian Independence Act of 1947. It created two dominions — India and Pakistan — and released the Princely States from British paramountcy, thereby, technically making them independent and sovereign. At the same time, the British advised the Princely states to join one of the two dominions. Most did so before August 15, 1947. Thus, two dominions came into being in what was British India and the Princely states in the sub-continent.

- Pakistani leaders favoured that India should be named either Hindustan or Bharat.

It is true that the words India and its variants such as Hind in Arabic are of foreign origin. It is generally believed that these were used by foreigners to denote the land south and east of the Indus or Sindhu river.

- During Afghan and Mughal rule, the northern areas of the Indian subcontinent were largely referred to as Hindustan, and later the Europeans, especially the British, roughly referred to not only the northern region but also to all the subcontinent as India.
- However, for them, it was a geographical expression. The rise of a consciousness that all the people living in the Indian subcontinent constituted a single nation was a product of the Indian Renaissance; one of its streams sought ancient roots for Indian nationalism.
- That gave rise to the idea, especially among sections particularly devoted to the revival of India’s ancient civilisational past, that it was unacceptable that the country and nation should carry a name given by foreigners. For them the preferred word was Bharat with its variations in different languages.
- For others such as Netaji Subhas Chandra Bose, a syncretic word, perhaps acceptable to most people, including those believing in different faiths, was more useful. That word was Hind.
  - It is used even today and the emotive expression “Jai Hind” is used by public personalities and the highest office holders.
  - In her speech on Independence Day this year, the President of India, Droupadi Murmu, concluded by saying “Jai Hind, Jai Bharat”.

- They argued that two ‘successor’ states had emerged from the dissolution of the British Indian empire: Pakistan and Hindustan or Bharat.
- India’s position was that it was the successor state to British India, in terms of international law, and that Pakistan had seceded from India.
- Hence, while India retained its international personality, including its membership of the United Nations (UN), Pakistan, as a new state created through secession, would have to take steps to acquire an international personality.
- The matter was finally decided in India’s favour, and Pakistan was compelled to take steps to establish its international status, including applying for a membership of the UN, which, incidentally, Afghanistan opposed.
- India retained the name ‘India’ in all international and multilateral fora. Thus, the country’s international personality was and continues to be denoted by the word India.
- Generally, whenever the English language is used in international, multilateral or bilateral settings, the word India is used.
  - The latest example is the Joint Statement issued on August 25 on Prime Minister Modi’s visit to Greece.
    - It is entitled ‘India-Greece Joint Statement’. The last sentence of this document says “Prime Minister Narendra Modi extended an invitation to Prime Minister Mitsotakis to visit India”.
- In letters of credence in English given by the President of India to Ambassadors-designate, under the lion’s emblem the words (in Hindi), Rashtrapati, Bharat Gantantra are written and under them the words President, Republic of India written in English. Thus, in Hindi, Bharat is used while in English it is India.

### **Under the 58th Amendment**

For an authoritative background of the English and Hindi versions, it is best to turn to the 58th Amendment of the Constitution done in 1987.

- Its ‘Statement of Objects and Reasons’ mentions that “The Constitution of India was adopted by the Constituent Assembly in English.
- A Hindi translation of the Constitution, signed by the members of the Constituent Assembly, was also published in 1950 under the authority of the President of the Constituent Assembly in accordance with a resolution adopted by that Assembly”.
  - The 58th Amendment empowered the President to have published under his authority the authoritative text ‘in the Hindi language’ of the Constitution which could be used in the legal process too. Thus, the Hindi text of the Constitution published by the government following the amendment is ‘authoritative’.
- The English language version of the Constitution is entitled “Constitution of India”. Its Article 1(1) is “India, that is Bharat, shall be a Union of States”. The primacy in this formulation is given to the word India.
- The Hindi version is titled ‘Bharat ka Samvidhan’. Article 1(1) in the Hindi version reads “Bharat artharth India, rajyon ka sangh hoga”. The word “artharth” means “that is”.
  - Clearly, in the Hindi version, primacy is given to the word Bharat.

- The logic of the formulations has led to the practice of using the word India in the English language and Bharat in Hindi.
- That practice has prevailed in internal documents as well as international documents which are generally in English. Thus, the Gazette published in English is called the ‘Gazette of India’, and in Hindi it is ‘Bharat ka Rajpatra’.

### The Risk Of Alienation

It is now clear that the Sangh Parivar and the Narendra Modi government wish to use the word, Bharat. Their preference for Bharat instead of the word India is clear.

- The use of the formulation ‘President of Bharat’ in the G-20 invitation is a giveaway.
- They may also begin to use ‘Bharat’ in the English language in the government’s internal documents.
- The problem is that they cannot do so internationally unless they officially change the country’s name to Bharat and drop India.
- By doing so, they may alienate parts of the country which prefer India to Bharat.

## ECONOMY

### How Unemployment Is Measured?

**Context:** In order to successfully tackle unemployment, it is important to understand how it is defined and measured in a developing economy like India.

- When the Periodic Labour Force Survey (PLFS) was released in 2017, it revealed the unemployment rate of India to be 6.1%, the highest ever recorded in India.
- The PLFS of 2021-22 showed unemployment reducing to 4.1%, much lower than before, but higher than some developed economies.

#### THE GIST

■ The International Labour Organization (ILO) defines unemployment as being out of a job; being available to take a job; and actively engaged in searching for work. Therefore, an individual who has lost work but does not look for another job is not unemployed.

■ The situation is complicated in a developing economy. According to a 2009-10 survey undertaken by the NSSO, 33.3% of rural women and 27.2% of urban women aged 15 and above who were engaged in domestic work reported willingness to work if it were made available within the premises of the household. These women would not be counted among the unemployed because they are not actively looking for work.

