

JULY EDITION
2024



BI-WEEKLY EDITION

₹ 2024 UNION BUDGET

— NEXT GENERATION REFORMS —



SOURCES



Dear Students

The Mentorship India Bi-weekly is our half-monthly publication for staying updated on the latest developments shaping India and the World. Crafted with precision by our mentors, it serves as a comprehensive resource for students preparing for competitive exams. Offering insightful analysis, in-depth coverage, and strategic insights aligned with the exam syllabus, it empowers aspirants to navigate through contemporary issues with confidence. From breaking news to nuanced perspectives, our magazine transforms complex topics into easily digestible notes, ensuring every reader gains a holistic understanding of current affairs. Join us on a journey of knowledge enrichment and exam preparation excellence with our Bi-weekly Current Affairs.

FEATURES

- **MIB THEME BI-WEEKLY**
 - A comprehensive coverage of the most important bi-weekly topic.
- **MAINS IN-DETAIL BI-WEEKLY**
 - The in-depth coverage of issue that carry most probability to be asked in the Exam.
- **PRELIMS IN-BRIEF BI-WEEKLY**
 - Subject-wise reading notes of most expectable themes from Prelims point-of-view.
- **SELF EVALUATION BI-WEEKLY**
 - An assignment containing 25 Prelims Questions and 5 Mains Questions for your self-evaluation
- **SOLVED ESSAY BI-WEEKLY**
 - A Previous Year Solved Philosophical Essay to give student an extra edge on others.

FROM THE EDITORS

Do you Overthink?

Juggling endless study materials, strategizing for the next test, and constantly evaluating your progress – the UPSC journey is a mental marathon. But amidst this whirlwind, are you a victim of overthinking?

Critical thinking is essential for success in the Civil Services exam. It helps you analyze information, form strong arguments, and craft compelling answers. However, overthinking turns this strength into a weakness. It breeds self-doubt, paralyzes action, and fuels anxiety. Imagine missing deadlines, getting overwhelmed during exams, or losing focus due to constant "what ifs." Not the ideal recipe for cracking UPSC, right?

So, how do you conquer this? Start with mindfulness. Take breaks, meditate, and let your mind relax. Set realistic goals, break your study material into manageable chunks, and tackle them one at a time. Trust in your preparation, and remember, perfection is a myth. Mistakes are just stepping stones to success.

Remember, we, your mentors, are here to guide you every step of the way. Don't let overthinking dim your determination. You have the potential to excel – now go out there and prove it!

Team

UPSC Mentorship



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THE MIB THEME BI-WEEKLY

BUDGET

The Finance Minister presented the Union Budget for 2024-25 on July 23, 2024. Earlier, interim budget 2024 was presented in February 2024.

Union Budget 2024: The Union Budget 2024-25 was presented by Finance Minister on July 23, 2024. This year there are two budgets: Interim Budget 2024 was presented on February 1st and Union Budget 2024-25 (full-fledged) was presented on Tuesday, July 23rd in the Budget Session of the newly elected government.

Union Budget 2024 is a crucial document that outlines the government's financial plan and economic priorities for the upcoming fiscal year.

Union Budget 2024-25 focused on nine priorities: productivity, job creation, social justice, urban development, energy security, infrastructure, innovation, and reforms.

UNION BUDGET

- The **Union Budget** is known as the 'Annual Financial Statement' in **Article 112** of the Indian Constitution. It reduced the fiscal deficit target to 4.5% for the fiscal year 2025.
- The **Union Budget** is annually prepared by the Department of Economic Affairs (DEA) and has **two parts**: the annual financial statement and the demand for grants.

IMPORTANT ANNOUNCEMENTS

- The 2024–25 budget includes several important announcements. These include the **revision of tax slabs, the modification of GST slabs, initiatives to foster economic growth, allocations for major sectors, and new schemes.** Here are some of the important announcements in the Union Budget 2024-25:



INCOME TAX AND CAPITAL GAINS

- **Standard Deduction:** Increased from ₹50,000 to ₹75,000.
- **Family Pension Deduction:** Raised from ₹15,000 to ₹25,000.
- **Tax rate reduced from 40% to 35% for foreign companies:** Abolished Angel Tax and Short-term (STCG) increased to 20% on certain assets while Long-term (LTCG) increased to 12.5%.
- **Tax Slabs:** Introduced with revised tax slabs offering potential savings of up to ₹17,500.



SPECIAL PACKAGES FOR ANDHRA PRADESH AND BIHAR

- **Bihar:** Major infrastructure developments and support for industrial and tourism projects. Development of Vishnupad and Mahabodhi Temple Corridors, Rajgir, and Nalanda as major tourist destinations.
- **Andhra Pradesh:** ₹15,000 crore for Amravati's development.

CUSTOM DUTIES AND INDUSTRIAL DEVELOPMENT

- Twelve industrial parks have been sanctioned under the National Industrial Corridor Development Programme.
- Exemptions for three cancer medicines from customs duty.

SUPPORT FOR THE PROMOTION OF MSMEs

1. **Support Mechanisms:** To facilitate credit continuation for stressed MSMEs.
2. **Mudra Loan Limit:** Increased to ₹20 lakh from ₹10 lakh.
3. **Credit Guarantee Scheme:** For MSMEs in manufacturing with a guarantee cover of up to ₹100 crore.

PRODUCTIVITY AND RESILIENCE IN AGRICULTURE

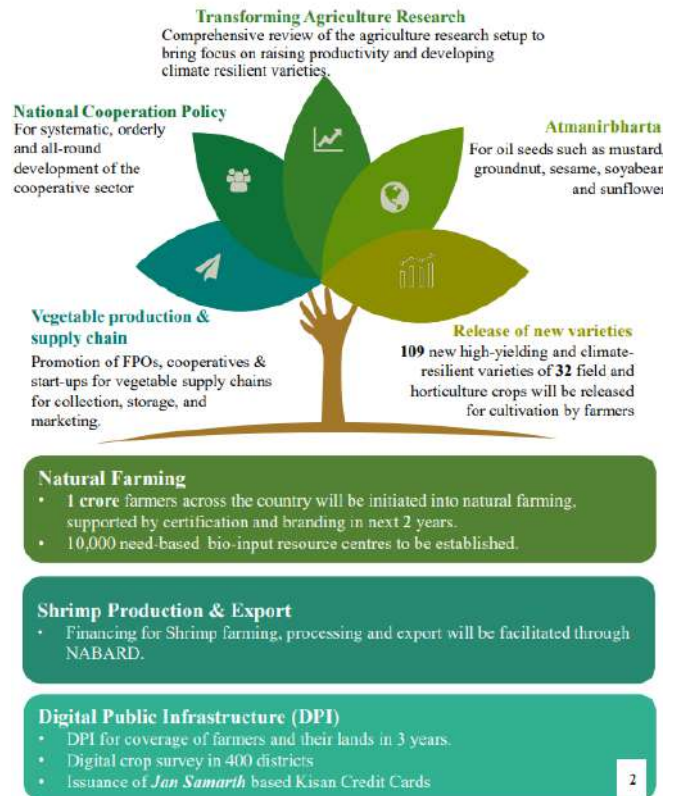
1. Allocation of ₹1.52 lakh crore for agriculture and allied sectors.
2. Digital crop survey to cover 6 crore farmers in 400 districts.
3. Promotion initiatives for natural farming and achieving self-sufficiency in pulses and oilseeds.

FOCUS ON EMPLOYMENT AND SKILLING

1. **Allocation:** ₹2 lakh crore for skilling 4.1 crore youth.
2. **Employment Schemes:** Five schemes launched with an outlay of ₹2 lakh crore over five years.
3. Institutes (ITIs) and internships for 1 crore youth in top companies.
4. Comprehensive internship scheme for 1 crore youth in 500 top companies over five years

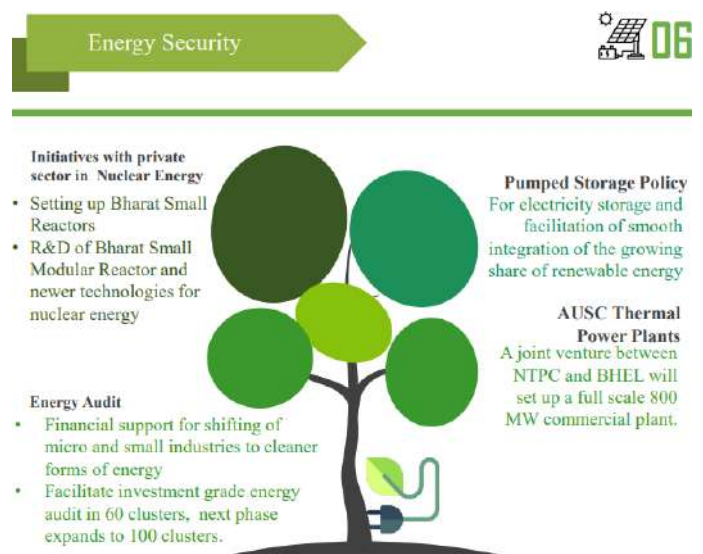
IMPROVING INFRASTRUCTURE AND HOUSING

- **Investment in Infrastructure:** Promoted through viability gap funding and enabling policies.
- **Pradhan Mantri Gram Sadak Yojana:** Fourth phase to connect 25,000 habitations with all-weather roads.
- The government will maintain strong fiscal support for infrastructure with Capital expenditure of INR 11.11 lakh crore.



ENERGY SECURITY AND ENVIRONMENT FOCUS

- R&D collaboration for small modular nuclear reactors and policy development for pumped hydro storage.
- **Climate Finance Taxonomy:** Development to enhance capital availability for climate adaptation and mitigation.
- **PM Surya Ghar Muft Bijli Yojana** for free electricity registrations.



CONSTITUTIONAL PROVISIONS FOR BUDGET

Article	Provision
Article 112	President shall cause to lay an Annual Financial Statement before Parliament
Article 113	No demand of grant in the Lok Sabha without prior approval of the President
Article 114	Mandate no withdrawal from Consolidated Fund of India except authorization by the Parliament.
Article 266	All revenue receipts generated by the government shall be credited to the Consolidated Fund of India and Revenue raised through provident fund etc, shall be credited to the Public Account of India.
Article 267	Deals with the Contingency Fund of India

HISTORY OF UNION BUDGET

1. **India's first budget was presented on April 7, 1860**, when India was still under British colonial rule. It was introduced by the **Scottish economist James Wilson**, who introduced the concept of 'income tax'.
2. The **first budget for independent India was presented by R.K. Shanmukham Chetty on November 26, 1947**.
3. The budget has evolved over the years to address the changing economic and social needs of the country. Some notable milestones include the **liberalisation budget of 1991 by Dr. Manmohan Singh** and the **merger of the Railway Budget with the Union Budget in 2017**.

PROCESS OF UNION BUDGET

Union Budget Process	
Step	Description

The Halwa Ceremony	Marks the start of budget printing, occurring five days before the presentation.
Printing the Budget	Officials involved in printing undergo a lock-in period with no outside contact.
Meeting the President	The Finance Minister seeks the President's approval before presenting the budget in Parliament.
The Cabinet Meeting	The Union Cabinet meets at 10 AM on budget day for final approval.
Finance Minister's Speech	Delivered in the Lok Sabha, outlining the government's financial plans and targets for the year.
Discussion on the Budget	General discussion in Parliament follows the Finance Minister's speech.
Departmental Scrutiny	Parliamentary committees examine the demands for grants.
Voting on Demand for Grants	Lok Sabha members vote on each grant demand; no voting on expenditures from the Consolidated Fund.
Passing an Appropriation Bill	Authorizes withdrawal of money from the Consolidated Fund of India.
Passing of Finance Bill	Enacts the government's financial proposals for the coming year.

PROCEDURE FOR PASSING UNION BUDGET 2024

The procedure for passing the Union Budget in Parliament involves six key stages. Here's a breakdown of the process:

1. **Presentation of Budget:** The Finance Minister presents the budget to Parliament, outlining

the government's financial plans for the upcoming fiscal year.

2. **General Discussion:** Members of Parliament engage in a general discussion about the budget, expressing their views and concerns.
3. **Scrutiny by Departmental Committees:** Various departmental committees review the budgetary allocations for their respective ministries, assessing the details and implications.
4. **Voting on Demands of Grants:** The Lok Sabha members vote on the demands for grants, which are the proposed expenditures for different departments (This power is exclusive to Lok Sabha). They can propose the following motions at this stage:
 - a. **Disapproval of Policy Cut Motion:** A motion to disapprove of a specific policy within the budget.
 - b. **Economy Cut Motion:** Aimed at reducing the amount allocated to a particular department,
 - c. **Token Cut Motion:** Symbolic motion that indicates disapproval of the budgetary provisions
5. **Appropriation Bill:** Once the demands of grants are approved by Lok Sabha, an Appropriation Bill is introduced to authorize the government to withdraw funds from the Consolidated Fund.

