

# 9 PM Current Affairs Monthly Compilation

For UPSC CSE mains examination



April  
2024

Features :

Arranged as per syllabus Topics  
Most complete coverage of major  
News Papers editorials

## Index

GS Paper-1.....	6
Subject: Indian Society .....	6
Topic- Salient features of Indian Society.....	6
Caste discrimination still shapes Indian cities .....	6
Topic- Poverty and Developmental issues, Urbanization, their problems and their remedies. ....	7
Factors behind declining fertility - The importance of hope .....	7
Issues with the minimum wage in India.....	8
Subject: Indian Society .....	9
Topic- Poverty and Developmental issues.....	9
Income and Wealth Inequality in India .....	9
Promises made by political parties for migrant workers in India.....	10
Subject: Geography.....	11
Topic- Important Geophysical phenomena .....	11
Increasing heatwaves in India .....	11
ISRO's findings on the growth of glacial lakes in the Indian Himalayas.....	12
GS Paper 2 .....	13
Subject: Indian Polity.....	13
Topic- Indian Constitution—Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.....	13
Bharatiya Nyaya Sanhita.....	13
Excessive restrictions on meetings and processions during elections.....	15
Curative Jurisdiction: Sounding the gavel on curative jurisdiction.....	15
Topic-Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these .....	16
Systemic challenges in parliamentary oversight .....	16
Topic- Structure, Organization and Functioning of the Executive and the Judiciary—Ministries and Departments of the Government; Pressure Groups and Formal/Informal Associations and their Role in the Polity.....	17
Issues faced by the Indian judicial system.....	17
Topic- Salient Features of the Representation of People's Act .....	18
Impact of Artificial Intelligence on Indian elections.....	18
Role of political parties in addressing climate issues .....	19
Voting process reforms in India .....	19
Supreme Court Gives Verdict — EVMs are safe .....	21

## 9 PM Compilation For Month of April 2024

<b>Model Code of Conduct (MCC) need more power</b> .....	22
<b>Topic- Polity-Statutory, regulatory and various quasi-judicial bodies</b> .....	23
<b>Concerns about India's food safety Regulations</b> .....	23
<b>Topic-Devolution of powers and finances up to local levels and challenges therein.</b> .....	24
<b>Viksit panchayats offer us a pathway to Viksit Bharat</b> .....	24
<b>Topic- mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections.</b> .....	25
<b>Government created a committee related to the queer community</b> .....	25
<b>Article 15 important for disability rights</b> .....	26
<b>Topic- Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes</b> .....	27
<b>4Ps of India's Development Strategy</b> .....	27
<b>Street vendors Act</b> .....	28
<b>Need of gender-neutral Childcare leave</b> .....	29
<b>Challenges facing India's public housing programs</b> .....	30
<b>Subject: Governance</b> .....	31
<b>Topic- Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation</b> .....	31
<b>Introducing too much technology into the worker's life</b> .....	31
<b>Living wills -A dignified way to death</b> .....	32
<b>Indians seeking surrogacy abroad</b> .....	33
<b>Issues with India's current liquor policies in India</b> .....	34
<b>Parental consent before using a child's personal data:</b> .....	34
<b>New FDI rules in India's space sector: Express View on FDI in space: Opening up</b> .....	35
<b>Topic- Issues Relating to Development and Management of Social Sector/Services relating to Education.</b> .....	36
<b>Post autonomy challenges faced by colleges</b> .....	36
<b>Youth suicide in India</b> .....	37
<b>Universal Health Coverage-Indias path to inclusive health care</b> .....	38
<b>India's struggle with TB drug shortages</b> .....	39
<b>India's 'National One Health Mission</b> .....	40
<b>ASER 2023 Report for better education</b> .....	41
<b>Viral hepatitis- A challenge to India's public health</b> .....	42
<b>Health on a hot planet</b> .....	43
<b>Supreme Court's view on false advertisement</b> .....	44
<b>Economic Significance of Universities for local economies</b> .....	45

## 9 PM Compilation For Month of April 2024

Essential Programme on Immunization.....	46
Topic-Important aspects of governance, transparency and accountability.....	47
Consequences of applying laws and judgments with retrospective effects .....	47
Network effects and their impact on digital markets .....	48
Network effects and their impact on digital markets.....	49
New changes in India's competition law .....	50
Subject: International Relations.....	51
Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.....	51
India's new focus in foreign policy.....	51
Topic: Effect of policies and politics of developed and developing countries on India's interests.....	52
EU's Corporate Sustainability Due Diligence Directive (CSDDD) .....	52
Topic-Important International institutions, agencies and fora, their structure, mandate.....	53
NATO responding to global security issues .....	53
B-READY Index .....	54
Topic-India and its neighbourhood- relations. ....	55
Concerns in Myanmar.....	55
Impact of Myanmar's internal conflicts .....	56
India and Maldives relations, after Muizzu's re-election.....	57
GS Paper 3 .....	57
Subject: Indian Economy .....	57
Topic- Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment. ....	57
Challenges for Indian agriculture to realize its aspiration of a Viksit Bharat by 2047 .....	57
How has the RBI evolved .....	58
India's labor market and employment situation .....	59
Globalisation of Indian rupee.....	60
Solutions for job creation .....	61
Concerns related to India's interest rates.....	62
Significance of Decentralized industrialization model .....	63
Difference in rural and urban consumption .....	64
India's food inflation.....	65
India's strong economic growth .....	66
Increased tax collections in Northeast India: .....	67
On Inheritance Tax.....	68

## 9 PM Compilation For Month of April 2024

Issues with credit system in India.....	69
Topic- Changes in industrial policy and their effects on industrial growth.....	70
Development of India's defense ecosystem.....	70
Finding of the India Employment Report (IER) 2024.....	71
Implications of Implementing Labour laws in IT/ITeS Sector.....	71
Impacts of Elon Musk's plan for his visit to India.....	72
Significance of labour statistics.....	74
Major concerns in global economics.....	75
Subject: Agriculture.....	76
Topic- Major Crops - Cropping Patterns in various parts of the country.....	76
Issues with the sugarcane cultivation.....	76
Topic- Issues related to Direct and Indirect Farm Subsidies and Minimum Support Prices; Public Distribution System - Objectives, Functioning, Limitations, Revamping; Issues of Buffer Stocks and Food Security; Technology Missions; Economics of Animal-Rearing.....	77
Climate change impacting wheat production in India.....	77
Improving Agri food space in India.....	78
Beekeeping in India.....	79
Need of Climate Friendly Agriculture.....	80
Issues in poultry industry.....	81
Topic- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.....	82
Nuclear energy- A solution for clean energy transition.....	82
Challenges faced by local solar panel manufacturers.....	84
Green Hydrogen.....	85
India's solar energy capacity.....	86
Claims that solar and wind energy are the cheapest forms of electricity are misleading.....	87
Boosting India's Logistics.....	88
Subject: Science & Technology.....	89
Topic- indigenization of technology and developing new technology. Indian economy- Government budgeting.....	89
What Indian scientists want from the upcoming government.....	89
Implications of amendment to patent laws.....	90
Significance of aircraft carrier.....	91
Significance of Technology Policy reforms for India.....	92
Topic- -Awareness in the fields of IT, Computers, robotics, nanotechnology, issues relating to intellectual property rights.....	93
Lawsuit filed by The New York Times against OpenAI and Microsoft.....	93

## 9 PM Compilation For Month of April 2024

<b>The Finternet or Asset tokenization for global financial systems .....</b>	<b>93</b>
<b>Subject: Environment .....</b>	<b>95</b>
<b>Topic - Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment .....</b>	<b>95</b>
<b>Climate engineering - Potential &amp; Concerns .....</b>	<b>95</b>
<b>Current state of global coal power .....</b>	<b>96</b>
<b>Recent SC judgement on Jim Corbett National Park.....</b>	<b>97</b>
<b>Conflict between renewable energy development and the protection of the Great Indian Bustard .....</b>	<b>98</b>
<b>Just Transition Framework.....</b>	<b>99</b>
<b>Reasons for heavy rains in the UAE .....</b>	<b>100</b>
<b>Implication of SC ruling on right against climate change .....</b>	<b>101</b>
<b>Impact of large-scale solar parks in India.....</b>	<b>101</b>
<b>Green credits-Significance &amp; Challenges.....</b>	<b>102</b>
<b>A Global Plastics Treaty .....</b>	<b>103</b>
<b>Subject: Disaster Management.....</b>	<b>104</b>
<b>Heat Action Plans .....</b>	<b>104</b>
<b>Impacts of water scarcity on India .....</b>	<b>106</b>
<b>How did Taiwan improve its earthquake preparedness? .....</b>	<b>107</b>
<b>Subject: Internal Security .....</b>	<b>107</b>
<b>Topic- Challenges to Internal Security through Communication Networks, Role of Media and Social Networking Sites in Internal Security Challenges, Basics of Cyber Security; Money-Laundering and its prevention. ....</b>	<b>107</b>
<b>Inclusion of less serious offences under PMLA .....</b>	<b>107</b>
<b>Problems with App and App based businesses .....</b>	<b>109</b>
<b>Subject: Internal Security .....</b>	<b>110</b>
<b>Topic - Various Security Forces and Agencies and their Mandate.....</b>	<b>110</b>
<b>Modern Warfare.....</b>	<b>110</b>
<b>Subject: Disaster Management.....</b>	<b>111</b>
<b>Topic - Disaster and disaster management.....</b>	<b>111</b>
<b>Factors continuing the water crisis in South India.....</b>	<b>111</b>

## GS Paper-1

### Subject: Indian Society

#### Topic- Salient features of Indian Society

#### Caste discrimination still shapes Indian cities

**News:** The article discusses how caste discrimination still shapes Indian cities, despite urbanization offering a potential escape from traditional caste oppression.

#### What were the views of Gandhi and B.R. Ambedkar on the Indian village?

**Gandhi's View:** Gandhi viewed Indian villages as self-reliant and equitable communities. He saw villages as centers of non-violent order. He advocated for decentralization of power through Gram Swaraj, believing it would lead to a just society.

**Ambedkar's View:** Ambedkar rejected village life, seeing it as the foundation of the Hindu caste order. He described villages as "the working plant of the Hindu social order." He Opposed the idea of autonomous village units in the Constituent Assembly, relieved when it was rejected.

#### What was Ambedkar's view on urbanization?

##### Ambedkar's Positive View on Urbanization:

Viewed cities as potential spaces for Dalit liberation from caste oppression.  
Believed that the anonymity of urban life could help shift from a caste-based to a class-based order.

##### Challenges Observed in Urban Settings:

Despite opportunities, Ambedkar noted caste's adaptation in cities, affecting housing and employment. Cited his own struggle to find a house in Baroda as an example of persistent caste barriers.

#### How is segregation evident in Indian cities?

**Segregation in Housing:** A 2021 consumer survey revealed dietary habits (like eating non-vegetarian food) as a major factor in rental housing decisions, reflecting caste-based preferences.

**Policy-Driven Segregation:** State policies, such as Uttar Pradesh's 2017 meat shop regulations near religious places, and Gujarat's ban on street food sales on main roads in 2021, enforce segregation influenced by caste.

**Impact on Public Services:** Research indicates that Dalits and Muslims have the poorest access to municipal infrastructure like clean drinking water and are predominantly found in sacrifice zones near severe environmental pollution sources like landfills.

## Topic- Poverty and Developmental issues, Urbanization, their problems and their remedies.

### Factors behind declining fertility - The importance of hope

**News:** The article talks about a Lancet paper showing global population trends are changing, with declining birth rates instead of overpopulation. It highlights India's situation and suggests policy changes for a better future.

#### What are the major findings in a paper on global population trends in the Lancet?

**Global Population Decline:** The Lancet paper projects a significant decrease in the global population. Most countries, including India, are expected to see lower birth rates.

**China's Population Halving:** By 2100, China's population might drop by up to 50%.

**Contrast in Africa:** Sub-Saharan Africa is the exception, likely to experience population growth.

**Ageing Population:** The decline in birth rates suggests a future with more elderly people and fewer young ones.

**Economic and Social Impact:** The change could affect job markets, healthcare, and social systems, as there will be more old people needing care but fewer young people to support them.

#### What are the factors behind declining fertility?

**Education and Empowerment:** Higher education levels and increased empowerment among women lead to smaller family sizes.

**Economic and Job Security:** The high cost of child-rearing and lack of job security discourage having children. This trend is observed even in wealthy countries with generous parental support policies.

**Climate Change Concerns:** Young people are reluctant to bring children into a world threatened by environmental issues like climate change.

**India's Economic Challenges:** In India, 90% of the youth are in low-paying, informal jobs, contributing to uncertainty about the future.

**Wealth Inequality:** India's extreme wealth inequality, with the richest 1% owning 40% of the wealth, creates societal instability.

**Declining Happiness and Democracy Health:** India's low ranking in the World Happiness Report and concerns about its democratic status further impact decisions about starting a family.

#### What should be done?

**Restore Hope:** Policies should focus on instilling hope in young people about their future.

**Promote Education and Job Security:** Enhancing education and ensuring job security can address economic uncertainties.

**Reform Taxation and Social Security:** Implement progressive taxation and improve social security systems to create a more equitable society.

**Ensure Universal Healthcare:** Universal health coverage should be provided, especially for long-term care of chronic conditions.

**Address Environmental Concerns:** Tackling issues like climate change can alleviate young people's fears about the future world for their children.



**Strengthen Democracy:** Improving the democratic health of a country can positively impact societal outlook and stability.

### Issues with the minimum wage in India

**News:** This article discusses how despite official reports, many Indian workers, especially casual ones, earn less than the minimum wage and poverty line, indicating that a significant number of Indians still live in poverty. It also highlights the issue of declining job quality and low wages in India.

For details information on **Poverty Measurement in India** [read here](#)

What does the new Consumption Expenditure Survey (CES) say?

The new Consumption Expenditure Survey (CES) has a different survey design, sparking debate on setting the right poverty line.

It's unclear if this new CES accurately reflects poverty levels without a revised poverty line by experts.

The **CES indirectly indicates poverty through wages of the poorest workers.**

**How can poverty levels be estimated?**

Poverty levels can be estimated by looking at the wages of the poorest group of wage workers, a method used for initial poverty lines.

The minimum wage for unskilled workers, crucial for this estimation, was ₹424 per day in 2023 and ₹449 in 2024.

The Rangarajan poverty line for 2022-23 is set at ₹1,837 and ₹2,603 monthly per person for rural and urban areas, respectively.

This method considers actual working days from the **Periodic Labour Force Survey**, suggesting a daily earning need of ₹390/₹552 in rural/urban areas to cross the poverty line.

A family poverty line of ₹9,185 in rural and ₹13,015 in urban areas is assumed for a five-member family.

**What are the issues with the minimum wage in India?**

The government notified minimum wages are often lower than what is needed to meet the poverty line. For example, the 2024 minimum wage is ₹449 per day, below the ₹483 recommended by the labour ministry. According to the **India Employment Report 2024**, over half of casual workers didn't receive the minimum wages.

Specifically, 76% of agricultural workers and 70% in construction earned below minimum wages. Additionally, 41% of regular workers earned less than the minimum wage. This situation points to a widespread issue of wages being insufficient to lift workers above the poverty line.

**What does all of this mean for poverty and unemployment in India?**

The data suggests that a **significant portion of Indians live in poverty, with low wages and poor job quality.**

Even though poverty might have reduced since 2011-12, many workers, including those in better positions, still face meager earnings.

This challenges claims of India eliminating extreme poverty, highlighting the reality of poorly paid workers

and deteriorating job quality.

## Subject: Indian Society

### Topic - Poverty and Developmental issues

#### Income and Wealth Inequality in India

**Context** - The World Inequality Lab, a global research center studying inequality and public policies, has recently released a paper called "Income and Wealth Inequality in India, 1922-2023: The Rise of the Billionaire Raj."

#### What is the status of wealth and income inequality in India?

1) **Income inequality** - In 2022-23, the report reveals that 22.6% of India's national income went to the top 1% of the population, the highest share in the last century. Further, the top 0.1% earned almost 10% of the national income in India. India's top 1% share of national income is one of the highest globally.

2) **Wealth inequality** - In 2022-23, the wealthiest 1% owned 40.1% of the wealth, the highest since 1961. Meanwhile, the top 10% saw their share rise from 45% in 1961 to 65%. This implies that the rich got richer, and the poor got poorer in wealth.

3) **Comparison with other countries**-Brazil and South Africa have more wealth inequality than India. In Brazil and South Africa, top 10% hold 85.6% and 79.7% of national wealth respectively.

Whereas in China, in 2022, the share of the top 1% in income in India was nearly 50% higher than that of China

Moreover, as India's income inequality is among the highest globally, even surpassing South Africa, Brazil, and the U.S., it may enhance wealth inequality further.

Read more- [Status of Inequality in India](#)

#### What is the significance of prioritizing human development over economic growth for reducing income inequality and wealth inequality?

1) **Precedents from other countries** - China and Vietnam have given precedence to human development to sustain their economic growth for a longer run.

2) **Examples from other Indian states** - States that have been able to maintain high growth rates over 3 decades (over 7% GSDP per year) were more developed in terms of human development at the national level. For ex- Kerala, Tamil Nadu, Delhi, Punjab etc.

However, states that fared low in Human Development Index were only able to register a growth rate of less than 5% per annum post-liberalization. For ex-MP, Bihar etc.

3) **The Human Development Report**- In the Human Development Report (HDR) 2023-2024, India was ranked 134th out of 193 countries. Despite being the **fifth largest** economy, India ranks lower than Sri Lanka, Bhutan, and Bangladesh in human development. Thus, in case of India, economic growth hasn't led to similar growth in human development for India.

#### What should be the way forward?

1) **Inclusive Growth**-There should be more emphasis on human development and capacity building to promote inclusive growth.

2) **Policy Reforms**-Economic growth should not become the ultimate objective of policy makers. Without

Created with love ❤️ by ForumIAS- the knowledge network for civil services.

Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

progress in human development, capability enhancement, functioning, and poverty reduction, economic growth won't be inclusive and will only increase inequality.

### Promises made by political parties for migrant workers in India

**News:** The article discusses the promises made by political parties in their election manifestos concerning migrant workers in India. It highlights their plans to address the needs and challenges faced by migrants, such as employment, social security, and legal rights, while noting some overlooked issues.

For details information on **India's migration issues** read [Article 1](#), [Article 2](#).

#### What are the challenges faced by migrants?

Migrants often lack proper documentation, making them invisible and unable to access government services. Migrants are misunderstood about the benefits of registration on platforms like e-Shram. Migrant workers, typically daily wagers, face exploitative work conditions. Critical needs such as healthcare, housing, and education for migrant children are often overlooked in policy planning. The specific challenges faced by women and young migrants, such as safety and sanitation, are not adequately addressed.

#### What promises have political parties made for migrants in India?

##### BJP's Promises:

**Utilization of the e-Shram portal** to better connect with and support migrant workers. This comes after the establishment of a national database of unorganized workers as directed by the Supreme Court.

**Enhancement of Special Train Services for migrants**, aiming to maintain these services throughout the year to facilitate easier movement across states.

**Implementation of digital technologies** in post office savings, and social security measures, although there are concerns about digital literacy and infrastructure.

##### Congress' Promises:

Introduction of a **law to regulate migrant employment** and ensure fundamental legal and social security rights.

Proposal to **increase the wage under MGNREGA to ₹400 per day**, with plans to maintain it as the national minimum wage.

Launch of an urban employment scheme that could benefit urban migrants and enforcement of '**Same Work, Same Wages**' to prevent gender-based wage discrimination.

#### What are the shared challenges noted in both manifestos?

**Overlooked Critical Areas:** Both manifestos fail to address essential services such as healthcare, housing, water, sanitation, and legal aid for migrants.

**Education for Migrant Children:** The need for educational support for children of migrants is not specifically tackled in either manifesto.

**Public Health Inclusion:** Neither party has detailed plans for integrating migrants into public health

schemes, which is crucial for their well-being.

**Inadequate Specificity for Women and Youth:** There is a lack of focused initiatives addressing the unique challenges faced by women and young migrants in both manifestos.

## Subject: Geography

### Topic- Important Geophysical phenomena

#### Increasing heatwaves in India

**News:** The article discusses the increasing heatwaves in India and their impact, including rising temperatures, more heatwave days, and a growing number of heat-related deaths and illnesses. It highlights the challenges in accurately reporting and addressing these issues.

For details information on **heatwave** [read here](#)

#### What is the Current Status of Heatwaves?

##### Heatwaves in India:

2023 marked India's second warmest year in 122 years. (warmest year 2016) States like Gujarat, Maharashtra, North Karnataka, Rajasthan, Madhya Pradesh, North Chhattisgarh, Odisha, and Andhra Pradesh experience severe heatwaves, with temperatures reaching 45.2°C in parts of Karnataka (Raichur).

The frequency of heatwave days has increased dramatically, from 90 days in the 1990s to 190 days in 2022.

##### Global Heatwave Status:

Europe's 2003 summer heatwave led to over 70,000 excess deaths across 16 countries, impacting around 400 million people.

In 2022, considered Europe's hottest season, there were approximately 61,672 heat-related deaths across 35 countries, affecting a population of about 543 million.

Countries around the Mediterranean Sea, like Italy and Spain, are significantly affected by heatwaves.

#### What is the definition of "heat-related death"?

The **US National Association of Medical Examiners** defines it as deaths where high temperatures either caused or significantly contributed to the death, recognizing the multifaceted nature of heat impact on health.

#### Why there is discrepancies in reporting heat-related deaths in India?

**Varying Numbers by Different Agencies:** Different agencies like IMD, NDMA, and NCRB report varying numbers (10,545 to 20,615 deaths) due to differing data collection methods.

**Environmental Factors Overlooked:** The situation in Ballia and Deoria districts, where heatwaves likely

## 9 PM Compilation For Month of April 2024

contributed to deaths, especially in older individuals with co-morbidities, but were not officially recorded as heat-related. This illustrates how environmental factors are often overlooked in death reports.

**Lack of Unified Definition:** U.S. National Association of Medical Examiners' definition of "heat-related death" and discusses how non-biomedical factors are often missed in death certificates. This points to the complication of not having a standardized definition impacting consistent reporting.

### How are heatwaves affecting public health?

**Increased Mortality:** There's a notable rise in deaths during heatwaves.

**Impact on Vulnerable Populations:** Elderly people and those with pre-existing conditions are particularly at risk. For example, during a heatwave in Uttar Pradesh, most of the 150 deaths in a week were among the elderly.

**Rising Hospital Admissions:** Heatwaves lead to spikes in hospital admissions due to heat-related illnesses, as seen in districts like Ballia and Deoria in Uttar Pradesh.

### What initiatives has the Indian government taken to overcome the issue of Heatwaves?

**Heat Action Plans:** The Indian government has updated Heat Action Plans across 23 states, aiming to strategically combat and manage heatwaves.

**Awareness Campaigns:** About 100 districts have initiated campaigns to raise awareness about heatwave risks and precautions.

**Focus on Vulnerable Groups:** These initiatives prioritize protecting high-risk groups like children, pregnant women, the elderly, and people with chronic diseases.

**Public Health Preparedness:** The Union Health Minister reviewed the preparedness for managing Heat-Related Illnesses (HRIs) on April 3, indicating a proactive approach to addressing the health impacts of heatwaves

## ISRO's findings on the growth of glacial lakes in the Indian Himalayas

**News:** The article discusses ISRO's findings on the growth of glacial lakes in the Indian Himalayas, which pose flood risks. It explains how these lakes form, the use of satellites in monitoring them, and strategies to mitigate flood risks, including lowering water levels.

### What did ISRO discover about glacial lakes?

ISRO analyzed satellite data from 1984 to 2023, observing the Indian Himalayan river basins. They found that out of 2,431 glacial lakes larger than 10 hectares, 676 had significantly expanded. Specifically, 601 of these lakes more than doubled in size, showing substantial growth. 130 of the 676 lakes are situated in India, in the Indus (65), Ganga (7), and Brahmaputra (58) river basins, which have expanded as the glaciers retreated due to global warming. This data highlights the increased risk of glacial lake outburst floods (GLOFs), posing a threat to downstream communities.

### How are glacial lakes formed?

Glacial lakes are formed by the movement and melting of glaciers, which create depressions in the landscape. These depressions fill with meltwater, forming lakes.

**Types of glacial lakes:**

**Moraine-dammed lakes:** formed by debris such as rocks and soil left by moving glaciers.

**Ice-dammed lakes:** formed when water is trapped by ice.

**Erosion-based lakes:** created by depressions from erosion.

Each type is categorized based on how the water is dammed or held in place.

**What are the risks of glacial lakes?**

Glacial lakes pose significant risks due to potential glacial lake outburst floods (GLOFs). GLOFs can occur when natural dams, such as moraine or ice, fail to hold back lake water. This failure can be triggered by factors like avalanches of ice or rock. Such floods can cause severe and sudden flooding downstream, endangering communities.

ISRO highlighted the risk with data showing 676 glacial lakes have grown, increasing the potential for dam failure.

**How can the risks be mitigated?**

**Lowering Lake Levels:** A study on Ghepan Gath lake suggested reducing water levels by 10 to 30 meters can significantly lessen impact on downstream areas like Sissu town, though not completely eliminate risks.

**Using HDPE Pipes:** In 2016, the Sikkim State Disaster Management Authority and others successfully used High Density Polyethylene (HDPE) pipes to lower water levels in South Lhonak Lake, reducing flood risks.

**Installing Early Warning Systems:** Fieldwork at critical lake sites can include setting up instrumentation like motion detection cameras, water level sensors, and discharge meters to monitor for signs of potential GLOFs.

**Satellite Monitoring:** Utilizing advanced satellite remote-sensing tools helps in continuous monitoring and assessment of glacial lake dynamics, crucial for timely interventions and planning.

## GS Paper 2

### Subject: Indian Polity

#### Topic- Indian Constitution—Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

#### Bharatiya Nyaya Sanhita

**Context-** The central government has notified July 1 to be the day on which the recently enacted three criminal laws will come into effect. However, Section 106(2) of the Bharatiya Nyaya Sanhita (BNS), 2023 has been put on hold due to opposition by All India Motor Transport Congress.

#### What are some sections of Bharatiya Nyaya Sanhita that require revision?

Apart from Section 106(2), there is a need to reconsider a few more provisions of the BNS. These are-

## 9 PM Compilation For Month of April 2024

- 1) **Section 112**- This defines petty organized crime.
- 2) **Section 303(2)**-This defines theft.
- 3) **Section 143**-This is related to human trafficking.

### Why is the reconsideration of certain provisions required?

#### 1) **Section 106**-

A) The increase in sentence from 5 to 10 years of imprisonment for just fleeing the scene without reporting to the police or a magistrate soon after the accident is bit disproportionate

B) This clause violates the fundamental right of prohibition against self-incrimination which is enshrined under Article 20(3) of the constitution.

Further, in *Nandini Satpathy vs P.L. Dani*, the Supreme Court has widened the scope of Article 20(3) and held that the accused must not be compelled to give testimony because it amounts to procurement of evidence by psychic torture, overbearing and intimidatory methods. Thus, disclosure of culpability by informing the police or a magistrate under Section 106 due to fear of enhanced punishment may not qualify the test of constitutionality

#### 2) **Section 112**-

Offences like unauthorized selling of tickets and selling of public examination question papers are not properly defined. These offences are not linked with any special Act.

Further, the range of '**any other similar criminal acts**' is unspecified in this section, and this makes it more indefinite and open-ended. The Supreme Court in *Shreya Singhal vs Union of India (2015)* struck down 66A of the Information Technology Act, 2000 because it found the expression "grossly offensive" used in the Section to be open-ended, undefined and vague.

#### 3) **Section 303**-

**Provision**-In cases of theft where the value of the stolen property is less than 5000, and a person is convicted for the first time and if the person returns of the value of property or restoration of the stolen property then he will be punished with community service. The First Schedule to the Bhartiya Nagarik Suraksha Sanhita (BNSS) categorizes the offence under this category as a non-cognizable offence.

#### **Issue**-

A) While the value of ₹5,000 may not impact the pocket of rich person but it is a huge sum for say a daily wage earner. Since it is a non-cognizable offence, police may refuse to file a first information report.

B) Property offenders could not be put under police if property offences are not registered.

4) **Section 143**- Sub-sections (6) and (7) of Section 143 of the BNS which punish trafficking of a child and trafficking of a person by a public servant,t,or a police officer respectively do not provide any discretion to the judiciary to award punishment.

The Supreme Court in *Mithu vs State of Punjab (1983)* held that any law which does not give discretion to judiciary is not just, fair, and reasonable within the meaning of Article 21 of the Constitution and hence unconstitutional.

## Excessive restrictions on meetings and processions during elections

**Context-** The article raises the issue of imposition of prohibitory order imposed during election time that restricts all public gatherings and meetings. This imposition has been challenged by certain activists before the Supreme Court.

In this case, petitioners have not been allowed to hold any public programmes aimed at creating awareness among voters about the election. SC has also raised the question against such blanket ban during hearing. It has directed executive magistrates to decide applications for public meetings and yatras within 3 days.

### What is the rationale behind imposing such blanket prohibitory orders?

These orders are imposed by the police and revenue officers, who are vested with magisterial powers under Section 144 of the CrPC, to prevent any disturbance to public order during election campaigns.

Read more - [Model Code of Conduct](#)

### What are the arguments against these blanket prohibitory orders?

**1) Infringes upon voters right to know-** These restrictions are also applied for civil society organization whose intention is to educate voters. This infringes upon the rights of voters to know about their contesting candidates.

**2) Discourage public participation:** Such restrictions are not justified against activities aimed at educating voters, which can limit public participation in the democratic process.

**3) Statutory concerns:** It also raises unclear questions:

- i) Whether election can be a sufficient ground to make such activities subject to statutory discretion.
- ii) Whether statutory powers may be transferred from the designated authority to the ECI during elections.

## Curative Jurisdiction: Sounding the gavel on curative jurisdiction

**News:** The article discusses the Supreme Court of India's use of "Curative Jurisdiction" to overturn a previous decision it made regarding an arbitral award. This is controversial because it reflects a shift from the court's usual stance of minimal interference in arbitration cases.

### What is Curative Jurisdiction?

**Introduction in 2002:** Curative Jurisdiction was introduced by the Supreme Court of India in 2002 to ensure that injustices in its final judgments can be corrected.

**Different from Review:** It goes beyond typical review mechanisms, which primarily address apparent errors on the record, by allowing for the reconsideration of final decisions if they result in gross miscarriage of justice.

Example: In the 2024 case of DMRC vs. DAMEPL, the Court used its Curative Jurisdiction to overturn an earlier decision which had upheld an arbitral award, thus demonstrating its commitment to justice over strict adherence to past judgments. For more details on DMRC vs. DAMEPL case read [here](#)

**Enhances Judicial Integrity:** By admitting and correcting its errors, the Court upholds judicial integrity and adapts to evolving legal standards and societal values.



### What are the Problems with Curative Jurisdiction?

**Undermines Finality:** Curative Jurisdiction challenges the principle of finality in legal judgments. Frequent reversals could erode confidence in the Supreme Court's decisions.

**Potential for Overuse:** There's a risk of this power being overused, leading to instability in the legal system as decisions could be perpetually open to challenge.

**Impact on Judicial Consistency:** The case of DMRC vs. DAMEPL in 2024 illustrates how Curative Jurisdiction can lead to inconsistencies. Initially, the Supreme Court supported minimal interference with arbitration awards, but reversed this stance dramatically in the curative petition.

**Questioning Precedents:** By overturning its own decisions, the Court risks creating an uncertain legal environment, where past judgments are viewed as potentially reversible, not as stable precedents

### Topic-Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these

#### Systemic challenges in parliamentary oversight

**News:** This article discusses how the Indian Parliament, particularly the 17th Lok Sabha, has functioned recently. It highlights shifts in focus, like more questions about health and agriculture and fewer about national security. It also notes changing trends in parliamentary debates and oversight.

#### What are the systemic challenges in parliamentary oversight?

**Decline in Questions to the Prime Minister:** The Prime Minister's Office received only 28 answers out of 1,146 questions from Rajya Sabha MPs, indicating limited engagement at the highest executive level.

**Reduced Focus on Key Ministries:** Interest in national security issues has decreased, with the Ministry of Home Affairs witnessing a 32% drop in queries.

**Changing Ministerial Priorities:** The Ministries of Health and Agriculture are now receiving more questions, shifting focus from earlier priorities.

**Increasing Disallowed Questions in Rajya Sabha:** The percentage of disallowed questions in the Rajya Sabha is rising, with 36.6% relating to key ministries like Health, Home Affairs, and Finance, suggesting hindrances in oversight.