■ Measuring unemployment in India is difficult due to the informal nature of jobs. Unlike developed economies, individuals do not hold one job year-round.

Term	Definition
<b>Unemployment</b>	<ul style="list-style-type: none"> <li>• Unemployment is not synonymous with joblessness.</li> <li>• The International Labour Organization (ILO) defines unemployment as being out of a job; being available to take a job; and actively engaged in searching for work.</li> <li>• Therefore, an individual who has lost work but does not look for another job is not unemployed.</li> </ul>
<b>Labour Force</b>	<ul style="list-style-type: none"> <li>• The labour force is defined as the sum of the employed and the unemployed.</li> <li>• Those neither employed nor unemployed — such as students and those engaged in unpaid domestic work — are considered out of the labour force.</li> </ul>

## Unemployment Rate

- The unemployment rate is measured as the ratio of the unemployed to the labour force.
- The unemployment rate could also fall if an economy is not generating enough jobs, or if people decide not to search for work.

## Measuring Unemployment In India

The situation is complicated in a developing economy, because decisions to search for work are constrained by social norms.

- According to a 2009-10 survey undertaken by the National Sample Survey Organisation (NSSO), 33.3% of rural women and 27.2% of urban women aged 15 and above who were engaged in domestic work reported willingness to work if it were made available within the premises of the household.
  - This represents 18.8% of the rural female population aged 15 and up;
- The labour force participation rate (LFPR) for rural women that year was 26.5%.
  - These women would not be counted among the unemployed because they are not actively looking for work.

A definition of unemployment that focuses on actively searching for a job may underestimate the true picture in a developing economy.

- Measuring unemployment in India is difficult due to the informal nature of jobs.
- Unlike developed economies, individuals do not hold one job year-round.
- An individual may be unemployed this week, but may have worked as a casual labourer last month, and as a farmer for most of the year.

The **NSSO adopts two major measures** for classifying the working status of individuals in India:

### The Usual Principal and Subsidiary Status (UPSS)

- An individual's principal status, whether employed, unemployed or out of the labour force, is based on the activity in which they "...spent relatively long time..." in the previous year.
- A person who is not a worker, according to the principal status, would still be counted as employed according to the UPSS if they were engaged in some economic activity in a subsidiary role for a period "...not less than 30 days".
- Thus, an individual unemployed for five months and working for seven months in the previous year would be considered a worker according to the principal status, while an individual unemployed for nine months but working for three months would be counted as employed as per the UPSS.

### The Current Weekly Status (CWS)

- The CWS adopts a shorter reference period of a week.
- An individual is counted as being employed if they have worked for "...at least one hour on at least one day during the seven days preceding the date of survey."
- UPSS unemployment rates will always be lower than CWS rates because there is a greater probability that an individual would find work over a year as compared to a week.
- The low bar for classifying an individual as employed explains why unemployment rates are lower in rural areas than urban. In agrarian economies, where individuals have access to family farms or some form of casual agrarian work, there is greater probability of finding some kind of work when compared to urban areas.

These definitions may ‘underestimate’ unemployment, but they were largely designed to capture the extent of the informal economy.

The **Centre for Monitoring Indian Economy** classifies individuals based on their activity in the day preceding the interview.

- They, therefore, estimate a higher unemployment rate, but lower labour force participation rates.
- This is because in an informal economy, there is a lower chance of an individual having work on any given day as compared to longer periods of a week or a year.

**Table 1: The unemployment rates as per the Periodic Labour Force Survey**

	UPSS			CWS		
	Rural	Urban	Aggregate	Rural	Urban	Aggregate
2017-18	5.3%	7.8%	6.1%	8.5%	9.6%	8.9%
2018-19	5%	7.7%	5.8%	8.4%	9.5%	8.8%
2019-20	4%	7%	4.8%	7.9%	11%	8.8%
2020-21	3.3%	6.7%	4.2%	6.5%	10%	7.5%
2021-22	3.3%	6.3%	4.1%	6%	8.3%	6.6%

One cannot say which of the above frameworks is “right” or “wrong” for this represents an unavoidable trade-off in a developing economy. Adopt too short a reference period, and one gets higher rates of the unemployed and lower of the employed, and vice versa. This dilemma does not arise in developed nations where work is largely regular over the year.

### The Lockdown Effect

The lockdown announced in March 2020 was a profound disruption to the Indian economy. But this wasn’t reflected in the PLFS unemployment rates, which covers a period between July of one year to June of the next.

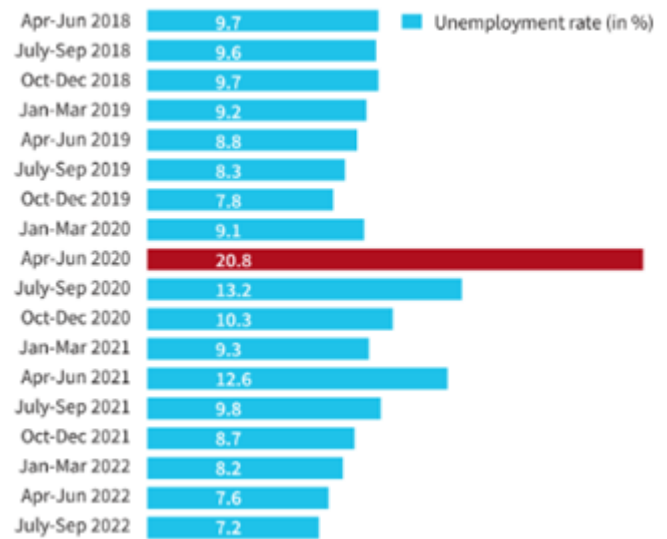
- The lockdown would have been covered in the last quarter of the 2019-20 PLFS, its after-effects seen in the 2020-21 PLFS.
- However, unemployment rates — measured both by the UPSS and CWS standards — fell in 2019-20 and 2020-21.