6. **Passing of the Finance Bill:** This is the final stage that must be passed for the budget to be fully implemented.

KEY FEATURES OF BUDGET 2024

The Union Budget 2024 was introduced on 23 July 2024. Several key features have been highlighted in the 'Key Features of Budget 2024-25' document by the Finance Ministry such as:

- **Viksit Bharat by 2047:** Ensuring the development of all with the idea of 'Sabka Saath, Sabka Vikas, Sabka Vishwas' trinity.
- **Women-Led Development:** Over INR 3 lakh crore allocated for schemes benefiting women and girls.
- **Inclusive Development:** Making inclusive development People-centric initiatives like the development of all forms of infrastructure, strengthening the financial sector, and widening GST slabs.
- **Social Welfare:** Multiple schemes and measures to support inclusive growth, innovation, energy security, and urban development.
- **Strategy for Amrit Kaal:** Commitment to sustainable development, improving infrastructure, putting emphasis on the health sector, and focusing on the agriculture sector for India's Amrit Kaal.

MAINS IN-DETAIL BI-WEEKLY

DEBATES ON MENSTRUAL LEAVE POLICY

Recently, the Supreme Court has asked the Central Government to frame a model policy on menstrual leave for female employees. The court emphasised that this matter falls under the realm of policy-making and not within the court's jurisdiction.

WHAT IS THE STATE OF MENSTRUAL LEAVES IN INDIA?

Menstrual (Period) Leave:

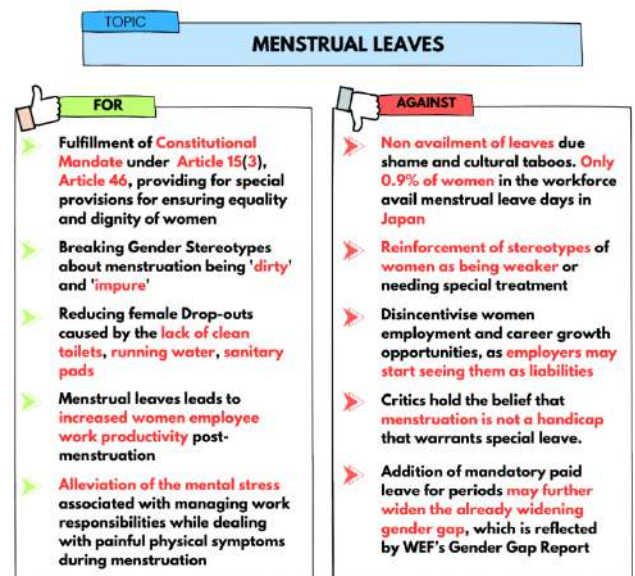
It is a kind of leave where the working women have the option to avail either paid or unpaid leave from the institution of her employment during her period of menstruation as such a condition adversely affects her ability to work.

IMPLEMENTED THE POLICY

- Bihar and Kerala are the only Indian states that have introduced menstrual leave policies for women.
- Bihar's policy was introduced in 1992, allowing women employees two days of paid menstrual leave every month.
- Kerala in 2023 has also allowed menstrual leave to female students of all universities and institutions and up to 60 days maternity leave to female students above the age of 18.
- Some companies in India have introduced menstrual leave policies, including Zomato, which announced a 10-day paid period leave per year in 2020. Other companies, such as Swiggy and Byjus, have also followed suit.

LEGISLATIVE MEASURES TAKEN

- There is **no law governing menstrual leave** in India and also there is no centralised direction for 'paid menstruation leave' in India.
- **Attempts Made in the Past:** Parliament has seen attempts to introduce menstrual leave and menstrual health products related bills, but they have not been successful so far.
- **Example:** The Menstruation Benefits Bill, 2017' and Women's Sexual, Reproductive and Menstrual Rights Bill in 2018.



RIGHT OF WOMEN TO MENSTRUAL LEAVE AND FREE ACCESS TO MENSTRUAL HEALTH PRODUCTS BILL, 2022

- The proposed Bill provides for 3 days of paid leave for women and transwomen during the period of menstruation.
- The Bill cites research that 40% of girls miss school during their periods, and nearly 65% said it had an impact on their daily activities at school.

COUNTRIES HAVING IMPLEMENTED MENSTRUAL LEAVES

- Spain, Japan, Indonesia, Philippines, Taiwan, South Korea, Zambia and Vietnam.
- Spain is the first European country to grant paid menstrual leave to workers, with the right to three days of menstrual leave per month, which can be expanded to 5 days

WHY IS THERE A NEED FOR PAID MENSTRUAL LEAVE FOR WOMEN?

Health and Well-being:

- Menstruation can cause **physical discomfort (cramps, bloating) and emotional distress**. Paid leave allows women to prioritise their health and manage these symptoms without financial penalty.

Workplace Inclusivity and Gender

Gap:

- This leave will normalise menstruation, reducing stigma and encouraging open discussion about menstrual health. Its impact on work performance helps address the gender pay gap by enabling women to fully participate in the workforce without sacrificing income.

Productivity and Retention:

Studies suggest that **menstrual leave can improve productivity by allowing women to manage their periods effectively and avoid working while experiencing discomfort**. It can also contribute to higher employee retention.

- **As per IMF**, equal participation of women in the workforce will increase India's GDP by 27% and will add USD 700 billion to its GDP by 2025. Thus **economic growth and gender equality** go hand in hand.

Legal Perspectives:

- **Article 15(3)**: Permits special provisions for women, countering claims of discrimination against men who can't avail menstrual leave.
- **Article 42**: Mandates the state to ensure "**just and humane conditions of work**" and "**maternity relief**." Menstrual leave is seen as an extension of this responsibility, promoting a humane work environment for women during menstruation.

WHAT ARE THE ARGUMENTS AGAINST THE MENSTRUAL LEAVES?

- **Discouragement of Hiring Female Employees**: Paid menstrual leave might disincentivize companies from hiring women due to perceived absenteeism.
- Employers may perceive female employees as a liability due to the additional burden of paid leave every month.
- **Discrimination at Workplace**: Accommodating menstrual leaves may disrupt workflow, increase workload for other team members, or create

resentment among employees who do not receive similar benefits.

- **Enforcement Issues**: Implementing paid leave for menstruation raises challenges such as determining **legitimate use, preventing misuse, and defining acceptable enforcement methods for employers**.
- This has been highlighted by incidents like those in Bhuj 2020 where 66 girls were forced to strip to verify menstruation status and similar incidents in Muzaffarnagar.
- Sensitivity and respect are crucial in developing policies around menstruation.
- **Reinforcing Stigma**: Special leave policies could highlight menstruation as a negative aspect, potentially leading to period shaming and discrimination.

GOVT SCHEMES TO PROMOTE MENSTRUAL HYGIENE MANAGEMENT

- Menstrual hygiene scheme launched by the Ministry of Health and Family Welfare.
- Rashtriya Kishor Swasthya Karyakram.
- SABLA programme of the Ministry of Women and Child Development.
- Swachh Bharat Mission and Swachh Bharat: Swachh Vidyalaya (SB:SV).
- Guidelines for Gender Issues in Sanitation, 2017.
- The National Guidelines on Menstrual Hygiene Management Scheme for Promotion of Menstrual Hygiene among adolescent girls in the age group of 10-19 years (supported by the National Health Mission)

WAY FORWARD

- **Promoting Menstrual Health Literacy**: Ensure that employers, employees, and medical professionals have access to high-quality information about menstrual health and effective treatment options.
- **Incorporating Adequate Rest Breaks**: Provide workers, especially those who menstruate, with the ability to take breaks and access clean toilet facilities. This benefits all workers and reduces the risk of workplace injuries and illnesses.
- **Incentivising Menstrual Leave Policies**: The government could incentivise menstrual leave by providing tax exemptions to companies offering it and by introducing gender-neutral leave policies for all employees.

- Consideration could also be given to government aid covering leave costs through **Direct Benefit Transfer (DBT)**.
- **Access to Effective Treatment:** Workplaces should provide free emergency period products, pain medication, and support for employees to access quality medical advice and treatment for severe menstrual symptoms.
- **Flexible Working Conditions:** Allow for flexible work arrangements, such as the ability to work from home or take shorter breaks, rather than requiring full-day leave.
- **Adequate Standards for Working Conditions and Labour Rights:** Improve global minimum labour standards regarding work hours, wages, health and safety, and equal opportunities, which would eliminate the need for separate menstrual leave policies.

AGRICULTURAL CREDIT IN INDIA: AN OVERVIEW

To double farmers' income by 2022, the government has been consistently increasing the credit target for the agricultural sector. As a result, agricultural credit flow has not only met but exceeded the set targets annually.

TYPES OF AGRICULTURAL CREDIT

Based on the duration and purpose, agricultural credit in India is classified into three categories:

- **Short-term Credit:** Needed for less than 15 months to cover immediate expenses like seeds, fertilizers, and wages. These loans are usually repaid after harvest.
- **Medium-term Credit:** Required for 15 months to 5 years for purchasing items such as cattle, pumping sets, and other agricultural tools. These loans are generally larger than short-term loans.
- **Long-term Credit:** Needed for periods exceeding 5 years for purposes like purchasing additional land or making permanent improvements such as wells and land reclamation. These loans have longer repayment periods.

SOURCES OF AGRICULTURAL CREDIT

Agricultural credit sources are divided into institutional and non-institutional categories:

- **Non-Institutional Sources:** Include moneylenders, traders, commission agents, relatives, and landlords.

Institutional Sources: Include cooperatives, commercial banks (including the SBI Group), the RBI, and NABARD. Key institutional credit providers are commercial banks, regional rural banks (sponsored by scheduled commercial banks and state governments), and cooperative banks (both rural and urban). Since the nationalization of banks in 1969, commercial banks have significantly increased their share in providing institutional credit to the agricultural sector.

Government Initiatives for Agricultural Credit

- **Kisan Credit Card (1998-99):** Launched to provide short-term formal credit to farmers at attractive interest rates. Both owner cultivators and tenant farmers can benefit. The RBI monitors the scheme for SCBs, while NABARD oversees it for cooperative banks and RRBs. The scheme was extended to

animal husbandry and fisheries in the 2018-19 budget.

- **Agriculture Market Infrastructure Fund (AMIF):** Announced in the 2018 Budget for developing and upgrading rural agriculture markets, including 22,000 Gramin Agricultural Markets (GrAMs) and 585 APMCs. The scheme is demand-driven and provides subsidized loans to state/UT governments for developing marketing infrastructure, funded by NABARD.
- **Interest Subvention Scheme:** Implemented by NABARD and the RBI, this scheme provides short-term credit to farmers at subsidized interest rates. It started with the Kharif 2006-07 season and continues to be implemented for subsequent years, including 2018-19 and 2019-20.
- **NABARD's VCF for Rural Agriculture Startups:** Launched by Nab Ventures, a NABARD subsidiary, this fund supports rural agricultural startups with a corpus of Rs 500 crore and an additional Rs 200 crore through the greenshoe option.

Challenges in Agricultural Credit

Access to Institutional Credit:

- **Limited Reach:** Despite efforts, many small and marginal farmers still rely on non-institutional sources like moneylenders due to easier access and lower procedural requirements. According to the National Bank for Agriculture and Rural Development (NABARD), only about 52% of agricultural households have access to institutional credit.
- **Regional Disparities:** Credit distribution is uneven across states. States like Punjab and Haryana have higher credit access, while Eastern and Northeastern states lag significantly.

High Interest Rates and Collateral Requirements:

- **Interest Rates:** Though institutional sources offer lower interest rates compared to moneylenders, they are still considered high by many small farmers.

- **Collateral:** Banks often require collateral for loans, which many small and marginal farmers cannot provide. This limits their access to credit.

Complex Procedures and Documentation:

- **Bureaucratic Hurdles:** The application process for institutional credit is often lengthy and complicated, deterring farmers from availing themselves of these loans.
- **Lack of Awareness:** Many farmers are unaware of the various credit schemes and benefits available to them, leading to underutilization of these resources.

Dependence on Seasonal Loans:

- **Short-term Focus:** Most agricultural credit is short-term, aimed at seasonal needs like seeds and fertilizers. There is insufficient focus on long-term credit for capital investments, which is crucial for sustainable agricultural development.