**Missed Opportunities for Discussion:** Crucial issues, like student suicides due to exams, were not adequately addressed, indicating missed chances for accountability and debate.

#### What changes have occurred in parliamentary discussions?

**Increased Use of Zero Hour Over Time:** Over the past 15 years, the use of Zero Hour in parliamentary discussions has seen a significant increase: a 62% rise in the Rajya Sabha and a 34% increase in the Lok Sabha. This trend suggests a growing focus on addressing immediate and pressing issues.

**Decline in Traditional Interventions:** The use of 'Half-an-Hour Discussions', 'Short Notice Questions', 'Calling Attention', 'Short Duration Discussions', and 'Special Mentions' has decreased, suggesting a shift away from these traditional methods.

**Way forward-**To revitalise legislative engagement, Indian Parliament should seize every opportunity for accountability and constructive debate, focusing on enacting policies that prioritize national welfare, as seen in the proactive dynamics of the 16th Lok Sabha.

## Topic- Structure, Organization and Functioning of the Executive and the Judiciary— Ministries and Departments of the Government; Pressure Groups and Formal/Informal Associations and their Role in the Polity.

### Issues faced by the Indian judicial system

**News:** The article discusses the problem of over 10 million pending cases in India's courts. It focuses on the need for reform in the judicial system, like limiting adjournments, using technology, and improving court management to make the process faster and more efficient.

For details information on **Judicial reform** read [Article1](#), [Article2](#), [Article3](#)

#### What are the issues faced by the Indian judiciary system?

**Overwhelming Case Backlog:** Over 10 million cases are pending in Indian courts, leading to significant delays.

**Frequent Adjournments:** More than half of the cases exceed the three-adjournment limit, contributing to delays.

**Staff Shortage:** Courts operate with insufficient staff regardless of the number of cases, affecting efficiency.

**Ineffective Court Management:** Lack of clear timelines and effective management strategies slow down case processing.

**Technology Underutilization:** Despite potential benefits, technological solutions like e-filing and video conferencing are not fully integrated.

#### What are the impacts of these issues?

**Prolonged Detention:** With 77.1% of over 500,000 inmates in 2021 awaiting trial, prolonged pre-trial detention is a major issue.

**Business Challenges:** The slow judicial process hinders 'ease of doing business,' affecting economic growth and investor confidence.

**Public Trust Erosion:** The unreliability and inefficiency of the judiciary decrease public trust in the legal system.

#### What should be done?

**Strict Enforcement of Three-Adjournment Rule:** Limit adjournments per case to three to avoid unnecessary delays, as currently, more than half of the cases exceed this limit.

**Improve Court Management:** Adopt clear timelines for each case, a practice effective in developed countries but lacking in India.

**Enhance Staffing in Courts:** Address the staff shortage, as courts often have the same number of staff regardless of the increase in case files.

**Integrate Technology Effectively:** Fully utilize e-filing and video conferencing, proven useful during the COVID-19 pandemic, to expedite cases.

## 9 PM Compilation For Month of April 2024

**Implement NCMS Policy and NFCE:** Fully enforce the National Courts Management Systems policy and the National Framework of Court Excellence to establish performance benchmarks and improve court operations.

**Monetary Disincentive for Adjournments:** Introduce fines, such as ₹10,000 for the first adjournment, doubling for subsequent ones, to discourage unnecessary delays.

**Social Audit of Judiciary Policies:** Conduct social audits of policies like NCMS to ensure their effectiveness and enhance judicial efficiency.

### Topic- Salient Features of the Representation of People's Act

#### Impact of Artificial Intelligence on Indian elections

**Context-** The BJP has used Artificial Intelligence (AI) to translate the speech of Prime Minister into eight different languages ahead of the Lok Sabha elections. This general election may potentially be considered as India's first AI election.

#### How has India's electoral strategy evolved over last 3 decades?

The electoral strategy has evolved due to the deployment of new technologies for electoral purposes.

- 1) **Phone Calls**-There was extensive usage of phone calls in the 1990s. Similarly, the Uttar Pradesh Assembly election in 2007 witnessed the first mass mobile phone elections.
- 2) **Social media platforms**- This was widely used in the 2014 general elections. Some analysts have even referred to it as India's first social media elections or the Facebook elections. An estimated ₹500 crore had been spent in digital spending in 2014 elections.
- 3) **WhatsApp election** -2019 general election was widely dubbed as the "first WhatsApp election" in India. Few Indian States elections have shown that how WhatsApp can be abused to mislead voters for political purposes very quickly. As per election campaign consultant, it is an effective political platform because it is an excellent tool to organize and mobilize party workers.

Read more- [Role of AI in elections: Many elections, AI's dark dimension](#)

#### How can the use of AI hamper the sanctity of the electoral process in 2024 elections?

The global elections of 2024 are indeed AI driven elections.They can significantly hamper the sanctity of electoral process by;

- 1) **Misinformation** - Voters in New Hampshire got a phone call that sounded like U.S. President. However, it was a robocall made by AI that discouraged Democratic voters from going to polling stations on election day.
- 2) **Creation of fake audios** - Just before parliamentary elections in Slovakia, in September 2023 last year, a fake audio of a conversation between a journalist and the leader of the pro-North Atlantic Treaty Organization Progressive Slovakia Party was shared on Facebook. Consequently, in a close race, Progressive Slovakia lost out.
- 3) **Deepfakes**-They were used in the recent Assembly elections in Madhya Pradesh and Telangana, either through doctored clips of the game show "Kaun Banega Crorepati" or a fake video of a leader who was pushing voters to support their opponent.
- 4) **Setting false trends**-AI-powered bots can generate fake accounts that amplify messages and generate artificial trends to give the false impression that a particular politician or subject is widely supported.

#### How can AI play a constructive role in the election process?

Created with love ❤️ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

## 9 PM Compilation For Month of April 2024

It can play a far wider role in elections than just disseminating disinformation such as-

- 1) It can be used in the entire spectrum of campaign strategies. It can be used for voter identification and for content development and delivery.
- 2) It can do real-time analytics on campaign performances. It can ensure that political campaigns are data-driven and help in setting effective micro-targeting strategy.

The political landscape is changing quickly due to GenAI technology. This presents both the potential and challenges for the 2024 elections.

### Role of political parties in addressing climate issues

**Context** - WHO has recently released The State of the Global Climate report which states that 2023 was the hottest year in the recorded history of the planet. As per the report, records for a rise in ocean temperatures, glacier retreat and diminishing Antarctic ice cover were also broken.

The author makes a case for mainstreaming climate change issue into political discourses during the election year.

Read more- [Time for a technology manifesto](#)

#### How can election season present an opportunity to ensure climate justice?

- 1) The concerns expressed in WMO report should alarm all political parties to take climate change as an important election issue. It is possible that people may wholeheartedly welcome such stands taken by political parties.
- 2) Political parties can commit themselves to enhancing public awareness on climate change and spelling out mitigatory steps to reduce global warming.
- 3) It is possible to have political differences in approaching climate change issues, but this will provide voters an opportunity to assess these views and make an informed decision.
- 4) In order to be counted as a true world power in the Amrit Kaal, Indian political parties can demonstrate strong commitment to the principle of climate justice and make this an important political issue.

All political parties are presenting their ideas to shape India's economic prosperity and the well-being of its people. However, without addressing the issue of a climate change action plan, this idea of prosperity would be incomplete.

### Voting process reforms in India

**Context**-The Supreme Court has decided to hear petitions asking for 100% cross-verification of Voter Verifiable Paper Audit Trail (VVPAT) slips against the electronic vote count from Electronic Voting Machines (EVMs).

#### How has the voting process evolved in India since the first general election?

- 1) **First two elections**-In the first two general elections of 1952 and 1957, there was a separate box for each candidate with their election symbol. Voters had to put a blank ballot paper into the box of the candidate they wanted to vote for.
- 2) **Third election**-Starting from the third election, ballot papers with candidate names and symbols were

## 9 PM Compilation For Month of April 2024

introduced, and voters put a stamp on the candidate of their choice.

3) **Introduction of EVM**-The EVM was introduced on a trial basis in 1982 in the Assembly constituency of Paravur in Kerala. They were deployed in all booths during the Assembly elections of Tamil Nadu, Kerala, Puducherry and West Bengal in 2001. In the 2004 general elections to the Lok Sabha, EVMs were used in all 543 constituencies.

4) **Introduction of VVPAT**- The Supreme Court In Subramanian Swamy versus Election Commission of India (2013) held that a paper trail is an indispensable requirement for free and fair elections. From 2019 general elections, EVMs backed with 100% VVPAT in all constituencies were introduced.

### What are the benefits of EVMs?

- 1) It has eradicated booth capturing by limiting the rate of vote casting to four votes a minute and thus significantly increasing the time required for stuffing false votes
- 2) It has eliminated the problems of invalid votes in the elections.
- 3) It is eco-friendly as it reduces the consumption of paper.
- 4) It provides administrative convenience for the polling officers on the day of the poll and has made the counting process faster and error-free.

### What are the mechanisms to uphold the integrity of EVM and VVPAT process?

- 1) There is random allocation of EVMs to booths before polls.
- 2) Mock polls are conducted before the actual poll to display the correctness of EVMs and VVPAT.
- 3) EVM serial numbers and total votes cast are shared with candidates' agents during vote counting for verification.
- 4) As per the Election Commission of India, EVM is a standalone device like a calculator with no connectivity to any external device and hence free from any kind of external hack

### What are the issues associated with EVMs?

- 1) EVMs are susceptible to hacking as it is an electronic device.
- 2) Currently, the sample size for checking EVM counts with VVPAT slips is five per assembly constituency/segment. This isn't based on scientific criteria and may not detect faulty EVMs during counting.
- 3) In the present process, booth-wise polling behaviour is identified by various parties. This may result in profiling and intimidation.

### What should be the way forward?

- 1) **Scientific approach**-The sample for comparing EVM count and VVPAT slips should be determined scientifically by dividing each state into larger regions. If there's even one mistake, all VVPAT slips for that area should be counted fully, and they should decide the results.
- 2) **Introduction of Totaliser machines**-Totaliser machines that are equipped to aggregate votes in 15-20 EVMs before revealing the candidate-wise, count can be introduced. This would minimise the possibilities of profiling and intimidation.

## Supreme Court Gives Verdict — EVMs are safe

**News-**The Supreme court in **Association of Democratic Reforms vs Election Commission of India and Anr case** has rejected all pleas that were seeking 100% EVM-VVPAT verification. The verdict emphasized the importance of balanced perspective when assessing systems or institutions, warning against blind distrust as it can hinder progress.

**Context-** Many oppositions political parties demanded 100% recount of all VVPATs, instead of the current method of sampling the number of recounts, to have full transparency.

Read more- [EVM-Demand for 100% recount of all VVPATs](#)

### What are the directives issued by the Supreme Court in this case?

- 1) The Symbol Uploading Units (SULs) must be stored in a secure room for 45 days after the results are announced. Like EVMs, they can also be inspected and reviewed.
- 2) If any candidate comes second or third, they can request for EVMs in their area to be checked. In case of such a request, 5 % of machines per assembly segment will be examined.

### What steps have the Election Commission of India taken to assuage the concerns about safety of EVMs?

- 1) The Election Commission of India has assuaged these concerns constantly, including by holding hackathons.
- 2) The ECI has introduced the VVPAT system to ensure a paper trail to test machines after the Supreme Court's verdict in 2012.

### What is the significance of the Supreme court's recent judgement?

- 1) It has put in place interventions that would dispel doubts about the integrity of India's voting system.
  - A) The directive on mandatory storage of Symbol Uploading Units (SULs) will ensure that votes have not been miscounted.
  - B) Rechecking of EVMs allows a window to address the legitimate concerns of contesting candidates.
- 2) The judgement will affirm the credibility of India's voting process.

Read more- [Supreme Court VVPAT judgement](#)

### What are the arguments against the judgement?

1) **Arbitrary sample size-**The author criticizes the Supreme Court's order mandating a uniform sample size of "5 EVMs per Assembly Constituency" for VVPAT-based audit of EVMs, stating that it does not conform to statistical sampling theory principles.

2) **Limitation of lot acceptance sampling** - VVPAT audit is a case of "lot acceptance sampling" where a random sample is drawn from a defined "population" of EVMs, and the entire population is accepted or rejected based on the number of "defective EVMs" (EVM count mismatching VVPAT count)

**Note- Lot acceptance sampling-**This is a quality control method where a sample is taken from a batch or "lot" of products, and based on the inspection of that sample, a decision is made about whether to accept or reject the entire batch.

3) **Lack of clarity-** It highlights that the Court did not compel the ECI to disclose the defined "population" and "next steps" in case of mismatch. Further, it did not ask the ECI to clarify these points itself after seeking expert opinion.

4) **Statistical Analysis of Court-Mandated Sample Size-** The Court-mandated sample size has a 95% probability of failing to detect a defective EVM if an Assembly Constituency is the "population", and 70% if a Parliamentary Constituency is the "population".

### What are the recommendations to ensure robust VVPAT-based EVM audit system?

- 1) There is a need to implement a statistically sound, VVPAT-based EVM audit system that can detect mismatches with 99% or 99.9% accuracy.
- 2) There should be matching of the votes at the start of the counting day. If they match perfectly, the results should be declared based on the EVM count. In case of a mismatch, there should be manual counting of VVPAT slips for all remaining EVMs of the particular "population" and declaring results based on the VVPAT count.

### Model Code of Conduct (MCC) need more power

**News:** The article discusses the need to strengthen the Model Code of Conduct (MCC), which guides election behavior in India. It suggests adding clearer consequences for violations to ensure fair elections and proposes holding political parties accountable for their members' breaches of this code.

### What is the Model Code of Conduct (MCC)?

The Model Code of Conduct is a set of guidelines issued by the Election Commission of India for political parties and candidates to maintain decorum in their campaigning. It lays down a list of dos and don'ts for leaders and parties ahead of elections.

For more information [read here](#)

### How has the MCC evolved?

**Origin in 1960:** The MCC was first introduced during the 1960 Assembly elections in Kerala, **initiated by K V K Sundaram**, the then Chief Election Commissioner (CEC). It initially covered basic guidelines like the conduct of election meetings, processions, and campaign materials.

**Expansion and Consultation:** In 1968 under CEC **S P Sen Verma**, the MCC was expanded after consultation with political parties, aiming to establish minimum standards of behavior for free and fair elections.

**Regular Updates:** Starting in 1979 with CEC **S L Shakhdar**, the MCC was regularly updated before each General Election, adapting to new challenges and circumstances in electioneering.

**Major Overhaul in 1991:** Under the leadership of **T N Seshan**, the MCC underwent significant consolidation and re-issuance, strengthening its role as a critical tool for ensuring electoral integrity and fairness.

### Why does the MCC need more power?

**Increasing Violations:** The political environment in India has intensified, leading to more frequent and severe violations of the MCC.

**Technological Advancements:** Innovations such as digital campaigning have created new opportunities for misconduct that the current MCC does not fully address.

**Lack of Deterrent:** Currently, the MCC does not clearly spell out the consequences for violations, reducing its deterrent effect.

**Evolving Political Tactics:** Politicians are finding new ways to exploit gaps between the letter and spirit of the MCC.

### What should be done?

## 9 PM Compilation For Month of April 2024

**Graded response:** Clearly specify graded punitive measures for serious repeated violations, such as bans on campaigning, debarring candidates/functionaries, and disqualifying them as star campaigners.

**Hold Parties Accountable:** Implement penalties for political parties if their members violate the MCC, introducing fines or restrictions under the Election Symbols (Reservation and Allotment) Order.

**Quick Enforcement:** Streamline procedures to take punitive action within 72 hours and maintain a public database of violations and their disposal.

**Update the Code:** Continually revise the MCC to cover new campaigning methods and technologies, keeping it relevant and effective against modern political strategies.

### Topic- Polity-Statutory, regulatory and various quasi-judicial bodies

#### Concerns about India's food safety Regulations

**News:** The article discusses problems with India's food safety system, highlighting issues with baby food, health drinks, and spices. It mentions that the FSSAI, India's food regulator, has struggled with staff shortages and infrastructure problems, which has affected its ability to properly regulate and ensure food safety.

For details information on the **Food Safety and Standards Authority of India (FSSAI)** [read here](#)

#### What are the main concerns about India's food safety?

**High Sugar Content in Baby Food:** The FSSAI is investigating Nestle's baby food products for unhealthy sugar levels, raising concerns about child health.

**Carcinogenic Additives in Spices:** Regulatory bodies in Singapore and Hong Kong have flagged powdered spices from top Indian brands like MDH and Everest for containing potential carcinogens.

**Salmonella Contamination:** The US has rejected 31% of spice shipments from MDH over the past six months due to contamination with salmonella, indicating a significant hygiene issue.

**Inconsistent Global Standards:** Indian food products are under scrutiny in various international markets including the EU, highlighting global concerns about the safety and quality of food exported from India.

#### What are the issues with the Food Safety and Standards Authority of India (FSSAI)?

**Staff and Infrastructure Shortages:** The FSSAI has consistently struggled with insufficient staff and inadequate infrastructure, which has compromised its ability to effectively monitor and regulate food safety.

**Perceived as Paperwork:** Many businesses view the regulatory process as mere paperwork rather than seeing it as an opportunity for regular inspections and guidance from experts.

**Procedural Shortcomings:** In cases like the Vital Neutraceuticals incident in 2015, the FSSAI's actions were overturned by courts due to procedural errors, illustrating flaws in the authority's enforcement and regulatory processes.

**Inadequate Consumer and Business Education:** Despite its mandate, the FSSAI has been ineffective in educating businesses and consumers about food safety.

#### What are the consequences of these regulatory shortcomings?

**International Rejection:** The US rejected 31% of spice shipments from MDH due to salmonella contamination.

**Damaged Reputation:** Inconsistent safety standards have led to scrutiny by international markets like the



EU, harming India's global food market reputation.

**Legal Challenges:** Procedural errors have resulted in legal setbacks, such as in the Vital Neutraceuticals case.

**Health Concerns:** High sugar content in baby food and carcinogenic additives in spices raise serious public health concerns.

## Topic-Devolution of powers and finances up to local levels and challenges therein.

### Viksit panchayats offer us a pathway to Viksit Bharat

**News:** The article highlights the crucial role of **Gram Panchayats (GP)** and Sarpanches in advancing India's development, emphasizing the decentralization of power and the use of digital tools for better governance. It also stresses the importance of empowering women leaders to enhance public services and meet development goals by 2047.

#### What is the Concept of Viksit Bharat?

**Concept of Viksit Bharat:** Inspired by Rabindranath Tagore's vision in "Gitanjali," Viksit Bharat aims for India to become a developed nation by 2047, **emphasizing a society where knowledge is free and everyone is dignified.**

**Rural Focus:** With 64.1% of the population in rural areas governed by Gram Panchayats, the development in these regions is vital.

**Empowering Local Governance:** States with greater power devolution like Kerala and Karnataka have shown better socio-economic outcomes through programs like **Kudumbashree and the GP Human Development Index**, exemplifying effective local governance.

#### How Important are Gram Panchayats in Achieving Viksit Bharat?

**Central Role in Development:** Gram Panchayats are crucial for grassroots empowerment, directly impacting India's journey towards becoming a developed nation by 2047.

**Decentralization of Authority:** Effective decentralization, where local bodies like Gram Panchayats have the autonomy to plan and implement projects, correlates with improved socio-economic development.

**Policy Support:** The GP Development Plan (GPDP) encourages local stakeholder involvement, enhancing the efficiency and relevance of development initiatives.

**Digital innovations** such as Aadhaar, UPI, Co-win, ABHA, and the Universal Citizen Interface are transforming citizen services. These tools help Sarpanches make informed decisions and align local development plans with state and national schemes.

#### How are women empowered through local governance?

**Constitutional Mandate:** The 73rd Constitutional Amendment Act mandates a 33.3% reservation for women in Panchayati Raj Institutions, ensuring women's participation in local governance.

**Impactful Leadership:** Empowered women leaders at the grassroots have driven significant societal changes. For example, **Jyoti Behar Devi**, a Sarpanch from Jharkhand, successfully banned alcohol in her panchayat and promoted livelihood opportunities. **Anita Devi** from Bihar transformed her vehicle into an ambulance, reducing home deliveries from 65% to 8% by improving healthcare access.

#### What should be done?

**Empower Gram Panchayats:** As seen in Kerala and Karnataka, where devolution of powers has boosted socio-economic development, similar strategies should be implemented nationwide.

**Implement Local Sustainable Development Goals (LSDGs):** Aligning projects with community needs through GP Development Plans.

**Customize Good Governance Models:** Scale models like Andhra Pradesh's 'village secretariat' for streamlined governance and improved service delivery across different regions.

**Build Competent Leadership Teams:** Develop strong leadership and organizational structures within Gram Panchayats to ensure the timely delivery of quality services, mirroring successful team dynamics seen at higher levels of governance.

### Topic- mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections.

#### Government created a committee related to the queer community

**News:** The article discusses a new committee formed by the Indian government to address issues faced by the LGBTQIA+ community. The Supreme Court has asked the legislature to recognize certain rights for same-sex couples. Progress on queer rights has been slow and uneven in India.

#### Why has the Indian government created a committee related to the queer community?

**Address Discrimination and Violence:** The Indian government formed a committee to combat the systemic discrimination and violence that the LGBTQIA+ community faces, especially in accessing social welfare programs.

**Supreme Court's Directive:** The creation of the committee follows a directive from the Supreme Court, which, in a landmark judgment, emphasized the need for legislative action to recognize and protect the rights of same-sex couples.

**Public Support for LGBTQIA+ Rights:** A Pew Research survey showed that 53% of Indian adults favor legalizing same-sex marriages, indicating a shift in public opinion that supports the committee's objectives.

#### What is the view of the Supreme Court regarding the queer community?

The Supreme Court did not grant constitutional validity to same-sex marriage but instead shifted the responsibility to the legislature.

**Specific Rights Mentioned:** The court listed specific rights for same-sex couples, including being treated as family for banking, medical needs, jail visitations, and last rites.

**Legal Consequences:** The Court also outlined legal consequences like succession rights, maintenance, financial benefits under laws like the Income Tax Act, and rights related to employment such as gratuity, family pension, and insurance.

#### How has progress on queer rights been in India?

**Inconsistent Progress:** The progress on queer rights in India has been described as "chequered at the best of times," indicating a slow and uneven advancement.

**Judicial Landmarks:** A significant judicial action includes the Supreme Court's decision to read down the provisions of Article 377, which was a pivotal moment for queer rights but not a complete resolution.

**Public Opinion:** A Pew Research survey conducted between June 2022 and September 2023 showed that 53% of Indian adults support the legalization of same-sex marriages, reflecting growing public acceptance.

**Political Manifestos:** Only a few political parties, like Congress and CPI(M), address LGBTQIA+ rights in their election manifestos, highlighting the lack of widespread political support for queer rights.

### Article 15 important for disability rights

**News:** The article discusses efforts to amend India's Constitution to protect people with disabilities from discrimination. It highlights the long-standing demands of disability rights groups and notes recent political support for this cause in election manifestos by Congress and CPI(M).

For details information on **Persons with Disabilities** read [Article 1](#), [Article 2](#), [Article 3](#)

#### What is the current status of disability rights?

**UN Convention on the Rights of Persons with Disabilities (UNCRPD):** Adopted in 2006, this convention established global standards to ensure equal rights for persons with disabilities. Over 160 countries have ratified it, committing to uphold the rights of disabled persons.

**Legal Framework: India ratified the UNCRPD in 2007** and passed the **Rights of Persons with Disabilities Act in 2016**, but these have not amended the Constitution to give disability rights constitutional protection.

**Recent manifestos from Indian political** parties like Congress and CPI(M) show a commitment to amending the Constitution to specifically include disability as a ground for discrimination.

#### Why is amending Article 15 important for disability rights?

**Inclusion in Fundamental Rights:** Currently, Article 15 does not mention disability as a ground for discrimination. Amending it would elevate disability rights to the level of a fundamental right, offering stronger legal protection against discrimination.

**Alignment with International Standards:** The amendment would bring India's constitution in line with the UN Convention on the Rights of Persons with Disabilities, which India ratified in 2007. This aligns domestic law with global commitments to protect the rights of persons with disabilities.

**Closing Legal Loopholes:** The Rights of Persons with Disabilities Act 2016 allows exceptions in cases deemed to have a 'legitimate aim.' By embedding disability rights in the Constitution, these exceptions would be scrutinized more rigorously, reducing potential misuse.

**Promoting Equality:** Recognizing disability in the Constitution would address historical injustices and recognize the unique challenges faced by disabled persons, promoting true equality and integration into society.

**Judicial and Political Responsibility:** The amendment would shift responsibility for protecting disability rights from the judiciary to the legislature, fostering more proactive governance and less reliance on the courts to interpret protections.

For details information on **Important Judgments by Chief Commissioner of Persons with Disabilities** [read here](#)

#### How are disability rights groups advocating?

Disability rights groups in India are advocating in several effective ways:

**Manifesto Release:** In February 2024, organizations like the **National Centre for Promotion of Employment for Disabled People** and the **National Disability Network** released a disability-focused manifesto, urging political parties to prioritize disability issues.

**Consistent Advocacy:** These groups have consistently pushed for the inclusion of disability as a ground for discrimination under Article 15 of the Constitution.

**Political Engagement:** They have successfully influenced political parties to include promises for constitutional amendments in their election manifestos, reflecting a shift in political attention toward disability rights.

### Topic- Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes

#### 4Ps of India's Development Strategy

**News:** The article discusses how India's approach to improving sanitation and public health, known as the Swachh Bharat Mission, has successfully used four key strategies: political leadership, public financing, partnerships, and people's participation.

#### What is the Swachh Bharat Mission (SBM)?

The Swachh Bharat Mission (SBM) is a significant public health initiative launched by the Indian government, aimed at eliminating open defecation and improving sanitation across the nation:

**Massive Scope:** Targeted to enhance the lives of over 550 million Indians through the construction of over 100 million toilets.

**Behavioral Change:** Encouraged a nationwide behavioral shift and public participation in sanitation practices.

For more information on Swachh Bharat Mission read [Article 1](#), [Article 2](#), [Article 3](#)

#### What are the 4Ps of India's Development Strategy?

India's development strategy, particularly exemplified by the Swachh Bharat Mission (SBM), is structured around four key principles known as the 4Ps:

**Political Leadership:** Prime Minister Narendra Modi's direct involvement and advocacy were pivotal. He announced the initiative during his first Independence Day speech in 2014, highlighting the urgency of addressing open defecation.

**Public Financing:** The government invested approximately \$20 billion in sanitation. This investment shows a commitment to prioritizing sanitation alongside other national developmental goals.

**Partnerships:** The SBM collaborated with international organizations like the World Bank, UNICEF, and the Bill and Melinda Gates Foundation, alongside local governments and NGOs, demonstrating a multi-stakeholder approach.

**People's Participation:** Emphasizing community involvement, the initiative saw mass movements across rural India, with villages striving to become open defecation free through collective local efforts.

#### Why are India's 4Ps relevant globally?

The principles of the SBM are now being applied to other critical global challenges, including climate change and pandemics, by the World Bank and other international agencies.

The approach emphasizes the importance of leadership, funding, cooperation, and community involvement in tackling large-scale public issues.

### Street vendors Act

**Context-**The Street Vendors Act, 2014, was a big step forward after almost 40 years of legal discussions and activism by street vendor groups throughout India. The article highlights the challenges in its implementation since its inception.

#### What are the provisions of the Street Vendors Act?

**Objective-** It aimed to safeguard and manage street vending in cities by setting up rules at the state level and implementing them through Urban Local Bodies (ULBs).

#### Key provisions-

- 1) Accommodating all 'existing' vendors in vending zones and issuing vending certificates.
- 2) Establishing a participatory governance structure through Town Vending Committees (TVCs), with 40% representation of street vendor representatives and 33% of women street vendors.
- 3) Mechanisms for addressing grievances and disputes through a Grievance Redressal Committee.
- 4) Setting a precedent for inclusive and participatory approaches to address street vending needs in cities.

#### What is the significance of Street Vendors for urban India?

- 1) Street vendors, comprising about 2.5% of a city's population, serve diverse functions in city life. Local vegetable sellers and food vendors are essential providers of daily services.
- 2) The vendors make city life affordable for others by providing vital links in the food, nutrition, and goods distribution chain at reasonable prices.
- 3) They are integral part of Indian culture. For ex- imagine Mumbai without its vada pav or Chennai without its roadside dosai.

#### What are the challenges in the implementation of Street vendors Act?

##### 1) Administrative challenges-

- A) Increased harassment and evictions of street vendors, contrary to the Act's emphasis on protection and regulation.
- B) Outdated bureaucratic mindset viewing vendors as illegal entities.
- C) Lack of awareness and sensitization about the Act among authorities, the public, and vendors themselves.
- D) Limited influence of street vendor representatives in TVCs, and tokenistic representation of women vendors.

##### 2) Governance challenges-

- A) Weak existing urban governance mechanisms.
- B) Lack of integration with the 74th Constitutional Amendment Act for urban governance.
- C) Insufficient powers and capacities of ULBs.
- D) Top-down urban policies like Smart Cities Mission ignoring the Act's provisions for vendor inclusion.

##### 3) Societal challenges-

## 9 PM Compilation For Month of April 2024

A) The prevailing image of the 'world-class city' tends to be exclusionary, marginalizing and stigmatizing street vendors.

B) City planning, policies and how people see them perceive vendors as obstacles to urban growth rather than valued participants in the urban economy.

### What should be the way forward?

1) **Decentralized Approach**-Initially, guidance and control should come from the Ministry of Housing and Urban Affairs. However, over time, this needs to be decentralized over time to ensure effectiveness in addressing the diverse needs and contexts of street vendors nationwide. For ex- PM SVANidhi

Read more- [Rashtriya Udyamita Vikas Pariyojana](#)

2) **Role of ULBS**- ULBs need to improve their ability to plan for street vending in cities. Instead of top-down actions from departments, there should be more thoughtful discussions at the level of TVCs. Urban schemes, city planning guidelines, and policies need to be amended to include street vending.

3 **Addressing Emerging Challenges in Street Vending**- There is a need to address emerging challenges like climate change impact, surge in vendor numbers, e-commerce competition, and reduced incomes.

4) **Innovative measures**-The National Urban Livelihood Mission's Street vendor sub-component should facilitate innovative measures to address changing realities.

## Need of gender-neutral Childcare leave

**Context**-The Supreme Court has recently held that denial of childcare leave to women is violation of Constitution. This was in context of a case of a state government women employee who was denied childcare leave to look after her ailing son who was suffering from rare genetic disorder. The court observed that participation of women in the workforce is a constitutional entitlement protected by Article 15. It is incumbent upon the state to pay attention to the special concerns of working women.

### What is the present status regarding Women Participation in the Labour Force?

As per the PLFS report 2022-23, the female labor force participation rate jumped to 37% in 2022-23, which is 4.2% higher compared to the previous year. However, women are still facing several challenges.

### What are the impediments in the path of women to join workforce?

1) **Care responsibilities**- There is a disproportionate burden of care work on women at home and even outside of it, irrespective of their employment status. This includes childcare, housekeeping, and elderly care. Women are also not recognized for their care work. As per some estimates, women in India perform over 8 times the amount of unpaid work, valued at 15 % to 17 % of GDP notionally. All these factors restrict their participation in labour force.

2) **Embracing Motherhood**- Motherhood is challenging. This requires a woman to either leave their jobs during their career or experience a slowdown in their professional advancement.

Read more- [Female Labour Force Participation Rate](#)

### What is the Government's Policy on Childcare Leave?

The Government of India offers a Childcare Leave (CCL) policy specifically for female government employees. Eligible women can avail themselves of 730 days of paid leave during their service period to care for up to two children under the age of 18.

## 9 PM Compilation For Month of April 2024

This leave is additional to regular maternity leave provisions.

Men are eligible for CCL only if they are single fathers.

In a recent legal case, the Supreme Court deemed the denial of CCL to a female employee a violation of constitutional rights, emphasizing its importance.

### What are the issues with the Government's Policy on Childcare Leave (CCL)?

**Gender Specificity:** The CCL policy primarily benefits female employees, with male employees eligible only if they are single fathers. This could reinforce traditional gender roles where women are seen as primary caregivers.

**Limited Applicability:** The policy applies only to central government employees, not mandatorily extending to state governments or the private sector.

**Implementation Challenges:** The policy's implementation in smaller firms is impractical, as 98% of firms are "micro" businesses with fewer than 10 employees, making it difficult to apply such benefits widely.