**Example:** Consider an individual with regular employment who loses work in March 2020. According to the UPSS status, this individual would be considered employed, since they spent most of the previous year employed. If those individuals who lost jobs during the lockdown find employment in a time less than six months, they would never be counted as unemployed by the UPSS.

- The CWS criterion, with a shorter reference period, would record higher unemployment rates.
- However, the measures presented in the PLFS report are an aggregation of interviews conducted across the year. If those rendered jobless by the lockdown were able to find employment relatively quickly, the CWS unemployment rate for the lockdown period would show high unemployment, but not so for subsequent periods.
- When averaging across these different periods, the CWS rate for the entire year would show a lower measure.

This can be seen in Table 2, which shows urban CWS unemployment rates on a quarterly basis. Unemployment spiked during the lockdown quarter, but reduced thereafter. The CWS unemployment over the year would not show such a high rise.

**Table 2: Urban CWS unemployment rates on a quarterly basis**



## Impact of RBI's lending guidelines

**Context:** On August 18, apex banking regulator the Reserve Bank of India (RBI) issued guidelines enabling a borrower to transition from a floating interest rate-based loan to one with a fixed interest rate.

- According to RBI, the endeavour was to address borrowers' grievances pertaining to the elongation of loan tenure and/or an increase in the EMI amount in the event of an increase in the benchmark interest rate.
- A lack of proper communication along with the absence of consent formed part of the concerns.
- The provisions would be extended to existing as well as new loans by the end of the current calendar year.

### RBI's Instructions

The apex banking regulator has given borrowers the option to switch over to a fixed (interest) rate mechanism for their loans from floating rates.

- This would be based on a board-approved policy drafted by the lending entity.
- The policy must also specify the number of times such a switch would be allowed during the tenure.

#### THE GIST

- On August 18, the RBI issued guidelines allowing borrowers to switch from floating to fixed interest rate loans. The move aims to address concerns about loan tenure elongation and EMI increases when benchmark interest rates rise.
- Borrowers will have the option to switch based on a board-approved policy drafted by the lending entity, specifying the number of allowable switches during the loan tenure.
- Lenders must transparently communicate all relevant charges and administrative costs associated with the transition.
- Borrowers will receive clear communication about the impact of switching, such as changes in EMI or loan tenure, and can choose between EMI enhancement, tenure elongation, or prepayment options.

- ? Why did the RBI introduce guidelines enabling a borrower to transition from a floating interest rate-based loan to one with a fixed interest rate?
- ? How do lenders communicate the impact of switching from floating to fixed rates to borrowers?
- ? How does the RBI assess borrowers' repayment capacity?



- The lender must also transparently communicate to the borrower all relevant charges alongside service charges or administrative costs associated with the transition.
- The responsibility would rest with the lender to communicate clearly, at the time of loan sanction, the impact emanating from the change in regime (floating to fixed), such as the change in EMI and/or tenure of the loan or both.
- The borrower would now also have the option to choose between enhancement of the EMI or elongation of the tenure or a combination of both.
- S/he might also opt to prepay the loan, either in part or full, at any point during the tenure. This would, however, still invite foreclosure charges or pre-payment penalty.
- Further, the regulator has sought that lending entities provide borrowers, through appropriate channels, a statement at the end of each quarter enumerating the principal and interest recovered till date, EMI amount, number of EMIs left and annualised rate of interest/ Annual Percentage Rate (APR) — for the entire tenure of the loan.
  - RBI has asked for the statement to be “simple and easily understood by the borrower”.

The instructions would apply to all equated instalment-based loans of different periodicities albeit with certain changes based on the nature of the loan.

Difference Between A Fixed And Floating Interest Rate	Arguments
<ul style="list-style-type: none"> <li>• <b>Fixed interest</b> rates are those that do not change during the tenure of the loan. On the other hand, <b>floating interest rates</b> are subject to market dynamics and the base rate — therefore, the risk differentiation.</li> <li>• As also contended by several lending entities, <b>floating interest rates are generally lower than fixed interest rates</b>. For example, if the floating interest rate for home loans is 10.5%, the fixed interest rate would be 12%.</li> </ul>	<ul style="list-style-type: none"> <li>• Lenders argue that even if the floating interest rate were to rise by up to 2.5 percentage points, the borrower would be able to save more money when it is below the fixed rate.</li> <li>• It has been widely argued that their preference for the floating rate-based regime is to better adjust their positions as per the evolving market dynamics.</li> <li>• The advantages are transmitted onto the borrower’s savings pool, but the opposite also holds true in a rising benchmark rate regime.</li> <li>• Also noteworthy is the fact that floating interest rate loans do not draw any prepayment penalty— unlike fixed rate loans.</li> <li>• However, the fixed rate-based regime endows a borrower with greater certainty and security. This also helps in better planning and structuring of individual budgets. Thus, prospective borrowers should note broader evolving economic dynamics and accordingly decide the tenure they seek.</li> </ul>

## INTERNATIONAL RELATIONS

### Black Sea Grain Initiative

**Context:** Delhi may turn venue for dialogue on reviving the Black Sea Grain Initiative.

- As world leaders gather in Delhi for G-20 Summit, United Nations Secretary-General Antonio Guterres is on a mission to revive the Black Sea Grain Initiative (BSGI or BSI), in talks on the side-lines of the summit.
- The deal that facilitates export of grain from Russia and Ukraine lapsed in July.