Impact of Climate Change:

- **Weather-related Risks:** Erratic weather patterns and natural disasters impact crop yields, making it difficult for farmers to repay loans, leading to higher non-performing assets (NPAs) in agricultural credit.

RECOMMENDATIONS FROM COMMITTEES AND ORGANIZATIONS

Doubling Farmers' Income Committee (2017):

- **Enhancing Credit Flow:** The committee recommended increasing the credit flow to the agricultural sector and ensuring timely and adequate credit availability.
- **Improving Credit Delivery:** Simplifying the process and reducing paperwork for loan applications were highlighted as necessary steps.

NABARD:

- **Kisan Credit Card (KCC) Scheme:** Expanding the KCC scheme to include allied activities like dairy, poultry, and fisheries to provide holistic credit support to farmers.
- **Interest Subvention Scheme:** Continuing and expanding the interest subvention scheme to make credit more affordable for farmers.

Committee on Financial Inclusion (2008) - Raghuram Rajan Committee:

- **Financial Literacy:** Promoting financial literacy among farmers to make them aware of the various credit schemes and how to access them.
- **Innovative Credit Products:** Developing innovative credit products tailored to the needs of small and marginal farmers.

Reserve Bank of India (RBI):

- **Priority Sector Lending (PSL):** Strengthening the PSL guidelines to ensure a higher proportion of bank credit is directed towards agriculture.
- **Digital Platforms:** Promoting digital platforms for credit delivery to reduce the dependence on physical documentation and streamline the process.

NITI Aayog:

- **Crop Insurance:** Linking credit with crop insurance to mitigate the risks associated with climate change and natural disasters.
- **Post-harvest Loans:** Promoting post-harvest loans to help farmers store their produce and sell it when market conditions are favorable, reducing distress sales.

WAY FORWARD

Strengthening Institutional Framework:

- **Expand Institutional Reach:** Strengthen the network of rural banks and cooperatives to ensure wider access to institutional credit.
- **Capacity Building:** Enhance the capacity of banks and financial institutions to handle agricultural credit efficiently.

Policy Interventions:

- **Interest Rate Subsidies:** Increase interest rate subsidies for small and marginal farmers to make credit more affordable.
- **Credit Guarantee Schemes:** Implement credit guarantee schemes to reduce the risk for banks and encourage them to lend to more farmers.

Technological Integration:

- **Digitalization:** Promote the use of digital platforms for credit applications and disbursements to simplify the process and increase transparency.
- **Data Analytics:** Use data analytics to assess creditworthiness and tailor credit products to the specific needs of farmers.

Promoting Financial Literacy:

- **Education Programs:** Implement widespread financial literacy programs to educate farmers

about available credit schemes and financial management.

- **Extension Services:** Utilize agricultural extension services to disseminate information about credit schemes and application procedures.

Climate-Resilient Farming:

- **Sustainable Practices:** Encourage the adoption of sustainable agricultural practices and climate-resilient crops to reduce the impact of climate change on agricultural productivity.
- **Insurance Products:** Develop and promote insurance products that cover a wider range of risks, including climate-related events.

The agricultural sector in India stands at a critical juncture, grappling with challenges like limited access to institutional credit, high interest rates, bureaucratic hurdles, and the adverse impacts of climate change. Addressing these issues requires a multi-faceted approach involving policy interventions, technological integration, and capacity building.

AGRICULTURE CREDIT: INSIGHTS FROM ECONOMIC SURVEY 2023-24

The Economic Survey 2023-24, presented in Parliament by the Union Finance Minister, reported significant **double-digit growth** in credit for agricultural and allied activities during FY24.

Agricultural credit rose from Rs 13.3 lakh crore in FY21 to Rs 20.7 lakh crore in FY24, an increase of nearly 1.5 times. However, despite this growth in credit, the Gross Value Added (**GVA**) in the agriculture sector grew at a **slower pace** due to **erratic weather patterns** and uneven monsoon distribution in 2023.

In FY24, the shares of agriculture, industry, and services in overall GVA at current prices were 17.7%, 27.6%, and 54.7%, respectively.

The Economic Survey emphasizes the success story of Indian agriculture, noting the transformation from a food-deficit nation in the 1960s to a net exporter of agricultural products. However, it points out the need to **shift focus** from basic food security to **nutritional security**. The growing demand for pulses, millets, fruits, vegetables, milk, and meat necessitates a shift

towards a demand-driven food system that is more nutritious and sustainable.

Policy Recommendations

The Survey outlines five policy recommendations to enhance market functions in favor of farmers:

- **Avoiding Bans on Futures and Options:** The first recommendation advises against banning futures or options markets at the first sign of price spikes. Instead, it calls for intelligent regulatory designs to prevent unnecessary bureaucratic interference.
- **Restricting Export Bans:** Export bans should be invoked only under exceptional circumstances, allowing domestic consumers to substitute non-essential agricultural commodities. This policy would enable farmers to benefit from higher international prices.
- **Re-examining the Inflation-Targeting Framework:** The Survey suggests that India's inflation-targeting framework should exclude food prices, as higher food prices are often supply-induced rather than demand-induced. It recommends exploring direct benefit transfers or coupons to help poor and low-income consumers cope with higher food prices.
- **Increasing Total Net Irrigated Area:** The Survey highlights the need to increase the irrigated area, as several states are below the national average. It emphasizes improving water utilization practices and technologies such as drip irrigation and fertigation.
- **Aligning Farming with Climate Considerations:** The Survey stresses the importance of making farming practices consistent with climate considerations. It calls for promoting crop-neutral incentive structures to address issues such as the high water consumption of rice and sugarcane and the methane emissions from paddy cultivation.

The Survey calls for a **structural transformation** of the agricultural sector to **tackle challenges** such as water scarcity and climate change. The **reverse migration** during the COVID years, the decline in the growth rate of value addition in agriculture in FY24, and the **extreme summer heat** and **rising water stress** in Northwestern and Central India highlight the urgent need for a comprehensive **review of India's farm sector policies**.

CLIMATE CHANGE AND INDIA

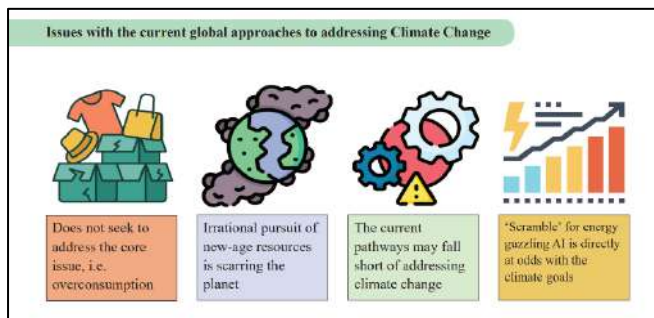
The Economic Survey 2023-24 highlights the flaws in the current global approach to climate change emphasizing that Bharat needs to look at Climate Change from the 'LOCAL LENS', Instead of 'One size fits all/ Prescriptions from the west.

RETHINKING CLIMATE CHANGE

The Economic Survey 2023-24 presents a **CRITICAL EXAMINATION** of the Western strategies for **ADDRESSING CLIMATE CHANGE**, urging developing nations to adopt a more localized approach.

The report emphasizes that a **"ONE-SIZE-FITS-ALL"** strategy is inadequate for these countries, which must balance developmental goals with effective climate action.

- The Economic Survey argues that current **global climate strategies** are fundamentally flawed and not universally applicable. It warns that blindly following Western practices could be detrimental to countries like India, where environmental considerations are deeply integrated with cultural, economic, and societal norms.

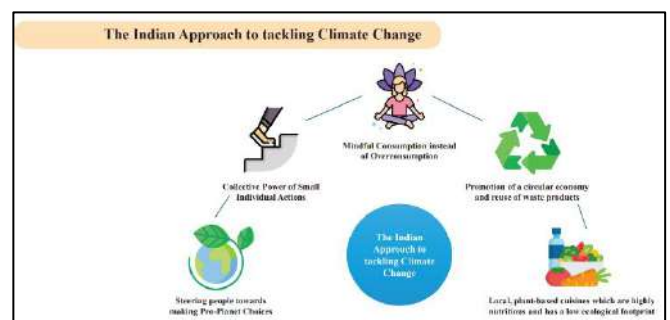


Despite India's significant progress in climate action, the country often faces criticism for not adhering to Western standards. This criticism overlooks India's unique social and cultural context, which inherently supports sustainable development. The survey identifies several inconsistencies in Western approaches to climate change that are not universally applicable:

- Overconsumption vs. Sustainability:** The Western model focuses on substituting means rather than addressing the root issue of overconsumption.
- Energy-Intensive Technologies:** The global push for energy-consuming technologies, such as Artificial Intelligence and the extraction of rare

earth minerals, contradicts the goals of climate change mitigation.

- Lifestyle and Nature:** The Western lifestyle often disregards the essential relationship between humans and nature, people, material resources, and self-awareness.



The Economic Survey highlights India's emphasis on a harmonious relationship with nature as a sustainable alternative to the Western culture of overconsumption. For example:

- Food Security and Agriculture:** The Western model of meat production poses risks to food security and can lead to the degradation of essential natural resources.
 - The reliance on crops that are also suitable for human consumption to feed livestock exacerbates this issue. In contrast, traditional farming practices in developing countries, which integrate livestock rearing, offer a more sustainable approach.
 - Utilizing farm waste as animal feed not only reduces costs but also helps maintain ecological balance. This shift could free up substantial arable land to combat global hunger.
- Urbanization and Housing:** The Western trend toward nuclear families leads to significant land and resource demands, often resulting in urban sprawl.
 - Such urban developments are typically inefficient, with high energy costs and

limited natural ventilation. The Survey suggests a **return to traditional multi-generational households**, which are more sustainable.

- Using **local materials** and **labour** for construction, designing homes with central courtyards, and **maximizing natural lighting** and cooling can significantly reduce environmental impact. This housing model also offers benefits for elderly family members.

Environment), which advocates for individual responsibility in the fight against climate change. **Mission LiFE** promotes sustainable lifestyles through 75 recommended actions, including mindful consumption, circular economy principles, and the use of low-impact local plant-based diets. It also emphasises water and energy conservation.

According to the International Energy Agency, adopting the measures outlined in the LiFE initiative could **reduce global carbon dioxide emissions** by over 2 billion tonnes by 2030, accounting for 20% of the necessary emission reductions. Additionally, these measures could save consumers around USD 440 billion annually.

WAY FORWARD

The Economic Survey 2023-24 stresses that global climate action must accommodate the unique needs and choices of individual countries while centering on sustainable individual behaviours. The report calls for a balanced approach to rebuilding societies with a focus on equity and sustainability



The Economic Survey underscores the importance of the Prime Minister's Mission LiFE (Lifestyle For

ADOPTION OF DIGITAL TECHNOLOGIES IN RURAL INDIA

India's rural landscape has witnessed a remarkable transformation in recent years, driven by the rapid adoption of digital technologies. From education and healthcare to agriculture and economic empowerment, the integration of cutting-edge digital solutions has the potential to bridge the urban-rural divide and uplift the lives of millions living in the hinterlands.

REVOLUTIONIZING EDUCATION: BRIDGING THE LEARNING GAP

The COVID-19 pandemic has underscored the importance of digital education, particularly in rural India.

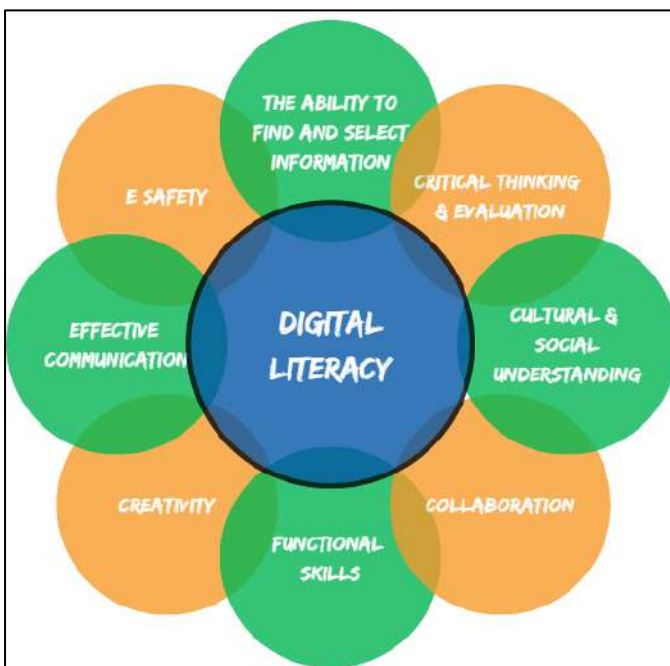
- The government's flagship initiatives like the PM e-Vidya program and the Pradhan Mantri Digital Saksharta Abhiyan (PMGDISHA) have been instrumental in providing access to online learning resources and digital literacy training to students and adults in remote areas.
- According to a report by the Ministry of Education, the PMGDISHA scheme has trained over 5.5 crore rural citizens in digital skills since its inception in 2017, empowering them to navigate the digital landscape.