**Potential Bias:** There is a concern that such policies could lead to increased employer bias in larger establishments. Women might be perceived as potential liabilities due to additional leave benefits, affecting their hiring and career advancement opportunities.

### What should be the way forward?

1) **Investing in Infrastructure for Child and Elder Care in India** - By 2050, the proportion of senior citizens in India is projected to reach 20.8% of the population. It's important to invest in infrastructure that provides easy access to affordable and specialized child and elder care so that disproportionate burden on women to discharge care functions can be minimized.

2) **Gender-neutral approach**- There is a need to foster a gender-neutral approach to care work to demolish stereotypes about gender-based work allocation by considering the changing nature of families. Extending Childcare Leave (CCL) to all employees, regardless of gender, would be a positive step forward.

## Challenges facing India's public housing programs

**News:** The article discusses challenges in India's public housing programs, especially in urban areas.

For details information on **Pradhan Mantri Awas Yojana** read [Article 1](#), [Article 2](#), [Article 3](#)

### Why are urban public houses less demanded?

1. Many urban public houses under PMAY-U are not in "liveable condition," lacking basic components such as windows and doors.

2. There have been reports of illegal occupancy by "anti-social elements," deterring legitimate beneficiaries.

3. The selection process for beneficiaries has faced criticism for inaccuracies, with ineligible individuals receiving housing benefits.

4. Urban public housing often involves apartment complexes, which present challenges in shared-resource maintenance and community living, known as the 'tragedy of commons'.

### How are urban migrants affected the demand for urban public houses?

**Community and Cultural Comfort:** Urban migrants often seek housing with people from their own states, preferring community familiarity and cultural comfort, which public housing may not provide.

**Assimilation Challenges:** Assimilation into larger urban communities can be challenging and time-

consuming for migrants, making them hesitant to apply for public housing.

**Difficulties with Officials and Barriers:** Migrants may face difficulties with local public officials due to language and cultural barriers, complicating access to public housing.

**Lack of Information:** Unclear information dissemination about available rental housing and application processes also affects migrants' decisions regarding public housing.

### What should be done?

**Promote Rental Vouchers:** Implement the National Urban Rental Housing Policy's rental voucher scheme more broadly to help urban poor and migrants afford private rentals in suitable locations.

**Unlock Private Housing Stock:** Amend rental laws to encourage homeowners to lease their properties, thus increasing the supply of available rental accommodations.

**Simplify Regulations:** Ease building regulations to facilitate faster construction of new homes, increasing overall housing supply in urban areas.

**Focus on Urban Housing Needs:** Redirect some resources from rural to urban housing projects to support the workforce in urban and semi-urban settings, thereby enhancing labor mobility and economic productivity.

## Subject: Governance

### Topic- Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation

#### Introducing too much technology into the worker's life

**Context-**The article highlights the problems of technological intervention for implementation of MGNREGA. The author argues that the objective of MGNREGS is not to offer a playing field for technological interventions, but to provide deprived households a sense of work security.

#### What is Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)?

Read more- [MGNREGS](#)

#### What is the significance of MGNREGS?

As per scholarly study in World Development, these schemes lead to higher nutritional intake and empower women. This also pay women on par with men and serve as insurance substitutes. It empowers marginalized communities by giving them pronounced benefits and contributes to ensuring political transparency. These principles must not be sidelined by enthusiasm for technological intervention.

#### What are the challenges with technological intervention for implementation of MGNREGA?

There are challenges in the project of linking rural employment guarantees to digitized individual identification systems such as-

1) **Sidelining the worker-** There are issues related to poor internet connectivity, fingerprint recognition issues, difficulties faced by the disabled, unrecorded working days and name duplication. Further, there are problems such as lack of awareness, errors in linking, authentication, elimination of names, discrepancy in name spellings, and issues in seeding. In all these problems, workers have little or no fault.

Created with love ❤️ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.



2) **Omission of workers**- There are more than 26 crore workers registered with MGNREGS. As per research, around 5.2 crore workers were deleted from the database in 2022-23. Further, as per the article of The Hindu Newspaper, around 34.8% of job card holders were not eligible for The Aadhaar-Based Payment System (ABPS).

### What should be the way forward?

The enhanced budgetary allocation to MGNREGS must be utilized for addressing technological problems and making technology an enabler of socio-economic transformation for workers.

In the backdrop of increasing socio-economic inequality, diminishing social security, and rising rural distress, it is important to ensure that technology does not threaten any workers livelihood security

## Living wills -A dignified way to death

**Context** - Recently, 30 people in Thrissur in Kerala have executed living wills. The Supreme Court has legalized living wills since 2018 to allow terminally ill patients, with no hope of a cure or recovery, to withdraw treatment and die with dignity.

### What is a living will?

It is a legal document that outlines preferences for medical treatment for terminally ill patients who are unable to communicate their decisions, particularly regarding life-sustaining measures and end-of-life care.

### What is the existing procedure for executing living will?

1) **Streamlined procedure**- The Supreme Court has streamlined the procedure to overcome the challenges posed by previously recommended complicated procedure-

A) Under this, living wills must be handed over to a “competent officer” in the local government after being signed in the presence of two witnesses and attested before a notary or a gazette officer. The competent officer will serve as a custodian of living will.

B) If the patient is terminally ill and can't make decisions anymore, the doctor will check the living will either against the copy kept by the custodian or against digital health records of concerned patients.

2) **Certification by medical board**-The decisions on withholding or withdrawing treatment are certified first by a primary medical board and then confirmed by a secondary medical board. The secondary board should have a doctor who is nominated by the chief medical officer.

Further, as per the Supreme Court, if the patient does not have a living will then the primary medical board will have to obtain the written consent of the ‘next of kin’ for withdrawing/withholding treatment.

### What are the issues in the implementation of living will in India?

1) **Lack of custodians for living wills**- State governments have not designated custodians for living wills. For ex- a public interest litigation had to be filed in the High Court of Bombay to appoint custodians across the State recently.

2) **Absence of protocol**- The National Health Authority has not produced protocols that could allow living wills to be authenticated through digital health records.

3) **Complicated Procedure**-As per guidelines, the secondary board must have a doctor nominated by the chief medical officer. This implies that hospitals cannot have secondary medical boards unless the chief medical officer has nominated a doctor in the hospital where the concerned patient is admitted. Therefore, terminally ill patients, even those who have made living wills, are not able to make critical decisions about medical care

4) **Ambiguous guidelines**- Indian law does not have a clear definition for 'next of kin'. Further, there is lack of clarity when any family members disagree about the best course of action. Due to all this, officials will refrain from taking decisions on such a sensitive subject.

5) **Lack of state government willingness**- This area is complex and requires attention from medical and legal experts, therefore state governments are reluctant to implement it with determination.

Read more- [Apex court allows 'living will' for terminally ill](#)

### What should be the way forward?

The Central government can bridge the gap in expertise by developing and publishing model orders and protocols. These protocols can provide the State governments with the necessary confidence and the guidance to effectively implement the Supreme court judgment.

## Indians seeking surrogacy abroad

**News:** The article discusses how strict surrogacy laws in India lead people to seek surrogacy abroad. It explains that only altruistic surrogacy is allowed in India.

For details information on **India's surrogacy laws** read [Article 1](#), [Article 2](#), [Article 3](#)

### Why are Indians seeking surrogacy abroad?

**Restrictive Laws in India:** India's laws limit surrogacy to altruistic, non-commercial types, which excludes many people.

**Diverse Needs:** Individuals like single men and women, and LGBTQIA+ individuals, who are excluded by Indian laws, are seeking surrogacy abroad.

**Global Options:** Countries like the US, Canada, Mexico, Colombia, and some in East Europe offer commercial surrogacy, with costs ranging from Rs 50 lakh to Rs 6 crore.

### What are the impacts of India's surrogacy laws?

**Economic Impact:** Previously, commercial surrogacy benefitted women from lower socio-economic backgrounds. Now, the ban on commercial surrogacy limits these economic opportunities.

**Stigmatization:** The laws accentuate stigma against single women and same-sex couples, as they don't fit the traditional family model.

**Legal Challenges:** The Supreme Court is being approached to reconsider these laws, indicating a legal struggle and a need for more inclusive legislation. Assisted Reproductive Technologies are often inaccessible due to their high cost, restricting access for the economically weak.

**Way forward** -To move forward, India's surrogacy laws should be more inclusive, recognizing diverse family structures. The laws need to adapt to modern societal changes, allowing single individuals, LGBTQIA+ couples, and non-traditional families the right to surrogacy, as endorsed by the Supreme Court's 2022 judgment

### Issues with India's current liquor policies in India

**News:** The article emphasizes the need for reform in India's liquor policy, highlighting the problems caused by high taxes and strict licensing. It points out that these policies lead to increased consumption of low-quality liquor, limited market competition, and potential corruption.

#### What are the issues with India's current liquor policies?

**Excessive Taxation:** India's liquor taxes are extremely high, often above 200% domestically and 150% for customs duties, burdening consumers financially.

**Impact on Health:** High taxes lead consumers to lower-quality, cheaper alcohol, increasing health risks, especially at the lower income levels.

**State Revenue Dependence:** States heavily rely on liquor taxes for revenue, but Bihar's prohibition shows alternatives exist for state financing.

**Complex Tax System:** Liquor is not included under the Goods and Services Tax (GST), complicating the tax structure. Including it could simplify taxation and align it with other products like cigarettes.

**Government Monopoly in Sales:** Current policies often lead to government monopolies in liquor sales, which can increase corruption and create barriers for private businesses.

#### What should be done?

**Include Liquor in GST:** Simplify the tax system by including liquor under GST, as done with cigarettes, to unify and streamline the tax process.

**Encourage Private Distribution:** Shift from government monopolies to private distribution of liquor, regulated for safety and age restrictions. This can decrease corruption and open opportunities for ordinary businesses.

**Reform Licensing Policies:** Simplify licensing for liquor sales and consumption in public spaces to reduce bureaucratic hurdles and promote a healthier business and social environment.

### Parental consent before using a child's personal data:

**News:** The article discusses India's DPDP Act of 2023, specifically Section 9, which requires companies to get parental consent before using a child's personal data, aiming to protect children's privacy online. It suggests using zero-knowledge proofs with Aadhaar, India's digital ID system, to verify age without revealing personal information, making the internet safer for kids.

For details information on **Digital Personal Data Protection (DPDP) Act, 2023**, [read here](#)

#### What are the issues with India's Digital Personal Data Protection (DPDP) Act, 2023?

**Mandatory Age Verification:** The DPDP Act requires businesses to confirm if users are children. This means verifying the age of every user, which is complex and intrusive.

**Increased Friction in Online Experience:** Age verification adds steps to browsing, disrupting the seamless experience of moving between websites.

**Potential for Increased Data Collection:** The act could unintentionally give businesses a reason to collect more personal data, under the guise of complying with the law.

**Global Precedents:** Similar laws, like the UK's Children Online Harms Act, also impose age-gating, suggesting this approach is gaining traction globally.

### What is the proposed solution?

The proposed solution to the challenges posed by India's DPDP Act is the use of **zero-knowledge proofs (ZKPs)** in combination with Aadhaar, India's digital identity system.

This method **allows age verification without disclosing other personal information**. By generating a digital token through Aadhaar, users can prove their age anonymously when accessing websites.

This approach **aims to maintain privacy while complying with the age verification** requirements of the law. addresses the friction and privacy concerns by providing a streamlined and secure method for age verification, leveraging India's existing digital identity infrastructure.

This method, while based on India's Aadhaar system, offers a framework that **could be adapted worldwide for online age verification**.

### New FDI rules in India's space sector: Express View on FDI in space: Opening up

**News:** The article discusses India's new foreign direct investment (FDI) rules aimed at enhancing its space industry. These rules increase FDI limits for various space-related activities. The changes are part of India's broader strategy to strengthen its position in the global space economy.

For details information on Indian Space Policy read Article 1, Article 2

### What are the new FDI rules in India's space sector?

India has updated its FDI policy to boost its space sector:

74% FDI is now permitted under the automatic route for satellite manufacturing and data products.

49% FDI is allowed for launch vehicles and spaceports.

Up to 100% FDI is possible for manufacturing components required by the space sector.

### Why is this change significant?

**Enhancing Global Standing:** The new FDI rules aim to position India as a major player in the global space market. India currently holds 2-3% of this market, with aspirations to increase this share to over 10% by 2030. According to Indian National Space Promotion and Authorisation Centre (IN-SPACe), an investment of \$22 billion is projected over the next ten years to meet these growth targets.

**Private Sector Engagement:** By allowing higher FDI limits, India is encouraging private companies to participate more actively. For instance, Skyroot Aerospace's launch of a privately built rocket demonstrates the potential and capabilities of private entities under this new policy framework.

**Development of Infrastructure:** The allowance of up to 49% FDI in spaceports is particularly significant as it opens up opportunities for private investment in critical infrastructure, which is currently operated by ISRO.

**Alignment with National Objectives:** The policy changes align with India's broader strategic goals, enhancing space capabilities and supporting national security and development objectives. These initiatives include using advanced space technology for agriculture and climate change mitigation.

### What should be done?

Expand ISRO's role in R&D, aligning with the Space Policy to encourage both public and private sector contributions.

Focus on regulatory clarity, such as specifying FDI limits in new segments like spaceports, to attract foreign investments and partnerships.

India's space economy now requires a proper mix of government regulation and freedom for the market.

### Topic- Issues Relating to Development and Management of Social Sector/Services relating to Education.

#### Post autonomy challenges faced by colleges

**Context-** The University Grants Commission (UGC) has recently launched a new regulation to grant autonomy to colleges. As per The National Education Policy 2020, colleges should be granted autonomy so that they can enhance their capacity for innovation, self-governance, and academic freedom.

#### What is the significance of granting autonomy to colleges?

- 1) **Flexibility** -Autonomous colleges can tailor their curriculum to meet the evolving needs of students and industries. They can experiment with new teaching methodologies and research initiatives. This can drive the frontiers of knowledge and contribute to societal development.
- 2) **Accountability**-It cultivates a culture of accountability and responsibility among colleges.They get ownership of their academic and administrative decisions. This empowerment enhances institutional efficiency and fosters a sense of pride and identity within colleges.This,in turn, motivates faculty and staff to strive for excellence.
- 3) **Improved ranking**- In the 'Colleges Category' of The National Institutional Ranking Framework (NIRF) of 2023, there were 55 autonomous colleges in top 100.This speaks volume of the significance of granting autonomy to colleges. Further, in the top 10 colleges of the NIRF Rankings of 2023 from the college category, 5 are autonomous colleges

#### What are the challenges faced by colleges after getting autonomous status?

UGC encourages the autonomy of colleges. However, there are some universities that do not want to give up their control over colleges and pose various challenges before colleges such as-

- 1) **Restriction on the autonomy to change the syllabus**-Some universities impose caps on syllabus changes.They allow only a fraction, that is 25% to 35%, of the syllabus which can be altered. This constraint prevents colleges from exercising their autonomy in curriculum development and academic innovation.
- 2) **Delay in recognizing autonomy**- Universities do not recognize autonomy of colleges in a timely manner. Such delays hamper the efficiency of colleges' operation and undermine the spirit of autonomy.
- 3) **Undermining autonomy of colleges**-UGC gives complete autonomy to colleges. However, universities do not want to give complete autonomy to colleges in critical areas such as syllabus design, the introduction of new courses, and the evolution of methods for assessing student performance.
- 4) **Imposition of Arbitrary Fees**-University may charge arbitrary fees for affiliation purposes of colleges. This undermines the autonomy of colleges and violates principles of transparency and fairness.

#### What should be the way forward?

## 9 PM Compilation For Month of April 2024

- 1) The State Councils for Higher Education should ensure effective implementation of UGC regulations on autonomy.
- 2) Universities should streamline decision-making processes between colleges and universities. This would ensure that autonomy translates into meaningful empowerment for colleges.
- 3) Universities should collaborate with autonomous colleges and allow them the freedom to innovate and excel so that they can uphold academic standards.
- 4) Universities should create a conducive environment so that colleges can take full advantage of autonomy granted to them. This will help colleges drive innovation, excellence, and inclusivity in higher education.

### Youth suicide in India

**Context-** As per the National Crime Records Bureau (NCRB) reports, 1.71 lakh people have died by suicide in 2022. The suicide rate has increased to 12.4 per 1,00,000 which is the highest rate ever recorded in India.

As per a current review of adolescent suicides in India, the most reported risk factors were mental health problems (54%), negative or traumatic family issues (36%), academic stress (23%), social and lifestyle factors (20%), violence (22%), economic distress (9.1%) and relationship factors (9%)

#### What are the reasons behind rising youth suicide rates in India?

Suicide is a complex human behavior, and it is difficult to find a single causative factor. However, there are certain common triggering factors of suicides such as-

- 1) **Young Girls-** There are specific socio-cultural factors for suicide among young girls and women such as-
  - A) Arranged and early marriages, embracing young motherhood, low social status, domestic violence and economic dependence on men.
  - B. Gender-based discrimination and rigidity in gender roles are also responsible for young girls' suicides.
- 2) **Cutting throat competition-** Competitive examinations have pushed many students to the edge. There is tremendous pressure to get into colleges and disproportionate media hype around results and months of pent-up pressures and emotions, all this leads to rise in suicidal tendencies.
- 3) **Rise in Alcohol and substance use-** There has been an increase in alcohol consumption and substance abuse. They also contribute to youth suicides.
- 4) **Role of the internet-** A meta-analysis across 19 states in India found that about 20% of college students are addicted to the internet. One-third of young individuals experience cyberbullying, and within this group, one-third report suicidal tendencies. Further, teenagers who spend more than two hours a day on social media exhibit higher suicidal tendencies.
- 5) **Role of media-** The media has a strong influence on vulnerable young people. There has been a rise in sensational reporting of suicide especially after the suicide of famous actor. As a result of this, there was a significant increase in searches on Google on "how to commit suicide".

#### What steps can be taken to reduce suicidal tendencies among youths in India?

- 1) **Help-seeking behavior-** There is a need for encouraging help-seeking behavior among youth. They can be taught problem solving, impulse control and emotional regulation.
- 2) **Identification of mental problems-** There should be early identification of mental distress and provision of care in a youth-friendly environment.
- 3) **Lifestyle changes-** Youth can be encouraged to adopt a healthy lifestyle and maintain a good diet. They can engage in cultivating supportive friendships, yoga and meditation.
- 4) **Role of family-** There is a need to improve the family environment by reducing domestic violence and

alcohol consumption.

5) **Education reform**-The government should undertake educational reforms such as alternative assessment methods and provisions to explore the potential of a young person.

6) **Role of society**-Society should play a constructive role by reducing stigma and discrimination based on caste, religion and sexuality.

7) **Effective implementation of National Suicide Prevention Strategy for India**- The strategy was launched with the objective of reducing suicide by 10% by 2030. It highlighted the significance of inter-ministerial collaboration between the Ministries of Health, Education, Information and Broadcasting, and Social Welfare for better outcome.

Read more- [Students suicide in India](#)

### Universal Health Coverage-Indias path to inclusive health care

**Context**- The World Health Day is observed every year on April 7 by The World Health Organization (WHO). The theme this year is "My Health, My Right". It highlights the significance of health equity. Health equity ensures that every person has an equal opportunity to achieve their highest health potential irrespective of their circumstances. It is determined by social norms, political, legal and other structural determinants. Further, the National Health Policy also talks about Universal Health Coverage as one of its goals. Universal health coverage (UHC) signifies universal accessibility to comprehensive, high-quality health services, without financial hardship.

#### What are the challenges before India to attain health equity?

- 1) **Health Disparities**- As per 2011 census, more than 17% of Indias metropolitan area are slums, which face significant health disparities. According to the Indian Council of Medical Research, infectious diseases like tuberculosis are 1.5 times more prevalent in slums compared to non-slum areas.
- 2) **Social discrimination**- As per the National Family Health Survey (NFHS)-5 (2019-21) data, Scheduled Castes and Scheduled Tribes experience higher child mortality and lower immunization rates. Further, 59% of poor women suffer from anemia which is almost double the rate in the higher income groups.
- 3) **Rise of non-communicable diseases (NCDs)**-It account for more than 60% of all fatalities in India. As per The Public Health Foundation of India, economic effect of NCDs could cross \$6 trillion by 2030.
- 4) **Paucity of doctors**- WHO data indicates that India has only 0.8 doctors per 1,000 people, which is below the advised ratio. Rural areas have an acute shortage of doctors.
- 5) **Right to health**- India does not have a constitutional provision for the fundamental right to basic health. The constitutional right to health is critical to break the vicious cycle of poverty and poor health.
- 6) **Issues faced by migrant workers**- India has a large migrant population. According to UN-Habitat/World Bank, 49% of the urban population lives in urban slums. Urban slums do not have access to clean drinking water and sanitation.

#### What should be the way forward?

- 1) **Ensure portability of health care services**- Access to health care should be made more mobile and portable for migrant workers.
- 2) **Minimize out-of-pocket expenditure**-There is a need to simplify reimbursement processes for reducing out-of-pocket expenditure. The design of cash transfers and reimbursement in India's public healthcare system should be adapted as per the needs of migrant and marginal communities.
- 3) **Inclusive health systems**-In order to overcome language barriers and diversity in the urban context, there is a need to integrate health management information system dashboards with both public and private

## 9 PM Compilation For Month of April 2024

systems. This will make the health system more inclusive to all sections of society.

4) **Strengthening primary health care**-There is a need to strengthen and implement community-based primary healthcare in urban and peri-urban areas with seamless referral systems.

5) **Health Literacy**-In order to achieve the target of Universal Health coverage and health equity, there should be more focus on health literacy. India should include health education in National Health Mission. This would empower the people to make educated health decisions.

6) **Leveraging the role of NGOs**- Organizations with a strong local presence are essential for ensuring health equity. In this context, it is important to leverage the role played by the non-governmental organizations and civic societies because they engage directly with grass roots community. They can help in tailoring health initiatives that are culturally sensitive to the community's unique needs.

7) **Evidence-based practices**-Research institutes and academic institutions can offer insights into health inequalities and the efficacy of health interventions. This will assist in creating evidence-based practices.

Read more- [Healthcare Initiatives in The Budget](#)

### India's struggle with TB drug shortages

**News:** The article discusses India's struggle with TB drug shortages. Despite plans to eliminate TB by 2025, there are ongoing issues with drug availability. The government's management of the TB program is criticized, and the burden on patients to obtain medicines is highlighted.

For details information on **Eliminating tuberculosis (TB) in India by 2025** [read here](#)

#### What is the current situation with TB in India?

India is **facing a TB drug shortage**, affecting both drug-sensitive and multi-drug-resistant TB (MDR-TB). India's TB drug supply disruption started in 2022 with drug-sensitive medicines and escalated to include MDR-TB drugs, lasting nearly a year.

For example, a severe shortage of critical MDR-TB drugs occurred seven months ago. In September 2021, India experienced a stockout of the MDR-TB drug Delamanid.

Despite being a significant producer of these drugs, **India's management of the TB program has been inadequate.**

#### How has the government responded?

The government **renamed the National TB Control Programme to the National TB Elimination Programme**, aligning with the **goal to eliminate TB by 2025.**

Despite the renaming, fundamental issues like drug availability haven't been effectively addressed.

A Health Ministry circular dated March 18, 2024, **acknowledged potential delays in drug supply** due to "unforeseen and extraneous circumstances."

**States have been permitted to procure TB drugs locally as a temporary measure for three months.**

In cases where **district health facilities can't provide free drugs, patients may be reimbursed for medicines they purchase**, indicating a reliance on patients to manage their own treatment in emergencies.

#### What are the challenges for patients?



The frequent drug shortages **force patients to either wait for medication or buy it themselves**. Many TB patients in India come from **poor socioeconomic backgrounds, making it hard to afford medicines**. The government's solution of reimbursing patients who buy their own drugs is problematic, as it assumes patients can initially afford the drugs. This approach **adds financial strain to patients already struggling with health issues**.

### India's 'National One Health Mission

**News:** The article discusses India's 'National One Health Mission,' which aims to better prepare for diseases affecting humans, animals, and the environment. It involves various ministries and departments working together for disease control, research, and pandemic preparedness. The mission includes setting up a national network of laboratories and using technology like AI for disease monitoring.

For details information on One Health Approach read [Articles 1](#), [Articles 2](#), [Articles 3](#)

#### What is the India's 'National One Health Mission'?

**Mission Overview:** The 'National One Health Mission' is **India's integrated approach to managing diseases** affecting humans, animals, and the environment.

**Participating Bodies:** Coordination among 13 Ministries and Departments, including those for Science and Technology, Biotechnology, Health, and Animal Husbandry.

**Objectives and Goals:** Developing strategies for disease surveillance, research, and response to human and animal diseases.

**Focus on Diseases:** Tackling diseases that affect humans such as COVID-19, foot and mouth disease, and lumpy skin disease.

#### Why is 'One Health' important globally?

1. 'One Health' is essential globally for integrated disease management across humans, animals, and the environment.
2. It addresses widespread diseases like COVID-19, which affect multiple species, showing the interconnectedness of health sectors. It also concerns wildlife diseases, like canine distemper, crucial for conservation efforts.
3. It focuses on establishing a global network of 'One Health' institutes for unified disease response strategies.
4. It extends beyond diseases to address wider issues like antimicrobial resistance, food safety, and climate change impacts.
5. 'One Health' was endorsed during India's G-20 presidency, highlighting the need for international collaboration in health surveillance.

#### What initiatives has the Indian government taken for the 'National One Health Mission'?

1. The Indian government has **launched the 'National One Health Mission'**, aiming to synergize efforts in managing diseases that impact humans, animals, and the environment.
2. A key step was the **establishment of the National Institute for One Health in Nagpur**, serving as a central hub for coordinating both national and international activities related to health management.
3. Prime Minister Narendra Modi laid the foundation stone for this institute on December 11, 2022, marking a significant milestone in the mission's progress.

### What should be done?

1. **Enhance disease management** across human, animal, and environmental sectors by efficiently using the national network of high-risk pathogen laboratories, including BSL 3 and BSL 4 labs.
2. **Apply advanced technologies** such as AI and machine learning to enhance epidemiology and data analysis. This approach can be modeled on the success of genomic surveillance from wastewater, as demonstrated during the COVID-19 pandemic.
3. **Promote active collaboration** between government agencies, NGOs, academia, the private sector, and citizens to advance the 'One Earth, One Health' initiative, aiming for inclusive health management.

### ASER 2023 Report for better education

**Context** - The Annual Status of Education Report (ASER) 2023 was released in mid-January this year. It has highlighted the foundational skill of 14–18-year-old students.

### What are the findings of the ASER 2023?

- 1) **Reading abilities** - The ASER 2023 Beyond Basics survey was carried out in 28 rural districts across 26 States of the country. The report highlighted that overall, 26% of 14–18-year-olds cannot read a standard two-level text in their regional language.
- 2) **School Enrollment**-As per the findings of the report,57% of the 14–18-year-olds surveyed students, who do not have basic reading skills are enrolled in standard 10 or below. 28% of these children are not enrolled in school, college or a vocational institution.
- 3) **Fluency and comprehension**-Of the children in standard eight who could not read standard two level text fluently in 2022, almost half could read a standard one level text (i.e., a simple paragraph). Recognizing letters or decoding simple words is not the major challenge most face.
- 4) **Access to reading material**-ASER 2022, and later the State of Elementary Education in Rural India Report highlighted that only a small fraction of rural households has reading materials, other than school textbooks.
- 5) **Aspiration of students** - The ASER team conducted focus group discussions with children of the 14-18 years old in 3 districts. More than 60% of the surveyed children want to obtain at least a college education, with a higher percentage of girls aspiring for a college education (65%) when compared to boys (59%).
- 6) **Vocational Education**- In some places vocational education was looked down upon and perceived to be a last resort for those who couldn't get white-collar jobs whereas in places like Solan in Himachal, it was taken with great enthusiasm due to introduction of relevant e vocational programs like tourism and hotel.

### What is the reason behind such poor performance of students?

- 1) **Lack of foundational skills in the primary grades**- As per ASER 2018 report, around 32% of standard seven and 27% of standard eight children could not read a standard two-level text. Thus, it becomes extremely difficult for the children to acquire foundational skills in later grades if they have not acquired it in their primary grades.
- 2) **Facing embarrassment**-In 2022, nearly half of the kids in eighth grade who couldn't read at a second-grade level could read at a first-grade level. Recognizing letters or decoding simple words is not the major challenge most face.However,they are often ridiculed and therefore, many of these children start to hate reading.
- 3) **Lack of connections**- As per ASER, almost half of the surveyed 14–18-year-oldss who aspire to become a doctor or join the police department, do not have access to anyone working in that profession.

Read more- [On India's Public Education System](#)

### What should be the way forward?

- 1) **Ending the shame**-There is a need for guidance, practice, and lots of encouragement and motivation to children who are not able to read properly.They must not be ridiculed by anyone.
- 2) **Community libraries**- They can create rich and vibrant spaces that can foster reading, creativity and critical thinking. They need to be managed effectively to rekindle an interest in reading.
- 3) **Leveraging Technology**-There is a need to leverage digital technology to equip youth with the foundations of their aspired professions and bridge connections with relevant professionals. For ex-A student who wants to become nurse can undertake online foundational courses on nursing and related subjects.
- 4) **Utilizing data**- Data provided by various surveys can provide crucial pointers for action. It can help in policy formulation and suggesting corrective actions.

### Viral hepatitis- A challenge to India's public health

**Context**- India has one of the highest burdens of viral hepatitis in the world, according to the World Health Organization's Global Hepatitis Report 2024. It's tied with tuberculosis (TB) as the second-largest infectious killer globally.

#### What is viral hepatitis?

**Description**-Hepatitis means inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. When the liver is inflamed or damaged, its function can be affected. It is often caused by a virus.

**Types**-There are five hepatitis viruses that cause liver disease in humans.They are Hepatitis A, B,C,D and E.

**Transmission**- Hepatitis A and E are transmitted through contaminated food and water, and result in week-long symptoms such as fever, abdominal pain, jaundice (yellowing of skin), dark urine, and pale stools.

**WHO report**-The recent WHO report pertains to the blood-borne hepatitis B (hep B) and hepatitis C (hep C) viruses. The report does not consider hepatitis D because it only infects people who are already infected with hepatitis B.

**Prevention**-Hep B can be prevented by vaccination, while hep C can be cured with medication. Hepatitis D can be prevented by vaccinating against hep B.

#### What are the reports finding about India?

**Disease burden**-According to the report, India ranks second globally in terms of viral hepatitis cases, representing over 11% of the total burden worldwide.

**Diagnosis**- The diagnosis of viral hepatitis was extremely low. The report shows that only 2.4% of hepatitis B cases and around 28% of hepatitis C cases were diagnosed.

Read more- [Havisure: India's first indigenously developed Hepatitis A vaccine](#)

#### What's causing the increase in viral hepatitis cases in India?

Viral hepatitis can be transmitted through contaminated blood transfusions, or through contaminated needles.

## 9 PM Compilation For Month of April 2024

- 1) **Hep B**-India's hep B cases are driven up by mother-to-child transmission. This is because most blood banks offer safe blood, and the risk of needle-stick transmission among healthcare workers is low because almost everyone is vaccinated.
- 2) **Hep C**- According to the WHO report, India is among the ten countries where 80% of infections occur among injection drug users.
- 3) **Underutilization of existing facilities**- People aren't taking advantage of the free diagnostics and treatment available to them.
- 4) **Disparity in treatment**- While viral hepatitis causes almost as many deaths as tuberculosis, it doesn't receive as much attention in India. As per the report, none of the diagnosed patients received treatment for hepatitis B, and only 21% received treatment for hepatitis C. In contrast, 95% of diagnosed TB patients in India were given therapy.

### What challenges do India face in handling viral hepatitis?

**Hep B**-There are 3 things that are required to be controlled such as-

- A) All newborns need to be fully vaccinated against hepatitis B.
- B) Adults who haven't been immunized should also get the shot.
- C) Additionally, everyone diagnosed with the infection should receive treatment.

**Low coverage**- The hepatitis B vaccine was introduced for children in 2007-08 as part of the government's universal immunization program. However, a 2019 study revealed that its coverage ranged from 41% to 62%.

**Lack of universal care**-The parameters mentioned in the international guideline for initiating treatment exclude 7 to 8 of the 10 people who are diagnosed with the infection. Thus, there is a need to adopt a 'treat all' or universal approach like HIV

## Health on a hot planet

**Context**- A large analysis of 266 studies from around the world, published in 2022, found that heat waves are linked to a 11.7% increase in deaths. The risk was highest for stroke and heart disease.

In 2023, the Earth experienced its hottest year on record, with scientists agreeing that it's likely to keep getting hotter throughout this century because of climate change.

