



ISSUE 2, NOVEMBER

DHAIRYA TIMES

A quest for Horizon



IPS Abhishek Vashistha
UPSC, 2023

IPS Preeti Kumari
UPSC-RANK 130, 2022

DHAIRYA TIMES

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INTRODUCTION

In a world that's constantly evolving, Dhairya Times, a monthly magazine series presented by Dhairya - The Civil Services Society, seeks to be your trusted guide to navigating the crucial trends, headlines, opinions, stories and ideas shaping our lives everyday.

Our missions stands to providing a platform for peer learning, holistic development and an analytical point of views that push our horizons beyond to build a crucial analysis of ongoing issues.

From in-depth features and peer analysis to all the technical information, we dive deep into the topics that are transforming the global landscape, while also forging in as your go-to resource for understanding the forces shaping the world we are a part of.

As a Society , we thrive to assist students in their academic and professional pursuits. To achieve this, we have come across monthly Current Affairs magazine series, starting from October.

We hope the standpoint of Dhairya and Dhairya Times as a whole brings about the desired change in boosting your understanding of facts along with opinions so stated.



ACKNOWLEDGMENT

As we reflect on the journey of completing Magazine - *Dhairya Times* for the month of October, we are reminded that every step was made possible by the unwavering support and expertise of our esteemed Principal Ma'am , Prof. Saloni Gupta, whose vision has shaped our society's mission.

Followed by the significant encouragement of our mentor, IRS Rajesh Gupta sir, for his invaluable insights and expertise, inspiring our students to strive for excellence. Our gratitude also extends to our guest speakers, IPS Preeti Kumari and IPS Abhishek Vashishtha, for sharing their experiences and motivating our students.

We thank our Convenor Mr. Vimlok Tiwari, our Associate Teacher's of Dhairya, and Dhairya's Editorial Board Members for their tireless efforts in making our monthly magazine a reality. The due contribution has enabled in shaping this endeavour in ways that words can scarcely capture, providing a valuable resource for Civil Services Aspirants

Sincerely
Prerna Bhute
President

Dhairya: The Civil Services Society



Words That Matter



Prof. Saloni Gupta

Principal

Bharati College, University of Delhi

Hello my dear students.

I have always believed that your College is a place where three things are made viz. your career, your personality and your friends for life. Each one of these is very important and each one of you must explore all the avenues and opportunities available, towards each one of these payoffs from the college life.

Societies and clubs are platforms that often provide you with the wonderful confluence, if not congruence, of all three of these goals. They connect you to people with similar interests, they create opportunities for you to work in teams, they put you in positions of responsibility and leadership, they help you evolve as individuals and shape your personalities and, in their own intangible ways, they pave career paths for you by doing some or all of the above.

The Dhairya Society of our college is one such society that brings civil services aspirants of our college together and works towards supporting their goal of cracking this hallowed exam, conducted by the prestigious UPSC. Its a matter of great pride and satisfaction that the Dhairya society is bringing the first ever edition of its monthly magazine, aimed at sharing the vital information, tips and strategic advice for fellow aspirants.

I congratulate the office bearers and foot soldiers of this society and extend my best wishes to all our civil services aspirants.

Best wishes and best of luck.

IRS Rajesh Gupta



Greetings to the students of Bharati College in general and to the civil services aspirants connected via the platform of the Dhairya Society (Bharati College) in particular. It gives me immense pleasure to note that Dhairya society is doing commendable work in the field of peer learning, information dissemination and mutual self-help. Dhairya Times, its monthly magazine, is another step in that direction. I am glad to convey my congratulations and best wishes to all those who relate to the Dhairya Society and its meaningful endeavours.