TRANSFORMING HEALTHCARE: TELEMEDICINE AND DIGITAL DIAGNOSTICS

The adoption of telemedicine and digital diagnostics has revolutionized healthcare delivery in rural India.

The Ayushman Bharat Digital Mission (ABDM) has facilitated the creation of a unified digital health infrastructure, enabling seamless access to medical services and electronic health records.

A study by the National Health Authority reveals that the utilization of telemedicine services in rural areas increased by over 700% during the pandemic, underscoring the transformative potential of these technologies in addressing the challenges of geographic barriers and limited access to specialized healthcare.



Empowering Agriculture: Precision Farming and Market Linkages

Digital technologies have transformed the agricultural landscape in rural India.

- Initiatives like the Digital India Land Records Modernization Programme (DILRMP) and the National Agriculture Market (e-NAM) platform have empowered farmers with access to land records, weather forecasts, and online marketplaces.
- According to a report by the Ministry of Agriculture and Farmers' Welfare, the adoption of precision farming techniques, enabled by digital tools and sensors, has led to a 20-30% increase in crop yields in several states, improving the livelihoods of rural communities.

DRIVING ECONOMIC EMPOWERMENT: DIGITAL FINANCIAL INCLUSION

- The push for **DIGITAL FINANCIAL SERVICES** has been a game-changer for rural communities. **SCHEMES** like the Pradhan Mantri Jan Dhan Yojana (PMJDY) and the Unified Payments Interface (UPI) have facilitated seamless access to banking, credit, and digital payments.
- A study by the Reserve Bank of India indicates that the percentage of rural adults with a bank account increased from 53% in 2014 to 80% in 2021, reflecting the transformative impact of these initiatives in promoting financial inclusion and economic empowerment.



Empowering Women: Digital Entrepreneurship and Skilling

- **Digital technologies** have also empowered rural women by providing access to entrepreneurial opportunities and skill development programs.
- **Initiatives** like the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) and the Mahila E-Haat platform have enabled women to leverage digital tools for their economic and social upliftment, fostering a more inclusive and equitable digital ecosystem.
- **Government schemes** like the BharatNet project, the Common Service Centres (CSCs), and the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) are working towards bridging the digital divide and creating a more inclusive digital ecosystem in rural areas.

These initiatives aim to provide high-speed internet connectivity, access to digital services, and digital literacy training to empower rural communities.

Challenges and the Way Forward

- While the progress has been commendable, challenges such as infrastructure gaps, digital literacy, and cultural barriers continue to hinder the widespread adoption of digital technologies in rural India.
- Sustained efforts by the government, private sector, and civil society organizations are crucial to address these challenges and ensure that the benefits of digital transformation reach the last mile.
- As India marches towards its vision of a digitally empowered nation, the adoption of digital technologies in rural areas holds the key to unlocking the true potential of inclusive development and sustainable growth.

By leveraging the power of digital solutions, rural India can unleash a new era of prosperity, empowerment, and social transformation.

INDIA'S ECONOMIC GROWTH AND CLIMATE GOALS OF 2030

Economic growth must take into account needs of energy transition, climate mitigation, with action aligned as per India's 2030 climate goals.

NEW GOVERNMENT'S AGENDA: VISION 2030 FOR INDIA

- The new government has unveiled its ambitious 'Vision 2030'—a comprehensive plan aimed at catapulting the nation towards unprecedented growth and development.
- Vision 2030 promises to transform the country into a global powerhouse by fostering growth that is sustainable, inclusive, and forward-looking.
- Inclusive Growth: Aims to ensure that economic prosperity reaches every stratum of society.
- Initiatives to improve healthcare, education, and digital connectivity are expected to bridge the urban-rural divide, empowering citizens with equal opportunities.
- Sustainable Development: With climate change posing a significant threat, India is set to focus on renewable energy sources, aiming to reduce carbon emissions and promote green technologies.
- Infrastructure Leap: It envisions state-of-the-art transportation networks, smart cities equipped with IoT technologies, and robust logistics frameworks to support India's growing economy.
- Technological Advancements: Plans are underway to foster innovation in AI, robotics, and biotechnology, positioning India as a global hub for cutting-edge research and development.
- Healthcare for All: Vision 2030 emphasises universal healthcare access, with initiatives to expand healthcare infrastructure and make medical services more affordable.
- Education & Skill Development: Redefine learning outcomes, The focus will be on skill development, aligning education with market needs to create a workforce ready for the challenges of tomorrow.
- Agricultural Reforms: Vision 2030 includes plans for modernising agriculture with technology-driven solutions to increase productivity and ensure food security.

India's Climate Goals of 2030

- India has set ambitious climate goals to be achieved by 2030, aligning with the United Nations' Sustainable Development Goals (SDGs) and its own Nationally Determined Contributions (NDCs) under the Paris Agreement. These include:
 - **Increase Non-Fossil Electricity Generation:** India plans to boost its non-fossil electricity generation capacity to 500 GW by 2030.
 - **Renewable Energy:** The country is working towards meeting 50% of its energy requirements from renewable energy by 2030.
 - **Carbon Emission Reduction:** There's a goal to reduce the total projected carbon emissions by one billion metric tons from now through 2030.
 - **Carbon Intensity Reduction:** India aims to reduce the carbon intensity of its economy by at least 45% by 2030 compared to 2005 levels.
 - **Net Zero by 2070:** While this is a long-term goal, it's part of India's roadmap to achieve the target of net zero emissions by 2070.
 - **Additional Carbon Sink:** India has also committed to creating an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.

FOCUS AREAS

- **ENERGY TRANSITION:** According to the NITI Aayog, India has made great strides in the field of renewable energy, with non-fossil fuels, excluding nuclear power, making up 43.12% of the total installed capacity. Installed capacity of solar power has increased twelvefold in the past eight years.
- It means India is on course to secure 50% of its power capacity from non-fossil sources by 2030 — a commitment made under the Paris Agreement 2015 on climate change.
- Currently, despite making up 43.12% of the country's energy capacity, non-fossil fuel sources only generate 23.4% of the total electricity. While the share of coal is projected to decline in the overall energy mix, integrating greater shares of renewable power into the grid will be key.

For this, necessary investments in grid flexibility, transmission and distribution infrastructure and energy storage technologies like pumped hydro and batteries will be crucial.

Action Points

- Develop detailed emission-reduction plans for all sectors with short- and long-term targets.
- Improve climate adaptation with standardised framework, methodology to evaluate climate risks, vulnerability, development programmes.
- Prioritise resource security in the domestic green transformation through policy coherence and clear strategies.
- Devote an adequate budget to the National Adaptation Fund for Climate Change.

PLAN FOR DECARBONISATION

- By 2019, India reduced the emissions intensity of its GDP by 33% of the levels recorded in 2005.
- It means that the country is on track to achieve its 2030 target to reduce the emissions intensity of its GDP by 45%.
- At the same time, India aims to grow its economy over eight times its present size by 2047.
- It means the country needs a formidable sector wise decarbonisation plan aligned with domestic development imperatives.

- India submitted a Long-Term Low Emission Development Strategy (LT-LEDS) to the UNFCCC in 2022 with guidelines for different sectors, but it needs detailed sectoral emissions reduction plans with short, medium, and long-term targets.
- Solutions and institutional interventions should ideally be determined at the domestic level and guide global financial and technical support for the country, rather than the other way around.
- India should proactively identify the gaps in implementation of decarbonisation measures, as well as the finance and technologies needed.
- It can harness multiple co-benefits, from alleviating the impacts of air pollution by reducing thermal power dependence to addressing the risk of stranded assets.

It will help lower the need for climate adaptation by avoiding the worst impacts of the climate crisis, and minimise the blow to economic and trade competitiveness in a changing global trade and climate regime.

BUILD CLIMATE RESILIENCE

- As per India's Third National Communication to UNFCCC the country needs US \$679 billion until 2030 for climate adaptation.
- Mechanisms such as the National Adaptation Fund for Climate Change are aimed at enabling the states and Union Territories that are particularly vulnerable to climate impacts to meet the cost of adaptation.
- However, budgetary allocations for the fund have not kept pace with the growing needs—the past two financial years have not seen any budgetary allocation at all.

- While there have been growing allocations for mitigation mechanisms in recent years, it is important for the government to prioritise adaptation needs of the country.
- In the Third National Communication, India highlights that most risk assessment studies focus solely on hazards.
- Improving adaptation research requires a standardised framework and methodology to evaluate climate risks, vulnerability and effectiveness of development programmes through government investment, community impact studies, building the capacity of local administrations and technological interventions to boost resilience, particularly in vulnerable sectors like medium and small enterprises and agriculture.

Address Geopolitical Issues

- India's climate ambitions face external pressures from energy geopolitics and global competition for critical mineral and green technology supply chains.
- China produces nearly 85% of the world's rare earth oxides, highlighting a significant supply risk.
- The West's subsidies and mechanisms like the EU's Carbon Border Adjustment Mechanism (CBAM) may harm India's trade competitiveness.
- India's foreign policy should prioritize resource security in the domestic green transformation.
- Key strategies include:
 - Policy coherence
 - Onshore manufacturing
 - Supply chain diversification
 - Challenging unfair trade actions

India has an opportunity to lead in climate action with strong domestic policies..

PRELIMS IN-BRIEF BI-WEEKLY

HISTORY

Nalanda University

- Founded by **Kumar Gupta of the Gupta dynasty in Bihar in the early 5th century.**
- During the **era of Harshavardhan** and the Pala monarchs, it rose to popularity.
- Used to teach all the **major philosophies of Buddhism.**
- Continued to be a centre of intellectual activity up until it was **destroyed in the 12th century AD, in 1193, by Turkish ruler Qutbuddin Aibak's general Bakhtiyar Khilji.**
- After six centuries, the university was **rediscovered in 1812 by Scottish surveyor Francis Buchanan-Hamilton** and later identified as the ancient university by **Sir Alexander Cunningham in 1861.**
- The **Chinese monk Xuan Zang** was offered invaluable insights into the academic and architectural grandeur of ancient Nalanda.
- **Also a UNESCO World Heritage Site.**

Vishnupad Temple

- Temple is in the **state of Bihar** and is dedicated to **Lord Vishnu.**
- **Built in 1787** on the orders of **Queen Ahilyabai Holkar of Ahmadnagar.**
- It is **located on the banks of the Falgu river.**
- Devotees visit the temple during **pitra paksha**, a period in the Hindu calendar when people take part in rituals to remember their ancestors.



Sangameshwara temple

- The Sangameshwara Temple, dedicated to **Lord Shiva**, has recently been submerged in the backwaters of the **Srisailem project** in Nandyal district due to heavy inflow from the **Krishna River.**

- The temple was **originally built in 740 AD by Chalukya ruler Pulakesin II on the Krishna River bank.**
- It was originally situated where the **Tungabhadra and Krishna Rivers merge.**
- To prevent submersion from the Srisailem Dam's construction, the temple was dismantled and **rebuilt at its current site in 1979**, maintaining its historical and religious significance.



Mahabodhi Temple

- The temple stands to the east of the Mahabodhi Tree, where **Gautam Buddha is believed to have attained nirvana.**
- Located in **Bodh Gaya**, in central Bihar, on the **banks of the Niranjana River.**
- The **Mahabodhi Temple Complex** is the first temple built by **Emperor Asoka in the 3rd century B.C.**, and the present temple dates from the 5th–6th centuries.
- It is **one of the earliest Buddhist temples built entirely in brick, still standing, from the late Gupta period.**
- It was recognized as a **UNESCO World Heritage Site in 2002.**

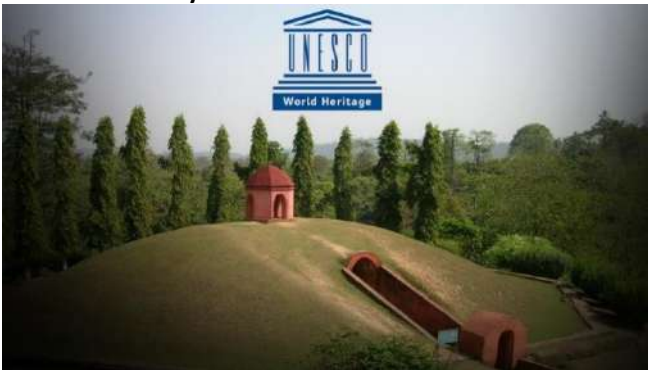


National Mission on Cultural Mapping (NMCM):

- It is a scheme administered by the **Ministry of Culture, Government of India.**
- The project aims to cover all the inhabited villages of India, which are marked as **'village', in the Census List, 2011** published by the **Registrar General and Census Commissioner of India.**
- The database of the project is accessible through the **Mera Gaon Meri Dharohar Web Portal.**
- It can be used effectively by any government ministry or other government organization to safeguard and promote the cultures, traditions, art forms, and other cultural identities of the identified villages.