### How are heat waves measured and what does it represent?

Heat waves are measured by both the actual high temperatures and relative rise in comparison to seasonal, "normal" values recorded in earlier years. However, it is not only the temperature that matters. Apart from temperature, a heat wave represents a combination of heat and humidity. At any level of heat, its impact on the human body is amplified if humidity is high in the ambient air. The India Meteorological Department (IMD) says that such "moist heat" stress has increased by 30 % between 1980 and 2020.

### What are the negative impacts of rising temperatures on humans?

#### 1) Impact on health security-

- A) Heat affects the body by causing dehydration, making it harder for the skin to cool through sweat, widening blood vessels, and thickening the blood, which raises the risk of blood clots.
- B) Prolonged heat exposure can severely damage health through acute and chronic effects on non-

## 9 PM Compilation For Month of April 2024

communicable diseases. Right now, non-communicable diseases (NCDs) cause 65% of deaths in India, mostly affecting people in their productive mid-life years. Climate change's heat effects will only make this problem worse.

C) It increases the risk of brain strokes, heart attacks, pulmonary embolism, kidney damage, congenital cataracts. It also delays healing of surgical wounds.

D) Wildfires, triggered by extreme heat, release harmful particles and chemicals like PM 2.5, ozone, carbon monoxide, and others. These can cause widespread inflammation, raising the chances of heart disease, respiratory issues, diabetes, and even cancer due to substances like benzene and formaldehyde.

### 2) Threaten nutritional security-

A) Climate change, through heat stress, water stress, and increased carbon dioxide levels, threatens nutrition security by reducing crop yields, nutrient quality (zinc, protein, iron), and availability of protective foods like fruits, vegetables, and fish. This can lead to widespread deficiencies and increased risk of cardiovascular disease and diabetes.

**For ex-** by 2050 India could have 49 million more zinc-deficient people, 38.2 million more lacking protein, and 106.1 million children and 396 million women with iron deficiency.

3) **Impact on health infrastructure-** Healthcare systems will have to deal with rising number of vector-borne and water-borne infections; non-communicable diseases (strokes; heart attacks; diabetes; respiratory disease; cancers); mental health disorder .

Further, there will be a rise in the number of climate refugees which may put additional pressure on healthcare infrastructure, supply chains and personnel.

### What should be the way forward?

There is a need for robust adaptation plans needed to address the health impacts of climate change and heat waves.

1) **Heat Action Plans-** There should be HAPs designed specifically for urban and rural areas. Read more- [Heat Action Plans](#)

2) **Smart Agriculture-** There should be promotion of climate smart and climate resilient agriculture.

3) **Sensitization of public-** There is a need to educate the public and healthcare workers and plan to handle the increased healthcare needs during heatwaves.

4) **Robust urban planning-** Cities should include heat shelters, water stations, reflective roofs and paints for houses, well-ventilated homes, and more green spaces in their plans.

5) **Personal Care-** People should wear light, loose clothes, use umbrellas or hats, and drink plenty of water.

## Supreme Court's view on false advertisement

**News:** The article discusses a Supreme Court case in India where Patanjali Ayurved and other companies are being criticized for false advertising about their products' health benefits. The court is also questioning why government agencies haven't stopped these misleading ads.

### What is the Supreme Court's view on false advertisement?

The Supreme Court is critical of false advertising, especially by companies like Patanjali Ayurved, which claimed their products could cure diseases like COVID-19 and diabetes without scientific backing.

The court has expanded its scrutiny to include other companies, such as Nestlé, after finding disparities like

higher sugar content in baby formulas sold in India compared to Europe.

It has demanded apologies from companies for misleading advertisements and expressed frustration over the lack of government action in regulating such ads.

The court emphasizes that enforcing advertisement regulations should not fall to the judiciary but to designated regulatory bodies and the government.

### What are the broader issues related to false advertisements?

**Government Inaction:** Regulatory bodies like the Food Safety and Standards Authority of India and the Ministry of AYUSH have not effectively stopped misleading ads, even when flagged by entities like the Advertising Standards Council of India.

**Public Health Concerns:** Misleading ads contribute to non-communicable diseases by promoting products with unhealthy ingredients under the guise of health benefits.

**Legal Challenges:** Individuals and professionals who try to expose these false claims face legal threats, highlighting the lack of protection for whistleblowers against powerful corporate interests.

## Economic Significance of Universities for local economies

**News:** The article discusses how universities significantly boost local economies by attracting students who spend money on tuition and living expenses.

### What role do universities play in local economies?

**Economic Contribution:** Universities attract substantial fees from students. For example, Indian students at Boston University and Northeastern University contribute approximately ₹1,990 crore annually to Boston's economy through tuition and other university fees.

**Support for Local Businesses:** The influx of students fuels local businesses such as shops, eateries, and accommodation services. This is particularly evident when students are present during the academic year, and the contrast is stark during summer breaks when many businesses experience a downturn.

**Attraction of International Students:** International students contribute significantly. In the U.S., Indian students alone account for about \$19 billion annually. This kind of spending power benefits not just the universities but the local economies extensively.

### How significant is the contribution of international students?

**Financial Impact:** International students contribute significantly to the economies of host countries. For instance, in the U.S., Indian students alone bring in approximately \$19 billion annually.

**Per Capita Earnings:** This contribution translates into substantial per capita earnings from international students. Every American earns an average of \$57 annually from Indian students, while every Canadian earns about ₹1,600 monthly.

### What opportunities are missed in India?

**International Student Deficit:** India experiences a significant international student deficit, sending 1.33 million students abroad but receiving only around 47,000.

**Economic Benefits Not Captured:** This disparity means India misses out on economic benefits like those seen in the U.S., where Indian students contribute approximately \$19 billion annually.

**Underutilized Local Economic Growth:** With more international students, Indian towns could see increased spending on education, living expenses, and local services, similar to economic activities around universities in countries like the U.S. and Canada.

### Essential Programme on Immunization

**Context-** The year 2024 marks the 50th anniversary of the launch of the Expanded Programme on Immunization (EPI) by the World Health Organization (WHO) in 1974. India launched its EPI (later renamed Universal Immunization Programme, UIP) in 1978 and conducted the last nationwide independent evaluation in 2004. This milestone presents an opportunity to assess progress and envision the future.

#### How much progress has India and the world made in immunization?

- 1) Globally, vaccines have expanded from 6 diseases in 1974 to 13 universally recommended and 17 context-specific diseases today, with research ongoing for 125 more pathogens.
- 2) The percentage of children receiving three doses of DPT (a coverage tracer) rose from 5% in low- and middle-income countries in the 1970s to 84% globally in 2022.
- 3) Smallpox has been eradicated, polio eliminated from all but two countries, and many vaccine-preventable diseases have nearly disappeared.
- 4) In India, coverage increased yearly, with 76% of children receiving recommended vaccines in 2019-21.
- 5) Studies show vaccines have saved millions of lives, prevented billions of hospitalizations, and are highly cost-effective, with 7-11 times return on investment.

#### What are some challenges in immunization?

- 1) In 2023, UNICEF said childhood immunization coverage dropped for the first time in over ten years. There were 14.3 million children with no doses and 6.2 million partially immunized children worldwide in 2022.
- 2) Despite increasing coverage in India, persistent inequities exist based on geography, socioeconomic status, and other parameters exist.

Read more- [Intensified Mission Indradhanush](#)

#### Why is there a need to focus on adult vaccination?

- 1) Vaccines have always been intended for individuals of all age groups. However, due to limited supply and resources in the past, children were prioritized.
- 2) Because more children are getting vaccinated, diseases that vaccines can prevent are now affecting more adults and older people. It necessitates a focus on immunization throughout a person's life.

#### What are the steps for expanding adult and elderly immunization in India?

- 1) NTAGI (National Technical Advisory Group on Immunization) should provide recommendations on adult and elderly vaccine use. After NTAGI recommendation, vaccines for all age groups should be made available as free at the government facilities.
- 2) Proactively address myths and misconceptions about vaccines through professional communication agencies and public education.
- 3) Medical colleges and research institutions should generate evidence on the burden of diseases in the adult population.

4) India should conduct another independent national-level review of the UIP, engaging key partners and international experts.

**What are some recent initiatives undertaken by the government to enhance adult immunization?**

- 1) India has launched a pilot initiative for adult BCG vaccination as part of efforts to 'end TB.'
- 2) The COVID-19 vaccination drive has sensitized the public to the need for and benefits of adult vaccination.

**Way forward-** India should expand the program to focus on zero-dose children, address coverage inequities, and offer vaccines to adults and the elderly. It is time to transform the EPI into an 'Essential Program on Immunization' for all age groups.

**Topic-Important aspects of governance, transparency and accountability.**

**Consequences of applying laws and judgments with retrospective effects**

**News:** The article discusses how the Indian legislature and judiciary made laws and judgments with retrospective effects in 2012 and 2024. This approach, aimed at protecting sovereignty and democracy, led to unintended economic consequences and questioned the accountability of the judiciary.

**What happened in 2012 and 2024 regarding retrospective laws and judgement?**

In 2012, a retrospective tax law was passed to tackle tax avoidance by big corporations. In 2024, the judiciary declared electoral bonds illegal, also retrospectively, to prevent corporate influence in politics.

**What are the consequences of applying laws and judgments with retrospective effects?**

**Economic Instability:** The retrospective tax law of 2012 led to reduced private sector investment and job losses. This indicates how such laws can create economic uncertainty and discourage investment.

**Legal Uncertainty:** Applying laws retrospectively creates a sense of unpredictability about the legal environment. Individuals and businesses become unsure if their past actions might suddenly be deemed illegal.

**Loss of Confidence:** The retrospective application in both 2012 and 2024 cases likely eroded public confidence in the legal system. It implies that laws can change unpredictably, affecting past actions.

**Questioning Judiciary's Role:** It raises questions about the judiciary's accountability and its impact on economic and legal stability.

**Violating Individual Rights:** it can lead to the violation of individual rights, as actions that were legal at the time they were taken are judged illegal in hindsight. This was a concern with the invalidation of electoral bonds in 2024.

**What should be done?**

**Ensure Judicial Prudence:** The judiciary's decision on electoral bonds in 2024 overlooked practical consequences, like returning to less transparent political funding methods. The courts should balance legal principles with practical outcomes.

**Enhance Transparency in Political Funding:** The electoral bond scheme, though flawed, was a step towards transparency compared to the previous anonymous system. A revised version could improve



political funding transparency.

**Strengthen Checks and Balances:** Like the government, which is accountable to voters and oversight bodies, the judiciary also needs mechanisms for accountability, perhaps through public opinion surveys or other independent reviews.

**Learn from Past Experiences:** The UPA-2 government's downfall due to perceived corruption highlights the need for transparent governance and the power of public opinion in a democracy.

### Network effects and their impact on digital markets

**News:** The article discusses how network effects in digital products can lead to monopolies. It explores past regulations in industries like telephony and suggests a multi-stakeholder approach, inspired by internet governance, to regulate the digital economy and ensure competition and innovation.

#### What is the network economy?

The network economy is where products or services gain more value as more people use them, due to network effects.

Examples include Google Search, Facebook, and WhatsApp, which dominate the market because their value increases with each new user.

Digital networks can lead to monopolies, as seen with AT&T in telephony a century ago.

This economy's significance is growing, with digital networks now a major part of the global GDP, underscoring the necessity for effective regulatory measures.

#### What are network effects and their impact on digital markets?

**Network Effects Defined:** Network effects occur when a product or service becomes more valuable as more people use it. This is common in the digital economy.

**Impact on Market Dynamics:** Strong network effects can lead to monopolies or oligopolies as dominant players emerge. For instance, Google Search and Facebook have become almost indispensable due to their vast user bases.

**Historical Context:** Similar effects were seen in traditional network industries like telephony, where companies like AT&T once described their services as natural monopolies.

**Digital Examples:** Today, platforms like WhatsApp and Android OS demonstrate network effects by becoming more functional and essential as more users join.

**Economic Implications:** As these networks grow, their role in the economy expands, significantly influencing GDP and requiring new forms of regulation to manage their dominance and ensure fair competition.

#### How have governments historically managed networks?

**Regulatory Measures:** Governments have traditionally managed networks such as telephony through strict regulatory frameworks intended to prevent monopolies and ensure competitive markets.

**Licensing and Price Controls:** These regulations often included licensing requirements, territorial subdivisions, and price controls to encourage market entry and competition.

**International Frameworks:** At a global level, entities like the International Telecommunication Union were set up to oversee network standards and practices internationally.

**Results of Regulation:** Despite regulatory efforts, these measures often resulted in slowed innovation and perpetuated high costs, maintaining the dominance of a few players in the industry.

### What should be done?

**Implement Ex Ante Regulation:** Proactive regulations are recommended to prevent anti-competitive practices in digital markets before they become dominant. This approach has been endorsed by the Parliamentary Standing Committee on Finance and the Committee on Digital Competition Law.

**Adopt Multi-Stakeholder Governance:** Following the internet governance model, a multi-stakeholder approach involving academia, startups, industry, and civil society can ensure fair representation and prevent any single entity from dominating.

**Maintain Minimal Government Interference:** The government should avoid direct intervention while retaining oversight to address national security and public interest concerns, promoting a balance between regulation and innovation.

## Network effects and their impact on digital markets

**News:** The article discusses how network effects in digital products can lead to monopolies. It explores past regulations in industries like telephony and suggests a multi-stakeholder approach, inspired by internet governance, to regulate the digital economy and ensure competition and innovation.

### What is the network economy?

The network economy is where products or services gain more value as more people use them, due to network effects.

Examples include Google Search, Facebook, and WhatsApp, which dominate the market because their value increases with each new user.

Digital networks can lead to monopolies, as seen with AT&T in telephony a century ago.

This economy's significance is growing, with digital networks now a major part of the global GDP, underscoring the necessity for effective regulatory measures.

### What are network effects and their impact on digital markets?

**Network Effects Defined:** Network effects occur when a product or service becomes more valuable as more people use it. This is common in the digital economy.

**Impact on Market Dynamics:** Strong network effects can lead to monopolies or oligopolies as dominant players emerge. For instance, Google Search and Facebook have become almost indispensable due to their vast user bases.

**Historical Context:** Similar effects were seen in traditional network industries like telephony, where companies like AT&T once described their services as natural monopolies.

**Digital Examples:** Today, platforms like WhatsApp and Android OS demonstrate network effects by becoming more functional and essential as more users join.

**Economic Implications:** As these networks grow, their role in the economy expands, significantly influencing GDP and requiring new forms of regulation to manage their dominance and ensure fair competition.

### How have governments historically managed networks?

Created with love ❤️ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

## 9 PM Compilation For Month of April 2024

**Regulatory Measures:** Governments have traditionally managed networks such as telephony through strict regulatory frameworks intended to prevent monopolies and ensure competitive markets.

**Licensing and Price Controls:** These regulations often included licensing requirements, territorial subdivisions, and price controls to encourage market entry and competition.

**International Frameworks:** At a global level, entities like the International Telecommunication Union were set up to oversee network standards and practices internationally.

**Results of Regulation:** Despite regulatory efforts, these measures often resulted in slowed innovation and perpetuated high costs, maintaining the dominance of a few players in the industry.

### What should be done?

**Implement Ex Ante Regulation:** Proactive regulations are recommended to prevent anti-competitive practices in digital markets before they become dominant. This approach has been endorsed by the Parliamentary Standing Committee on Finance and the Committee on Digital Competition Law.

**Adopt Multi-Stakeholder Governance:** Following the internet governance model, a multi-stakeholder approach involving academia, startups, industry, and civil society can ensure fair representation and prevent any single entity from dominating.

**Maintain Minimal Government Interference:** The government should avoid direct intervention while retaining oversight to address national security and public interest concerns, promoting a balance between regulation and innovation.

## New changes in India's competition law

**News:** The article discusses recent updates to India's competition law, including new regulations on penalties, settlements, and global turnover calculations. It emphasizes the need for stronger enforcement to ensure penalties are effective and considers the impact of these laws on foreign investment and economic growth.

### What are the new changes in India's competition law?

**Monetary Penalty Guidelines:** Updated guidelines define how penalties are calculated, emphasizing up to 30% of relevant turnover with a cap at 10% of global turnover.

**Regulations for Settlements and Commitments:** New regulations allow companies to settle cases or make commitments to adjust their business practices to comply with competition law, aiming for faster resolutions.

**New Thresholds for Application:** Adjustments to thresholds that determine which cases are subject to these rules, enabling the CCI to address anti-competitive practices more effectively.

**Draft Bill on Digital Competition Law:** A committee's report led to a draft bill specifically aimed at regulating competition within digital markets, showing a move towards specialized regulation in this rapidly evolving sector.

### What are the major criticisms of the new changes in India's competition law?

**Low Recovery of Fines:** Despite imposing substantial fines, the recovery rate has been very low, with only 0.4% of fines recovered over the past five years, indicating inefficiency in enforcement.

**Lengthy Legal Processes:** Most fines are challenged in courts, leading to long legal battles that not only delay the enforcement but also reduce the deterrent effect of the penalties.

**Potential Deterrent to FDI:** The application of fines based on global turnover could discourage multinational companies from investing in India due to the fear of severe financial penalties.

### What comparisons can be made with other jurisdictions regarding India's competition law changes?

**Penalty Caps Comparison:** India's penalty cap can reach up to 10% of global turnover, similar to Germany's cap, but lower than the EU's potential 20% cap for digital market violations, providing a severe but not the harshest framework for fines.

**Methodology for Calculations:** Like the EU and UK, India incorporates factors such as the nature of the violation and the duration in determining fines. However, India specifically emphasizes relevant turnover, aligning with the EU's two-step approach and the UK's six-step approach to penalty assessments.

**Resolution Mechanisms:** Similar to practices in the EU and UK, India now promotes settlements and commitments as viable alternatives to traditional litigation, aiming to resolve cases faster and more efficiently.

**Digital Market Regulation:** India's draft bill on Digital Competition Law aligns with global movements such as the EU's Digital Markets Unit, signaling a shift towards specialized regulations for the increasingly influential digital sector.

## Subject: International Relations

### Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests

#### India's new focus in foreign policy

**News:** The article discusses how India is focusing on islands and maritime regions for its foreign policy and security, considering new partnerships and regions like Europe, the Middle East, and Africa. It also mentions internal challenges in regions like South Asia.

For details information on **India's foreign policy** read [Article1](#), [Article2](#), [Article3](#)

#### What is India's new focus in foreign policy?

**Strategic Islands and Maritime Regions:** India is emphasizing strategic importance on islands and maritime territories, like in the Maldives, Papua New Guinea, Mauritius, and the development of Andaman and Lakshadweep.

**Adopting the Indo-Pacific Framework:** India has embraced the Indo-Pacific concept, moving away from seeing it as an American plot. This shift is a response to tensions with China and aligns with the Quadrilateral Security Dialogue (Quad) involving Australia, India, Japan, and the US.

**Increased Focus on Eurasia and Europe:** India joined the Shanghai Cooperation Organisation, indicating interest in Eurasia. There's also a growing engagement with Europe, as seen in increased diplomatic visits and a free trade agreement with EFTA countries.

**Broadening Relations with the Middle East and Africa:** India is strengthening ties with the Middle East, including partnerships with UAE and Saudi Arabia, and showing a naval presence in the Red Sea region. This reflects a more integrated approach towards the Middle East, Africa, and the eastern Mediterranean.

**Shifting Attention from South Asia:** With the decline of SAARC, India's focus is moving from South Asia to sub-regional and trans-regional cooperation, such as with the Bay of Bengal nations.

**New Focus on Zomia and Khorasan:** India is looking towards new regions like Zomia and Khorasan due to geopolitical changes on its eastern and western borders.

### What challenges does India face in shaping its new foreign policy?

**Tension with China:** India's deteriorating relations with China, marked by several military crises, pose a significant challenge, especially in adopting the Indo-Pacific strategy and managing regional dynamics.

**Balancing Ties with Russia and the West:** India's approach to Eurasia is changing, influenced by the escalating conflict between Russia and the West and the strengthening alliance between China and Russia. This evolution presents India with the challenge of maintaining a balance in its relations with both sides.

**Economic Engagement with Europe:** While India is increasing its diplomatic and trade ties with Europe, successfully negotiating and finalizing a comprehensive free trade agreement remains a complex challenge.

**Internal Challenges in South Asia:** The failure of SAARC and changing dynamics with Pakistan require India to adapt its approach in South Asia, focusing more on sub-regional cooperation.

### Topic: Effect of policies and politics of developed and developing countries on India's interests

#### EU's Corporate Sustainability Due Diligence Directive (CSDDD)

**News:** This article discusses the EU's Corporate Sustainability Due Diligence Directive, which requires EU companies to be accountable for environmental and human rights issues in their supply chains.

#### What is the EU's Corporate Sustainability Due Diligence Directive (CSDDD)?

The CSDDD is a new European Union directive focusing on corporate responsibility for environmental and human rights issues within supply chains.

The CSDDD demands adherence to international human rights laws and stringent environmental standards, including measures against pollution and deforestation.

While the CSDDD aims to promote sustainability, the current version is considered watered down, offering potential loopholes and lacking support for developing countries like India in meeting these high standards.

#### What are the issues with EU's Corporate Sustainability Due Diligence Directive (CSDDD)?

**Watered-Down Version:** The adopted version of the CSDDD is criticized for being less stringent than the original proposal.

**Higher Thresholds for Applicability:** It raises the thresholds for industry applicability, potentially excluding smaller businesses from its scope.

**"Obligation of Means" Clause:** The directive mandates companies to implement "appropriate measures" for due diligence, which might be insufficient for actual impact mitigation.

**Lack of Support for Developing Countries:** It does not adequately address support for firms in developing countries, like those in India, that are expected to meet high sustainability standards.

**Unaddressed External Constraints:** The CSDDD overlooks external factual or legal constraints in third countries, which can hinder compliance.

#### What is India doing in response?

## 9 PM Compilation For Month of April 2024

**Adjusting to International Standards:** India is modifying its supply chains and manufacturing processes to meet the CSDDD and CBAM requirements.

For information on **Carbon Border Adjustment Mechanism (CBAM)** [read here](#)

**Export Importance to the EU:** The EU is a major destination for Indian exports, receiving 14.9% of them in 2021, highlighting the need for compliance with EU directives.

**Involvement in IPEF:** Through the Indo-Pacific Economic Framework, India is focusing on resilient and sustainable supply chain development.

**Creation of Labour Rights Advisory Board:** Under the IPEF, India is forming a Labour Rights Advisory Board, including workers, employers, and government representatives.

**Drafting National Action Plan:** India is working on a 'zero draft' National Action Plan for Business and Human Rights, incorporating human rights and environmental protection measures.

### What are the impacts of the EU's Corporate Sustainability Due Diligence Directive (CSDDD) on India?

#### Positive Impacts on India:

**Attracting EU Investment:** Compliance with the CSDDD could draw more foreign investment from the EU to India by adhering to human rights and environmental standards.

**Promoting Sustainable Business:** The directive can lead to sustainable business growth in India, aligning with global sustainability standards.

#### Negative Impacts on India:

**Financial Burden:** Indian exporters may face increased financial strain due to the need to align with the CSDDD's stringent standards, on top of the EU's Carbon Border Adjustment Mechanism.

**Potential Loss of Business:** There is a risk of losing EU business if Indian firms fail to comply with the CSDDD's environmental and human rights requirements.

**Challenges in Meeting Standards:** Some Indian practices, like the Green Credits Programme, might not meet the CSDDD standards, indicating a gap between current domestic standards and those required by the directive.

### Topic-Important International institutions, agencies and fora, their structure, mandate.

#### NATO responding to global security issues

**News:** This article discusses NATO's 75th anniversary and its expansion, with new members from Europe due to concerns about Russia. It also talks about NATO's global reach and challenges, including funding and differing member interests, especially considering a potential Trump presidency in the US.

For details information on **NATO** read [Article 1](#), [Article 2](#), [Article 3](#)

#### What is NATO's current situation?

## 9 PM Compilation For Month of April 2024

**NATO turns 75:** The North Atlantic Treaty Organization marks its 75th anniversary.

**Membership growth:** Grown to 32 members, including recent additions of Finland and Sweden.

**Influence of Ukraine conflict:** Putin's invasion of Ukraine has driven Eastern European countries toward NATO for security.

**Global Reach:** Extending influence into the Indo-Pacific region, addressing challenges like China's rise.

### What challenges does NATO face?

**Expansion Tensions:** NATO's eastward expansion, including Baltic states and countries like Finland and Sweden, provokes Russia, fueling geopolitical tensions.

**Internal Disagreements:** Different member countries have conflicting interests and approaches, creating challenges in unified decision-making.

**Funding Concerns:** Issues with member nations contributing sufficient funds to NATO, a point of contention, especially with a potential Trump presidency, who questions the principle of mutual defense unless members increase funding.

### How is NATO responding to global security issues?

**Expansion in Response to Russia:** NATO has added new members like Finland and Sweden, driven by concerns over Russian aggression, especially post-Ukraine invasion.

**Global Reach Beyond Europe:** The alliance is extending its focus to the Indo-Pacific region, confronting challenges like China's rise.

**Diverse Global Partnerships:** NATO is working with partners globally, including countries like Australia, Japan, and South Korea, acknowledging their significance in regional security.

**Financial Commitment to Defense:** Planning a substantial \$100 billion aid package for Ukraine, demonstrating its commitment to support nations facing security threats.

## B-READY Index

**News:** The article discusses India's preparation for the **new World Bank Index Business Ready (B-READY)**, replacing the defunct Ease of Doing Business (EoDB) Index.

For details information on **Lessons from the death of the ease of doing business index** [read here](#)

### What is the B-READY Index?

The B-READY Index is a new metric designed by the World Bank to assess business environments, set to launch in September 2025.

It aims to replace the now-defunct Ease of Doing Business Index and plans to cover 180 economies.

This index focuses on broader qualitative assessments, including regulatory quality and environmental considerations.

### How is India Preparing for the B-READY Index?

India is gearing up for the B-READY Index through proactive steps taken by the Department for Promotion of Industry and Internal Trade (DPIT).

DPIT is conducting bi-monthly meetings with nodal ministries to evaluate responses to over 1,300 questions

from the B-READY questionnaire.

These meetings aim to assess and enhance India's position in terms of business readiness and attractiveness for foreign investments.

### Why India need B-READY Index?

**Addressing Subdued FDI:** India has seen limited success in attracting foreign direct investment (FDI), making the B-READY Index crucial for enhancing its investment climate.

**Improving Business Environment:** The B-READY Index aims to go beyond the former Ease of Doing Business metrics by including qualitative assessments that more accurately reflect the business landscape.

**Policy and Implementation Gaps:** Examples like Apple's vendors leaving India and Vinfast's subsidy issues highlight the need for clearer policies and better communication, issues the B-READY Index seeks to address.

**Encouraging Multinational Presence:** A refined index could help attract more multinationals, as current policy uncertainty has deterred significant investments.

### Topic-India and its neighbourhood- relations.

#### Concerns in Myanmar

**News:** The article discusses the ongoing conflict in Myanmar, involving the military government (SAC) and the Resistance. The UN is worried about rising violence, and there's a need for external aid and peace efforts. India, as a neighboring country, could help resolve this crisis.

For detail information on **Myanmar crisis** read [Article 1](#), [Article 2](#), [Article 3](#)

#### What are the main concerns in Myanmar?

**Escalation of Conflict:** The UN has expressed deep concern over the worsening situation and the increased conflict in Myanmar.

**Risk to Civilians:** Civilians are seriously at risk due to the ongoing violence.

**Expansion in Rakhine State:** Conflict is expanding in Rakhine State, known for existing vulnerabilities and discrimination, potentially inciting more communal tensions.

**Forced Military Recruitment:** A new conscription law leads to the forcible recruitment of youth, exacerbating the crisis.

**Increased Air Strikes:** There's been a fivefold increase in air strikes by the military in the last five months.

**Aid Delivery Challenges:** The flow of aid is minimal and hindered by logistical challenges in the conflict-ravaged nation.

**Lack of Consensus:** There is a significant challenge in de-escalating violence and delivering humanitarian aid due to the animosities between the SAC and the Resistance.

#### What should be done?

**Establishing Dialogue:** There's a need for an innovative dialogue mechanism among all relevant parties.

**Humanitarian Corridor:** Thailand considers creating a "humanitarian corridor" inside Myanmar.

**External Assistance:** Aid from ASEAN countries, China, India, and Bangladesh is crucial. India and other neighbors should develop practical, context-aware proposals to advise policymakers.



**Addressing the Constitution Issue:** Finding a middle ground between SAC's 2008 constitution and the Resistance's demand for a new constitution is important.

**Ensuring Regional Stability:** Addressing Myanmar's crisis is vital for the peace and progress of the region.

### Impact of Myanmar's internal conflicts

**News:** The article discusses the complex political situation in Myanmar. It highlights the long-standing conflicts involving Myanmar's military, ethnic groups, and civilian government. India's interactions with Myanmar, influenced by security and insurgency concerns, are also covered, showing a need to possibly rethink support to Myanmar's military.

For details information on **India- Myanmar relations** [read here](#)

#### How has Myanmar's political landscape evolved?

**Independence to Military Dominance:** Myanmar gained independence from Britain in 1948 and quickly entered a state of internal conflict. The military junta, known as the **Tatmadaw**, has been a dominant force, consistently clashing with ethnic groups across the country. These groups have either sought independence or a significant degree of autonomy.

**Era of Civilian Government:** The **National League for Democracy (NLD)**, led by **Aung San Suu Kyi**, represented significant civilian governance attempts. Despite the military's underlying control, there were brief periods when democracy seemed to take root. However, these were always precarious due to the military's power.

**Military Coups:** The military has repeatedly disrupted Myanmar's democratic processes through coups, notably rejecting the 2021 election results, which were overwhelmingly in favor of the NLD. This led to the arrest of Aung San Suu Kyi and other political leaders, with the military justifying their actions by declaring the elections invalid.

**Armed Resistance:** Facing relentless oppression, various ethnic armed groups alongside the NLD formed the National Unity Government (NUG) and established the People's Defense Force (PDF). This coalition has actively resisted Tatmadaw rule, aligning forces and gaining control over strategic areas, significantly challenging the military's authority.

#### What has been the impact of Myanmar's internal conflicts?

**Impact on Myanmar:** The conflicts have led to alliances between various ethnic armed groups and the NLD, forming a resistance against the military. This includes the People's Defense Force (PDF) and groups like the Karen National Union. Their successes, especially in controlling border areas, have weakened the military's control and morale.

**Impact on India:** The ongoing civil war in Myanmar has led to refugees, including civilians and soldiers, fleeing to India. This has pressured the northeastern states, especially Mizoram, which has provided shelter to ethnic kin from Myanmar. India's measures like border fencing and suspending free entry have not fully controlled the spillover of conflict.

**Impact on China: Strategic Maneuvering-** China plays a dual role, supporting the Myanmar military while also making local deals with ethnic groups controlling border outposts, ensuring influence regardless of internal fluctuations in power.

#### What should be done?

**Reassess Support for Myanmar's Military:** India should reconsider its tacit support to the military due to the legitimacy and resistance strength of the National Unity Government (NUG).

**Engage with Resistance Forces:** Discreet engagement with the NUG and ethnic resistance groups might help maintain stability in India's Northeast and influence outcomes favorably.

**Enhance Border Security Measures:** Strengthening security measures along the border is crucial, particularly by improving infrastructure and increasing patrols to manage refugee inflows and prevent insurgent crossings.

### India and Maldives relations, after Muizzu's re-election

**News:** Maldives President Mohamed Muizzu has won the recent elections, with huge number of seats. It will provide him with the power to make all the major legal and legislative changes.

#### What anti-India steps have been taken by Muizzu?

One of the pillars of Muizzu's politics is an anti-India stance.

**First**, he campaigned on an "India Out" theme, asked for withdrawal of Indian troops,

**Second**, he scrapped agreements allowing Indian hydrographic surveys by India.

**Third**, he has drawn Maldives closer to China, by giving them infrastructure projects.

However, the parliamentary elections were fought on domestic issues like corruption, economy, housing, jobs and shifting political alliances rather than foreign policy issues. Therefore, it should not be taken as a country's stand.

#### What has been India's approach to Muizzu's anti-India Stance?

**First**, India has done well not to overreact to Maldives' attempts to distance itself and treat it with a soft approach, recognizing a neighbour's domestic politics is their own affair.

**Second**, Maldives is an important part of India's **Neighbourhood First and SAGAR policies**. Given Maldives' proximity and importance, India must continue engaging with the country no matter the government to make bilateral ties "politics proof" in the long run.