- The BSI, which was signed to avert massive shortages of wheat, sunflower oil, and other commodities due to the Ukraine conflict, lapsed on July 17 after Russia refused to renew the deal citing “unkept promises” by Western countries.
- UN was “deeply engaged” in resolving the issue, that would mean giving Russia more access to financial markets despite EU and U.S. sanctions and in return receiving guarantees that Russia will not threaten or bomb Ukrainian ships or ports exporting grain.

### What is the Black Sea Grain Initiative?

The Black Sea Grain initiative endeavours to tackle escalating food prices emanating from supply chain disruptions because of Russian actions in the world’s ‘breadbasket’. The deal brokered by the United Nations (UN) and Turkey, was signed in Istanbul in July, 2022.

#### Objective

- Initially stipulated for a period of 120 days, the deal was to provide for a safe maritime humanitarian corridor for Ukrainian exports (particularly for food grains).
- The central idea was to calm markets by ensuring an adequate supply of grains, thereby limiting food price inflation.

#### Importance

- Ukraine is among the largest exporters of wheat, maize, rapeseed, sunflower seeds and sunflower oil, globally.
- Its access to the deep-sea ports in the Black Sea enables it to directly approach Russia and Europe along with grain importers from the Middle East and North Africa.
- The initiative has also been credited for having made a huge difference to the global cost of living crisis.
- Approximately 9.8 million tonnes of grains have been shipped since the initiative commenced.
- People hoarding the grain in the hope of selling it for a sizable profit owing to the supply crunch were now obligated to sell.
- Although the initiative alone cannot address global hunger, it can avert the chances of the global food crisis spiralling further, especially when the region is yet to scale prior year levels.
- Ministry of External Affairs (MEA) officials said they were unaware of any meetings on the sidelines of the G-20 Summit, but underlined India’s position in support of the initiative.



## GOVERNANCE

### One Nation, One Election

**Context:** The Central government has set up a panel headed by former President Ram Nath Kovind to explore the feasibility of the 'one nation, one election' (ONOE) plan.

#### What Is The ONOE Plan?

The idea of ONOE centres around the concept of synchronising the timing of Lok Sabha and State Assembly elections across all States to reduce the frequency of polls throughout the country.

- After the enforcement of the Constitution on January 26, 1950, the first-ever general elections to Lok Sabha and all State Assemblies were conducted simultaneously in 1951-1952.
- The practice continued into the three subsequent Lok Sabha elections until 1967, after which it was disrupted.
- The cycle was first broken in 1959 after the Centre invoked Article 356 (failure of constitutional machinery) of the Constitution to dismiss the then-Kerala government.
- Subsequently, due to defections and counter-defections between parties, several Legislative Assemblies dissolved post-1960, which eventually led to separate polls for Lok Sabha and State Assemblies.
- Currently, the assembly polls in the States of Arunachal Pradesh, Sikkim, Andhra Pradesh and Odisha are held together with the Lok Sabha elections.

#### What Do Reports Say About ONOE?

In August 2018, the Law Commission of India (LCI), chaired by Justice B. S. Chauhan, released a draft report on simultaneous elections, wherein the constitutional and legal questions related to the issue were analysed.

- The Commission submitted that simultaneous elections are not feasible within the existing framework of the Constitution.
- It said that the Constitution, the Representation of the People's Act 1951 and the Rules of Procedure of Lok Sabha and State Assemblies would require appropriate amendments to conduct simultaneous polls.
- The commission also recommended it receive ratification from at least 50% of the States.
- However, with respect to the advantages of holding simultaneous polls, the commission said that ONOE will lead to the saving of public money, reducing the strain on the administrative setup and security forces, timely implementation of government policies, and administrative focus on development activities rather than electioneering.
- Way back in 1999, the LCI headed by Justice B. P. Jeevan Reddy also advocated for simultaneous elections.

#### THE GIST

- On September 1, the Central government set up a panel to explore the feasibility of the 'one nation, one election' (ONOE) plan.
- The idea of ONOE centres around the concept of synchronising the timing of Lok Sabha and State Assembly elections across all States to reduce the frequency of polls throughout the country.
- The idea of ONOE does not square with the concept of 'federalism' as it is established on the notion that the entire nation is "one" contradicting the content of Article 1 which envisages India as a "Union of States".

## What Are The Concerns?

### Feasibility

### ONOE does not square with the concept of 'federalism'

### Prevents the blending of issues

- **Feasibility:** The foremost concern is with regard to its feasibility. Article 83(2) and 172 of the Constitution stipulates that the tenure of Lok Sabha and State Assemblies respectively will last for five years unless dissolved earlier and there can be circumstances, as in Article 356, wherein assemblies can be dissolved earlier.
  - Therefore, the ONOE plan raises serious questions — what would happen if the Central or State government collapses mid-tenure?
  - Would elections be held again in every State or will the President's rule be imposed?
  - Amending the Constitution for such a significant change would not only necessitate extensive consideration of various situations and provisions but would also set a concerning precedent for more constitutional amendments.
- Second, the idea of **ONOE does not square with the concept of 'federalism'** as it is established on the notion that the entire nation is "one" contradicting the content of Article 1 which envisages India as a "Union of States".
- Third, the present form of recurrent elections can be seen as beneficial in a democracy as it allows voters to have their voices heard more frequently. As the underlying issues of national and State polls are different, the **present framework prevents the blending of issues, ensuring greater accountability.**

## Centre's DIKSHA E-Education Platform To Offer AI Help

**Context:** The **National e-Governance Division (NeGD)** of the Ministry of Electronics and Information Technology (MeitY) is set to integrate **Personalised Adaptive Learning (PAL)** into its existing **Digital Infrastructure for Knowledge Sharing (DIKSHA) platform.**

### About DIKSHA

- The PAL's software-based approach is expected to allow each student to have an individualised learning experience over the course of the curriculum based on their unique needs and abilities.
- Apart from PAL, MeitY is also considering the introduction of voice commands in DIKSHA 2.0 as a part of AI-enabled learning. "Just like ChatGPT, the student can access summaries of chapters by giving voice commands and so on," the MeitY official said.