Charaideo Maidams

- A moidam is a **mound of earth over a grave**, typically containing one or more chambers with an earthen mound covered in grass and a pavilion on top.
- Unlike Hindus who cremate their dead, the Ahoms, originating from the Tai people, practiced burial.
- **Charaideo**, the first capital established by **King Sukapha in 1253 AD**, remained a symbolic and ritual center of power for the Ahoms.
- The burial sites contain items for the afterlife and are reminiscent of ancient Egyptian rites, earning the nickname **"Pyramids of Assam."**



Kalaripayattu

- Kalaripayattu, meaning **"Battleground"** (Kalari) and **"Method" or "Art"** (Payattu), is an ancient Indian martial art that **originated in Kerala between the 3rd century BC and the 2nd century AD.**
- Practiced in Kerala and parts of Tamil Nadu, it is one of the **oldest and most scientific martial arts in the world**, with a history of over 3,000 years.
- Kalaripayattu includes personal combat training exercises designed to develop sharp reflexes for unarmed combat and skilled fighting using various weapons such as sticks, daggers, knives, spears, swords, and shields.



GEOGRAPHY

Mackenzie River

- The Mackenzie River system is the **second largest river system** on the **North American continent**, after only the **Mississippi-Missouri River** system.
- It is also **Canada's largest and longest river basin** and is the **10th largest river basin in the world.**
- The **Peace, Athabasca, and Liard Rivers** are some of the most important tributaries of the Mackenzie.
- A number of lakes, like the **Lake Athabasca, Great Slave Lake, and Great Bear Lake**, also form notable parts of the Mackenzie River system.



Tizu and Zungki River (National Waterways 101)

- **Nagaland** has four main rivers, namely, **Doyang, Dhansiri, Dhiku, and Tizu.**
- The Tizu River forms an important drainage system in the eastern part of Nagaland.
 - It **originates from the central part of Nagaland** state and runs through a northeast direction and confluences in the **Chindwin River of Myanmar.**
 - The Chindwin River further enters into **Irrawaddy River, the largest river of Myanmar.**
 - The River Irrawaddy **further drains into the Andaman Sea via the Irrawaddy Delta** after travelling through river ports like Mandalay.
 - The main tributaries of the River Tizu are **river Zungki, Lanye, and Likimro.**

Rwanda

- Rwanda is a **landlocked country** located **south of the equator in east-central Africa**.
- It is part of the **Great Rift Valley region of Africa**.
- Often referred to as the “**land of a thousand hills**”, Rwanda’s landscape is mostly hilly and mountainous.
- **Borders:** Rwanda shares a border with the **four nations of Burundi, Tanzania, Uganda, and the Democratic Republic of the Congo**.
- **Major Mountain Ranges:** Albertine Rift and Virunga.
- **Major Rivers:** Two major African rivers, the **Nile and the Congo, flow through Rwanda**.



Ivory Coast

- **Côte d’Ivoire**, commonly known as **Ivory Coast**, is a country located on the **southern coast of West Africa**.
- **Location:** Bordered by Guinea and Liberia to the west, Mali and Burkina Faso to the north, Ghana to the east, and the Atlantic Ocean to the south.



Uranium

- It is a **silvery-white metallic chemical element** in the periodic table, with atomic number 92.
- It has the **highest atomic weight** of all naturally occurring elements.
- It **occurs naturally in low concentrations in soil, rock and water**, and is commercially extracted from uranium-bearing minerals such as uraninite.
- Uranium ore can be mined from open pits or underground excavations.
- The ore can then be crushed and treated at a mill to separate the valuable uranium from the ore.

- Uranium may also be **dissolved directly from the ore deposits in the ground (in-situ leaching) and pumped to the surface**.

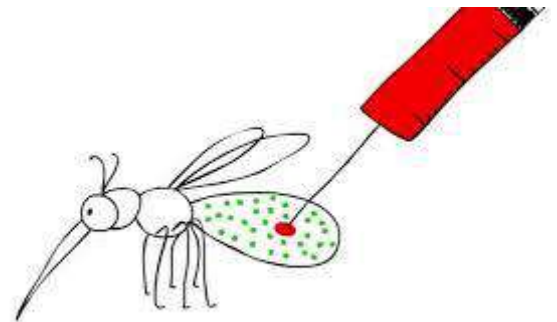
Artificial reefs

- Artificial reefs are **human-made structures** placed on the seabed using **biorock technology**.
- This technology involves passing a **low electrical current** through water via electrodes near a steel structure, attracting dissolved minerals to form a calcium carbonate layer akin to natural coral reefs.
- These reefs provide **hard surfaces for algae, barnacles, corals, and oysters to attach to, creating habitats for fish, absorbing carbon dioxide, and benefiting local fishing communities**.

SCIENCE & TECHNOLOGY

Wolbachia

- Wolbachia are **natural bacteria present in up to 60% of insect species**, including some mosquitoes.
- Wolbachia is **not usually found in the Aedes aegypti mosquito**, the primary species responsible for transmitting human viruses such as **Zika, dengue, chikungunya and yellow fever**.
- Wolbachia is **safe for humans, animals and the environment**.



Electroencephalogram

- An EEG is a **recording of brain activity**.
- It is a **test that detects abnormalities in your brain waves**, or in the electrical activity of your brain.
- Procedure:
 - The procedure may be short, often just a **30-minute recording**.
 - During the procedure, **electrodes consisting of small metal discs with thin wires are pasted onto your scalp**.
 - The electrodes **detect tiny electrical charges** that result from the activity of your brain cells.

- The charges are amplified and appear as a graph on a computer screen or as a recording that may be printed out on paper.
- The EEG procedure is **usually carried out by a highly trained specialist, called a clinical neurophysiologist.**

Chandipura virus

- Chandipura is a virus of the **Rhabdoviridae family.**
- The virus resides in the **salivary gland of these insects, and can be transmitted to humans or other vertebrates like domestic animals through bites.**
- The infection **caused by the virus can then reach the central nervous system which can lead to encephalitis** — inflammation of the active tissues of the brain.
- The **infection has largely remained limited to children below 15 years.**
- **Treatment:** The infection can only be symptomatically managed as **currently there is no specific antiretroviral therapy or vaccine available for treatment.**

Rogue waves

- Rogue waves are also known as **Freak waves** and are **relatively rare, large and spontaneous ocean surface waves** whose heights are larger than maximum wave height expected for a given sea state.
- **Formation:** These are **formed from the coincidental stacking of multiple wind-driven wave crests** passing through a single point or arising from a combination of waves
- May move in either the **same direction, the opposite direction, or at oblique angles** to the prevailing wind and wave motion.
- They have been **observed all over the world ocean** and their characteristics are studied in the **Mediterranean sea, the Pacific, the Atlantic, and some parts of the Indian Ocean.**
- They are very **unpredictable**, and often come unexpectedly from directions other than prevailing wind and waves.
- They look like **"walls of water."**

Zebra Mussel

- Zebra mussels are an **invasive, fingernail-sized mollusk.**
- They are **native to the Caspian and Black Seas, south of Russia and Ukraine.**
- **Habitat:** They **live underwater, attached to natural and manmade substrates** such as rocks, wood, plants, native mussels, pipes, docks, boat lifts, swim rafts, moored watercraft, and other debris.
- They are **short-lived** (between two and five years), and **begin reproducing at two years of age.**

Pralay Missiles

- **Quasi-ballistic surface-to-surface missile.**
- **Range:** It can hit targets 150-500 km away.

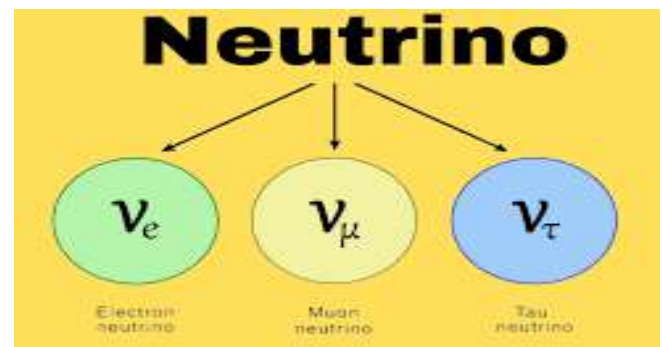
- **Capacity:** The missile can carry 350-700 kg of high-grade explosives.
- Developed by the **Defence Research Development Organisation (DRDO)**
- Powered by a **solid propellant rocket motor** and other new technologies.
- The missile guidance system includes **state-of-the-art navigation** and integrated avionics.
- Can change its path after covering a certain range in mid-air.

NOVA (NUMI Off-axis ve Appearance)

- Experiment to study one of nature's most elusive particles: neutrinos.
- Managed by the U.S. Department of Energy's Fermi National Accelerator Laboratory, located outside of Chicago, United States.
- NOVA aims to learn more about the ordering of neutrino masses.

NEUTRINOS

- Neutrinos are **elementary subatomic particles** with no electric charge, very little mass, and 1/2 unit of spin.
- They **travel at near light speeds.**
- Neutrinos belong to the family of particles called **leptons**, which are not subject to the strong force.
- Often called **'ghost particles'** because they barely interact with anything else.
- **Neutrinos** are, however, the **most common particle** in the universe.



Dark oxygen

- "Dark oxygen" being produced in the **deep ocean** by **metallic nodules on the seafloor**, challenging the belief that oxygen production requires sunlight.
- "Dark oxygen" is **oxygen produced in the deep ocean, independent of sunlight, by metallic nodules on the seafloor.**
- These **naturally occurring metallic nodules act like batteries**, generating electric currents that split seawater (H₂O) into hydrogen and oxygen.

Mars Curiosity Rover

- Curiosity Rover is a **U.S. robotic vehicle** designed to **explore the surface of Mars**.
- The rover is **part of NASA's Mars Science Laboratory mission**.

Features:

- It is about **3 metres long and weighs about 900 kg**.
- It **does not rely on solar cells for its energy needs** but rather draws its electric power from a thermoelectric power generator, with the heat source being the radioactive decay of plutonium and the heat sink being Mars's atmosphere.

U-WIN Portal

- Aiming to maintain an electronic registry of routine immunizations.
- **U-WIN is in pilot mode across all states and Union Territories, except for West Bengal**.
- It captures **every vaccination event for pregnant women and children under the Universal Immunization Programme (UIP)**.

Features:

- The platform generates a **uniform QR-based, digitally verifiable e-vaccination certificate**, similar to Covid vaccination certificate, which can be accessed anytime by the citizens through a single click.
- It also **facilitates the creation of Ayushman Bharat Health Account (ABHA) IDs** for comprehensive health record maintenance.

Aditya-L1 Mission

- Aditya-L1 is **India's first space-based solar mission to study the Sun**.
- It was launched on September 2, 2023, by the Indian Space Research Organisation (ISRO) into a halo orbit around the **Sun-Earth Lagrange point 1 (L1)**.
- Aditya-L1 would provide an **uninterrupted view of the Sun** for prolonged periods, overcoming the limitations of Low Earth Orbits where the view is frequently blocked by the Earth itself.
- Aditya-L1 launched using a **PSLV XL launch vehicle** from the Satish Dhawan Space Centre.
- It carries **seven payloads** to examine the Sun's properties using visible and X-ray spectrometers, a coronagraph, analysers for solar winds and energetic particles, and magnetometers.

Oropouche fever

- The virus, first detected in **Trinidad and Tobago in 1955**, has spread to Latin America, the Caribbean, and recently to Europe, with Italy reporting its first case in June 2024.
- Oropouche fever is **transmitted by infected midges and mosquitoes, and symptoms start between four and eight days after the bite, including fever, headaches, pain, and sometimes nausea**.
- Most patients recover in about seven days, and there is **no vaccine or specific treatment**.