## GS Paper 3

### Subject: Indian Economy

**Topic- Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.**

### Challenges for Indian agriculture to realize its aspiration of a Viksit Bharat by 2047

**News:** The article discusses the challenges and necessary strategies for Indian agriculture to realise its aspiration of a Viksit Bharat by 2047.

#### How has Indian agriculture grown over the years?

## 9 PM Compilation For Month of April 2024

Indian agriculture's growth has been steady, with an average annual growth rate of 3.3% from 1991-92 to 2023-24.

Under the Modi government (last 10 years), agriculture grew at 3.6%, slightly better than the 3.5% during the Manmohan Singh era.

Agriculture, engaging about 45% of India's workforce, contributes around 18% to the GDP. However, the agri-GDP growth for 2023-24 is just 0.7%.

By 2047, agriculture's GDP share might drop to 7-8%, but it could still involve over 30% of the workforce.

### What are the challenges for Indian agriculture to realize its aspiration of a Viksit Bharat by 2047?

**Climate Change Impact:** Agriculture is vulnerable to climate risks, like rising temperatures and unseasonal rains that dropped growth to 0.7% in 2023-24.

**Workforce Imbalance:** Despite contributing about 18% to GDP, agriculture employs 45% of the workforce, indicating low productivity. This discrepancy could lead to economic imbalances.

**Resource Management:** Challenges in water consumption, soil degradation, and greenhouse gas emissions need urgent attention.

**Technology and Innovation Lag:** Modernization in farming practices and infrastructure is crucial for coping with climate challenges and increasing productivity.

**Policy Limitations:** Current policies, including export controls and stocking limits, resemble outdated strategies of the 1960s, indicating a need for reforms in areas like subsidies, research, and market access.

### What should be done?

**Increase Investment in Agriculture R&D and Innovation:** Allocate more resources to agricultural research and innovation to enhance productivity.

**Promote High-Value Agriculture:** Shift focus to sectors like poultry, fishery, dairy, and horticulture, which offer higher economic returns.

**Improve Market Access for Farmers:** Develop policies and institutions to connect farmers to national and international markets, potentially through digital platforms like E-NAM and ONDC.

**Rationalize Subsidies:** Redirect funds from food and fertilizer subsidies towards more sustainable agricultural practices.

**Enhance Skill Development:** Focus on training rural populations for better job opportunities in a rapidly urbanizing India.

## How has the RBI evolved

**News:** The article discusses the Reserve Bank of India's (RBI) 90th anniversary and its role in economic growth. It also highlights areas needing improvement, such as banking regulation and adapting to new financial technologies.

### How has the RBI evolved?

**Inflation-targeting central bank:** RBI evolved into an inflation-targeting central bank, enhancing monetary policy transparency and boosting investor confidence.

**Foreign exchange reserves:** Managed the external sector skillfully, accumulating large foreign exchange reserves to reduce currency volatility.

**Macroeconomic stability:** Improved macroeconomic stability, evident in recent years through effective

## 9 PM Compilation For Month of April 2024

management.

**Reduction in NPAs:** Non-Performing Assets (NPAs) in banks reduced significantly, with the banking system in its best position in over a decade.

**Technology in payments:** The RBI's role in facilitating technology adoption in payments, making India a leader in this area, is acknowledged.

**Central bank digital currency:** Pioneered experiments with central bank digital currency, indicating readiness for future financial challenges.

### What challenges is the RBI facing?

**Banking Regulation and Supervision:** The RBI needs to enhance its regulatory and supervisory mechanisms, as demonstrated by the problems at YES Bank and Infrastructure Leasing & Financial Services Ltd.

**Transparency with Regulated Entities:** There's a challenge in maintaining transparency, specifically highlighted by the RBI's dealings with Paytm Payments Bank.

**Regulating New-Age Fintech Firms:** The RBI faces the challenge of effectively regulating emerging fintech firms while balancing the need for innovation.

**Limited Powers over Public-Sector Banks:** The RBI's constrained ability to regulate public-sector banks is mentioned, indicating a need for legal changes to empower the institution more effectively.

**Potential Fiscal Dominance of Monetary Policy:** The government's role in fiscal policy could overshadow the RBI's monetary policy, stressing the need for the government to maintain low fiscal deficits.

## India's labor market and employment situation

**News:** The article discusses how India's job market is recovering, especially in non-farm sectors. It mentions improvements in manufacturing jobs, a rise in skilled youth employability, and a shift from agricultural to non-agricultural work.

### What are the two recent assessments of India's labor market and employment situation?

1. **The International Labour Organization (ILO)** and the Institute for Human Development (IHD) released the India Employment Report 2024, focusing on youth employment. It highlights the improvements in job creation, especially for the younger population. The report shows a significant drop in graduate youth unemployment, from 35.4% in 2017-18 to 28% in 2022-23.

2. The **World Bank's South Asia Development Update (SADU)** focuses on employment in India

For more information on [India Employment Report 2024](#) read here

### What are the major findings of World Bank's South Asia Development Update (SADU) assessments?

The report shows a **decline in the overall employment ratio** from 64.1% in 1999-00 to 58.2% in 2021-22, mainly due to reduced agricultural jobs.

However, there's an **increase in non-farm employment**, with the ratio rising from 25.7% to 33.3%.

SADU highlights the growth in larger non-agricultural firms. The **number of factories with over 100 workers rose**, indicating a shift towards more substantial employment sources.

The **workforce in larger factories (100+ workers) has been growing faster than in smaller factories**, suggesting a trend towards larger-scale employment.

### What are the significant setbacks to the Indian labor market?

The Indian labor market faced significant setbacks due to:

**Bad debts in the banking system**, affecting investments and job creation in the corporate sector.

**The COVID-19 pandemic**, leading to economic slowdown, job losses, and reverse migration, especially impacting agricultural employment.

**The manufacturing sector experienced a trough in job creation between 2012 and 2019**, linked to these economic challenges.

A sluggish phase in manufacturing employment was observed, particularly from 2011-12 to 2016-17, as the sector grappled with these issues.

### What are the future prospects for India's labor market?

The future prospects for India's labor market appear promising due to several factors:

**Continued growth in the manufacturing sector**, as seen with 3.74 million jobs added in 2021-22.

Improvement in tertiary education leads to **higher employability among graduates**. The National Employability Test score increased from 33.9 in 2014 to 51.3 in 2024.

A **decline in youth unemployment rates**, with graduate unemployment dropping from 35.4% to 28% from 2017-18 to 2022-23.

Increased focus on skilling the youth, enhancing labor productivity, and creating more secure jobs with benefits and social protection.

## Globalisation of Indian rupee

**Context-** Prime Minister has recently asked the Reserve Bank of India (RBI) to prepare a 10-year strategy to make the Indian rupee a globally "accessible and acceptable" currency.

### What are the advantages of globalized currency?

- 1) The overseas demand for globalized currency for trade and reserves would cheapen credit within the country.
- 2) After attaining global currency status, there would be more demand for rupee denominated bonds. This will push their yields down, which will ensure availability of funds at lower rates.

### What are the hurdles in the globalization of Indian currency?

- 1) **Lack of full rupee convertibility-** India will have to turn the rupee fully convertible to make it a global currency. Currently, Indian currency is partially convertible.
- 2) **Asian currency crisis-** Policymakers were worried after the Asian currency crisis of 1997. Many open economies suffered from capital flight. Since then, India has maintained restrictions on converting rupees into foreign currencies. There's an annual limit on conversion and specific channels for settling commercial trades.

### What steps can be taken to make to ensure globalization of Indian currency?

- 1) **Fiscal discipline-** It is important to ensure that India's currency doesn't lose its value due to inflation. This requires maintaining fiscal discipline.
- 2) **Robust banking system-** India needs a strong banking system that can withstand shocks. This requires

## 9 PM Compilation For Month of April 2024

transparency and efficiency throughout the financial sector.

3) **External balance stability**-There should be stable external balances to ensure sustainability. India must prevent its trade gap from widening due to unforeseen events

4) **Role of RBI**-It is important that the market sets the external value of the rupee, with the RBI playing a non-distortive role.

### What should be the way forward?

1) **Leveraging Technology**-Technology may give RBI's e-rupee an advantage as a central bank digital currency (CBDC) for global use. It should be designed not only for low costs but also for ensuring maximum privacy.

2) **Expansion of e-rupee usage**- Indian diaspora should be encouraged to use e-rupee for making low-cost cross-border transfers. However, it is important to ensure that this expansion is not affected by geopolitical sanctions.

3) **Ease of programming of e-rupee**- It is directly issued by RBI and doesn't involve intermediary risks. Thus, it may attract international users if it is able to offer users an easy way to program it. For ex- for making routine payments. This is indeed one of the unique features of CBDC software.

Currently, the e-rupee is only an experiment, with online bank-to-bank UPI transfers being given too much importance. However, it's also RBI's best bet for a global play.

## Solutions for job creation

**News:** The article discusses India's job creation challenges. It mentions Meta opening a data center in India but highlights that India needs many more jobs. It critiques India's reliance on services for economic growth and suggests diversifying into high-tech, startups, green energy, and manufacturing to create jobs.

For details information on **Employment status in India** [Article1](#), [Article2](#),

### What is the current job situation in India?

**Low Employment Rate:** Only 46.6% of India's working-age population is currently employed, which is significantly lower than the approximately 70% seen in other emerging markets.

**Job Creation Needs:** India needs to create 90 million new non-farm jobs by 2030 to keep pace with its growing working-age population.

**Service Sector Focus:** The Indian economy has heavily focused on service industries, employing 5.4 million in IT and back-office roles, but faces challenges such as automation reducing job opportunities.

### What challenges are the service sectors facing?

**IT Sector Decline:** For the first time in 25 years, the IT sector, a cornerstone of India's service economy, has experienced shrinkage, influenced by increasing automation and artificial intelligence.

**Low Wages and Migration:** Many workers in low-skilled service jobs earn so little that they preferred staying in their villages after the COVID-19 lockdowns, rather than returning to urban jobs.

**Skill Gap:** There's a significant skill shortage in the country, with the 2023 India Skills Report indicating that only half of young Indians are employable, which limits their ability to participate in more advanced, skill-intensive service roles.

### What are the proposed solutions for job creation?

**Global Capability Centres (GCCs):** Expansion of GCCs is suggested, with current employment at 1.6 million and expected growth to 4.5 million by 2030. These centers offer services ranging from finance and HR to tech innovation, helping India become a major exporter of services.

**Tech Startups:** Encouragement for tech startups to scale up, leveraging India's capabilities in AI, SaaS, defense, and Greentech, which could lead to significant employment gains both directly and indirectly.

**Green Energy:** Focus on renewable energy with plans to install 500 gigawatts by 2030, aiming to create 50 million new jobs in the green economy.

**Manufacturing Sector:** Revitalizing the manufacturing sector is crucial, especially for small and medium enterprises that are less prone to automation and can employ more people. This effort should be supported by digital infrastructure to boost their competitive advantage

### Concerns related to India's interest rates

**News:** The article discusses why India's central bank, the RBI, hasn't reduced its main interest rate. Despite the RBI increasing this rate before, banks haven't fully passed these increases to borrowers. This incomplete adjustment is one reason the RBI is cautious about changing rates now.

For details information on **marginal cost of funds-based lending rate** read [Article 1](#), [Article 2](#)

#### What are the major concerns related to India's interest rates?

**Incomplete Transmission:** Despite the RBI increasing the repo rate by 250 basis points, banks have only raised the weighted average lending rate on fresh loans by 185 basis points, indicating incomplete transmission.

**EBLR vs. MCLR:** Loans tied to the External Benchmark-based Lending Rate (EBLR) quickly adjust with the repo rate, while those tied to the **Marginal Cost of Funds-based Lending Rate (MCLR) lag behind**. For instance, between May 2022 and March 2024, the median one-year MCLR only rose by 155 basis points, compared to a 250 basis point increase in the repo rate.

#### What are the reasons for Slow MCLR Adjustment?

**Complex Pricing Mechanism:** MCLR-based loans factor in the bank's cost of deposits and other margins, making rate adjustments more complex and slower than EBLR-linked loans.

**Competition Concerns:** Banks are cautious in raising MCLR rates due to fears of losing loan accounts to competitors, affecting their market share. This hesitance impacts the rate adjustment pace.

**Selective Deposit Rate Increases:** Banks have raised rates mainly for short-term deposits, affecting the cost basis for MCLR and subsequently delaying the transmission to MCLR-linked loan rates.

## TRANSMISSION TROUBLE

**OVER 40%** of the system credit is not linked to the repo rate

**LOANS** linked to marginal cost of funds-based lending rate (MCLR) are lagging the rate hikes

**THE MCLR** depends on the cost of deposits. Corporate loans are still on the MCLR

### What is the RBI's View on the Transmission of Rate Changes?

**Ongoing Transmission:** The RBI acknowledges that the transmission of rate changes to lending rates is still in progress, indicating a gradual process.

**Goal of Fuller Transmission:** The central bank is committed to ensuring a fuller transmission of policy actions, highlighting its efforts to make interest rate changes effectively impact lending rates.

**Anchoring Expectations:** The aim of anchoring household inflation expectations through effective rate transmission is indeed a part of the RBI's strategy, as outlined by the Deputy Governor

### Significance of Decentralized industrialization model

**Context-**The article highlights the reason behind Tamil Nadu's success in achieving industrialization and diversification beyond agriculture. Tamilnadu is India's No.1 state in terms of economic complexity, measured by the diversity of its gross domestic product (GDP) and employment profile.

### What is the share of respective industries in Tamilnadu 's GDP?

According to the data table, Tamil Nadu's farm sector contributes less to its gross value added (GVA) and employs fewer people compared to the national average. However, the state has higher shares of industry, services, and construction in its economy compared to the whole of India.

<b>SECTOR-WISE SHARES OF GVA &amp; WORKFORCE: 2022-23 (%)</b>				
	<b>Gross Value Added*</b>		<b>Workforce</b>	
	<b>All-India</b>	<b>Tamil Nadu</b>	<b>All-India</b>	<b>Tamil Nadu</b>
<b>Agriculture</b>	18.19	12.55	45.76	28.87
<b>Industry**</b>	18.80	22.69	12.27	17.88
<b>Construction</b>	8.84	11.70	13.03	18.04
<b>Services</b>	54.18	53.05	28.94	35.21

*\*At Basic Prices; \*\* Includes manufacturing, mining, electricity and utilities. GVA is GDP net of product taxes and subsidies. Source: National Accounts Statistics and Periodic Labour Force Survey.*

### What are the reasons behind TN's relative success in achieving industrialization and diversification beyond agriculture?

1) **Cluster-based industrialization-** Tamil Nadu's economic shift hasn't been driven much by big corporations but by medium-sized businesses whose turnover range from Rs 100 crore to Rs 5,000 crore. The state's industrialization has also been more widespread and decentralized, focusing on the development of clusters.

**For ex-** Tirupur for cotton knitwear, Coimbatore for spinning mills and engineering goods, Sivakasi for safety matches etc.

2) **Sub-specialized clusters-**There are many sub-specialized clusters that have developed in small towns or areas near cities in Tamilnadu. These clusters provide jobs for people from nearby villages and prevent rural



to urban migration.

Further, these clusters have helped in providing job opportunities beyond farming and reducing the number of agriculture dependent population in Tamilnadu.

Read more- [Challenges with India's service-driven growth](#)

3) **Grass root entrepreneurship**- Recent decentralized industrialization in Tamil Nadu has been led by entrepreneurs from ordinary farming backgrounds and local merchant communities.

**For ex**-Coimbatore's spinning mills, foundries, machines and pumps & valves etc ,were mostly started by Kammavar Naidus.

4) **Diverse entrepreneurial culture**- Tamil Nadu's entrepreneurial culture is diverse, spreading among different communities and across various industries. For ex- Christians-MRF, Johnson Lifts and Aachi Masala Foods and Muslims -Farida Group etc.

The grassroots entrepreneurship, along with substantial investments in public health and education, helps in explaining Tamil Nadu's relative success in industrialization and diversification away from agriculture.

### Difference in rural and urban consumption

**Context**-As per the government's latest data on household consumption expenditure, the per-person monthly spending in urban areas of India in 2022-23 was 1.72 times that in rural areas. The article highlights the fact that there is not much difference in rural and urban consumption. The increase in spending in rural areas indicate their rising aspirations.

#### What are the categories that create the gap in rural-urban consumption?

- 1) **Rent**-The average monthly rent spending is only ₹30 in rural areas, whereas it is ₹423 in urban areas. This is because most families live in their own homes in rural areas.
- 2) **Conveyance**-In rural areas, it is ₹285, while in urban areas, it is ₹555.
- 3) **Beverages and processed food**-The average rural spending was ₹363 and nearly double that in urban areas. Similarly, the rural-urban gap in spending on entertainment and other goods is also high.
- 4) **Impact of government transfer**-As per the survey result, the average government transfers are higher in rural areas as compared to urban areas. Additionally, the large difference in education and healthcare spending between rural and urban areas may decrease once government subsidies are taken into consideration.

#### What are the differences in the quality of consumer spending between rural and urban areas in food and non-food categories?

In order to calculate the real consumption levels, there is a need to remove the impact of inflation in rural and urban areas over the last decade.

##### 1) Food categories-

A) Rural areas spend slightly more per person each month on vegetables compared to urban areas. The difference in spending on pulses and pulse products between rural and urban areas is also small. In the main protein-rich foods like eggs, fish, and meat, the rural-urban gap in average monthly spending is only about ₹21.

B) In consumption of sugar, salt, and spices, the gap in real consumption between rural and urban areas is marginal.

C) **Fruits and milk products**-Two nutritious item groups are fruits and milk and milk products. The average monthly urban real spending on fruits is about 1.7 times that in rural areas and about 1.5 times that of milk and milk products.

However, spending levels alone doesn't indicate if the gaps between rural and urban consumptions is due to lack of affordability or lack of accessibility.

For ex- in rural areas, there are probably fewer cold storage facilities for perishable items like fruits and milk compared to urban areas.

2) **Non-food categories**-In consumption of paan, tobacco and other intoxicants, rural-urban gap is smaller and almost negligible.

### **What does this data about rural-urban spending indicate?**

Once all government transfers are considered, spending in rural India will resemble that of urban India more closely.

### **What should be the way forward?**

In order to experience real welfare gains by householders, it is important to ensure that family members don't have to separate in search of jobs. So, to achieve this objective, there is a need to create non-farm jobs in rural areas and minimise relative cost of housing in urban areas by providing affordable housing.

## **India's food inflation**

**News:** The article discusses India's food inflation since 2019, highlighting that high food prices have significantly contributed to overall inflation. It criticizes the government's ineffective measures, such as monitoring rice and wheat stocks, and suggests that deeper issues like global warming and inadequate agricultural output are driving the inflation.

For details information on **Inflation in India** [read here](#)

### **What is the current situation of inflation in India?**

Since 2014, inflation in India has been relatively low, but it started rising sharply in 2019-20 before the COVID-19 pandemic and the war in Ukraine. This suggests domestic factors are a major cause. Food products, especially, form a significant part of this inflation, often contributing more than 50% to the overall inflation rate.

### **What are the deeper causes of inflation?**

1. Global warming is a major cause of inflation, particularly affecting agricultural yields in regions like North India.
2. Rising temperatures have led to decreased wheat yields, contributing to lower supply and higher prices.
3. The consistent shortfall in agricultural production relative to increasing demand drives food inflation.
4. Ecological issues such as declining water tables and soil degradation further reduce agricultural output.
5. The indirect effects of these ecological problems also impact industrial costs, adding to the overall inflationary pressures.

### **What measures has the government taken?**

## 9 PM Compilation For Month of April 2024

1. The government has required wholesale traders and retailers dealing in rice and wheat to report their stock holdings every Friday.
2. This measure is part of a broader concern about high food inflation and is intended to monitor and possibly control market supplies.
3. The policy reflects a shift from earlier plans to repeal the Essential Commodities Act, indicating a move towards tighter regulation of essential food items.

### Why are government measures not so effective?

1. Government measures like mandatory stock reporting for rice and wheat traders are seen as temporary rather than effective solutions.
2. These measures do not address the root causes of inflation, such as supply shortages and increased production costs.
3. The perishable nature of goods like rice and wheat limits the traders' ability to manipulate the market through stockpiling.
4. Historical patterns show that prices typically decrease after the harvest season, indicating that traders have incentives to sell rather than hoard.
5. The real drivers of inflation, like global warming affecting agricultural yields, are not directly tackled by these measures. It requires sustainable agricultural practices to stabilize prices.

## India's strong economic growth

**News:** The article discusses India's strong economic growth, focusing on renewable energy, digital technology, and female empowerment. It highlights India's success in these areas and the potential to use these strategies in other developing countries. The World Bank supports these efforts, helping to expand and replicate them globally.

### How is India advancing in renewable energy?

**Renewable Power Capacity:** Renewable sources account for 42% of India's total power generation capacity.

**Investment in Renewables:** Annually, about \$10 billion is invested in renewable energy sectors.

**Global Standing:** India ranks as the world's fourth largest renewable energy market.

**Solar Manufacturing:** It holds 3% of global solar manufacturing capabilities.

**World Bank Support:** The World Bank has invested approximately \$1 billion in India's solar projects, notably in solar parks and rooftop solar installations, stimulating substantial commercial investment in the sector.

### What innovations are occurring in digital infrastructure?

**Digital Public Infrastructure (DPI):** Facilitates millions in accessing social safety nets, banking, and government services digitally, reducing the need for in-person interactions.

**Efficiency in Payments:** The implementation of digital payments has shortened the payout time for maternal health programs by 43%.

**Expansion of Business Reach:** Women micro-entrepreneurs in Tamil Nadu are leveraging digital networks to serve broader markets and access finance, illustrating the transformative impact of DPI on rural business activities.

## 9 PM Compilation For Month of April 2024

**World Bank Involvement:** The World Bank is taking lessons from India's digital infrastructure to assist other countries, highlighting the successful application and benefits of these innovations.

### How is female empowerment being promoted?

**National Rural Livelihoods Mission:** Organizes rural women into self-help groups, supporting women-led cooperatives and rural enterprises.

**Credit Mobilization:** More than \$4 billion in commercial credit has been mobilized to empower women in business.

**Labor Force Participation:** Female participation in industry is now 43% of the national total.

**Safe Urban Housing:** Policies promoting investment in safe urban housing are helping more women enter the workforce.

**World Bank Support:** The World Bank's backing assists in scaling these initiatives, enhancing female empowerment across the country.

### Increased tax collections in Northeast India:

**News:** The article discusses how the introduction of the Goods and Services Tax (GST) in India in 2017 has significantly helped the northeastern states by increasing their tax revenues. This boost in funds has allowed these states to improve infrastructure and participate more in national economic activities.

For details information on **Reforming GST** [read here](#)

### What is the current status of tax collections in Northeast India?

**Exceptional GST Revenue Growth:** Since the GST was implemented in 2017-18, the northeastern states have experienced a compound annual GST revenue growth rate of 27.5% through to 2022-23, which is significantly higher than the pre-GST tax revenue growth rate of 9%.

**Substantial Increase in State Revenues:** The northeastern states' total revenue contribution to the central exchequer now stands at around ₹20,000 crore annually, with ₹8,000 crore from GST and ₹12,000 crore from central excise. This demonstrates a major increase in financial resources due to efficient tax collection and compliance under GST.

**Financial transfers from the central government** to northeastern states have significantly increased. For example, Arunachal Pradesh received a 1,665% increase in tax devolution from 2014 to 2024. Other states like Mizoram, Manipur, Nagaland, and Sikkim also saw over a 500% rise in devolution, allowing them more budget for development.

### What were the reasons for increased tax collections in Northeast India?

**Consumption-Based Tax System:** GST, levied at the point of consumption rather than production, benefited northeastern states which are primarily consumer states. This shift from the origin-based Central Sales Tax, which they hardly benefited from before, significantly increased their tax collections.

**Improved Tax Compliance:** The GST system encourages better compliance through a tax-credit mechanism. This self-policing setup minimizes tax evasion, enhancing revenue collection.

**Use of Technology:** States like Assam employed big-data software to identify tax discrepancies, which significantly improved collection efficiency, resulting in the recovery of about ₹730 crore in tax settlements.

**Spillover Effects on Revenue Collection:** The implementation of GST has refined the overall mechanism of

revenue collection in states, helping to streamline various tax collection processes beyond just GST.

**Balancing Fiscal Imbalances:** GST has played a crucial role in addressing the vertical fiscal imbalances between the northeastern states and the Central government, contributing to a more equitable financial structure across the country.

**Enhanced Participation in National Market:** The adoption of GST has enabled northeastern states to more actively engage in the national market, opening up greater opportunities for trade and investment, which in turn boosts economic activity and development in the region.

### What role has GST played during economic challenges?

GST and the associated compensation packages helped northeastern states manage economic challenges during the COVID-19 pandemic. This support prevented a collapse in revenue and enabled continued investment in development projects.

**Way forward** -With the increase in revenue and development funding, northeastern states are encouraged to further develop their infrastructure and explore new economic opportunities. This will help them fully utilize their potential and contribute more significantly to the national economy.

## On Inheritance Tax

**Context-** The article warns against popular demands for advancing wealth redistribution in India, that is taking wealth from the rich and giving it to the poor. According to the author, it could lead to sustained poverty and economic failure.

The mechanism to ensure this redistribution is levying Wealth tax and inheritance tax. However, these have not been very helpful in reducing poverty. They've already been tested in India before and hence shouldn't be brought back.

### What are the arguments against imposition of wealth and inheritance tax in India?

1) **Complexity in tax collection-**In India, there was an estate duty from 1953 to 1985, with rates as high as 85%, but it wasn't collected much. Taxes on estates or inheritances are common in many advanced economies, but they contribute only 0.5% of tax revenues on average in OECD countries. However, collecting this small amount requires complex procedures, thus it is not economical.

2) **Negligible tax revenue-** Wealth tax was introduced in India in 1957. However, it has only brought in Rs 800 crore by 2012-13. Thus, it was scrapped in 2015. Wealth tax exists in four OECD countries but doesn't bring in much tax revenue there either.

3) **Diversion of focus-** Imposing these taxes lead to a loss of focus on the core business of establishing a sensible tax system in India. Furthermore, tax administration in India lacks fairness, adherence to the rule of law, and suffers from the arbitrary power of tax officials.

4) **Disincentive to work hard-**The first response to more taxation is to work less. If wealth and inheritance are penalized, people will work less hard to create wealth. This is harmful for the country.

5) **Incentivize tax avoidance strategies-** People may rearrange their affairs to pay fewer taxes. Instead of leaving assets in a will, they may give them to chosen heirs while alive. This changes behavior and makes it harder for the government to collect taxes. Some parents may prefer to keep updating their wills instead of giving assets to their children early to avoid taxes.

6) **Relocation of business activities-**It leads to relocation of business activity to friendly jurisdictions such as Dubai, Sri Lanka, Cayman Islands, Singapore, or Ireland. This hampers tax revenues.

## 9 PM Compilation For Month of April 2024

A detailed article on Inheritance Tax in India can be [read here](#).

### What should be the way forward?

There should be more emphasis on growth rather than wealth redistribution because sustained economic growth is crucial for poverty reduction. The author suggests focusing on raising the median income instead of redistributing wealth, as wealth redistribution might slow down economic growth.

### Issues with credit system in India

**Conext:** The article discusses the importance of credit in India's economy. It highlights issues like low credit uptake, and harmful loan recovery practices, including a recent scandal involving abusive recovery methods by a loan company. It calls for stricter regulations to protect borrowers.

For details information on **Microfinance** [read here](#)

### What is the role of credit in the economy?

**Economic Expansion:** Credit is essential for economic growth, allowing for the utilization of bank deposits in commerce and business expansion.

**Supports the Underprivileged:** Credit helps improve the lives of those at the bottom of the economic ladder in India, emphasizing financial inclusion through initiatives like rural microfinance.

**Expansion of Banking Services:** Increasing the reach of banking services into underserved areas is crucial for improving credit availability, which echoes the objectives of bank nationalization in 1969.

### What are the issues with credit system in India?

**Uneven Credit Distribution:** Credit availability varies significantly across regions; for example, in 56 eastern districts, the credit-to-deposit ratios range from under 11% in West Singhbhum to over 96% in Chandel.

**Predatory Lending Practices:** Some digital lending apps engage in harsh recovery methods. A notable incident involved the Finsara app, where employees used sexual shaming as a tactic against a borrower who failed to repay a small loan.

### How are regulations being enforced?

**Interest Charge Regulations:** The central bank has warned lenders against calculating interest charges from the day a loan is sanctioned rather than from the day it is disbursed. This measure is designed to protect retail borrowers from unfair financial burdens.

**Strengthening Capital Requirements:** Last year, the regulator tightened capital backup norms for collateral-free lending. This aims to keep the burgeoning fintech boom of app-given personal loans within safe prudential limits and reduce the risk of banks' financial buffers being depleted by defaults.

## Topic- Changes in industrial policy and their effects on industrial growth.

### Development of India's defense ecosystem

**News:** This article discusses India's efforts to strengthen its defense industry. It mentions policy changes, increased domestic production, and growth in exports. There's also a focus on innovation and involving women in defense roles, aiming for a self-reliant and developed India.

#### What initiatives have been taken for the development of India's defense ecosystem?

##### Policy Initiatives:

**Defence Acquisition Procedure (DAP) 2020** ensures 50% indigenous content in procurement.

**New Procurement Category — Buy (Global-Manufacture in India):** Encourages foreign companies to set up maintenance and manufacturing in India.

**Positive Indigenisation Lists** (5,000 items in this list) mandate domestic sourcing for certain defense items.

##### Financial Investments:

The Swedish Arms Major SAAB's Announcement: **First 100% FDI project for manufacturing Carl Gustav M4 rocket system** in India.

**Increased Domestic Procurement Budget:** From 40% to 75% of the total capital procurement budget dedicated to domestic procurement.

**Increasing Private Contributions:** Private sector's defense production contribution reached Rs 21,083 crore, about 20% of the total.

##### DRDO:

**Review of Defence Research and Development Organisation (DRDO):** A committee established for a holistic review to align DRDO with contemporary challenges.

**Building "Fit to Purpose" Capabilities:** Focus on developing domestic defence R&D and innovation, with substantial budget allocation.

##### Participation of women:

Initiatives like **Nari Shakti** and the **opening of Sainik Schools** and the **National Defence Academy** to women have significantly increased the participation of women in the armed forces.

##### Naval Platform Development:

The development of naval platforms includes significant projects like the **INS Vikrant**, which is the largest warship built in India, showcasing advanced maritime capabilities.

Additionally, under **Project 17A**, frigates such as the **INS Vindhyagiri** have been launched, further enhancing India's naval strength with modern warships.

##### Other Developments

**The Srijan Indigenisation Portal:** Facilitates the indigenisation of around 34,000 imported items.

**Way forward** -To propel India towards becoming a developed nation by 2047, it's essential to maintain momentum in indigenous defence production and elevate private sector involvement. Simultaneously, forging strong global strategic partnerships is key to securing India's place in the global defence value chains.

### Finding of the India Employment Report (IER) 2024

**News:** The India Employment Report (IER) 2024 raises concerns about whether the working class is actually benefiting from economic growth. It highlights a trend of increasing low-paid, casual jobs and a decrease in better-paying employment in urban areas, exacerbating poverty among the urban poor.

#### What are the major findings of the India Employment Report (IER) 2024?

The major findings of the India Employment Report (IER) 2024 are:

**Economic Growth and Benefit Distribution:** Economic growth of 5.4% from 2015-16 to 2022-23 raised questions about its benefits reaching the working class.

**Urban-Rural Disparities in Employment and Wages:** Urban areas saw a higher unemployment rate at 4.8% in 2000, compared to 1.5% in rural areas. Despite higher urban unemployment, urban wages were notably higher: 76% more for the self-employed, 44% more for regular employees, and 22% more for casual labor in 2022.

**Changing Migration Trends:** The report indicates a shift in migration patterns, with overall migration increasing but male migration slightly decreasing from 2000-08 and further in 2021.

**Urban Poverty and Migration:** Rural-to-urban migration led many to settle in slums, highlighting the need to analyze income and employment trends in these areas to understand economic mobility prospects for the urban poor.

**Women in the workforce:** The number of women in the workforce has dropped in slums but increased overall in urban areas. The study shows that casual labor wages have increased, but these jobs often lack security and benefits.

For more information [read here](#)

### Implications of Implementing Labour laws in IT/ITeS Sector

**News:** A new workers' union called Karnataka State IT/ITeS Employees Union (KITU) has demanded the removal of the exemption given to IT/ITeS establishments from the Industrial Employment (Standing Orders) Act, 1946.