- DIKSHA, which comes under the Education Ministry, provides e-content for schools by an online portal and a mobile application.
- It has embedded assistive technologies for learners with visual or hearing challenges. However, DIKSHA is a static content repository.
- DIKSHA features digitised National Council of Educational Research and Training (NCERT) textbooks used by national and State Boards.
- Apart from this, DIKSHA hosts 2.43 lakh contributions by 11,624 academics by way of teaching videos, explainers, and practice questions. Currently, all these contributions are scattered across the platform.

## How The System Will Work?

The NCERT has sought the MeitY's expertise in facilitating the PAL's integration into DIKSHA.

- In an example of how it works, if a student of Class 9 is learning the Pythagoras theorem and makes a calculation mistake, the AI learning system flags it and loops the student back to a basic video of how to make the calculation.

In some States, private players are already administering the PAL, which works on AI or Artificial Intelligence, but budget constraints have been an obstacle.

- Building the PAL is a massive exercise. Content from across subjects will have to be categorised and different chunks will have to be tagged. New content may also have to be created.
- Tagging of content is important to create learning loops, where, say, a student faces difficulty at a certain tag, then supportive material offering an explanation of the tagged concept can be provided.
- The official added that school students found chemistry, mathematics, and physics for Classes 9 to 12 to be the most difficult subjects, and the intention is to start building the PAL for these classes to begin with.

With nearly 35 lakh students dropping out in Class 10 and ineligible to qualify for Class 11 every year, the Education Ministry wants to adopt digital learning with a focus on improving learning outcomes and school retention.

## Experiments in States

- **Andhra Pradesh** has signed contracts with three privately owned edtech companies — Reliance Jio Platform's start-up Embibe, ConveGenius, and Mindspark — for training teachers to use IT applications in the classroom, provide analytics for remedial learning, and help students improve their conceptual understanding. "We are currently implementing the PAL in 20 schools of Prakasam district for Classes 6 to 9," a senior Jio Platforms official said.
- "Building the core tech platform may cost close to ₹2-3 crore, and then developing and tagging of content will cost another ₹20 crore.
  - The streaming costs incurred for data stored in cloud-based servers is recurring and depends on the usage.
  - If, say, 40 crore school-going students in India stream data for two hours in a day or a week, the costs will run into several hundred crores," the MeitY official added.
- In **Assam**, for instance, the PAL was adapted in 200 schools from Classes 6 to 10.
  - Each school had nearly 200 students, and Embibe provided 10 devices per school.
  - "After implementing the project for two years, Assam discontinued it, citing lack of funds," the Jio official said.
- Similarly, in **Haryana**, after floating the tender, the State government said Embibe's quote for streaming content was too high, and the process of adopting PAL came to a standstill.
  - "For implementing the PAL project in the whole State, we had estimated a yearly streaming cost of ₹27 crore, considering on an average one child in a week sees four videos of 15 minutes on the platform.
  - This cost was felt to be very high by the government," the Jio official said.
- Poll-bound State **Madhya Pradesh**, too, is mulling over introducing PAL for students from Classes 6 to 10 on its flagship State education portal, the CM-RISE.

## Education Ministry Asks States To Bring All Data Under One Platform

**Context:** Vidya Samiksha Kendras are repositories which will have data from all schemes run by the Ministry; cross analytics of schemes such as PM-POSHAN, UDISE+ and so on can help assess challenges faced by students and teachers in real time.

- Under the National Digital Education Architecture (NDEAR), the Education Ministry is pushing States to open Vidya Samiksha Kendras (VSKs), which are data repositories that will have data from all schemes run by the Ministry.
- This will include

Regularly updated data from the PM-POSHAN mid-day meal programmes

Teacher training data from the National Initiative for School Heads' and Teachers' Holistic Advancement portal

Textbook content from the Digital Infrastructure for Knowledge Sharing

School dropout and attendance-related data on the Unified District Information System for Education (UDISE+)

Students' learning outcomes from the National Achievement Survey

Performance Grading Index which evaluates school education system at the State and Union Territory (UT) level

- Currently, at the Central level, a VSK is housed in the Central Institute of Educational Technology building on the National Council for Educational Research and Training (NCERT) campus, with multinational IT company Ernst and Young (EY) managing its operations.
  - It is an open-source platform run on C-Qube software.
- EkStep Foundation, a non-profit organisation co-founded by former Chairman of Unique Identification Authority of India Nandan Nilekani, is on board in an advisory role for implementing the VSK project, Ministry officials said.
- “Currently the data are fed on the platform manually, and available in downloadable Excel format for anyone to access and use, to visualise and analyse trends,” said a senior NCERT official working closely on the project.
  - “We will shift from manual mode to automatic mode once the Application Programming Interface (API) integration process is complete.
  - This means multiple platforms at Centre, State and district levels can communicate with each other using requests and responses to seamlessly integrate data at all levels on the platforms,” the official added.
  - This is in line with the National Education Policy (NEP)-2020 talking about developing operational standards for making data open source.
- “The Centre has allocated funds ranging from ₹2 crore to ₹5 crore to each State for adopting and establishing VSKs that include pre-configured open-source hardware and software as well as hiring human resources.
- States like Gujarat, Maharashtra, Odisha, and Jharkhand have already begun the process of setting up the tech platform,” the NCERT official said.