The disease's spread may be influenced by climate and environmental factors such as deforestation, but much about its transmission remains understudied.

Alzheimer Disease

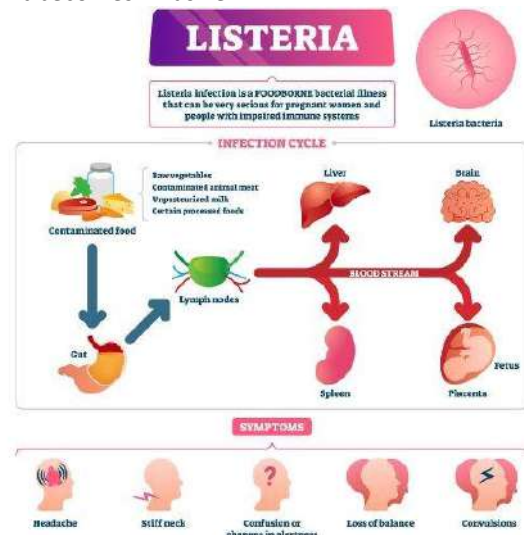
- Alzheimer's is a **neurodegenerative and progressive disease** that **slowly destroys memory** and other functions related to memory.
- It happens when **plagues containing amyloid-beta peptides continue to accumulate in the brain**.
- **Memory loss or Dementia** is the key symptom of **Alzheimer's disease**. Inability to recall recent events or discussions is the early symptom of the illness.

Lactic acid bacterium

- Lactic acid bacterium are a **group of gram-positive bacteria**.
- They play a significant role in the **fermentation process**.
- These bacteria **produce lactic acid**.
- Present as **bacilli bacteria or cocci bacteria**.
- They are **non-sporulating, non-respiring bacteria**.

Listeria

- **Listeria monocytogenes**, a **bacteria found in soil and contaminated food, causes listeriosis**, an infection that can be severe for the elderly, immunocompromised individuals, and pregnant women.
- Symptoms of listeriosis include **vomiting, nausea, cramps, severe headache, constipation, and fever**.
- The infection **can be treated with antibiotics**, especially if it becomes invasive.



Tinzaparin

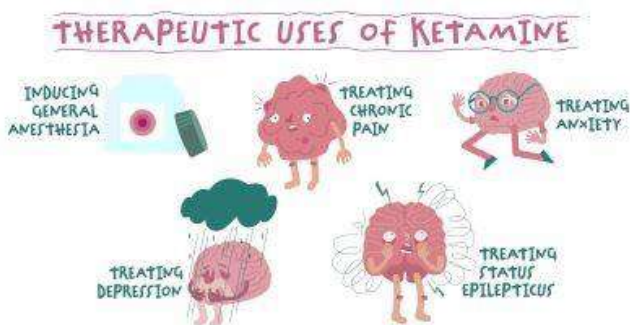
- The **venom of the red spitting cobra, native to Tanzania**, can cause **severe pain and permanent damage or death to its victims**.
- **Current antivenom treatments**, derived from animal antibodies, are costly, difficult to produce, and can have severe side effects.

- They found that many of these genes are involved in the **synthesis of heparan sulphate**, a compound regulating blood vessels and clot formation.
- **Tinzaparin mimics heparan sulphate, causing the body to shut down the synthesis pathway, thus blocking the venom's effects.**
- Experiments showed that tinzaparin protected human cells and **reduced skin damage** in mice exposed to **cobra venom**.

Ketamine

A new **slow-release ketamine tablet** offers hope for **treatment-resistant depression with fewer side effects** compared to traditional intravenous or intranasal administration.

- **Ketamine, originally an anesthetic**, has rapid antidepressant effects and is often used when other antidepressants fail.
- The **slow-release formulation reduces common side effects** like headaches and nausea, making it suitable for at-home use.



- The list of Scheduled Castes is intended to provide **special privileges and benefits to these communities to promote their social and educational advancement.**
- Parliament holds the authority to amend this list by including or excluding groups through legislation, ensuring the criteria for inclusion are clearly defined and adhered to.

Foreigners Tribunals

Formation and Structure:

- Established through the **Foreigners (Tribunals) Order of 1964, linked to the Foreigners' Act of 1946.**
- The **FTs are quasi-judicial bodies** formed by the **central government through the Foreigners (Tribunals) Order of 1964** under Section 3 of the Foreigners' Act of 1946, to let local authorities in a State refer a person suspected to be a foreigner to tribunals.
- The Assam government has recently instructed the Border police not to refer cases of non-Muslims who entered India before 2014 to the FTs, aligning with the Citizenship (Amendment) Act of 2019.
- This Act offers a **citizenship application window for non-Muslims fleeing persecution from Afghanistan, Bangladesh, and Pakistan.**



POLITY

Central Information Commission

- The **CIC was established by the Central Government in 2005**, under the provisions of the **Right to Information Act (2005).**
- It is **not a constitutional body.**
- The Commission **consists of a Chief Information Commissioner and not more than ten Information Commissioners.**
- They are **appointed by the President** on the recommendation of a committee consisting of the Prime Minister as Chairperson, the Leader of the Opposition in the Lok Sabha and a Union Cabinet Minister nominated by the Prime Minister.

Article 341 of the Constitution

Article 341 of the Indian Constitution **empowers the President to specify castes, races, or tribes as Scheduled Castes (SC)** for various states and union territories. This designation is made after consulting with the Governor of the concerned state.

Prompt corrective action framework

- This framework aims to enable timely supervisory intervention and ensure UCBs implement necessary remedial measures to restore their financial health.
- It **replaces the existing Supervisory Action Framework (SAF) last revised in January 2020.**
- The **new PCA framework is designed to provide flexibility by allowing entity-specific supervisory action plans based on individual risk assessments.**
- It aligns with similar frameworks for **Scheduled Commercial Banks and Non-Banking Financial Companies** while maintaining supervisory rigor.
- The revised framework **focuses on capital, asset quality, and profitability, particularly targeting larger UCBs for intensive monitoring.**
- It will **not apply to small Tier 1 UCBs.** The RBI has categorized UCBs into four tiers for regulatory purposes.

TRIAL TIME



Gauhati High Court

Foreigners tribunal:

Special court that hears cases related to violation of Foreigners Act, 1946

- Set up under Foreigners Tribunal (Order), 1964
- Appeals against the tribunal's orders can be made only in a high court

SC has asked Centre

- To discuss with Bangladesh the process of streamlining deportation of illegal migrants
- To take effective steps to complete double-coiled fencing of the India-Bangladesh border

Unlawful Prevention Activities Act(UAPA)

- The UAPA was introduced in 1967 as a legislation to set out reasonable restrictions on the fundamental freedoms under Article 19(1) of the Constitution, such as freedom of speech, right to assemble peacefully, and the right to form associations.

UAPA #UPSC #CSE

What is UAPA?
The Unlawful Activities Prevention Act, 1967 is a Parliamentary law that gives powers to the central government to deal with activities directed against the integrity and sovereignty of India.

Provisions

- UAPA is applicable to both Indians and well as foreigners. It can be applied to offences committed either in India or outside.
- The law provides for death penalty and life imprisonment as the highest form of sentences.
- A maximum time of 180 days is given to the investigating agency to file report, which can also be extended.

New Amendments (2019)

- NIA officers of the rank of Inspector or above can investigate a case in addition to DSP or ACP ranked officer in a state.
- The law empowers the government to designate individuals as terrorists.
- The approval of Director General of Police is required to attach properties connected with terrorism.

Concerns

- It gives absolute and sweeping powers to the central government to arrest individuals indulging in an activity it considers as unlawful.
- The courts are bound to give stringent punishment under the UAPA even if offence is not serious.

- 'Unlawful activity' is defined as any action taken by an individual or association – through an act, words, spoken or written, or by signs or visible representation – which is intended to, or supports a claim to, bring about the cession of a part of the territory of India, or the secession of a part of the territory of India from the Union, or which incites any individual or group of individuals to bring about such cession or secession.
- In 2004, the UAPA was amended, and 'terrorist activities' were brought within its fold.
- Under the Act, the central government may designate an organization as a terrorist organization if it:

- commits or participates in acts of terrorism;
- prepares for terrorism;
- promotes terrorism;
- is otherwise involved in terrorism;
- The 2019 Amendment gave the Home Ministry the power to designate individuals as terrorists.
- The Act extends to the whole of India.
- The UAPA applies to anyone who commits a UAPA crime in India or outside India. It applies to Indian citizens irrespective of where the crime is committed, and also includes people in Government service, and people on ships and aircrafts registered in India.

Right to be forgotten

- In India, the "right to be forgotten" is considered part of the broader right to privacy under Article 21 of the Constitution, but specific legal provisions for this right are lacking.
- The Digital Personal Data Protection Act, 2023, which includes penalties for data misuse, does not explicitly cover this right.
- The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, offer a complaint process for unauthorized personal data exposure, but do not address the right comprehensively.

SOCIAL JUSTICE

Jan Aushadhi Kendras

- After Mauritius, Nepal has approached India to set up Jan Aushadhi Kendras in their country.
- With an objective of making quality generic medicines available at affordable prices to all, Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) was launched by the Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Government of India in November, 2008.
- Under the scheme, dedicated outlets known as Janaushadhi Kendras are opened to provide generic medicines at affordable prices.
- As on 31.01.2024, 10607 Janaushadhi Kendras are functional across the country. Product basket of PMBJP comprises 1965 drugs and 293 surgical items.
- The Scheme is implemented by a society registered under the Societies Registration Act, viz., Pharma & Medical Bureau of India (PMBI) [erstwhile Bureau of Pharma PSUs of India (BPPI)].

Protection of Children from Sexual Offences (POCSO) Act

- A special court for hearing cases filed under the Protection of Children from Sexual Offences (POCSO)

Act, 2012 Thursday issued a non-bailable arrest warrant against a former political leader.

- The **Protection of Children from Sexual Offences (POCSO) Act was enacted in 2012** to provide legal protection to children from sexual abuse, exploitation and pornography.
- It defines various forms of sexual offences against children and prescribes stringent punishments for the perpetrators.
- **“Children” according to the Act are individuals aged below 18 years.** The Act is **gender-neutral**.
- Sexual assault is deemed to be “aggravated” under certain circumstances such as when the child is mentally ill. Also when the abuse is committed by the person in a position of trust such as a doctor, teacher, policeman, family member.

Ideas4LiFE portal

- The portal invites innovative ideas to **promote environment-friendly behaviours and lifestyles, encouraging students, researchers, faculty, and innovators to contribute.**
- The **Ideas4LiFE initiative supports Mission LiFE’s seven themes:** saving water, saving energy, reducing waste and e-waste, rejecting single-use plastics, adopting sustainable food systems, and healthy lifestyles.
- The initiative is supported by **educational institutions and partners like UNICEF YuWaah.**

Caller ID spoofing

- Spoofing is used for **social engineering attacks, bypassing call blocking, and exploiting IVR system vulnerabilities.**
- The **Telecom Regulatory Authority of India (TRAI)** suggested a **Calling Name Presentation (CNAP)** system to display caller names based on KYC documents.
- The **Department of Telecommunications (DoT)** has directed telecom operators to block international calls with manipulated Caller Line Identity (CLI), though the system’s effectiveness remains unclear.



DIGIPIN (Digital Postal Index Number)

- Developed with IIT Hyderabad, **DIGIPIN aims to provide a permanent digital infrastructure for addressing that remains unaffected by changes in state, city, or locality names, or road networks.**

- The system divides the country into 4m x 4m units, each assigned a **unique 10-digit alphanumeric code** based on geographical coordinates.
- This code serves as an **offline addressing reference, useful for locating addresses, emergency operations, and logistics.**
- **No private address data is stored, ensuring privacy.**

PM Janjatiya Unnat Gram Abhiyaan

The Finance Minister announced the launch of the PM Janjatiya Unnat Gram Abhiyaan, aimed at providing basic facilities to five crore Scheduled Tribe families across 63,000 villages in tribal-majority and aspirational districts.

- **This scheme is designed after PM-JANMAN for Particularly Vulnerable Tribal Groups.**
- The 2024-25 budget allocated ₹13,000 crore for the Ministry of Tribal Affairs, with a significant portion going to Eklavya Model Residential Schools.

Global Capability Centres (GCCs)

Global Capability Centres (GCCs) have become a **crucial component of India’s economic landscape**, contributing over 1% to the nation’s GDP and significantly boosting services exports.