The union alleges that the exemption has allowed employers to flout labor regulations. They are enforcing long working hours, and engaging in unfair practices without proper grievance redressal mechanisms. Karnataka has nearly 2 million workers engaged in the IT/ITeS sector.

#### How effective is the standing order?

The law in question does not provide new labor protections but aims to enhance transparency and workers' awareness of their existing rights.

In Karnataka, businesses with 50 or more employees are required to create and display 'Standing Orders'



## 9 PM Compilation For Month of April 2024

detailing service conditions, which must be certified by the government. This legislation allows worker representatives to advocate for conditions that exceed legal obligations, solidifying these conditions through formal agreements.

Employers must consult with worker representatives before implementing these Standing Orders, and in cases of disagreement, a tripartite discussion involving the employer, worker representatives, and the government is mandatory.

Employers face significant pressure from worker representatives to adopt conditions of employment that are not mandated under any law.

### What are the issues in implementing regulations?

It requires consultation with worker representatives and government involvement in determining conditions of service. Which would hinder the present fluid and flexible approach, where managers and workers find middle roads.

Certain demands from worker representatives, such as the “right to disconnect” after office hours, may not be feasible for IT/ITeS establishments serving clients across different time zones, potentially affecting their global competitiveness.

Well-educated workers in the IT/ITeS sector have a degree of agency and market mobility. It reduces the potential need for state coercion or union intermediation in determining employment conditions. Moreover, Standing Orders cannot be amended for six months without the consent of worker representatives. Excessive regulation or unionization could hamper the growth and flexibility of the IT/ITeS industry.

### What should be done?

The IT/ITeS sector in Karnataka is the backbone of the state’s economy. Furthermore, Services exports were a full \$325 billion in 2022-23 and can reasonably double every decade. Therefore, striking a balance between worker rights, economic dynamism, and global competitiveness is essential.

State government should improve monitoring and public disclosure of compliance with existing labor laws like PoSH and the Industrial Disputes Act. It will allow workers to make informed decisions when choosing employers.

## Impacts of Elon Musk's plan for his visit to India

**News:** The article discusses Elon Musk's planned visit to India to potentially invest in a car manufacturing plant and other business opportunities. It covers Tesla's situation, India's electric vehicle policies, and meetings with Indian officials. Musk will also explore space and internet projects through his other companies.

For details information on EVs policy read [Article 1](#), [Article 2](#), [Article 3](#)

### How is the electric vehicle market performing in India?

Electric vehicle (EV) sales in India are growing from a small base.

Currently, EVs account for 2% of all automobiles in the country.

Projections suggest that by 2030, EVs will make up about 5% of all vehicles in India.

This projection falls significantly short of the government's target of 30%.

### What are the impacts of Elon Musk's plan for his visit to India?

Created with love ❤️ by ForumIAS- the knowledge network for civil services.  
Visit [academy.forumias.com](https://academy.forumias.com) for our mentor based courses.

## 9 PM Compilation For Month of April 2024

**Investment in Manufacturing:** Elon Musk plans to invest over \$2 billion in a new car manufacturing facility in India, potentially creating jobs and boosting the local economy.

**Policy Engagement:** His visit includes a roundtable with space startups and a meeting with Prime Minister Narendra Modi, highlighting collaboration on future technology and policy initiatives.

**Tariff Reductions:** The government has tailored policies specifically for Tesla, such as reducing import duties to 15% for 8,000 electric cars annually, which can increase Tesla's market presence in India.

**Expansion of Technology:** Musk is expected to discuss Starlink, aiming to offer high-speed internet via satellites, which could improve connectivity in remote areas of India.

**Political and Economic Influence:** His interactions might influence future economic policies, especially related to technology and manufacturing sectors, making India a potential hub for EV and technology exports.

### What challenges does Tesla face in India?

**Market Size and Preference:** India's luxury car market is relatively small, limiting Tesla's mass market potential as their cars are positioned in the higher price segment.

**Local Competition:** Tata Motors, a local leader, has succeeded by adapting existing models for EV technology rather than developing new EVs from scratch, providing stiff competition.

**Infrastructure Challenges:** Tesla's Model 3 has faced issues like insufficient ground clearance for Indian roads, requiring potential redesigns for local conditions.

### New EV policy of government

**News:** The article discusses a new Indian government policy aimed at boosting electric vehicle (EV) production by reducing import duties and setting investment targets for manufacturers.

For details information on **Adoption of EVs** read [Article 1](#), [Article 2](#), [Article 3](#)

### What is the new government policy for EVs?

The Indian government's new policy **aims to establish India as a hub for electric vehicle (EV) manufacturing**, targeting global companies like Tesla and BYD.

Key provisions include reducing import duties for EVs imported as Completely Built Units (CBUs) to 15% from the previous range of 70%-100%, provided these EVs have a minimum CIF value of \$35,000. This reduced rate lasts for five years.

To qualify, manufacturers must invest at least \$800 million and set up a local production facility within three years, allowing them to import up to 40,000 EVs over five years, capped at 8,000 annually.

The policy **mandates localization targets**, requiring 25% localization within three years and 50% by the fifth year to integrate production with domestic market needs.

### How does this affect Indian manufacturers?

Indian manufacturers like Tata Motors have expressed concerns that reducing import duties for foreign EVs **could negatively impact the local industry**.

The policy is seen as particularly **advantageous for global Original Equipment Manufacturers (OEMs)**, focused on the luxury segment of the market, a segment where Indian companies currently have limited presence.

Most Indian players are strong in the market segments below ₹29 lakh, which may not directly benefit from

the reduced import duties aimed at higher-end models.

This differentiation in market focus might lead to **increased competition for Indian manufacturers in the premium vehicle segment.**

#### **What challenges do global players face in the Indian market?**

**Adaptation to Local Conditions:** Global players need to adapt their vehicles to India's specific environmental conditions, road infrastructure, and usage patterns, as mentioned by I.V. Rao from The Energy and Resources Institute.

**Lack of Charging Infrastructure:** The Indian market has a significant challenge due to inadequate charging stations. The Confederation of Indian Industry noted that India might need at least 13 lakh charging points by 2030 to support a substantial uptake of EVs.

**Consumer Preferences and Product Availability:** There is limited penetration (only 2.2%) in the affordable range for passenger vehicles due to a lack of locally adapted and priced products.

### **Significance of labour statistics**

**Context-**The article highlights the significance of having robust labour statistics to refute the arguments of employers about labour strikes, retrenchment and closures.

#### **What are the challenges in obtaining labor statistics?**

1) Labor statistics are not as rigorous as economic and industrial data. While surveys like the Annual Survey of Industries (ASI) and the National Sample Survey Office give detailed information, they often miss important details about the labor market. The data from the Labour Bureau mainly covers administrative matters and doesn't go into detail.

2) The data on work stoppages is collected voluntarily. There is also a lack of comprehensive data on labor inspections and retrenchment/closure applications at the national level.

**Impact-** This lack of quality data undermines the ability to have informed discussions and develop evidence-based arguments for reform.

#### **What are the challenges to labour reforms in the absence of robust labour statistics?**

1) **Social dialogue-** Due to lack of credible data, evidence-based reform arguments that enrich social dialogue are not able to take place. As a result, social dialogue agency like the Indian Labour Conference (ILC) fail to push reform agenda.

2) **Arguments by employer-** Absence of credible data gives credence to the demands of employers who criticize the labour inspection system as a case of "Inspector-Raj" and push for employer friendly reforms. This demand is also endorsed by organizations like IMF and World Bank.

**For ex-** a study by Besley and Burgess (B&B) in 2004 has been frequently cited by employers and others to advocate for changes like easier hiring and firing

3) **Closure reform-** There is a lack of credible data on request for business closure and approvals or rejections of these requests by the labor department. This data is mostly not publicly available, except for a brief period in Maharashtra.

4) **Strikes-**The Industrial Relations Code, 2020, makes legal strikes almost impossible and imposes heavy

penalties for illegal strikes. Trade unions could have used data from the Labour Bureau on strikes and lockouts to argue against stricter strike rules in the Code.

### **What measures can trade unions take to contribute to evidence-based reform discussions?**

- 1) They can gather statistics about various aspects of the labor market and industrial relations at the level of individual workplaces.
- 2) Trade unions can play a crucial role in reform discussions by producing labor statistics, conducting research on labor market dynamics, and engaging with academics to build evidence-based arguments.
- 3) Trade unions can influence policy decisions and promote worker interests by actively participating in social dialogue forums like the Indian Labour Conference and use empirical studies to support their positions.

Read more- [Labour laws' fairness challenge](#)

### **What is the significance of improved labor statistics and evidence-based arguments on the reform process?**

- 1) Improved labor statistics and evidence-based arguments can make reform efforts more credible and successful.
- 2) By sharing convincing data and empirical studies, trade unions can garner public support for their cause and push policymakers to prioritize labor reform efforts.

Trade unions should understand that reforms are debated not just through protests but also through evidence-based arguments using objective data and thorough studies.

## **Major concerns in global economics**

**News:** Global economic integration previously spurred growth, but now, trends towards de-integration are impacting the economy. These include changes in trade rules, environmental taxes, shifts in China's economy, and various government actions, all are affecting the world economy and business strategies.

### **How is the third globalization different from the early one?**

**Economic Engagement:** Third globalization involves more restricted economic engagement for countries misaligned in foreign policy and military affairs. Earlier, global access was more open, regardless of such alignments.

**Case of Russia and China:** The belief that integrating countries like Russia and China into globalization would lead them to freedom didn't hold; they now face restrictions due to differing policies.

**Capital Destruction:** This phase involves tangible and intangible capital destruction, like factory closures in China and oil extraction issues in Siberia, impacting global GDP.

### **What are the major concerns in global economics?**

#### **Carbon-Border Taxes Impacting Global Production:**

Carbon-border taxes, like the European Carbon Border Adjustment Mechanism, aim to equalize the cost of production inside and outside Europe. These taxes are not protectionist but ensure fair competition and are

similar to VAT on imports.

The shift towards renewable energy, especially in China (33% renewables), affects countries like India with less developed energy policies.

#### **Nationalistic Policies:**

Since 2013, under President Xi Jinping, China has seen centralized power, nationalism, and hostility towards foreigners. Their economy, previously boosted by credit, infrastructure, and construction, is struggling. China's attempt to subsidize exports conflicts with global trade rules and impacts other economies.

#### **Unsystematic Movements in Trade Policy:**

The erratic and unpredictable changes in trade policies by various countries have disrupted global trade norms established by agreements like GATT/WTO. An example is the looming threat to international digital service trade agreements, influenced by shifting political climates and elections.

#### **What is the situation of Indian Internationalization?**

Indian internationalization has faced challenges, with modest growth in foreign direct investment (FDI) and exports in the last decade.

From 2012 to 2022, total exports grew by about 3% per year in real dollars.

Services exports have been a strong component, showing significant success.

Government policies have been somewhat positive, like reducing import duties for phone parts and electric vehicles, benefiting companies like Apple, Xiaomi, and Tesla.

However, the overall strategy lacks focus, leading to underperformance in international markets compared to potential. Indian firms are increasingly integrating into the global economy through exports and FDI.

#### **Way forward**

There is a need to be more proactive in understanding and adapting to the economic and political landscape. In the era of the third globalization, diversification and envisioning potential risks are crucial for firm survival. Understanding the implications of carbon-border taxes, Chinese subsidies, and the unpredictable nature of global trade policies is vital.

## **Subject: Agriculture**

### **Topic- Major Crops - Cropping Patterns in various parts of the country**

#### **Issues with the sugarcane cultivation**

**Context-** Sugarcane growers in India are facing extreme uncertainty. With the new sugar year's crushing season set to begin in October, mills still owe sugarcane growers around Rs 3,000 crore for cane purchased back in 2013-14. The article highlights the need for paying more attention to sugarcane rather than sugar, by acknowledging its untapped potential.

#### **What is the economic and ecological importance of cultivation of sugar cane?**

## 9 PM Compilation For Month of April 2024

1) **High yields-** Cane has a higher yield as compared to other crops. For ex- Even the top Punjab farmer can only harvest around 5-6 tonnes of wheat and 8-9 tonnes of paddy whereas the least successful sugarcane grower in Uttar Pradesh can yield around 40 tonnes.

Thus, sugarcane, uses less water per day and even less for every unit weight of biomass produced. This is because it exhibits "C4 photosynthesis" which is a more efficient mechanism of deploying solar energy to convert atmospheric carbon dioxide and water into plant matter.

2) **Meeting fodder needs-** The green top-leaves of sugarcane meet most of the fodder needs for Uttar Pradesh farmers in winter and spring and is highly efficient at carbon sequestration.

3) **Electricity generation-** The high-pressure boilers used in modern sugar mills can generate around 130 kilowatt-hours of electricity from every tonne of cane that is, 300 kg bagasse or 660 kg steam.

4) **Renewable source of energy-** The largest component of sugarcane, that makes up about 30% of its weight, is bagasse. It's the fibrous material left over after the juice is extracted and is a valuable source of biofuel.

5) **Production of alcohol-** Molasse is the leftover juice after extraction of the maximum possible sugar from three cycles of boiling and crystallization. This non-recoverable sugar in the molasses gets fermented into alcohol.

Read more- [Is India's sugar surplus leading to a crisis?](#)

### What are the problems faced by sugarcane Cultivators?

1) **Pseudo-environmentalists** -There is no awareness about C4 carbon fixation ability of sugarcane. It is often presented as a water guzzling crop, threatening the availability of water for other crops.

2) **Obsession with sugar**-There is too much importance given to the production of sugar from sugarcane. This is despite the fact that it makes up just 10 % of the cane in terms of recovery during processing.

3) **Overlooking bagasse-based generation of electricity-** Bagasse-based electricity generation is mentioned incidentally, whereas more importance is given to wind and solar energy. However, sugar mills have installed around 2,700 MW of grid-interactive capacity producing real and reliable power.

4) **Lack of robust policy-** Centre does not have a robust ethanol-blending programme. In Brazil, ethanol is used for either a 25% blend with petrol or as 100% hydrous spirit for flex-fuel vehicles, but India is not properly implementing even a 5% blend.

5) **Role of State governments-** The UP government sets aside 34% of molasses produced by mills for supplying to country liquor makers. This implies that while cane farmers don't get paid, country liquor makers get subsidized molasses.

## Topic- Issues related to Direct and Indirect Farm Subsidies and Minimum Support Prices; Public Distribution System - Objectives, Functioning, Limitations, Revamping; Issues of Buffer Stocks and Food Security; Technology Missions; Economics of Animal-Rearing

### Climate change impacting wheat production in India

**News:** This article discusses the current situation of wheat harvests in India, affected by climate change. It mentions the challenges of temperature changes and the need for the country to develop wheat varieties that can withstand these changes for future sustainability.

### How is climate change impacting wheat production in India?

Wheat stocks in government storage are the **lowest in seven years, at 9.7 million tonnes as of March 1**. Climate change is causing temperature fluctuations, impacting wheat growth in India.

In 2022 and 2023, unseasonal rains and temperature spikes during grain formation led to yield losses.

Warm temperatures at sowing time in central India (MP, Gujarat, Maharashtra) resulted in fewer tillers and premature flowering.

Conversely, the Indo-Gangetic plains (Punjab, Haryana, UP, Bihar) are expecting a bumper harvest, thanks to normal March temperatures and good grain-filling progress.

Overall, despite lower yields in central India, the country might harvest more wheat than in the previous two years, balancing the impacts of climate change.

### How can India adapt to these changes?

India needs to **focus on breeding climate-resilient wheat varieties**, resistant to drought and heat.

The strategy should **shift from high fertilizer reliance to more efficient use of inputs** like water, nutrients, and energy.

Emphasis on Green Revolution 2.0, **aiming for higher yield with less resource consumption**.

Research to identify plant genes responsible for desirable traits like drought and heat tolerance is crucial.

Adapting sowing times and practices based on changing climate patterns can help mitigate adverse impacts.

Considering global wheat price trends, **temporarily easing import restrictions** could also be a strategic move.

### Improving Agri food space in India

**Context-** The current government is requesting different ministries to develop plans that they want to announce within the first 100 days of their third term. The ministries are contacting various experts to help them frame the right policy framework that is in sync with the vision of Viksit Bharat@2047. To improve Agri food space, there are certain suggestions that stem from discussions with experts at a four-day forum hosted by the Asian Development Bank on food security in response to climate change.

### Why does India need an improvement in Agri food space?

1) **Rise in population**-India's population is expected to reach about 1.6 billion by 2047, leading to more mouths to feed. In this context, agriculture must increase production of food, fiber, and biofuels while using fewer resources. This requires efficient use of land, water, labor, and inputs like fertilizers and machinery.

2) **Impact of climate change**- Indian agriculture system is being threatened by extreme weather events triggered by global warming. The El Niño effect last year caused agricultural GDP growth to decline from 4.7% in 2022-23 to only 0.7% in 2023-24, according to the second advanced estimate. It encourages knee-jerk actions like banning exports, imposing limits on traders' stocks etc.

3) **Urbanization of India**- By 2047, over two-thirds of India's population will live in cities, up from around 36% now. Migration from rural to urban areas for better jobs is a natural process that cannot be stopped. It implies that a lot of food will have to be transported from rural to urban areas which requires upgradation of existing infrastructure of transportation and processing etc.

4) **Fragmentation of land holdings**- Indias farming is fragmented into smaller and smaller holdings that prevents the scale that is demanded by processors, organized retailers, and exporters.

5) **Challenges of malnutrition**-India has one of highest number of stunted and wasted children. In the backdrop of these challenges, there is a need to move beyond simple food security to nutritional security.

Read more- [Farmer's Suicides In India](#)

**What are the suggestions made by the expert to improve India's Agri food space?**

1) **Invest in R&D**-India needs to improve its total factor productivity (TFP). This can be done by putting in more resources in Agri-R&D, innovations and extensions.

**Note**- TFP-It measures the amount of agricultural output produced from the combined set of land, labor, capital, and material resources employed in farm production.

2) **Promoting Smart Agriculture**-To overcome the challenges posed by climate change, the government should invest resources to create climate-resilient (smart) agriculture. It requires investments in seeds that are heat and flood-resistant and that could enhance efficiency of the irrigation system.

3) **Logistics revolution**-In order to tackle the increase in migration from rural areas, there is a need for a massive logistics revolution that is, from transporting to stocking to processing and organized retailing. This logistics revolution requires updating laws that align better with the market to build effective value chains. The new government should bring these changes.

4) **Scaling up activity of small farmers**- There is a need to bring small farmers together, through Farmer Producer Organizations (FPOs) or cooperatives (as was done in the milk sector, a la AMUL). This will create a scale that is demanded by processors, organized retailers, and exporters.

5) **Fortification of food crops**-To address the challenge of malnutrition, there is need to fortify staples with micro-nutrients. The government should fortify rice with beta carotene because rice is India's first crop, and most of those children who are malnourished today consume a lot of rice.

6) **Leveraging role of private sector**- The government must provide a conducive policy framework to encourage participation of the private sector in building efficient value chains and produce seeds that are climate-resilient and more nutritious. Further, the government can devise PLI-type schemes for food systems transformation.

7) **Direct transfer approach**- There is a need to rationalize India's subsidy regimes, be it fertilizers or food. Switching from price subsidies to direct income transfers for beneficiaries can save at least 25 to 30 percent of the Rs 4 trillion subsidy on food and fertilizers.

### Beekeeping in India

**News:** This article discusses the growth and potential of India's beekeeping industry, highlighting its significance in agriculture and exports.

For details information on **Apiculture- Scope and Opportunities** [read here](#)

**What is the current state of beekeeping in India?**

1. India is the sixth-largest global exporter of honey.
2. Since 2005-06, honey production in India has increased by 240%, and exports have grown by 260%.
3. From 2018-19 to 2022-23, domestic production rose by 72% (from 77,000 tonnes to 133,000 tonnes), and exports increased by 86% (from 43,000 tonnes to about 80,000 tonnes).
4. Currently, about 80% of India's honey exports go to the United States, with smaller quantities shipped to the UAE, Saudi Arabia, Libya, Morocco, and Canada.
5. Beekeeping is primarily practiced in Uttar Pradesh, West Bengal, Punjab, Bihar, and Maharashtra.

**What are the benefits of beekeeping?**



## 9 PM Compilation For Month of April 2024

**Economic Growth:** Beekeeping significantly contributes to agriculture and exports, with Indian honey exports growing faster than production rates, showcasing its profitability.

**Health Benefits:** Honey is recognized for its health-enhancing properties, including boosting immunity and having antibacterial effects, which became particularly valued during the pandemic.

**Agricultural Benefits:** Honeybees are crucial for pollinating approximately 16% of the world's important flowering plant species, enhancing crop yields and quality significantly. For instance, honeybee pollination can increase seed production of radish by 22-100% and of cabbage and cucumber by up to 400%.

**Pharmaceutical and Cosmetic Industry Demand:** By-products like royal jelly, bee wax, and propolis are in high demand due to their beneficial properties, supporting various industries.

### What Challenges Does the Indian Honey Sector Face?

**Market Diversification:** Currently, nearly 80% of Indian honey exports are to the United States, indicating a heavy reliance on a single market.

**Quality Issues:** There is rampant adulteration of honey with sugar syrup, which negatively affects the reputation of Indian honey both domestically and internationally.

**Geographic Limitation:** Beekeeping is confined primarily to certain states (Uttar Pradesh, West Bengal, Punjab, Bihar, and Maharashtra), limiting national production capacity.

### What Government Initiatives Support Beekeeping?

**National Beekeeping and Honey Mission:** This initiative was launched to accelerate the technological modernization of the beekeeping sector and improve productivity.

**National Bee Board:** Part of broader efforts to support the honey industry, this board plays a role in technological advancements and sector growth.

**"Sweet Revolution":** Introduced in 2017 to expand and enhance the honey sector along the lines of the Green and White Revolutions.

**ICAR's Research Projects:** The Indian Council of Agricultural Research conducts an all-India coordinated research project on honeybees and pollinators to boost honey output and overall quality through specific regional strategies.

## Need of Climate Friendly Agriculture

**Context-** Earth Day was first observed on 22 April 1970 to demonstrate support for environmental protection. Since then, many conferences of Parties (COPs) meetings have been held, with the latest being COP 28 in Dubai, UAE, in November-December 2023. This is significant because agriculture was included in the agreement for the first time.

However, India, unlike many G20 countries such as the US and China, did not sign the agreement. The government believed that signing it would require substantial changes in agricultural policies and farming practices.

### What are the reasons for the biodiversity loss in India?

1) The increasing human population is a major cause of biodiversity loss on Earth. Humans took over 200,000 years to reach one billion by 1804. The next billion was added in only 123 years by 1927. And now, in less

than 100 years, the population has surged from two billion to over eight billion. This rapid growth has led to the clearing of forests for farming to prevent mass famines and starvation deaths. However, this has resulted in the loss of several species and genetic diversity.

**What are the inappropriate policies adopted in agriculture that have harmed the planet?**

1) **Depleting organic carbon content of the soil**-The heavy subsidization of chemical fertilizers, especially urea, has caused imbalanced use of nitrogen (N), phosphate (P), and potash (K) leading to depletion of soil's organic carbon.

As per the expert, the ideal level of soil organic carbon (SOC) should be between 1.5 to 2 percent. However, more than 60 percent of Indian soils have SOC levels of less than 0.5 percent.

2) **Groundwater depletion & emission of carbon**- The ground water level in Punjab, Haryana, and Rajasthan is depleting rapidly. This is due to free power for irrigation, fixed prices for crops, and unrestricted purchase of rice, which have encouraged excessive use of groundwater.

This has caused an environmental crisis in these areas, with the water level dropping each year and rice fields releasing carbon at a high rate of nearly 5 tons per hectare.

3) **Loss of crop diversity**-Faulty agricultural policies are leading to the loss of crop diversity. For ex- in 1960, only 4.8 % of Punjab's farmland was used for growing rice. Today, it's over 40 % displacing crops like maize, millets, pulses, and various oilseeds.

Read more- [Technologies for sustainable agriculture development](#)

**What should be the way forward?**

1) **Direct Income Transfer**-There should be a shift from heavily subsidizing the prices of nitrogen, phosphorus, and potassium to directly giving income to farmers and allowing the market to determine the prices of these nutrients.

However, this requires early preparations such as updating farmers' land records, knowing the crops they grow, their irrigation methods, and so on.

2) **Planet positive policies**- There is a need to make food systems resilient to climate change, improve soil health, stop groundwater depletion, significantly lower greenhouse gas emissions, and reward biodiversity with green credits.

**Issues in poultry industry**

**Context**- The recent H5N1 outbreak was long overdue due to outstanding warnings about unsafe conditions in industrial livestock production. The current public health crisis highlights the connection between animal welfare, public health, ecosystem health, and biodiversity conservation, emphasizing the importance of the One Health principle.

**What are some problems with industrial poultry production in India?**

1) **Environmental Pollution**-Industrial poultry production in India leads to contaminated environments due to overcrowded wire cages, resulting in poor air quality, odour, particulate matter, and greenhouse gas emissions.

2) **Issues with farmers-**

A) Poultry farmers struggle to leave the industry because of contract farming, hefty debts, and the need for specialized skills, even when they're facing financial losses.

B) Farmers collect the waste or faecal matter to use as fertilizer, but sometimes there's too much waste for

the land to handle, causing pollution. This excess waste damages crops and attracts disease-carrying flies, creating problems for farmers and the neighboring population.

3) **Anti-biotic usage**- Farmers use antibiotics to prevent illness and help birds grow faster. However, this may lead to a rise in cases of antibiotic resistance. The antibiotics that are used for birds are considered important by the WHO.

4) **Health Impacts** - Keeping animals in cramped conditions not only harms their well-being but also endangers the health of people who work in or live near these places. The World Health Organization (WHO) says that among humans, the H5N1 flu has a fatality rate of 52%, with 463 deaths out of 888 cases since 2003. Most human infections with this bird flu come from being close to infected birds or contaminated places.

5) **Violation of The Prevention of Cruelty to Animals (PCA) Act**-This act makes it illegal to keep animals in confined spaces. Activities in industrial places that cause animals pain or suffering are a violation of the PCA Act.

Read more- [Economics of Animal Rearing](#)

### **What recommendations have been made for legal reform in the poultry industry?**

- 1) The 269th Law Commission of India Report in 2017 highlighted that with more open, cleaner, and ventilated living spaces, animals are less likely to need constant antibiotics.
- 2) The law commission recommended a set of two draft rules for the welfare of chickens in the meat and egg industries. It included subjects like animal care, waste management, and antibiotic use, etc. However, the Draft Rules for the egg industry released by the Ministry of Agriculture and Farmers' Welfare in 2019 are weak and tokenistic. They should follow the recommendations of the Law Commission.

Thus, there is a need for stricter oversight and enforcement of environmental regulations because the poultry industry is now considered highly polluting by the Central Pollution Control Board.

## **Topic- Infrastructure: Energy, Ports, Roads, Airports, Railways etc**

### **Nuclear energy- A solution for clean energy transition**

**News**- Brussels has recently hosted a first-of-its-kind Nuclear Energy Summit. It was touted as one of the most high-profile international meetings on nuclear energy ever.

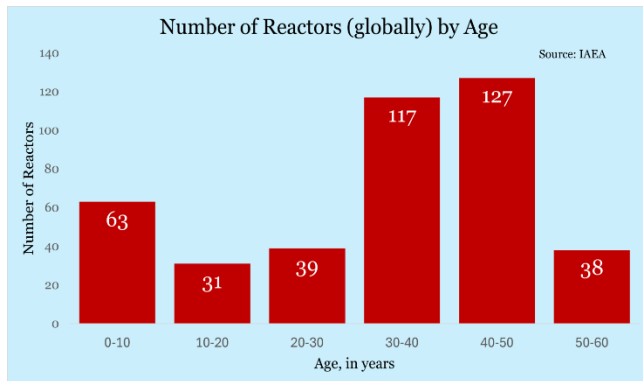
**Context**- This meeting is one of the latest in a series of efforts that were being made in the last few years to project nuclear energy as an important solution to deal with problems of climate change and energy security.

### **What is Indias position on nuclear energy?**

- 1) India has 23 operational nuclear reactors. The currently operational reactors have a combined installed electricity generating capacity of 7,480 MW (about 7.5 GW). The share of nuclear energy in total electricity generation capacity is just about 3.1%. This is among the lowest in countries that do use nuclear energy
- 2) There are at least ten more reactors that are under construction, and the capacity is supposed to triple to 22,480 MW by 2031-32.

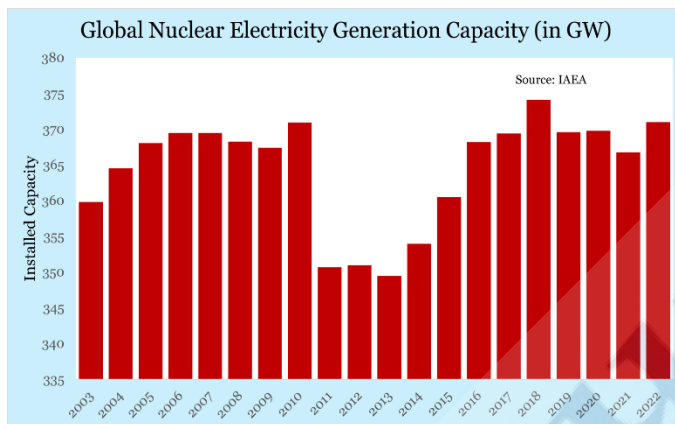
India does acknowledge the role of nuclear energy in its decarbonization plan and is planning for a rapid expansion in the coming years. However, despite this also, the share of nuclear energy in electricity generation is likely to remain extremely modest in the future.

### What is the status of nuclear energy installation in the world?



1) As per IAEA data, the number of operational nuclear reactors has come down in the last 20 years, from 437 in 2003 to 411. The average life of these reactors is more than 31 years, which also highlights the fact that few new reactors have been installed in the last decade.

2) The total installed electricity generation capacity has shown only a marginal increase during this period, from about 360 GW in 2003 to 371 GW now.



3) It accounts for less than 10 % of global commercial electricity generation. Its share has been declining for almost three decades now.

### What is the significance of nuclear energy in meeting the twin objective of energy security and decarbonization?

1) **Reduced carbon emission**-It is a clean source of energy with a minimal carbon footprint. As per IAEA, (International Atomic Energy Agency) even when the entire life cycle is considered such as reactor construction,

uranium mining and enrichment, waste disposal and storage etc, greenhouse gas emissions are only in the range of 5 to 6 grams per kilowatt hour.

This is more than 100 times lower than coal-fired electricity, and about half the average of solar and wind generation.

2) **Incessant Supply**-It provides continuous power, unlike wind or solar which are seasonal or time-dependent.

3) **Endorsed by IPCC & others**- Adoption of nuclear energy is recommended by IPCC(Intergovernmental Panel on Climate Change) for decarbonization. As IAEA, it is already contributing to reducing greenhouse gas emissions. Nuclear power generation results in avoiding emissions of more than 1 billion tonnes of CO<sub>2</sub> equivalent every year.

### What are the reasons for low installation of nuclear energy in the world?

1) **Safety concerns**- This is one of the main reasons behind the poor uptake of nuclear energy in recent years. For ex- Fukushima accident in 2011 and the continuing crisis at the Zaporizhzhya nuclear power plant in Ukraine.

2) **High cost**- Nuclear reactors require high investments and a technology base.They take years to build and must operate under a variety of regulations and constraints which makes them unattractive for many small and developing countries.

3) **Lack of research**-There has been lack of research to bring down the cost of nuclear energy like solar and wind in the last decade. As a result, rapid adoption of nuclear energy could not occur.

Read more- [India's Nuclear Energy Program](#)

### What are the steps taken to promote nuclear energy in the world?

#### 1) Initiatives by IAEA-

- a) It has also organized the first-of-its-kind Nuclear Energy Summit in Brussels recently.
- b) It has launched an 'Atoms4Climate' initiative to highlight the potential of nuclear power to accelerate the clean energy transition.
- c) It has set up a pavilion for the first time at COP27 in Sharm el-Sheikh.

2) **COP Outreach**-Outcome from COP 28 formally acknowledged that nuclear energy is one of the zero, or low-emission technologies that should be promoted to achieve rapid decarbonization. This was the first time that nuclear energy was mentioned in any COP outcome.

There is this misperception that renewables will solve everything in the short run. However, in the long run, as the demand for clean energy increases, there will be requirement of nuclear energy in a big way.

### Challenges faced by local solar panel manufacturers

**News:** This article discusses how subsidies and import restrictions aimed at boosting local solar panel manufacturing may not be effective due to lower costs of imported panels and the commoditized nature of the product.