## Importance Of Bring All Data Under One Platform

- The idea of bringing all data on one platform is to employ analytics for correlation.
  - “Currently we have a sea of data from different schemes that cater to 15 lakh schools, 96 lakh teachers, and 26 crore students, but it is irrelevant if it cannot be correlated or analysed,” the NCERT official said.
- For instance, in certain schools, Gujarat has employed biometrics to capture attendance patterns of students and teachers.
  - “The attendance gets recorded and reported at State level.
  - This can be mapped with trends of student dropout data to analyse any correlation between both data sets,” another official from the Ministry who is working on the project said.
- Another instance would be correlating data from the mid-day meal scheme, or PM-POSHAN, with attendance.
  - “This will give us insight on whether in those demographical areas where mid-day meals are provided regularly, students are more incentivised to attend schools,” the official said.
- The idea of developing VSKs is also to map the school location layer with the population layer to assess the Gross Access Ratio.
  - This can help plan for new schools, or for industry clusters to understand skilling requirements of the area, and help plan higher educational institutions based on demand and future scenarios.

## What Should Be Done With Electronic Waste?

**Context:** The Indian Cellular and Electronics Association (ICEA) released a report on ‘**Pathways to Circular Economy in Indian Electronics Sector,**’ following a government effort with NITI Aayog to explore opportunities to harness e-waste.

- The report talks about changing the outlook on e-waste management to build a system where discarded electronics can have a new life, either by themselves, or by reintroducing components and precious metals into new hardware.
- There could be an additional \$7 billion market opportunity in harnessing e-waste, the report said.
- Encouraging repair and making products last longer will reduce the burden of electronic waste.

## Does India Have E-Waste Management?

- E-waste management is largely informal in India, as in the case of recycling.
- “Roughly 90% of collection and 70% of the recycling are managed by a very competitive informal sector,” the ICEA report says.
- The informal sector is good at salvaging older devices for parts and profiting from repairs with them.
- Then there are almost industrial hubs like Moradabad, where printed circuit boards (PCBs) arrive in the tonnes to have gold and silver melted out of them and sold.
- The Union Government notified the **E-Waste (Management) Rules, 2022** last November in order to digitise the process and provide more visibility to the movement of e-waste in the economy.
- The level of e-waste may grow, too, as phones get cheaper and people use them more on the back of cheaper data plans. “There has been a significant increase” in people damaging their phones (as opposed to the devices simply getting too old to keep working).

- The informal sector relies on a number of tools and techniques to stay competitive.
  - For instance, the report’s authors speak of ‘**cannibalisation,**’ a euphemism for repair shops buying whole devices and breaking them down to serve as spare parts for repair.
  - As tariffs for finished products are sometimes lower than they are for parts, this works out in the repair shop’s favour.

## Why Is A Circular Economy Important?

- Demand for electronics is growing across all price segments, even as the production of these devices entails the use of scarce elements and high emissions.
- Instead of merely salvaging these parts, a circular economy seeks to bring them back into the electronics ecosystem.
- A senior director at the IT Ministry who has focused on e-waste related issues, said that there needed to be a policy push to encourage manufacturers to reuse old components.
- “By 2019, China ensured that 5% of their secondary raw material went into manufacturing of new products. “By 2030, they are targeting 35%.”

“Every material as it’s produced on earth is a resource and not waste,” Alkesh Kumar Sharma, until recently the Union IT Secretary, said during the ICEA report’s launch. “It’s wealth. We have to create more wealth.”

## How Can E-Waste Be Recycled?



- The ICEA report suggests **public-private partnerships** to distribute the costs of setting up a sprawling of “reverse supply chain,” an expensive prospect that envisages collecting devices from users, wiping them clean of personal data, and passing them along for further processing and recycling.
- It also suggests **launching an auditable database** of materials collected through this process, and creating **geographical clusters** where these devices come together and are broken apart.
- A key recommendation is to **incentivise so-called ‘high yield’ recycling centres**.
  - Facilities that recycle are generally not equipped to extract the full potential value of the products they handle, for instance extracting minute but precious amounts of rare earth metals in semiconductors.
  - The IT Ministry launched a scheme last April to cover 25% of the capital expenditure on such facilities.



- Simply encouraging **repair and making products last longer** — perhaps by supporting a **right to repair by users** — is also a policy recommendation that may reduce the environmental burden of electronic waste.

## What Are The Challenges?

Large Informal Sector

Personal Data Issues

Initial Capital Costs

- Beyond the large informal sector that is hard to track or hold to environmental norms, there are basic challenges.
  - For instance, a whopping 200 million devices are estimated to be lying at consumers' homes, who don't hand them in for recycling after they stop using them.
- Many people are concerned about what may happen to the personal data on their devices if they hand them in for recycling.
- Building recycling plants on a large scale also requires more than the **initial capital costs**.

Making a circular economy out of e-waste is tempting, especially given the unpredictable supply chains for electronics components. **Extracting the full value of electronics is capital intensive, and will require better clustering of materials, and a viable business model.** The challenge is to be able to replicate the success of the informal sector in a formalised and reliable way.

## HEALTH

### Mpox Watch Helps Identify Variant Of Virus Causing Chickenpox

**Context:** The Indian Council of Medical Research-National Institute of Virology (ICMR-NIV) has for the first time found the presence of Clade 9 variant of varicella zoster virus (VZV) in India.