- In FY24, ‘other business services’ provided by GCCs accounted for 26% of services exports, second only to IT services at 48%.
- These centres employ around 3.2 million professionals, including engineers and scientists, with significant contributions in engineering, research, and development (ER&D), business process management (BPM), and IT services.
- **GCCs are increasingly establishing operations in tier-II cities due to cost advantages and fresh talent pools.**

Government initiatives like ‘Digital India’ and supportive state policies in Karnataka, Telangana, and Tamil Nadu have facilitated the establishment and expansion of GCCs, particularly in sectors like automotive, electric vehicles, electronics, pharmaceuticals, and life sciences.

Major GCC Players in India



INTERNATIONAL RELATIONS

Golan Heights (Israel)

- It is a **strategic basaltic plateau** in the southwest corner of Syria.
- It is **bordered by the Yarmouk River in the south, the Sea of Galilee and Hula Valley in the west, the Anti-Lebanon mountains with Mount Hermon in the north, and Wadi Raqqad in the east.**
- Two thirds of the area was occupied by Israel following the **1967 Six-Day War** and then effectively annexed in 1981, which was rejected by the international community that continues to consider the territory as Syrian and under Israeli occupation.

Tell Umm Amer

- It is **situated on the coastal dunes of the Nuseirat Municipality, just 10 km south of Gaza city.**
- It is an **ancient Christian monastery founded in the fourth century by Hilarion the Great (291-371 CE).**
- It is also known as the **'Monastery of Saint Hilarion.**
- It was the **first monastic community in the Holy Land,** laying the groundwork for the spread of monastic practices in the region.
- The **monastery occupied a strategic position at the crossroads of major trade and communication routes between Asia and Africa.**

Gaza Strip

- The Gaza Strip is a **self-governing Palestinian territory** located on the **eastern coast of the Mediterranean Sea.**
- The territory takes its name from Gaza, its main city.
- It forms the **smaller of the two Palestinian territories — the other being the West Bank.**
- **Bordering Countries:** It is bordered by Israel to the north and east and Egypt to the south.
- **Climate:** It has a temperate climate, with mild winters, and dry, hot summers.
- The population is predominantly Palestinian, with the majority being Sunni Muslims.



Gobi Desert

It is a **vast, arid region** in northern China and southern Mongolia.

It's known for its **dunes, mountains and rare animals such as snow leopards and Bactrian camels.** In the **Gobi Gurvansaikhan National Park,** the Khongoryn Els sand dunes are said to sing when the wind blows. The park also features the **deep ice field of Yolyn Am canyon.** **Dinosaur fossils have been found at the red "Flaming Cliffs" of Bayanzag.**



International Energy Agency

- The world is likely to have a major surplus of oil by 2030 as production is ramped up while clean energy transition tempers demand.
- The **International Energy Agency** is an **International Energy Forum** comprising various Industrialised Countries under the **Organization For Economic Development And Cooperation (OECD).**
- It consists of **31 member countries and eleven association countries.**

- The **IEA was established in 1974**, in the wake of the 1973-1974 oil crisis, to help its members respond to major oil supply disruptions, a role it continues to fulfill today.
- The IEA releases the **India Energy Outlook Report**.
- **India joined this organization in 2017** as an Associate member.

ECONOMY

External Cooperation

Constitutional provisions regarding External Affairs **Seventh Schedule**:

- **All matters which bring the Union into relation with any foreign country** are listed under Union List.
- **Article 253**: Parliament has power to make any law for implementing any treaty with any other country or any decision made at any international conference, etc.
- **Article 293**: Places territorial limits on borrowing power of the states, i.e., states non-access to foreign loans.

Liquidity Coverage Ratio (LCR)

- The **Liquidity Coverage Ratio (LCR)** is a **regulatory standard** requiring banks to hold a sufficient amount of **high-quality liquid assets (HQLA)** that can be **quickly converted to cash to meet their short-term obligations over a 30-day stress scenario**.
- The goal is to ensure banks can survive a period of significant financial stress without needing external assistance. LCR in banking resulted from the **Basel III agreement**.

$$\text{Liquidity Coverage Ratio (LCR)} = \frac{\text{High-Quality Liquid Asset Amount (HQLA)}}{\text{Total Net Cash Flow Amount}}$$

Liquidity Coverage Ratio (LCR)

'White category' sectors

White category industries, such as **wind and solar power projects** and air cooler assembly, must now inform state boards of their operations via self-declarations.

Categorizing Industrial Sectors:

The **Ministry of Environment, Forest and Climate Change (MoEFCC)** categorizes industrial sectors based on their Pollution Index (PI), which reflects the level of emissions, effluents, hazardous waste, and resource consumption.

The Pollution Index ranges from 0 to 100, with higher values indicating greater pollution. The criteria for categorization are as follows:

- **Red category**: PI score of 60 and above
- **Orange category**: PI score of 41 to 59
- **Green category**: PI score of 21 to 40
- **White category**: PI score up to 20

This categorization is based on references from the **Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003**, **Environment (Protection) Act, 1986 standards**, and the **Doon Valley Notification, 1989**.

Inverse ETF

Sebi's new asset class proposal for high-risk investors is expected to provide access to advanced strategies like **long-short equity funds and inverse ETFs**

What is an ETF?

An Exchange-Traded Fund (ETF) is a type of investment fund that holds a collection of assets like stocks, bonds, or commodities and is traded on stock exchanges, much like individual stocks. ETFs offer investors a way to diversify their portfolios with a single investment and are known for their lower fees and ease of trading.

What is an Inverse ETF?

An Inverse ETF is designed to provide returns that move in the opposite direction of a specific index or benchmark. If the underlying index declines in value, the Inverse ETF aims to increase in value by the same percentage, effectively allowing investors to profit from a market downturn.



Central Consumer Protection Authority (CCPA)

- The **Central Consumer Protection Authority (CCPA)** imposed a penalty of Rs 3 lakh on an edtech platform for publishing "**false and misleading**" advertisements.
- Central Consumer Protection Authority is an authority provided by the **Consumer Protection Act, 2019**.
- It **aims to regulate unfair trade practices and false or misleading advertisements** which are prejudicial to the interests of public and consumers and to promote, protect and enforce the rights of consumers as a class.
- CCPA has an investigation wing headed by the Director General for conducting inquiry or investigation under the **Consumer Protection Act, 2019**.
- It has a **Chief Commissioner** as head, and only two other commissioners as members one of whom will deal with

matters relating to goods while the other will look into cases relating to services.

Minimum Support Price (MSP)

Bihar's Agriculture Minister has requested the Centre to declare a Minimum Support Price (MSP) for makhana, an aquatic crop extensively cultivated in Bihar.

- This request is significant as Bihar contributes 85% of the country's makhana production, involving around 10 lakh people, primarily from poorer backgrounds.

MSP:

Minimum Support Price (MSP) is the minimum price set by the government for certain agricultural products, at which the products would directly be bought from the farmers if the open market prices are less than the cost incurred.

GearShift Challenge

NITI Aayog, in collaboration with **IIM Bangalore**, **Smart Freight Centre India**, **CALSTART/Drive to Zero**, and **WRI India**, has launched the NITI GearShift Challenge as part of the **e-FAST India initiative**.

- This hackathon aims to develop innovative business models to promote the adoption of **zero-emission trucks (ZETs)** in India, addressing economic and environmental issues.
- The first round focuses on initial business models, while the second round involves detailed models and implementation roadmaps, mentored by industry leaders.

With the freight sector being crucial to India's economy and a significant contributor to diesel consumption and CO2 emissions, the challenge aims to accelerate the shift to electric trucks, improving air quality and energy security.

ECOLOGY & ENVIRONMENT

Hoolock Gibbon

Facts	Description
About	Gibbons, the smallest and fastest of all apes, inhabit tropical and subtropical forests in Southeast Asia. They have high intelligence, distinct personalities, and strong family bonds. They are one of the 20 gibbon species found worldwide.
Population and Habitat	The current population of hoolock gibbons is around 12,000. They are found in Northeast India,

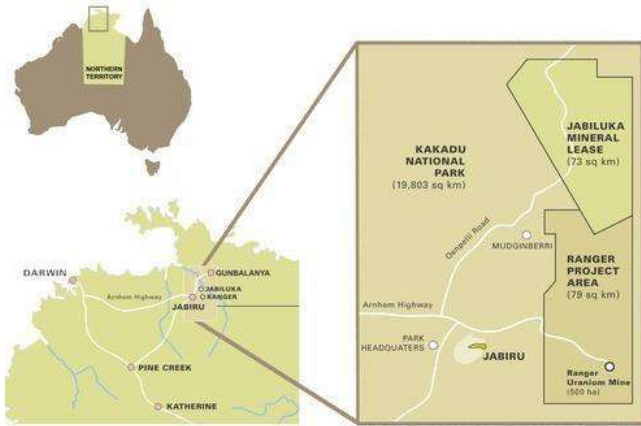
	Bangladesh, Myanmar, and Southern China.
Gibbon Species in India	Two distinct species in India's northeast: the eastern hoolock gibbon (<i>Hoolock leuconedys</i>) and the western hoolock gibbon (<i>Hoolock hoolock</i>).
Threats	All 20 gibbon species, including hoolock gibbons, are at high risk of extinction due to conservation challenges. Significant population and habitat decline due to deforestation for infrastructure projects in India.
Conservation Status	International Union for Conservation of Nature's Red List: Western Hoolock Gibbon: Endangered; Eastern Hoolock Gibbon: Vulnerable. Both species are listed on Schedule 1 of the Indian (Wildlife) Protection Act 1972.
Global Gibbon Network (GGN)	The Global Gibbon Network (GGN) recently convened its inaugural meeting in Haikou, China's Hainan province, to address its critical situation. The GGN was initiated at the International Gibbon Day 2020 event, with representatives from 20 gibbon conservation organizations.
About Hollongapar Gibbon Sanctuary	The Hollongapar Gibbon Sanctuary, formerly known as the Gibbon Wildlife Sanctuary or Hollongapar Reserved Forest, is an isolated evergreen forest in Assam, India. Established in 1997, the sanctuary was initially set aside in 1881, with its forests once extending to the Patkai mountain foothills. It is home to India's only ape and gibbon species, the hoolock gibbons, and the Bengal slow loris, Northeastern India's only nocturnal primate. The forest's upper canopy is dominated by hollong trees, the middle by nahar trees, and the lower by evergreen shrubs and herbs.

Agarwood

- Agarwood, used in the **aroma industry, medicine, and air fresheners**, has a significant economic impact.
- The essential oil from agarwood has multiple traditional and medicinal uses, making it a valuable commodity.

Jbiluka uranium site (Australia)

Australia has around **one-third of the world's uranium deposits**. Uranium deposits in India are primarily found in crystalline rocks. Jharkhand state holds 70% of the country's uranium reserves.



XClimate Finance Action Fund (CFAF)

- The fund aims to raise \$1 billion annually from fossil fuel-producing countries and companies to support climate projects in developing nations.
- Key focuses include clean energy, energy efficiency, climate resilience, and new technologies.

Half of the CFAF's capital will go to these projects, while the remaining half will help countries meet their Nationally Determined Contributions (NDCs) to maintain the 1.5-degree Celsius target.

Additionally, 20% of the funds will support immediate disaster response in vulnerable regions.

The Indian Cyber Crime Coordination Centre (I4C)

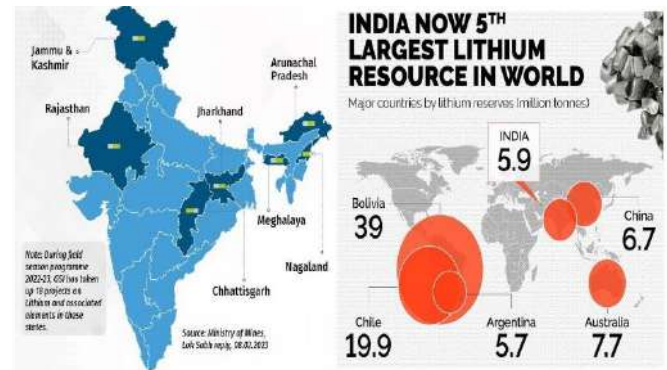
- The **Indian Cyber Crime Coordination Centre (I4C)** was initially established as a scheme under the **Ministry of Home Affairs' Cyber and Information Security (C&IS) division in 2018**.
- Its **objective** is to act as a central point to curb cybercrime, serve as an early warning system for cybercrime prevention and detection, and facilitate easy complaint filing.
- I4C operates through various verticals, including the **National Cybercrime Reporting Portal, the National Cybercrime Threat Analytics Unit, and**

the National Cybercrime Research & Innovation Centre.