For details information on **Solar Energy in India** read [Article 1](#), [Article 2](#)

### What challenges are faced by local solar panel manufacturers?

**Competition from Low-Cost Imports:** Local manufacturers struggle to compete with cheaper solar panels imported from Southeast Asia. These imports are often more affordable even with tariffs applied. For instance, best-in-class modules from Southeast Asia are becoming "irresistibly cheap" for US developers.

**Standardized Product Issue:** The solar industry produces highly standardized products. This makes it challenging for local manufacturers to offer something unique or superior. As Pol Lezcano of Bloomberg NEF notes, the solar industry's commoditized nature limits the competitive advantage of local production.

**Global Manufacturer Dominance:** The sheer scale of production by global leaders like China's JinkoSolar overshadows local manufacturing. JinkoSolar alone shipped over 78 gigawatts in 2023, with plans to increase to 100-110 gigawatts in 2024, surpassing demand in major markets outside China.

**Economic Shifts:** Companies like Meyer Burger are moving operations from Europe to the US due to deteriorating business climates, demonstrating the challenging environment for local solar panel production in certain regions.

### What efforts are being made to boost local solar panel manufacturing?

**Subsidies and Incentives:** The article highlights that countries like the US and Europe are offering subsidies to encourage local solar panel manufacturing. These include financial incentives to make local production more viable against cheaper imports.

**Import Disincentives:** Alongside subsidies, there are disincentives for importing solar panels. This approach includes imposing tariffs on imported solar products to make locally manufactured panels more competitive.

**Strategic Company Movements:** An example is provided with Meyer Burger, a Swiss solar panel maker. Facing a challenging business environment in Europe, the company is refocusing on manufacturing in the US, influenced by the local manufacturing push there.

### What is the status of methane control efforts?

Methane emissions, mainly from the energy sector and agriculture, are a significant concern. Global efforts are underway to monitor and reduce these emissions. For instance, over 50 oil and gas companies have committed to reducing their methane emissions by the end of the decade. Tools like the MethaneSAT satellite and initiatives like the International Methane Emissions Observatory are helping in tracking and managing methane emissions effectively.

### Green Hydrogen

**News:** The article discusses India's efforts to use green hydrogen, a cleaner fuel, for transportation. It talks about government funding for pilot projects, development by vehicle manufacturers, and challenges like cost, infrastructure, and technology for hydrogen fuel compared to traditional and electric vehicles.

For details information on green hydrogen read [Article 1](#), [Article 2](#), [Article 3](#)

### What is the New Scheme by the Ministry of New and Renewable Energy (MNRE)?

**MNRE's New Scheme:** The Ministry of New and Renewable Energy (MNRE) in India has announced a key scheme with several components:

**Funding Allocation:** Rs 496 crore allocated, extending until 2025-26.

**Pilot Project Support:** Focus on pilot projects to test green hydrogen as a vehicle fuel.

**Infrastructure Focus:** Development of hydrogen refuelling stations.

**Role of the Ministry of Road Transport & Highways:** Collaboration in selecting and executing projects.

**Project Execution Agency:** The selected company or consortium will act as the executing agency.

**Viability Gap Funding (VGF):** MNRE, based on the Project Appraisal Committee's recommendation, will approve VGF for each project, considering their specific needs, merits, and feasibility.

**Timeframe:** The executive agency must complete the pilot project within two years.

### How is Green Hydrogen Produced?

Green hydrogen is produced using a process called electrolysis, where water is split into hydrogen and oxygen. This process is powered by renewable energy sources, making it environmentally friendly and virtually emission-free.

Unlike grey hydrogen, which is created from natural gas and emits a lot of carbon, green hydrogen uses water as its feedstock and doesn't release any carbon upon consumption.

This method positions green hydrogen as an end-to-end sustainable energy solution.

### What are the benefits of green Hydrogen Fuel?

**Emission Reduction:** Green hydrogen, being virtually emission-free in production and usage, significantly reduces greenhouse gases.

**Environmental Impact:** It aids in combating global warming and climate change by offering a cleaner alternative to fossil fuels.

**Energy Independence:** India could reduce its dependence on costly fossil fuel imports, contributing to energy security.

**Economic Opportunity:** There's potential for India to become a global hub in the production and export of

green hydrogen, fostering new business opportunities.

**Sustainable Transportation:** It's a promising solution for the transportation sector, particularly for heavy-duty vehicles like trucks and buses, where it can replace diesel, reducing pollution.

**Technological Advancement:** Green hydrogen production advances renewable energy technologies and supports the shift towards sustainable energy practices.

### What challenges does Green Hydrogen face?

#### Cost Challenges:

High production costs make green hydrogen currently more expensive than other fuels. Storage demands stronger carbon fibre for high-pressure cylinders, adding to the expense. Developing infrastructure like refueling stations incurs significant costs.

#### Technical and Supply Issues:

Storing and transporting hydrogen is complex due to high pressure requirements. Supply complications, as observed with Shell's hydrogen refueling stations in California.

#### Safety and Standards:

Hydrogen's flammability necessitates stringent safety protocols and handling standards.

#### Competition and Market Readiness:

Electric vehicles (EVs), particularly with advancements in battery technology, pose a competitive challenge. Green hydrogen-powered vehicles are yet to gain widespread acceptance as an alternative to battery electric vehicles (BEVs) for personal transportation.

### What are Hydrogen Fuel Cell Vehicles?

**Hydrogen fuel cell vehicles (FCEVs)** use hydrogen to generate electricity through a fuel cell, powering the vehicle. They store hydrogen in high-pressure tanks and convert it into electricity, with water being the only byproduct.

These vehicles are **lighter than battery electric vehicles (BEVs)** because hydrogen is a light element and fuel cell stacks weigh less than EV batteries. FCEVs are seen as a viable option, especially for heavy-duty trucks, due to their **increased payload capacity**.

## India's solar energy capacity

**News:** The article discusses India's Ministry of New and Renewable Energy re-introducing the **Approved List of Models and Manufacturers of Solar Photovoltaic Modules (ALMM)**. This list encourages the use of locally made solar equipment in government projects to reduce dependence on imports and support India's solar industry.

### What is the status of India's solar energy capacity?

India's solar energy capacity is growing, aiming for 500 GW from non-fossil fuels by 2030. India heavily relies on imports to meet its solar energy needs, particularly from China and Vietnam. China is a major supplier, contributing to 53% of India's solar cell imports and 63% of solar PV modules. In the past five years, India's solar import value reached approximately \$11.17 billion. China's dominance in the sector is further highlighted by its 80% share in global manufacturing capacity for key solar components.

For details information on **India's solar energy status** [read here](#)

### Why is China a leading exporter?

**1.Lower costs of power supplied to the industry play a significant role**, as electricity is a major part of production costs. For instance, electricity accounts for over 40% of the costs in making polysilicon and around 20% for ingots and wafers.

**2. The Chinese government has strategically prioritized solar PV as a key sector**, supporting it through policies.

For details information on **Challenges faced by local solar panel manufacturers** [read here](#)

### What incentives has the Indian government taken to improve its solar energy capacity?

**1.Reintroduced ALMM:** The Indian government reintroduced the Approved List of Models and Manufacturers (ALMM) to prioritize domestic solar products in government projects. The ALMM list aims to support local manufacturers and was reactivated as part of India's strategy to reduce import dependence and boost local manufacturing in the solar energy sector.

For details information on ALMM read [Article 1](#), [Article 2](#)

**2.The Production Linked Incentive (PLI) scheme**, with an allocation of ₹19,500 crore, is aimed at scaling up the entire solar manufacturing chain in India.

**3.Customs duties** of 40% on solar PV modules and 25% on solar cells were introduced to reduce dependency on imports. However, these duties were later halved due to slow solar capacity additions and pressure from low-cost imports.

### What is the future of India's solar energy capacity?

**Government Ambitions:** India aims for 500 GW of non-fossil fuel capacity by 2030, emphasizing solar power.

**Rapid Demand Growth:** India is experiencing the fastest growth in electricity demand among major economies, partly driven by efforts to combat extreme weather.

**Vast Potential:** With an **estimated solar potential of 748.99 GW**, India has a significant opportunity to harness solar energy

### Claims that solar and wind energy are the cheapest forms of electricity are misleading

**News:** The article discusses why claims that solar and wind energy are the cheapest forms of electricity are misleading. It highlights the hidden costs associated with their intermittent and the need for expensive backups like batteries, which significantly increase their overall costs.

For details information on **the difficulty with renewables** read [Article 1](#), [Article 2](#), [Article 3](#)



### Why claims that solar and wind energy are the cheapest forms of electricity are misleading?

**Subsidies and Financial Support:** Developed countries spend large amounts on subsidies to support the transition to renewable energy. For instance, governments around the world needed to spend \$1.8 trillion on green transitions last year. These subsidies artificially lower the cost of solar and wind energy, masking their true economic impact.

**Intermittency Costs:** Solar and wind energy depend on weather conditions; thus, they are not always available. This necessitates expensive backup systems, such as batteries or fossil fuel plants, to provide power during downtimes. The real cost of solar, when factoring in reliability, could increase by 11 to 42 times, making it much more expensive than traditional power sources.

**Storage Challenges:** Adequate battery storage is essential for dealing with periods when solar and wind cannot generate power. For example, a study indicated that the U.S. would need enough storage to cover almost three months' worth of electricity to fully rely on renewable sources, currently, it only has seven minutes of battery storage.

**Environmental and Recycling Costs:** The disposal of wind turbine blades and solar panels poses environmental risks and adds to the total cost. A town in Texas struggles with non-recyclable turbine blades, and in Africa, discarded solar panels leak harmful chemicals.

### What should be done?

1. Focus on research and development to improve battery storage capabilities and efficiency of renewable energy technologies.
2. Need for advancing technologies that can complement or enhance renewable energy solutions.
3. Enhance recycling technologies for wind turbine blades and solar panels to mitigate environmental impacts and reduce waste.

## Boosting India's Logistics

**News-** The Ministry of Railways is planning to offer 200 Gati Shakti Cargo Terminals to private firms and freight operators. According to government estimates, the 200 new terminals would require an investments worth ~12,000-14,000 crore.

### What are some of the issues faced by the railway sector?

- 1) Indian Railways has plenty of surplus land. However, it is not being utilized efficiently.
- 2) Indian Railways lost a lot of cargo business to road sector largely due to its own inefficiencies and partly because of significant improvements in road infrastructure.
- 3) Financial Struggles: Despite efforts to improve services, the railways' social obligation to provide affordable transport is often unprofitable. For instance, in 2023-24, operating expenses nearly exceed passenger and goods revenue.
- 4) Revenue Disparity: AC-class passengers, though only 11% of the total, generated over 50% of the revenue in 2023-24, highlighting a reliance on a small, more affluent customer base.
- 5) Capacity Constraints: There is a chronic shortage of berths, with 52.6 million waitlisted tickets canceled in 2023, earning substantial cancellation fees

Read more- [National Monetisation Pipeline Project](#)

### What is the government's policy on long-term leasing of railway land?

## 9 PM Compilation For Month of April 2024

**Aim-** The policy includes building 300 Gati Shakti Cargo Terminals over the next five years.

### **Provision-**

- A) The policy allows leasing railway land for cargo facilities for up to 35 years, charging 1.5% of the land's value annually.
- B) The allocation is made through competitive bidding.

### **What is the significance of this move by the government?**

- 1) **Enhance capacity of logistics sector**-It will ensure better utilization of railway's land and further boost the capability in the logistics sector.
- 2) **Ownership rights**- The railways will not incur additional expenditure in this area. The successful bidders for these terminals will bear the cost of building the facility and take the business risk, while the railways will have the ownership.
- 3) **Boost the revenue**- Improved logistics will help generate additional cargo traffic for the railways and boost its revenue. As per estimates, each new terminal could add 1 million tonnes of cargo yearly, giving about 100 crore extra revenue.
- 4) **Boost internal trade**-Improved cargo facilities, along with added services, would boost internal trade and further enhance the ease of doing business.
- 5) **Employment potential**-The development of cargo terminals is estimated to generate 120,000 employment opportunities.
- 6) **Minimize carbon emission**-Transportation of freight by railways as opposed to the roadways is more cost efficient and helps contain carbon emission.

## **Subject: Science & Technology**

**Topic- indigenization of technology and developing new technology. Indian economy- Government budgeting.**

### **What Indian scientists want from the upcoming government**

**News:** The article discusses what Indian scientists want from the upcoming government.

### **What do Indian scientists expect from the new government?**

Indian scientists have clear expectations from the new government to advance research and innovation in the country:

**Increase in R&D Spending:** Scientists expect a substantial increase in the national gross expenditure on R&D, aiming for it to reach nearly 4% of GDP by the end of the government's term. Currently, R&D spending is below 0.7% of GDP, with less than 40% coming from private sectors. They propose enhancing private sector contributions through significant funding (₹36,000 crore over five years) to the Anusandhan National Research Foundation.

For details information on **India's R&D Funding Status** [read here](#)

## 9 PM Compilation For Month of April 2024

**Infrastructure Improvements:** Upgrades are needed for the physical and intellectual infrastructure of public sector institutions, including modernization of science labs in universities and doubling the number of quality teachers and researchers over the next five years.

**Merit-Based Hiring:** Implementation of transparent, fast, and influence-free hiring processes that align with global standards and are completed within six months.

**Grant Management Reforms:** A more efficient grant management system is needed, with less bureaucracy and more autonomy for scientists. This includes the flexibility to make purchases outside of the government's e-marketplace to ensure the quality of research materials.

For details information on **Recent Concerns with India's Science Management** [read here](#)

**Freedom for Scientists:** The government is expected to provide scientists with the freedom to speak, write, and innovate without interference, along with the autonomy to manage their funds and resources effectively. This freedom is crucial for them to contribute effectively to India's ambition of being a leading economy by 2050.

### Implications of amendment to patent laws

**Context:** The article discusses the importance of a robust and affordable pharmaceutical industry in maintaining a good health system.

The Article highlights the role of generic pharmaceutical companies in providing competition to patented drugs, thereby reducing costs and improving access to essential medicines.

Medicines constitute nearly 50 per cent of the health costs incurred by people.

The high cost of medicines is primarily due to patenting, which can be mitigated by allowing competition from generic pharmaceutical companies.

The Indian Patent Law allows for opposition to patenting of medicines, enabling generic companies to produce the same drug and foster competition, which is key to lowering prices.

#### How patent laws in India amended?

The change in the Patent Act in the early 1970s, which protected only the process but not the product. It facilitated the growth of the generic industry and made India a leading exporter of affordable drugs.

The TRIPS Agreement of 1995 mandated the re-introduction of product patents, but India introduced amendments like Section 3(d) to prevent evergreening of patents and ensure therapeutic efficacy. In Novartis case, Madras High Court upheld Section 3(d) of the Indian Patent Act.

The Indian Patent Act allows the government to issue compulsory licenses to other companies for producing patented drugs in the public interest or if the drug is not reasonably affordable.

**Amendment Introduced:** However, recently new amendments have been moved, due to some international agreement negotiations and pressure from big pharma companies. Old rules facilitated the filing of Pre-Grant Oppositions (PGOs) by Civil Societies and other parties, which was to be replied by the patent applicant.

The amended Indian Patent Law make it difficult to file pre-grant oppositions (PGOs) to patents, potentially leading to easier patenting and higher drug prices.

#### Implications of amendment

It discourages patient groups or civil society organizations from opposing frivolous patents.

It gives the patent controller arbitrary power to dismiss PGOs without hearing the opponent.

## 9 PM Compilation For Month of April 2024

The amendments also reduce the frequency of reporting on the “working” of patents, making it harder to seek compulsory licensing for non-worked patents.

### Significance of aircraft carrier

**News:** The article discusses the Indian Navy's aircraft carrier INS Vikrant, detailing its design, capabilities, and the significance of its indigenous construction. It also mentions India's plans for another carrier, the challenges and global trends in carrier and submarine development.

For details information on **Indian aircraft carriers (IAC)** read [Article 1](#), [Article 2](#)

#### What is the significance of INS Vikrant?

**Indigenous Design and Construction:** INS Vikrant, commissioned in 2022, is India's first aircraft carrier built domestically, marking a significant achievement in indigenous shipbuilding capabilities.

**Innovative Material Use:** The decision to develop and use **DMR-249 steel**, a warship-grade steel produced in India, for INS Vikrant set a precedent. This material is now utilized for the construction of all warships in India, enhancing the nation's self-reliance in naval defense manufacturing.

**Enhanced Naval Capabilities:** Equipped to operate 30 aircraft, including MiG-29K jets and various helicopters, INS Vikrant enhances India's naval power and operational flexibility.

**Economic Impact:** The carrier's construction involved approximately 500 MSMEs and 12,000 employees from ancillary industries, boosting local employment and technological development.

**Strategic Significance:** INS Vikrant's commissioning allows India to project power and maintain a credible naval presence, supporting maritime security across the Indian Ocean Region.

#### What is the future of Indian aircraft carriers?

**Expansion Plans:** India is planning a second Indigenous Aircraft Carrier (IAC-II), similar to INS Vikrant but with updated technologies, ensuring continuity in naval capabilities.

**Technological Advancements:** The new carrier will incorporate lessons learned from INS Vikrant, featuring modifications for improved performance.

**Strategic Continuity:** The IAC-II aims to replace INS Vikramaditya, maintaining India's vision of operating two active carriers simultaneously, which is crucial for regional security and naval dominance.

**Long-Term Vision:** Despite the high costs and long construction times, India remains committed to its aircraft carrier program to uphold its status as a major maritime power.

#### What are the global trends in carrier and submarine development?

**Global Expansion:** Many nations are expanding or upgrading their carrier fleets. The U.S. is launching super carriers, the U.K. has introduced new carriers, and France and Russia are planning new builds.

**Technological Shifts:** Countries are integrating advanced technologies into carriers and submarines, emphasizing enhanced capabilities and stealth.

**Carrier Conversion:** Japan is converting helicopter carriers to operate F-35 jets, showing a trend toward versatile, multi-role platforms.

**China's Accelerated Growth:** China is rapidly expanding its carrier fleet, having commissioned its first carrier, Liaoning, in 2012. It has since launched two more, with the third, Fujian, introduced in 2022, and a fourth, potentially nuclear-powered, soon to be unveiled.

## Significance of Technology Policy reforms for India

**Conext:** The article discusses how important it is for India's next government to update and enhance its technology policies and capabilities. It highlights how major countries like China and the US are focusing on technology to boost their economies and geopolitical influence.

For details information on **What Indian scientists want from the upcoming government** [read here](#)

### What is the current focus of global technology policy?

**China's Technological Ambitions:** China is intensifying efforts to master advanced technologies such as electric vehicles, commercial spaceflight, and quantum technology. President Xi Jinping emphasizes technological progress to surpass the US and boost China's global standing.

**US Strategic Initiatives:** The US, under President Biden, has enacted major legislation like the Infrastructure Investment Act and the CHIPS Act to regain leadership in high-tech sectors. These acts are part of a broader strategy to limit Chinese access to American technology and strengthen US technological supremacy globally. Additionally, the US is forming strategic alliances, such as the Quadilateral forum with Australia, India, and Japan, and the Chip-4 alliance with Japan, South Korea, and Taiwan, to consolidate its tech leadership.

**Europe's Response:** French President Macron advocates for increased investments in AI, quantum computing, and green technologies to close the gap with the US and China.

### What has been India's approach?

**Digital Technology for Services:** India has leveraged digital technologies extensively to enhance the efficiency of government service delivery to the public.

**Renewable Energy Focus:** The Indian government has emphasized investments in renewable energy sources as a key part of its development strategy.

**Semiconductor Production:** There has been a concerted effort to place India back on the map in the semiconductor industry, recognizing its strategic and economic importance.

**AI Development Strategy:** India is accelerating its capabilities in artificial intelligence, aiming to keep pace with global advancements and applications in various sectors.

**Strategic International Partnerships:** Technology plays a pivotal role in India's foreign policy, especially in strengthening strategic partnerships with the U.S. and Europe.

### What does India need to do Next?

1. India needs a comprehensive reform of its technology departments to align with current technological imperatives.
2. There's a critical need to significantly boost national expenditure on research and development to foster innovation and stay competitive globally.
3. Greater participation from the private sector in research, development, and production of modern technologies is essential.
4. The government must modernize science and technology monopolies that were established post-Independence to meet the demands of a technology-driven economy and national security

## Topic- -Awareness in the fields of IT, Computers, robotics, nanotechnology, issues relating to intellectual property rights

### Lawsuit filed by The New York Times against OpenAI and Microsoft

**News:** This article discusses a lawsuit filed by The New York Times against OpenAI and Microsoft. The NYT claims these companies used its copyrighted content without permission to train their AI models, which then created similar content, potentially infringing on NYT's copyrights.

For details information on generative artificial intelligence read [Article 1](#), [Article 2](#), [Article 3](#)

#### How does the NYT argue its case?

**Claims of Content Usage:** The NYT claims OpenAI and Microsoft used its content, like articles and opinion pieces, to train their AI without permission.

**AI Generating Similar Outputs:** They argue this AI can generate outputs like NYT's style, sometimes using verbatim text.

**Competition and Financial Impact:** The lawsuit suggests this capability competes directly with the NYT, potentially taking away readers and revenue. The newspaper mentions financial losses but doesn't specify an amount, seeking an injunction instead.

**Targeted and Extensive Use of NYT Content:** The NYT emphasizes that their content was specifically targeted and extensively used in AI training.

**Argument Against Fair Use:** The NYT contests the idea that this usage constitutes fair use, arguing that it's not transformative and directly competes with their original works.

#### What is OpenAI and Microsoft's Defense?

**OpenAI's Defense Against Hacking Claims:** The article mentions OpenAI's response, stating that "the Times paid someone to hack OpenAI's products" to generate specific results for their complaint.

**Allegation of Manipulating AI Results:** OpenAI asserts that it took the NYT "tens of thousands of attempts" and exploiting a bug through "deceptive prompts" to elicit verbatim passages of NYT articles.

**Comparison to VCR Legal Battle:** Microsoft draws a parallel to the historical lawsuit involving VCRs, where the entertainment industry initially opposed them, fearing copyright infringement. This comparison is made to highlight how new technology, despite initial resistance, can ultimately benefit an industry.

**Technological Innovation and Consumer Choice:** Microsoft emphasizes the importance of supporting technological advancements and consumer choice, suggesting that restricting AI development could hinder progress in these areas.

**Way forward** -Moving forward, the resolution of this lawsuit could set a precedent for how AI technology uses copyrighted material. Collaborative approaches, like those between Axel Springer and OpenAI, might offer a model for balancing innovation with copyright protection.

### The Finternet or Asset tokenization for global financial systems

**News:** The article discusses a new idea called 'the Finternet' that could change how money and assets are managed globally. It suggests using digital technology to connect different financial systems and make transactions faster, cheaper, and safer.

## 9 PM Compilation For Month of April 2024

For details information on Tokenisation read [Article 1](#), [Article 2](#)

### What is the Finternet?

The current financial system, with separate regulatory environments for different transactions, has become inefficient as transactions grow more complex. It is slowing operations, increasing costs, and restricting competition and innovation.

Finternet aims to connect different financial systems globally using modern technology.

The Finternet is a proposed digital framework by the [Bank for International Settlements](#).

Tokenization is at the core of the Finternet, where assets are represented as digital tokens with standardized rules.

These tokenized assets can be transacted on a unified ledger, a shared digital system for managing various financial assets.

### What are the benefits of the Finternet?

**Cheaper transactions:** The Finternet reduces costs associated with financial transactions.

**Faster transactions:** Transactions become quicker due to streamlined processes.

**Safer transactions:** Reduced reliance on intermediaries decreases the risk of fraud.

**Reduced counter-party risk:** Tokenized assets enable direct trading among holders, minimizing counter-party risk.

**Automation of complex agreements:** Complex financial agreements can be automated and executed directly without intermediaries.

**Development of new financial instruments:** The Finternet allows for the creation of new financial products and investment opportunities.

### What are the challenges of the Finternet?

**Tokenizing real-world assets:** Challenges arise in tokenizing tangible assets like art pieces, which lack public registries.

**Double-spending problem:** Ensuring that tokenized assets cannot be sold simultaneously offline and online is a significant challenge.

**Legal requirements:** Adapting legal frameworks to accommodate tokenized assets, especially for movable assets, presents hurdles. It is because, tokenizing real estate requires statutory amendments to convert government registers into tokenized ledgers.

**Public registries:** For assets like land titles, converting existing public registries into tokenized ledgers may require substantial effort.

**Comprehensive tokenization:** Ensuring all assets are tokenized and recorded on the unified ledger is a complex task that requires careful planning and execution.

## Subject: Environment

### Topic - - Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

#### Climate engineering - Potential & Concerns

**Context-** African countries have called for a moratorium on climate engineering at the recently held United Nations Environment Assembly in March 2024. Further, nations like United States have highlighted the need for scientific group to undertake studies regarding potential risks and benefits of Climate engineering.

#### What is the negative impact of climate change?

- 1) Heat records are routinely broken.
- 2) Wildfire seasons have become more extreme.
- 3) There has been an increase in the strength of Hurricane.
- 4) Due to rise in sea level, small islands national and coastal areas are submerging.
- 5) Climate change can pose a threat to food and energy security. This may lead to climate-induced migration and can threaten the security of any nation.

#### What is climate engineering?

**Description-**It is a set of proposed actions to deliberately change the climate. It is also called geoengineering, sunlight reduction methods or solar climate intervention.

#### Strategy-

- 1) It will mimic the cooling effects of large volcanic eruptions by placing large amounts of reflective particles in the atmosphere.
- 2) It will make low clouds over the ocean brighter. This would reflect a small amount of sunlight back to space to cool the planet.

#### What can be the potential advantages of climate engineering?

- 1) **Preventing temperature rise-**Activities like fossil fuel use and industrialization are currently emitting 37 billion tons of carbon dioxide into the atmosphere annually. However, existing carbon dioxide removal projects that includes growing trees and direct air capture devices remove only 2 billion tons of carbon dioxide. Thus, it may take a long time to achieve the target of Net Zero emissions. Climate engineering may help in the interim.
- 2) **Climate Modification** - It can allow countries with increasingly dangerous heat waves to cause deliberate cooling. For ex- Australia is currently exploring the feasibility of rapidly cooling the Great Barrier Reef to prevent its demise.

#### What are the concerns associated with climate engineering?

- 1) **Regional conflicts-**The climate doesn't respect national borders. So, a climate engineering project in one country may affect temperature and rainfall in neighboring countries. The countries may blame climate engineering for extreme events such as hurricanes, floods and droughts without any scientific evidence.
- 2) **Endanger interest of poor countries-** Climate change can leave the poorest regions most vulnerable to harm, and climate engineering should not accentuate that harm. Poorer countries may get negatively



impacted by climate engineering solutions of rich countries.

3) **High Cost** - Building a fleet of airplanes to carry megatons of reflective particles into the stratosphere each year is a very costly process. It will be difficult to get funding for this scientific project.

4) **Limitation of climate models** - Current information about climate engineering relies heavily on climate models. However, they cannot address questions of geopolitics and conflict.

Climate engineering may provide solutions to the challenges posed by climate change. Nevertheless, there is a need for more research that may help policy makers to make informed decisions.

### Current state of global coal power

**News:** The article discusses the global challenge of reducing coal use in power plants to fight climate change. It highlights the increasing number of coal plants in China and India and the slow decommissioning of such plants in the U.S., which is hindering efforts to meet climate goals.

#### What is the current state of global coal power?

**Global Coal Power Increase:** Global coal-fired power capacity grew by 2% last year, marking the highest annual increase since 2016.

**China's Commitment and Progress:** China has pledged to retire 30 GW by 2025 but added two-thirds of the world's new coal plants in the past year, significantly boosting its capacity.

**US Deceleration:** The U.S. decommissioned only 9.7 GW of coal power in 2023, down from 14.7 GW the previous year. The US Energy Information Administration estimates a 10 per cent reduction in coal use by 2025.

**Retirement Goals:** To phase out current coal capacity by 2040, the world needs to retire an average of 126GW of coal power plants annually for the next 17 years. However, only a sixth of this target was achieved last year.

#### What are the challenges in transitioning to green energy?

**Economic Constraints:** Emerging economies like India face the challenge of balancing coal phase-out with poverty alleviation and employment, as the coal sector is a major employer.

**Insufficient Decommissioning:** Globally, coal power decommissioning is not keeping pace with targets, with only a fraction of the necessary 126 GW retired annually.

**Technological and Financial Barriers:** The adoption of carbon capture technologies is limited due to high costs. Financial support from developmental finance institutions is crucial but currently inadequate.

**Mismatched Growth:** The expansion of renewable energy does not yet match the rising electricity demand in many countries, hindering the transition to greener alternatives.

**Way forward** -To advance the green transition, increased investment in renewable energies is necessary. Financial institutions must support technologies like carbon capture. Policies should encourage the decommissioning of coal plants to meet the global target of 126 GW annually and align with the Paris Climate Pact goals.

## Recent SC judgement on Jim Corbett National Park

**News:** The Supreme Court of India recently ruled against the illegal cutting of 6,000 trees in Jim Corbett National Park, emphasizing the need to prioritize eco-centric approaches over human-centered ones for conservation.

### What is the recent SC judgement on Jim Corbett National Park?

**Illegal Felling Exposed:** The Supreme Court highlighted the collusion among politicians, forest officials, and local contractors in the illegal cutting down of 6,000 trees in Jim Corbett National Park. This action violates conservation-focused laws such as the Wildlife Protection Act, 1972, Project Tiger, and the Forest (Conservation) Act, 1980.

**Shift in Conservation Approach:** The court criticized the current anthropocentric methods of conservation and advocated for an ecocentric approach, prioritizing nature and ecosystem integrity over human benefits.

**Ban on Tiger Safaris:** It banned tiger safaris in the core areas of national parks to reduce disturbance to wildlife and natural habitats, stressing that wildlife must not be treated like zoo exhibits.

**Committee Formation:** The court ordered the formation of a committee to evaluate the feasibility of permitting tiger safaris in peripheral areas, reflecting a balanced approach to conservation and tourism.

**Precautionary Principle Invoked:** The judgment applied the precautionary principle, emphasizing preventive action in environmental governance to minimize harm to biodiversity and ecosystems.

### What did the Supreme Court miss in its judgment?

**Lack of Defined Methodology for Restoration:** The court's intention to assess and recover costs for the damage to Jim Corbett's green cover lacks a clear methodology, making actual restoration doubtful.

**Inadequate Compensation Methods:** The existing financial mechanisms, such as the compensatory afforestation levy and net present value (NPV), introduced by the Supreme Court in 2002 after the T.N. Godavarman case (1996), do not fully account for the broader environmental damages. They fail to consider the broader ecological harm caused by deforestation beyond just tree loss. The recent Supreme Court judgment did not address these limitations.

For details information on **Godavarman case** [read here](#)

**Underestimation of Ecosystem Services:** The court could have emphasized the importance of ecosystem services, which are more valuable than the revenue from eco-tourism. A methodology for evaluating such services, as discussed in the **International Court of Justice's 2018 Costa Rica v. Nicaragua case**, could have been considered.

**Focus on Eco-Tourism over Biodiversity:** The emphasis remains on eco-tourism for revenue, despite significant biodiversity losses, including a 90% reduction in area under four biodiversity hotspots and 12% of species being endangered.

### How precautionary principle is helpful in tackling environmental problems?

**Prevents Irreversible Damage:** The precautionary principle states that the lack of full scientific certainty should not delay actions to prevent environmental harm, especially when the damage could be serious or irreversible.

**Applied to Biodiversity:** Norman Myers highlights its importance for biodiversity, noting that unchecked mass extinction could impoverish the biosphere for millions of years.

**Supports Endangered Species:** The principal underscores actions to protect the 12% of endangered animal

species in India, as identified by the IUCN's Red List.

### **Conflict between renewable energy development and the protection of the Great Indian Bustard**

**News:** The article discusses the conflict between renewable energy development and the protection of the Great Indian Bustard in India. It covers court decisions on whether to place power lines underground to prevent the birds from dying due to collisions. It mentions different viewpoints from environmentalists, the government, and energy companies.

For details information **Great Indian Bustard** [read here](#)

#### **What is the issue with the Great Indian Bustard?**

**Endangered Species Protection:** The Great Indian Bustard is critically endangered, listed by IUCN in 2013 and included in CMS COP13 as an endangered migratory species in 2020, emphasizing the need for strict protection.

**Habitat Collision:** The Great Indian Bustard, a critically endangered bird, frequently collides with overhead power lines in its desert habitat, leading to fatal accidents.

**Population Decline:** From over 1,500 individuals in the 1970s, the population dwindled to less than 150 by 2018 due to these collisions.