- It added that this is the first study reporting the circulation of Clade 9 in India. The variant is the most common strain in circulation in countries such as Germany, the U.K., and the U.S.
- “The multi-country mpox (monkeypox) outbreak across the globe has led to the systematic surveillance of mpox cases in India.
- During the surveillance of mpox, we encountered cases of VZV in suspected mpox cases amongst children and adults,” said the new study published in the Annals of Medicine journal.
- This study focused on the genomic characterisation of VZV in India.
- Varicella zoster virus (VZV) is an alpha herpes virus that causes **chickenpox** and **herpes zoster (shingles)**.

Monkeypox disease symptoms are frequently mistaken for VZV as their clinical presentations often closely resemble each other. There is a need for clinical differentiation between mpox and VZV for accurate diagnosis, said the study.

- It added that despite infection with the Clade 9 strain there were no significant indications of heightened disease severity in the patients.

- For the study, the scientists took a total of 331 suspected cases, of which 22 cases were positive for monkeypox virus (15 from New Delhi and seven from Kerala), while 17 were positive for Enteroviruses and one case was confirmed as buffalopox virus.

## REPORT & INDEX

### Global Hunger Index (GHI), 2022

**Context:** Despite being a major food producer with extensive food security schemes and the largest public distribution system in the world, India still grapples with significant levels of food insecurity, hunger, and child malnutrition.

- The Global Hunger Index (GHI), 2022, ranked India 107 among 121 countries, behind Nigeria (103) and Pakistan (99).
- The GHI provides a composite measurement and tracks undernourishment and hunger at the national level across three dimensions:

Calorie Undernourishment

Child Malnutrition

Under-five Mortality

#### Key Highlights

- According to the State of Food Security and Nutrition in the World report of 2022, India is home to 224.3 million undernourished people.
- Disparities are evident among States. Leveraging subnational data that encompasses the three dimensions of the GHI enables the development of an India-specific hunger index at the level of States and Union Territories.
- This plays a pivotal role in evaluating the extent of undernourishment at a more localised scale, which is critical for meeting the Sustainable Development Goals of eradicating hunger and malnutrition.

#### The State Hunger Index

- The GHI is computed using four indicators — the prevalence of calorie undernourishment; and of stunting, wasting, and mortality among children below the age of five; and under-five mortality rate.

**Over the last half a decade, India's GHI score has deteriorated primarily due to the increasing prevalence of calorie undernourishment.**

- According to the Food and Agriculture Organization, the proportion of calorie undernourishment in India has been escalating since 2017, reaching 16.3% in 2020, equivalent to the 2009 statistic.
- The Indian government has disputed these conclusions by raising concerns about the data and methodology used in calculating the GHI. However, it has not been able to provide empirical evidence to support its claims.
- Notably, no National Sample Survey (NSS) round on nutritional intake has been conducted by the government since 2011-12, which used to offer insights into the prevalence of calorie undernourishment at national and subnational levels.
- In the 78th round of the NSS conducted in 2020-21, four key questions were included to gauge household food insecurity. Unfortunately, information on these is missing from the NSS report.

- The State Hunger Index (SHI) is calculated using the same indicators **except calorie undernourishment**, which is replaced by **body mass index (BMI)** undernourishment among the working-age population, as data on calorie undernourishment are not available since 2012.
- Data for stunting, wasting, and mortality among children below the age of five are sourced from the fifth round of the National Family Health Survey (NFHS-5), while the prevalence of BMI undernourishment is computed using NFHS-5 (2019-21) and Wave 1 of the Longitudinal Ageing Study in India (2017-18).
- The calculation of the SHI score involves combining the normalised values of the four indicators using the techniques recommended by the GHI.
- The SHI scores range between 0 and 100, with higher scores indicating more hunger.
  - Scores below 10 signify low hunger, 10-20 moderate, 20-30 serious, 30-40 alarming, and 50 or above extremely alarming.
  - In the SHI, Bihar, Jharkhand, and Chhattisgarh scored 35, which places them in the ‘alarming’ category.
  - Gujarat, Uttar Pradesh, Assam, Odisha, Madhya Pradesh, Tripura, Maharashtra, and West Bengal all scored above the national average (29).
  - The performance of these States resembles that of African nations such as Haiti, Niger, Liberia, and Sierra Leone.
  - On the other hand, Chandigarh scored 12, and Sikkim, Puducherry, and Kerala all scored below 16.
  - These States, along with Manipur, Mizoram, Punjab, Delhi, Arunachal Pradesh, Andaman and Nicobar Islands, and Tamil Nadu, fall under the ‘moderate hunger’ category.
  - All the other States, which scored below the national average and above 20, have a problem of ‘serious hunger’.
- No State falls under the ‘low hunger’ category. The impact of COVID-19 on the SHI is not captured here since post-pandemic estimates are not yet available.

## Situation In India

- While the GHI has faced significant criticism from experts regarding its **conceptualisation, indicator selection, and aggregation methods**, it does provide critical insight into the state of **undernourishment and child nutrition**.
- India’s **poor performance in the GHI** is primarily attributed to its high prevalence of undernourishment and child malnutrition.
- India ranks unfavourably in child wasting, performing worse than many low-income African nations.
- The NFHS-5 indicated that one-third of children under the age of five are stunted and underweight, while every fifth child suffers from wasting.

Despite India’s notable progress in alleviating extreme poverty over the last 15 years, as indicated by the recent National Multidimensional Poverty Index, challenges persist in addressing the disparity in food insecurity, hunger, and child malnutrition.

## Data from the Air Quality Life Index 2021

**Context:** Data from the **Air Quality Life Index 2021** shows that failure to meet the World Health Organization (WHO)'s guidelines on reducing PM2.5 (particulate matter) pollution to 5 g/m<sup>3</sup> would cut global life expectancy by 2.3 years.