Lithium in Mandya and Yadgiri districts (Karnataka)

Mandya and Yadgiri Districts:

- **Mandya:** Located in Karnataka, known for its sugarcane farming and rich cultural heritage.
- **Yadgiri:** Also in Karnataka, primarily an agricultural district.



Project Cheetah

Banni, a vast grassland in the southern part of Kutch, Gujarat, is being readied to host cheetahs from Africa as part of the next phase of **Project Cheetah**.

- However, Banni lacks sufficient prey for a viable cheetah population, necessitating the introduction of species like chital to sustain the big cats.
- Banni offers the advantage of having no leopards, making it a potential long-term site for a larger cheetah population once sufficient prey is established.

Greenium

India's **sovereign green bonds** have not received significant green premiums from private investors, affecting the financing of green transition projects, according to the **Economic Survey**.

- Despite India's green bond framework being well-rated, there is more capital potential than actual capital flow for energy transition in emerging markets.
- The Survey highlights the need for developed countries to provide more accessible, affordable financial resources in line with UNFCCC and Paris Agreement objectives.

Greenium is defined as the difference in yield between thematic bonds and ordinary bonds of a similar maturity, based on the logic that investors are willing to pay extra for a bond with a sustainable impact.

SELF EVALUATION BI-WEEKLY

PRELIMS

1. Which of the following statements about the sovereign green bond is true?

- A. Sovereign green bonds are issued by private corporations to finance renewable energy projects.
- B. The funds raised through sovereign green bonds can be used for any governmental purpose, including defense spending.
- C. Sovereign green bonds help in financing projects that contribute to environmental sustainability and climate resilience.
- D. The interest rates on sovereign green bonds are typically higher than those on traditional government bonds due to their environmental focus.

2. Which of the following statements about the Agarwood is incorrect?

- A. Agarwood is a resinous wood formed in the heartwood of Aquilaria trees.
- B. The production of agarwood is triggered by natural infections or artificial induction in the tree.
- C. Agarwood is commonly used in the production of perfumes and incense due to its aromatic properties.
- D. Agarwood is a fast-growing tree species, making it easy to cultivate and harvest in a short period.

3. Which of the following statements about lithium are correct?

- A. Lithium is the heaviest alkali metal in the periodic table.
- B. Lithium is primarily used as a catalyst in chemical reactions.
- C. Lithium is commonly found in rechargeable batteries for electronic devices.
- D. Lithium has a high melting point compared to other alkali metals.

4. Consider the following statements regarding the hoolock gibbon:

- 1. Hoolock gibbons are the only apes found in India.
- 2. They primarily inhabit the mangrove forests of India and Bangladesh.
- 3. Hoolock gibbons are known for their distinctive vocalizations, which they use to establish territory and communicate with family members.
- 4. They are listed as critically endangered on the IUCN Red List due to habitat loss and hunting.

Which of the statements given above are correct?

- A. 1, 2, and 3 only
- B. 1 and 3 only

- C. 1, 3, and 4 only
- D. 2, 3, and 4 only

4. Recently, Nalanda University has gained recognition for its academic contributions. What is the primary historical significance of Nalanda University?

- A. It was the first university in the world to offer degrees in engineering.
- B. It was an ancient center of learning in India, attracting scholars from across Asia.
- C. It was the only university in ancient India that focused exclusively on medical sciences.
- D. It was the first university to be established by a European colonial power in India.

5. Recently seen in the news, "Project Cheetah" is associated with which of the following organizations?

- A. Indian Space Research Organisation (ISRO)
- B. Defence Research & Development Organisation (DRDO)
- C. Ministry of Environment, Forest and Climate Change (MoEFCC)
- D. Council of Scientific & Industrial Research (CSIR)

6. Consider the following statements regarding the "Minimum Support Price (MSP)":

- 1. The MSP is announced by the Government of India for 23 crops every year.
- 2. The MSP is determined by the Commission for Agricultural Costs and Prices (CACP).
- 3. The MSP aims to ensure farmers receive a price above international market prices.

Which of the above statements is/are correct?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2, and 3

7. Consider the following statements regarding the "Central Consumer Protection Authority (CCPA)":

- 1. The Central Consumer Protection Authority was established under the Consumer Protection Act, 2019.
- 2. The CCPA has the power to investigate consumer complaints and order recalls of unsafe products.
- 3. The CCPA can penalize manufacturers for false or misleading advertisements.

Which of the above statements is/are correct?

- A. Only 1
- B. Only 2
- C. 1 and 2 only
- D. 1, 2, and 3

8. Which of the following statements about the "Right to be Forgotten" is correct?

- A. The Right to be Forgotten allows individuals to request the deletion of their genetic information from medical records.
- B. The Right to be Forgotten permits individuals to have their criminal records erased from all public databases.
- C. The Right to be Forgotten enables individuals to request the removal of personal information from search engine results under certain conditions.
- D. The Right to be Forgotten allows individuals to permanently delete their social media accounts without any record.

9. Which of the following statements is correct regarding the Golan Heights?

- A. The Golan Heights is a region that was annexed by Israel from Lebanon during the Six-Day War.
- B. The Golan Heights is internationally recognized as part of Israel by all United Nations member states.
- C. The Golan Heights is strategically important due to its high elevation, providing military advantage and water resources.
- D. The Golan Heights is a demilitarized zone monitored by the United Nations Peacekeeping Forces.

10. Which of the following correctly describes a key provision of the Unlawful Activities (Prevention) Act (UAPA)?

- A. The UAPA allows for the detention of individuals without trial for up to 180 days.
- B. The UAPA mandates that all cases must be tried in special anti-terrorism courts established by the central government.
- C. The UAPA empowers the government to declare organizations and individuals as terrorists based on reasonable grounds.
- D. The UAPA prohibits the collection of funds for any organization not registered with the central government.

11. Consider the following statements regarding the Central Information Commission (CIC):

- 1. The Central Information Commission is responsible for adjudicating complaints and appeals pertaining to the Right to Information Act, 2005.
- 2. The Chief Information Commissioner and Information Commissioners are appointed by the President of India on the recommendation of a committee consisting of the Prime Minister, the Leader of Opposition in the Lok Sabha, and the Chief Justice of India.

Which of the above statements is/are correct?

- A. Only 1

- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

12. Which of the following statements are correct regarding Alzheimer's disease?

- 1. Alzheimer's disease is a progressive neurological disorder that primarily affects memory and cognitive function.
- 2. The exact cause of Alzheimer's disease is well understood and directly linked to a deficiency of the neurotransmitter serotonin.
- 3. Alzheimer's disease is the most common cause of dementia in older adults.
- 4. There is currently no cure for Alzheimer's disease, but some treatments can help manage symptoms.

Select the correct option:

- 1. 1, 2, and 4
- 2. 1, 3, and 4
- 3. 1 and 3
- 4. 2 and 4

13. Recently seen in the news, Tel Umm Amer is a place located in which country?

- A. Egypt
- B. Israel
- C. Jordan
- D. Palestine

14. Consider the following statements regarding the Chandipura virus:

- 1. The Chandipura virus was first identified in the Chandipura district of Maharashtra, India.
- 2. It is primarily transmitted to humans through the bite of infected sandflies.
- 3. The virus is known to cause acute encephalitis syndrome, particularly in children.
- 4. Vaccination is available to prevent infection from the Chandipura virus.

How many of the statements given above are correct?

- A. Only 1
- B. Only 2
- C. Only 3
- D. All are correct

15. Consider the following statements regarding Article 341 of the Indian Constitution:

- 1. Article 341 deals with the official language of the Indian Republic.
- 2. Article 341 provides for the identification of Scheduled Castes by the President of India in consultation with the State Government.
- 3. Article 341 allows for the inclusion or exclusion of certain communities from the Scheduled Castes list by the Parliament.
- 4. Article 341 is part of the Directive Principles of State Policy.

How many of the statements given above are correct?

- A. Only 1
- B. 2 and 3 only
- C. 1, 2, and 3
- D. 1, 2, 3, and 4

16. The Minimum Support Price (MSP) is announced by which of the following ministries in India?

- A. Ministry of Agriculture & Farmers Welfare
- B. Ministry of Rural Development
- C. Ministry of Food Processing Industries
- D. Ministry of Commerce and Industry

17. Consider the following statements regarding the Tizu and Zunki rivers:

- 1. The Tizu River is a tributary of the Brahmaputra River.
- 2. The Zunki River is a tributary of the Tizu River.
- 3. Both the Tizu and Zunki rivers are located in the northeastern region of India, primarily flowing through the state of Nagaland.

Which of the above statements is/are correct?

- A. Only 1
- B. 2 and 3 only
- C. 1 and 3 only
- D. All are correct

18. Recently seen in the news, the "Gearshift Challenge" is related to which of the following?

- A. An international competition for innovation in electric vehicle technology
- B. A global initiative to promote road safety and responsible driving
- C. A competition focused on improving manual transmission skills in vehicles
- D. A new sports event combining motor racing with physical endurance challenges

19. Consider the following statements regarding the Liquid Coverage Ratio (LCR):

- 1. The LCR measures a financial institution's ability to meet its short-term obligations using its most liquid assets.
- 2. The LCR is primarily used to assess a company's long-term solvency and overall financial stability.

Which of the above statements is/are correct?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

20. Which of the following statements about the Golan Heights is correct?

- A. The Golan Heights is a region that was annexed by Israel from Syria following the Yom Kippur War in 1973.
- B. The Golan Heights is strategically significant due to its location and elevation, providing control over the water sources of the Jordan River.
- C. The Golan Heights is administered by Lebanon and is primarily known for its historical Roman ruins.

- D. The Golan Heights was ceded to Israel by Jordan in a peace agreement signed in 1994.

21. Which of the following statements about the Ideas4Life portal is correct?

- A. Ideas4Life is a government initiative aimed at promoting innovative solutions for environmental conservation.
- B. Ideas4Life is a platform created by the Ministry of Education to enhance online learning resources for students.
- C. Ideas4Life is an initiative focused on encouraging public participation in the creation of new technology solutions for healthcare.
- D. Ideas4Life is a collaborative project between the Ministry of Finance and private sector companies to develop new financial technologies.

22. Consider the following statements regarding zebra mussels:

- 1. Zebra mussels are native to North America and are known for their rapid population growth and ecological impact.
- 2. Zebra mussels are considered invasive species in Europe, where they have significantly disrupted local aquatic ecosystems.

Which of the above statements is/are correct?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

23. Nalanda University was originally established by which of the following?

- A. Emperor Ashoka
- B. Emperor Harsha
- C. Kumaragupta I
- D. Chandragupta II

24. Consider the following statements regarding the Vishnupad Temple:

- A. The Vishnupad Temple is located in Gaya, Bihar, and is dedicated to Lord Vishnu.
- B. The temple is renowned for housing a footprint believed to be that of Lord Rama.
- C. The Vishnupad Temple is a major pilgrimage site for devotees of Jainism.

Which of the above statements is/are correct?

- A. Only 1
- B. 1 and 2
- C. 2 and 3
- D. All are correct

25. Kalaripayattu is a traditional martial art that originates from which of the following states in India?

- A. Tamil Nadu
- B. Karnataka
- C. Kerala

D. Andhra Pradesh

MAINS

1. Menstrual leave policies have been a topic of significant debate and discussion in various countries. Critically analyze the potential benefits and challenges associated with implementing menstrual leave policies in the workplace. In your analysis, consider the impact on gender equality, workplace productivity, and socio-economic implications. Additionally, discuss the role of such policies in addressing the health and well-being of women employees.

2. Agricultural credit is a crucial element in supporting the agricultural sector in India. Critically evaluate the current state of agricultural credit in India, including the major schemes and initiatives aimed at improving access to finance for farmers. Discuss the challenges faced in the effective delivery of agricultural credit and suggest measures to address these challenges to ensure sustainable agricultural development.

3. Climate change poses a significant threat to global ecosystems and economies. In the context of India, critically analyze the impact of climate change on the

country's environmental, economic, and social systems. Discuss the key challenges India faces due to climate change and evaluate the effectiveness of current policies and measures in addressing these challenges. Propose a comprehensive strategy to enhance India's resilience to climate change while promoting sustainable development.

4. "The adoption of digital technologies in rural India has the potential to transform various aspects of rural life, including education, healthcare, agriculture, and governance. Critically examine the current state of digital technology adoption in rural India, highlighting the opportunities and challenges it presents. Discuss the role of government initiatives in promoting digital inclusion and suggest measures to enhance the digital transformation of rural areas for sustainable development."

5. "Examine the relationship between India's economic growth and climate change. How can India balance its developmental needs with environmental sustainability? Discuss the strategies and policies that can help India achieve this balance."



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