**Energy Development vs. Conservation:** The bird's habitat overlaps with areas ideal for wind and solar energy, creating a conflict between renewable energy development and species conservation.

#### **How has the Indian Supreme Court responded to the issue of the Great Indian Bustard?**

**Initial Order:** In April 2021, the Supreme Court mandated the undergrounding of power lines in an 80,688 sq. km area to prevent bustard collisions.

**Industry Challenges:** Faced with industry backlash over high costs and feasibility concerns, the court reconsidered the decision.

**Revised Order:** In March, the area required for underground wires was reduced to 13,663 sq. km, focusing on the 'priority' bustard habitat.

**Balancing Act:** The court aimed to balance conservation needs with India's renewable energy goals, reducing the scope of mandatory underground wiring while still addressing the threat to the bustards.

#### **What are the challenges of Undergrounding power lines?**

**High Costs:** The cost of undergrounding is estimated to be over 150,000 crore, which could increase power tariffs in the states involved. For future projects, underground wires could push costs up by approximately 80%, making them unviable.

**Technical Feasibility:** Industry representatives mentioned that undergrounding is feasible in urban areas for shorter distances, but in vast desert areas, it presents significant technical challenges.

**Slow Implementation:** Three years post the initial Supreme Court order, minimal undergrounding has been achieved. A 10-km segment of a 66 KV line in Gujarat is one of the few that has been laid underground.

**Financial Impact:** The potential financial impact on consumers and the viability of renewable energy projects due to increased costs was a significant concern raised by the energy industry and noted in court discussions.

### What is the future for the Great Indian Bustard?

The future of the Great Indian Bustard remains uncertain. With continued habitat encroachment and the challenges of implementing protective measures, the species faces a high risk of extinction. The outcomes of ongoing legal and environmental management efforts will play a critical role in determining the survival of this endangered bird.

### Just Transition Framework

**Context-** The recent Supreme Court judgment acknowledges a fundamental right to be free from the adverse effects of climate change. While environmentalists have mainly focused on its impact on protecting the Great Indian Bustard, this article analyses the judgment from the lens of inclusive climate action.

Read more- [Conflict between renewable energy development and the protection of the Great Indian Bustard in India](#)

### What is the significance of the court's decision beyond the protection of the Great Indian Bustard?

- 1) **Space for discussion-** Since the court has not enunciated the content of right, it has allowed time and space for a productive discourse on the content of the rights. This approach of the court could enable a more informed articulation of the right in the future.
- 2) **Just Transition Framework-** It allows the opportunity to utilize the just transition framework. This framework can facilitate equitable climate action.
- 3) **Counter allegations of judicial overreach-** The Courts have been appreciated for their environmental pro- activism because they have contributed to development of India's majority environmental laws. However, this practice has been criticized for judicial overreach and the creation of imprecise rights. So, the restraint exercised by the court in this judgement will help in countering this criticism.

### What are the issues with this judgement?

- 1) **Conflict between two important issues-** It projects biodiversity protection and climate action as adversarial choices.
- 2) **Lack of inclusive approach-** The right that is being recognized by the court gives importance to only protecting humans' interests against climate change. It does not include non-humans.

### What is just transition framework?

This framework makes transitions to a low carbon economy more equitable and inclusive without endangering the interests of those communities which are the most affected by such transitions. For ex- workers, vulnerable communities etc.

### What is the significance of just transition framework?

- 1) **Ending Conflict-** It will prevent climate action and biodiversity protection from being seen as conflicting choices. Instead, it can promote inclusive climate action that recognizes diverse rights and interests.
- 2) **Ecological justice-** It can be utilized in climate litigations to highlight the significance of being sensitive to the interests of non-human nature and advance the principle of ecological justice.
- 3) **Inclusive decision-** If the framework is applied in the Court's final decision, it would become one of the earliest instances where a legal process about transitioning considers the interests of non-human beings.

## 9 PM Compilation For Month of April 2024

It's important to involve activists, litigants, and others, not just the government, in defining, explaining, and enforcing these rights.

### Reasons for heavy rains in the UAE

**News:** The article describes a record-breaking rainstorm in the UAE that caused severe flooding and disruptions

#### What happened in the UAE due to the rainstorm?

##### Historic Weather Event:

The UAE experienced the heaviest rainfall on record since 1949, with Dubai receiving over 142 millimeters of rain in just one night. Typically, Dubai sees about 94.7 millimeters of rain in an average year. Al Ain recorded 254 millimeters, and Fujairah saw 145 millimeters.

##### Rain Affecting Daily Life:

The downpour caused widespread flooding in homes, major roads, and shopping centers like Dubai Mall and Mall of the Emirates.

Air travel was severely disrupted, leading to temporary suspension of flights and significant delays at Dubai International Airport.

##### Other Impacts:

Schools across the UAE were closed.

The government mandated work-from-home directives to cope with the situation.

In nearby Oman, the rains resulted in the deaths of 18 people, including school children.

#### What are the reasons for heavy rains in the UAE?

**Storm System:** A significant storm system moved across the Arabian Peninsula, bringing unusually high rainfall to the region.

**Cloud Seeding:** The UAE utilized cloud seeding technology, which involves spraying salt mixtures into clouds to induce rain. Meteorologists at the National Center for Meteorology conducted six or seven cloud-seeding flights before the storm.

For details information on **Artificial Rain by Cloud Seeding** [read here](#)

**Climate Change:** Global warming may have contributed, as higher temperatures lead to increased water evaporation, allowing the atmosphere to hold more moisture. The UAE has seen a temperature rise of almost 1.5 degrees Celsius over the last 60 years.

**Natural Climate Variability:** It's challenging to link this specific event directly to climate change due to the influence of natural climate patterns such as El Niño and La Niña, which also affect weather extremes

## Implication of SC ruling on right against climate change

**Context:** Supreme Court (SC) recently recognized the fundamental right of citizens to be free from the adverse impacts of climate change. It will increase the climate related litigations in India, as well. Globally, according to the UN Environment Programme's 2023 Global Climate Litigation Report, there are currently 2,180 climate-related cases being heard in 65 countries. Which has increased from 1,550 cases in 39 countries in 2020 and 884 cases in 24 countries in 2017.

### What would be the implication of SC ruling?

- 1) The court's ruling aligns with a global surge in climate litigation. It will increase the number of people seeking legal remedies for climate change-related issues as government and corporate actions remain inadequate.
- 2) India's courts, particularly the National Green Tribunal, have been dealing with climate-related issues for a long time. However, there have been few instances of petitions directly addressing the broader problem of climate change.
- 3) Ruling might potentially pave the way for a new jurisprudence that prioritizes people, socio-economic development, nature, and climate change mitigation.

### What are the challenges of SC ruling?

- 1) Climate change is a multi-dimensional problem that cannot be tackled through any single or small set of interventions.
- 2) Courts may adopt a "hands-off approach" in climate cases due to their intricate links with complex socio-economic issues and policy choices made by the executive branch.
- 3) While courts may require the government to consider appropriate mitigation or adaptation plans and policies, they are unlikely to strictly enforce such directions, apart from occasional reprimands.

## Impact of large-scale solar parks in India

**News:** The article discusses the impact of large solar parks in India on local communities and the environment. It explores the need for better policies and community involvement to ensure that renewable energy projects like solar parks benefit everyone and don't harm the environment or local livelihoods.

### What is the impact of large-scale solar parks in India?

#### Positive Impacts of Large-Scale Solar Parks

**Steady Income for Landowners:** In regions like Pavagada, Karnataka, farmers benefit from leasing their drought-stricken land to solar parks, providing a reliable annual income.

**Renewable Energy Production:** Solar parks significantly contribute to India's renewable energy output, helping reduce dependency on fossil fuels and aiding in the pursuit of Net Zero emissions by 2070.

**Employment Opportunities:** Large-scale renewable energy projects can generate job opportunities at the local level, contributing to employment growth in the regions where they are developed.

#### Negative Impacts of Large-Scale Solar Parks

**Land Requirements:** Currently, 214 sq. km of land are under solar parks; however, estimates suggest up to 75,000 sq. km may be needed, to reach Net Zero greenhouse gas emissions by 2070

**Loss of Common Lands:** Near Bhadla, Rajasthan, solar parks have led to the loss of sacred common lands and grazing areas, negatively affecting local farmers and pastoralists.

**Resource Competition:** The large water demand for maintaining solar panels can conflict with local water needs, impacting water security.

**Biodiversity and Ecosystem Disruption:** Construction of solar parks can lead to biodiversity loss, especially in sensitive ecosystems like deserts, impacting overall ecological balance.

### What should be done?

**Expand Community Engagement:** Solar Park developments should involve local communities in planning and decision-making to align projects with local needs and prevent conflicts, similar to the community leasing in Pavagada.

**Revise Legal Frameworks:** Strengthen laws to require Environmental and Social Impact Assessments for solar parks to prevent adverse effects on local communities and ecosystems.

**Promote Agrivoltaics:** Implement agrivoltaic systems that combine agriculture with solar energy, providing dual land use for energy production and farming, maximizing land efficiency and supporting local economies.

**Enhance Training Programs:** Develop targeted training programs to equip local populations with new skills, ensuring they benefit from shifts in employment opportunities due to renewable energy projects.

## Green credits-Significance & Challenges

**Context-**The article presents a critical analysis of Green Credit Programme. This is a market-based initiative started by Environment Ministry, where individuals and companies can earn incentives, termed as 'green credits,' for their contributions to environmental and ecological restoration efforts.

### What is the significance of the Green Credit Programme?

- 1) **Environmental Conservation-** Green Credit Programme aims to incentivize sustainable actions and engage various stakeholders, including individuals and corporations, in environmental conservation efforts.
- 2) **Incentivizes various sectors-** This program offers incentives through markets and covers six or seven sectors, like forests and waste management. In policymaking, incentives play a crucial role. Green credits serve as incentives to encourage individuals and companies to participate in these activities.

### What are the concerns regarding the Green Credit Programme?

- 1) **Bypassing laws-** It may be utilized to bypass existing environmental laws, particularly those related to forest conservation.
- 2) **Ground level challenges-** There is a lack of proper understanding of ground level challenges and expertise to address those challenges.
- 3) **Threat to biodiversity-** It may promote monocultures and planting vegetation unsuitable for certain ecosystems. This could adversely impact biodiversity and soil health.
- 4) **Measurement Problems-** There are challenges of measuring biodiversity impact accurately. For ex- How does one measure the impact on biodiversity when they are 200 meters apart?
- 5) **Lack of Fungibility-** Fungibility is the ability to exchange one unit of a commodity for another. However, this is lacking in green credits due to the diverse nature of environmental credits like biodiversity and water conservation. This poses a challenge in equating different types of credits on the same platform. For ex- How does one equate a credit of one unit of water conservation with one unit of ecosystem

restoration on the same platform?

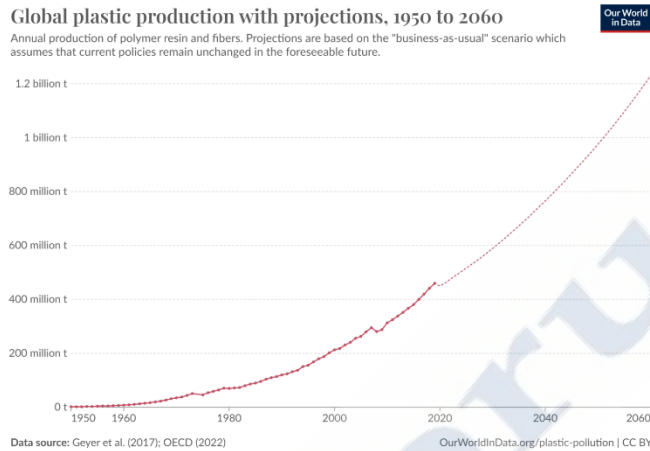
6) **Clashes with Forest Conservation Act** -The program's rules imply that earning green credits can negatively influence mandatory compliances, such as forest clearances. For ex-it may bypass the whole forest clearance process just to help the industries get green credits.

### A Global Plastics Treaty

**News-** Recently negotiators and observers from 175 countries gathered in Ottawa, Canada, to discuss the world's first global treaty aimed at reducing plastic pollution. This is the fourth set of talks since 2022 when the UN Environmental Assembly decided to create a binding treaty on plastic pollution by 2024's end.

#### Why is a legally binding global plastic treaty required?

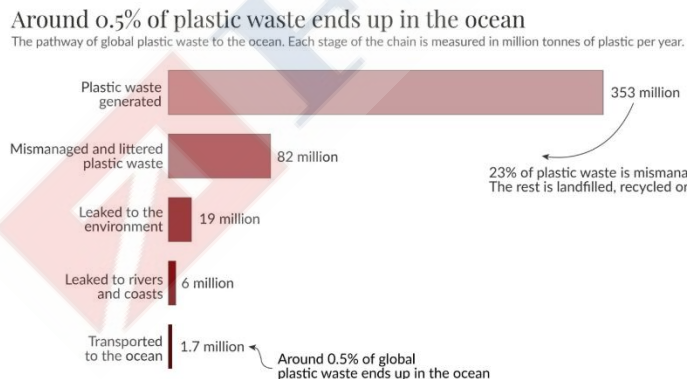
1) **Increase in plastic production-** Since the 1950s, global plastic production has increased a lot. It rose from 2 million tonnes in 1950 to over 450 million tonnes in 2019. If left unchecked, it's set to double by 2050 and triple by 2060.



2) **Slow decomposition rate-** In a study published by The Lancet in 2023, it was found that nearly 6 billion tonnes of plastic currently pollute the planet. Only a small fraction of plastic has been recycled so far, and because it takes anywhere from 20 to 500 years to decompose, it poses a significant environmental challenge.

3) **Impact of Plastic Pollution on Ecosystems and Health-** A lot of plastic waste ends up in rivers and oceans, breaking down into tiny particles called microplastics or nano plastics. These particles carry over 16,000 chemicals that can harm ecosystems and living things, including

humans. These chemicals disrupt the body's hormones, leading to issues like cancer, diabetes, and reproductive disorders.



4) **A Major Contributor to Climate Change-** Plastic production and disposal are adding to climate change. As per OECD report, in 2019, plastics produced 1.8 billion tonnes of greenhouse gas emissions, which is about 3.4% of global emissions. Around 90% of these emissions come from making plastic, which relies on fossil fuels.

Read more- [The UN Treaty on Plastic Pollution](#)

#### What are the challenges before the adoption of a legally binding treaty?



1) **Resistance from oil producing countries**- Since the first talks in Uruguay in November 2022, oil-producing countries such as Saudi Arabia, Russia, and Iran have resisted putting caps on plastic production. They're using various delay tactics, like arguing over procedures, to disrupt productive discussions. They have also asked for narrowing the scope of the treaty.

2) **Polarizing negotiations**- There's a coalition of about 65 nations, called the "High-Ambition Coalition," aiming to address plastic production. This coalition, comprising African nations and most of the European Union, aims to eliminate plastic pollution by 2040 whereas certain oil producing countries do not endorse restrictions on plastic production. This leads to a lack of consensus on legally binding treaties.

3) **Opposition by Fossil fuel and chemical corporations**- The fossil fuel industry, which provides 99% of the materials for plastics, considers plastics crucial. They, along with the chemical industry, resist cutting plastic production, claiming that the problem lies in waste, not plastic itself. These corporations are trying to weaken the treaty and have sent many lobbyists to the Ottawa negotiations.

## Subject: Disaster Management

### Heat Action Plans

**Context**- This year heat alerts have already begun from February itself. Parts of northeastern and western India are already experiencing significantly warmer temperatures (3.1-5 degrees Celsius above normal) ahead of summer.

The IMD has also predicted an increase in the maximum temperature and the frequency of heatwave conditions in the upcoming days over eastern and southern India. This raises question about India's readiness to face heat wave effectively.

#### What is a heat wave?

**Definition**- Heat waves are prolonged periods of excessively hot weather that can cause adverse impacts on human health, the environment, and the economy.

#### Criteria for Declaring Heat Wave in India

Heat wave is considered if maximum temperature of a station reaches at least 40 degree C or more for plains and at least 30 degree C or more for hilly regions.

#### A) Based on Departure from Normal

**Heat Wave**: Departure from normal is 4.50 C to 6.40 C

**Severe Heat Wave**: Departure from normal is >6.40C

#### B) Based on Actual Maximum Temperature

**Heat Wave**: When actual maximum temperature  $\geq$  45 degree C

**Severe Heat Wave**: When actual maximum temperature  $\geq$  47 degree C

If the above criteria are met in at least 2 stations in a Meteorological subdivision for at least two consecutive days, it is declared so on the second day.

**For coastal areas** - When maximum temperature departure is 4.5 degree C or more from normal, heat wave may be described provided actual maximum temperature is 37 degree C or more.

### What is a heat action plan?

- 1) **Aim**- Its aim is to increase preparedness and lower the adverse impacts of extreme heat by outlining strategies and measures to prepare for, address, and recover from heatwaves.
- 2) **Mapping Heat Risks**-They give an overview of each region's heat conditions, showing past heatwaves, trends in summer temperatures, land surface temperature, and more. Then, they assess vulnerability to identify areas needing urgent attention and plan a response.
- 3) **Collaborative Efforts**-The National Disaster Management Authority and IMD are working with 23 States to develop HAPs. It outlines the roles and responsibilities of various line departments, such as the disaster management authority, labour department, and police.
- 4) **Significance**- In the wake of the rising severity and frequency of heatwaves nationwide, governments at different levels, state, district, and city have formulated heat action plans (HAPs).

### What are the recommendations of heat action plan?

#### 1) Recommendation for short term

- A) **Early warning**- It recommends the use of forecasts and early warning systems to alert the public and relevant authorities about heatwaves.
- B) **Awareness**- It suggests informing the public through awareness campaigns that share information about the risks linked with heatwaves.
- C) **Structural Measures**-It recommends the building of heat shelters and cooling centres.
- D) **Guidelines to Hospitals**: It asks hospitals to have enough supplies and trained healthcare workers to recognize and treat many patients with heat-related illnesses.

#### 2) Recommendation for long term

- A) **Sustainable urbanization**- It recommends using urban planning methods such as planting trees, using heat-resistant building materials, and employing cool roofing technologies. This helps in reducing the urban heat island effect and lowers the indoor temperatures.
- B) **Multi-stakeholder coordination**- It pushes for effective coordination among different groups, like government agencies, healthcare providers, community organizations, and emergency services.

### What are the challenges in the smooth implementation of Heat Action Plans?

- 1) **The local context**- The existing Heat Action Plan does not take local conditions like the urban heat island effect, the type of roofing, and proximity to water or green bodies into consideration before formulating their strategies to combat heatwave.
- 2) **Inconsistent methods**- The methods adopted by various heat action plans to conduct vulnerability assessments are inconsistent.
- 2) **Lack of recognition of various socio-economic differences**- There is a lack of dedicated intervention which considers the different needs of people based on local social and demographic factors.
- 4) **Resource Allocation**-Implementation of HAPs differs a lot based on what local governments prioritize and the resources they have. That's why it's important to have dedicated budgets for implementing HAPs.
- 5) **Working in silos**-HAPs are individual plans with no integration with broader plans of urban resilience and climate adaptation. As a result, there's no pooling of resources for effective implementation.

### What should be the way forward?

- 1) **Enhancing Heatwave Definition**- There is a need to broaden the definition of heatwaves by also including humid heat, warmer nights, and extreme dry heat. This requires development of heat index that considers more than just temperature.

2) **Comprehensive Climate Risk Assessment**- There is a need to transition to a robust, full-fledged climate risk assessment that can identify the possibility of heatwaves in different areas and figure out how much people and important things may be affected by heatwaves.

Further, geospatial data should be used for hotspot mapping that will help in prioritizing and formulating targeted interventions.

3) **Collaborative Planning for Heatwave Protection** –There is a need to hold dialogues between the state, civil society organizations, and worker unions to devise a financial mechanism that can allow informal workers to be indoors during a heatwave without losing their incomes.

4) **Integration with broader plan**- HAPs should be integrated with broader action plans that promote urban resilience and climate adaptation. This will enhance the effectiveness of HAP because of improved data collection and monitoring systems.

Nature-based solutions should be incorporated to tackle extreme heat in areas that are particularly affected to improve the effectiveness of HAPs.

### Impacts of water scarcity on India

**News:** The article discusses India's need to prepare for hotter summers and water stress, shifting from temporary disaster relief to long-term climate resilience. It highlights the interconnectedness of water, food, and energy, and calls for policies, efficient water use, and increased adaptation funding.

**For details information on water crisis read Article 1, Article 2, Article 3**

**What are the impacts of water scarcity on India?**

**Agricultural Dependency:** About 45% of India's population works in agriculture, which is highly dependent on water for irrigation, influencing crop yields and harvest timing.

**Economic Impact:** Water scarcity affects the economy, particularly through agriculture, which employs the largest sector of the workforce.

**Energy Production:** Water is crucial for clean energy solutions like green hydrogen production and pumped storage hydropower, necessary for a sustainable power grid.

**Climate Vulnerability:** Increased frequency of extreme weather events like floods and droughts disrupts water availability and agriculture.

**Urban Stress:** Urban areas face challenges like insufficient water for domestic use and industrial activities due to inefficiencies and pollution.

**What should be done?**

**Improve Policy Integration:** Develop and implement policies that recognize the interconnections between water, food, and energy systems to manage resources more holistically.

**Enhance Water Use Efficiency:** Focus on achieving the National Water Mission's goal to increase water efficiency by 20% by 2025, utilizing water accounting to measure and manage water usage effectively.

**Expand Reuse Initiatives:** Promote the reuse of urban wastewater as detailed in AMRUT 2.0, reducing non-revenue water and maximizing available resources.

**Increase Funding for Adaptation:** Boost financial support for water-related climate adaptation, utilizing tools like the Green Credit Programme to fund initiatives that improve water management and promote agricultural resilience.

## How did Taiwan improve its earthquake preparedness?

**News:** The article discusses how earthquakes happen in areas where tectonic plates meet and move. It explains how Taiwan has improved its earthquake safety measures after a major quake in 1999, resulting in fewer damages in a recent earthquake. It also suggests how India can enhance its earthquake preparedness.

### What causes earthquakes?

**Tectonic Plate Movements:** Earthquakes primarily occur due to the movement of Earth's tectonic plates. For instance, the 2015 earthquake in Nepal originated from the movement of the Indian plate against the Eurasian plate.

**Convergent Plate Boundaries:** Many earthquakes happen along convergent plate boundaries where plates collide. The Himalayas, where India meets Eurasia, are a prominent example of such a region experiencing frequent seismic activity.

**Specific Regional Occurrences:** In Taiwan, the collision of the Philippine Sea plate with the Eurasian plate causes significant seismic activity, as evidenced by the 1999 Chi-Chi and 2024 Hualien earthquakes.

### How has Taiwan improved its earthquake preparedness?

**Strengthening Building Codes:** Following the devastating 1999 Chi-Chi earthquake, Taiwan implemented stringent building codes to enhance the structural integrity of buildings. This led to minimal damage during the 2024 Hualien earthquake, despite it being nearly as strong.

**Establishing Early Warning Systems:** Taiwan has developed one of the most advanced earthquake-monitoring networks and early warning systems in the world. These systems provide critical early alerts that help reduce casualties and damage.

**Public Awareness and Training:** Regular awareness campaigns and drills have significantly improved public understanding of earthquake risks and preparedness.

**Legislative Reforms:** The Disaster Prevention and Protection Act was passed, and national centers were established to coordinate earthquake response and training, improving overall disaster management.

**Innovative Technologies in Construction:** Key structures in Taiwan, such as Taipei 101, employ advanced technologies like **seismic dampers and base isolation systems** to mitigate earthquake effects. Notably, Taipei 101

## Subject: Internal Security

**Topic- Challenges to Internal Security through Communication Networks, Role of Media and Social Networking Sites in Internal Security Challenges, Basics of Cyber Security; Money-Laundering and its prevention.**

### Inclusion of less serious offences under PMLA

**Context-**The article highlights the problems of inclusion of certain offences under PMLA (Prevention of Money Laundering Act) which are not directly aimed at combating money laundering.

### What is the historical background of enactment of PMLA?

## 9 PM Compilation For Month of April 2024

### 1) **United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances-**

This convention urged all countries to take urgent steps to prevent the laundering of the proceeds of drug crimes and other connected activities.

2) **Establishment of FATF-** After this convention, 7 major industrial nations held a summit in Paris (July 1989) and established the Financial Action Task Force (FATF) to examine the problem of money laundering and recommend measures to tackle this menace.

3) **Political Declaration and Global Programme of Action** -This resolution urged all member-countries to enact suitable pieces of legislation to effectively prevent the laundering of drug money.

4) **Countering World Drug Problem Together** -Since drug trafficking is a trans-border operation, the UN held a special session on June 1998 on the theme 'Countering World Drug Problem Together and made another declaration on the urgent need to combat money laundering. Accordingly, the Indian Parliament enacted the Prevention of Money Laundering Act in 2002.

### **Why is historical background important?**

It is important to emphasize the original objective and the circumstances under which the law was enacted. The UN resolutions, and the FATF recommendations are all focused on the prevention of money from the laundering of drugs.

### **What are the issues with inclusion of less serious offences under PMLA?**

1) **Diluting the original intent of law-** The UN resolution has only focused on the offence of the laundering of drug money, which has the potential to destabilize the economy and endanger the sovereignty of the nation. However, inclusion of other less serious offences in the schedule dilutes the original intent of law. For ex-the Prevention of Corruption Act, 1988, was added to the schedule of offences in 2009. As a result of this, a public servant charged with corruption and a hard-core drug trafficker are treated alike.

2) **Violation of the provisions of Article 253-** Article 253 empowers the Parliament to enact laws for implementing the international conventions. Any law enacted under this article cannot go beyond the subject matter of the law, which in this case, is money laundering.

Further, Item 13 in the Union list of the Seventh Schedule of the Constitution is also specific about this point. Thus, inclusion of other offences under PMLA is violation of provisions of the constitution.

3) **Breach of fundamental principle of Anglo-Saxon jurisprudence-** As per this principle, a person is presumed innocent until proven guilty. However, under PMLA, a person is presumed to be guilty until proven innocent. So, inclusion of less serious offences under PMLA may create a situation where the accused is languishing in jail without trial because the person would be presumed to be guilty until proven innocent.

4) **Violation of article 14 & 21-**The bail provision of the PMLA Act (Section 45) was held unconstitutional by the Supreme Court in Nikesh Tarachand Shah vs Union of India (2018) as violation of Article 14 and Article 21. However, Parliament restored this provision with certain amendments which was upheld by the Supreme Court in Vijay Madanlal Choudhary vs Union of India (2022). There is no problem in ensuring tough bail provisions for serious crimes like money laundering but inclusion of less serious offences under the act infringes upon fundamental rights of accused to get bail.

**Read more-**[Money Laundering- Explained, pointwise](#)

## Problems with App and App based businesses

**Context-** There is an increase in the number of Anti-trust cases across the globe against organizations such as Google for abusing their dominant position. Google has lost its Play Store case against the Competition Commission of India, which ruled that Google is abusing its dominant position and fined it ₹1,337 crore. The article highlights that the apps are not the right way to access Internet services.

### How has the evolution of the internet been?

- 1) **Easy access-** In the beginning, the Internet was designed in such a way that anyone could connect to the Internet and start providing or consuming a service. In the entire design of the network layer, there were no gatekeepers except for very basic functionality such as allocation of Internet Protocol addresses and root servers for resolving top-level domains like .com, .org, and .net.
- 2) **Expansion of services-** Due to easy access, the Internet grew rapidly in the 1990s and 2000s. There was the introduction of many services such as emails, websites which enabled the sharing of information and gave rise to e-commerce.
- 3) **User friendly-** A web browser was needed to access the website. This was made simpler by standardization of protocols and languages. In the beginning, Yahoo provided a directory of websites under various categories. However, with the increase in the number of websites, Google came up to quickly provide a list of web pages that matched users search queries.

Read more- [Issue of delisting of India Companies from Googles play store](#)

### How has the introduction of mobile phones facilitated the development of App business?

After the introduction of mobile phones, everyone wanted to port their websites so that these sites could be easily viewed on small hand-held devices.

Mobile manufacturing companies like apple urged third-party developers to build web applications (apps) that could run on its Safari browsers.

### What are the problems with Apps?

- 1) **Security challenge-** Apps can exploit **local privilege escalation vulnerabilities** and get control over the devices because they have direct access to machines. App stores may contain apps with malware, commit financial frauds, or even steal private information. Therefore, running untrusted software natively is a big security challenge.
- 2) **Mandatory sharing of personal details-** Businesses promises immersive experience and push their users to install their apps rather than providing their services through the standardized browser. However, to get such an experience, users needed to give control over their SMSs, photos, videos, and location. The users cannot block advertisements.
- 3) **Conflict between App stores and businesses-** App stores are imposing an app tax in the range of 15 to 30%. This is strongly resisted by businesses as they do not want to share revenue with the app store. Despite being fined by Competition Commission of India; Google has brought back rehashed version of the **app tax** calling it User Choice Billing and started removing apps of certain businesses from the Play Store.

## Subject: Internal Security

### Topic- - Various Security Forces and Agencies and their Mandate.

#### Modern Warfare

**Context-**In the backdrop of evolving character of warfare, the Indian Army is poised to embrace technology to keep itself ahead of its adversaries. Thus, it is observing the year 2024 as the 'Year of Technology Absorption'.

#### What does technology absorption mean?

Absorption implies the acquisition, adaptation and integration of technologies into existing structures. The existing structures are called legacy systems.

The absorption of technology will be mainly in terms of disruptive technology. This comprises of artificial intelligence, autonomous weapon systems such as drones, sensors, robotics, space technology, and hypersonic weapon systems.

Read more- [Modern Warfare](#)

#### Why is sole focus on disruptive technology not advisable?

- 1) The Russia- Ukraine and Armenia-Azerbaijan (Nagorno-Karabakh) have demonstrated the fact that technological advances alone will not ensure victory in the war. After initial setbacks, Russian army has employed traditional methodologies to fight the war and made significant advances. Thus, discarding the prevailing systems to be substituted by the disruptive technology will not be advisable.
- 2) In wars, technical countermeasures can rapidly reduce the effectiveness of new technology-based weapons used by an enemy.

#### What should be the way forward?

- 1) **Balance between modern and traditional systems-**It is important to consolidate traditional defense lines and create a stronger military industrial base. The Indian military is doing the right thing by focusing on disruptive technologies and indigenous upgrades in defense manufacture in tandem.
- 2) **Adapting to new conditions-** The most important adaptations are not technological but rather operational and tactical. Thus, there is a need to bring changes in the way armies use the tools at their disposal. For ex-in present battle conditions, weapon platforms such as tanks must adapt to become more survivable because they can be easily tracked by sensors in the battlefield.
- 3) **Democratization in usage of technology-**It is important to understand new technologies, their possibilities, and where they can be employed. Thus, this understanding should be seen at all levels of military units, not only in higher echelons.
- 4) **Attention to macro level aspect-** There should be enhanced attention to macro level aspects like-how organizations work, managing people better, training specialists at all levels etc.

The strategic competition and engagements in the future will inevitably be decided by the nation's edge in absorbing the use of disruptive technologies

## Subject: Disaster Management

### Topic- -Disaster and disaster management.

#### Factors continuing the water crisis in South India

**News:** The article discusses the severe water shortage in South India, mentioning that the reservoirs are low on water and the situation could worsen.

#### What is the current water situation in South India?

South India's reservoirs are at 23% capacity, significantly lower than the 10-year average. The water situation is deteriorating, with this year's levels 9% below the rolling decadal average. Previous similar water crisis occurred in 2017. The year 2023 was the warmest on record, exacerbating water scarcity.

#### What are the factors continuing the water crisis in South India?

**Monsoon Influence:** Erratic monsoon patterns, partly due to one of the strongest El Niño events on record, contribute to the water scarcity.

**Climate Change:** 2023 was recorded as the warmest year, with predictions of 2024 being even hotter, impacting water availability.

**Election Impact:** The general election means increased outdoor activity, potentially raising water usage.

**Past Lessons Ignored:** Despite previous crises, there's a noticeable lack of effective policy implementation and preparation.

**Other Contributing Factors:** Issues like unplanned urbanization, excessive groundwater extraction, and low water reuse efficiency worsen the situation.

#### How does climate change intensify this crisis?

Climate change increases the likelihood of simultaneous crises, such as droughts coinciding with disease outbreaks.

These intensified conditions disproportionately affect low- and middle-income countries like India. The situation worsens socio-economic conditions, especially among marginalized groups, who are most vulnerable to these climate-induced crises.