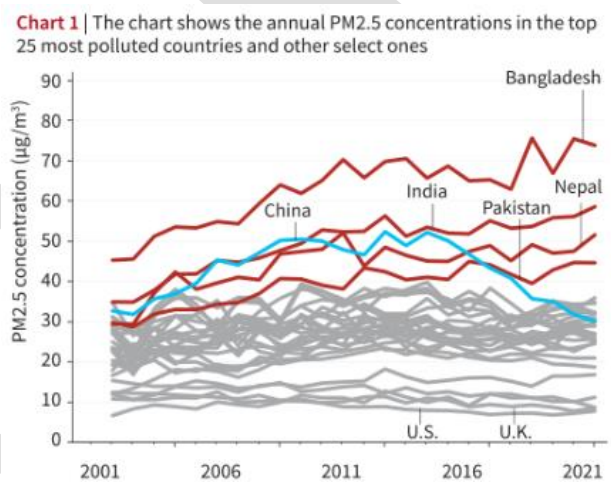
- AQLI data emphasises that ambient particulate pollution poses the world's greatest external risk to human health.

### Key Highlights

- South Asia is at the centre of the crisis. According to AQLI data, from 2013 to 2021, particulate pollution in South Asia surged by 9.7%, which is estimated to reduce life expectancy in the region by an additional six months.

### Chart 1

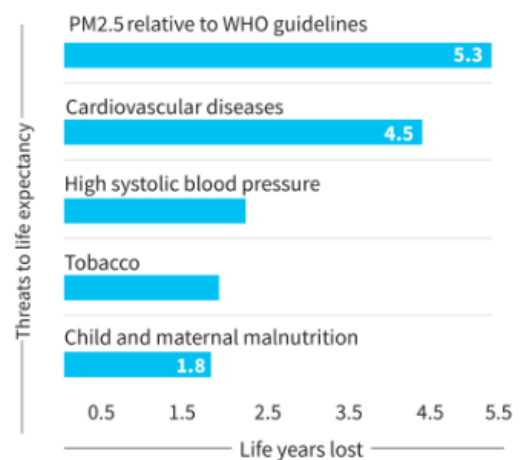
- Bangladesh, India, Nepal, and Pakistan, where 22.9% of the global population lives, are the most polluted countries in the world (Chart 1).
- In Bangladesh, the most polluted country in 2021, people potentially lost an average of 6.8 years of life due to air pollution not meeting WHO guidelines.
- In contrast, the average person from the U.S. lost just 3.6 months.
- Notably, China stands out due to its success in reducing pollution by a staggering 42.3% from 2013 to 2021 and extending the average life expectancy of its population by 2.2 years.
  - This reduction can be attributed to the country's policy initiatives to combat pollution in 2014.



### Chart 2

- In India, the second-most polluted country in the world in 2021, particulate pollution is the greatest threat to human health (Chart 2).
- Data reveal a further rise in PM2.5 pollution from 56.2 g/m<sup>3</sup> in 2020 to 58.7 g/m<sup>3</sup> in 2021, exceeding the WHO guidelines by more than 10 times.
- The average Indian resident is set to lose 5.3 years of life expectancy if WHO guidelines remain unmet.
- In contrast, cardiovascular diseases reduce the average Indian's life expectancy by about 4.5 years, while child and maternal malnutrition reduces it by 1.8 years.

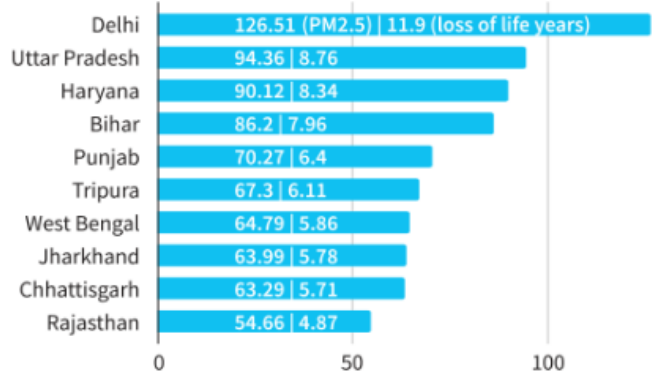
**Chart 2** | The chart shows the top 5 threats to life expectancy in India



### Chart 3

- Chart 3 shows the most polluted States in India and the potential life expectancy loss if pollution levels do not meet WHO guidelines.
- In Delhi, the world's most polluted city, 18 million people could lose 11.9 years of life expectancy relative to the WHO guideline and 8.5 years of life expectancy relative to the national guideline if current pollution levels persist.
- The northern plains, home to over half a billion people and 38.9% of India's population, is the most polluted region.
  - The northern plains include the States and Union Territories of Bihar, Chandigarh, Delhi, Haryana, Punjab, Uttar Pradesh, and West Bengal.

**Chart 3** | The chart shows the most polluted States in India and the potential life expectancy loss if pollution levels persist



### Chart 4

- Chart 4 shows the annual average PM2.5 concentrations in India, the northern plains, and all other regions.
- In the northern plains, the average resident is set to lose about 8 years of life expectancy if pollution levels persist and policies do not succeed in reducing pollution to levels as prescribed by the WHO.
- Pollution, once concentrated in the northern region, has spread to other parts of the country over the last two decades.
- For instance, in Maharashtra and Madhya Pradesh, which have a combined population of 204.2 million, pollution has surged by 76.8% and 78.5%, respectively, since 2000, causing a loss of an additional 1.8 years to 2.3 years of life expectancy compared to 2000 levels.

**Chart 4** | The chart shows the annual average PM2.5 concentrations in India, the northern plains and all other regions