I take this opportunity to give my perspective on the Role of Civil Servants, as a kind of a pep-talk to all you aspirants. As I see it, you as civil servants can help in bringing The Change that the society needs and probably the change that you also wish to see in your country, in the governance around you. This is a great platform that allows you to B the change you want to C. It is also an opportunity and a platform to serve the underprivileged masses and under-served sections. So, Being the Voice of the Voiceless is another role that can and should inspire the youth in our colleges towards this exam/job. This job also allows you to become Self-made and Empowered. **ANYONE CAN BECOME** a civil servant with the right combo of intelligence, diligence, motivation and strategy. So, if you come from humble backgrounds or from a weaker section/gender/class - this is The Job that can empower you and you, in-turn, can empower thousands and lakhs of common people. Be driven by that, be fired by that!

Make no mistakes though, this is a tough exam and so it should be too, for it gets you **THE TOP JOBS** in the country. But hey, when the going gets tough, the tough gets going. So, tell yourself "I'm willing to suffer today, for a better tomorrow". They say those who sweat in peace, don't have to bleed in war. So, prepare yourselves adequately for this war - with the right arsenal, the right strategy, the right work ethics and the right attitude. This exam is tough, but not as tough as it is often made out to be. Dream big, create commensurate processes, believe in your processes and believe in yourself! If your processes are right, the results are bound to be right - sooner or later, in fact sooner rather than later!

Finally, I'll tell you what a teacher of mine at SRCC, my alma mater, had told everyone in our passing out batch - make sure you get what you like, else you'll have to like what you get.

Best of luck.

Jai Hind!

IPS Preeti Kumari



In J. R. R. Tolkein's *The Lord Of The Rings*, when the protagonist Frodo Baggins sets out for Mount Doom, he whispers, "But I do not know the way." He has taken up a monumental goal, unaware of how he can achieve it. He doesn't know the way, yet he steps forward, embracing a journey brimming with challenges he can scarcely foresee.

When I began college at the University of Delhi, I, too, glimpsed my own "Mount Doom," yet I also knew that "I do not know the way." Through the wrong turns and the right ones, along paths crowded or deserted, I navigated my own adventure with the UPSC Civil Services Exam. And an adventure it has been—filled with trials and triumphs, persistence and satisfaction. If you choose Civil Services, I invite you to see it as I have: a challenging adventure, both arduous and exhilarating.

The journey truly begins when you hear that inner voice, that unmistakable call telling you why this goal matters to you. For if your "why" is clear, the "how" will gradually appear, guiding you step by step. That's how it is in life.

College is a time to tune into this inner voice, to find your inner compass. As you navigate independence and adulthood, you'll begin to ask: Are my dreams truly mine, or the echoes of others' expectations? Here, where your interests, talents, and ambitions converge, you'll start discerning what you're truly drawn to. This self-discovery is the most vital gift college can offer.

To fully unravel this path, don't limit yourself to textbooks or UPSC guides alone—that would be a disservice to yourself. You have the intellect to master what's in these books when you will write the exam, but life will demand more from you than academic knowledge. It will call for resilience when the journey gets tough. This is where life skills, patience, and emotional fortitude are essential; they keep you from faltering on steep climbs.

So, as you pursue this dream, equip yourself with skills that will help you excel: think critically, write persuasively, see issues from multiple angles, and learn to engage with people from a space of respect and humility. Let your values align with the Constitution of India, respecting laws and principles that shape our society. You'll need persistence, patience, dedication, and a singular focus to give this journey your best.

College is the perfect arena to build these skills—through extracurriculars, leadership roles, and creative pursuits. Academics alone won't cut it. In every field, what's needed is dynamism, adaptability, and creativity.

Specifically for the exam, I spent my college days reading newspapers, studying the UPSC CSE syllabus, past year questions, and polishing my thinking and writing skills for the exam. I never limited myself to mere academics and was active in extracurriculars as well. Whenever I could, I also participated in essay competitions, honing my writing skills until I began to win. You can do the same; start by summarizing editorials or articles, sharpening both language and thought.

When choosing electives in every semester, consider those connected to the UPSC syllabus—they'll deepen your knowledge. And if certain subjects seem daunting, approach them creatively. If history feels intimidating, pick up one of William Dalrymple's books and discover the wonder within. Remember, this exam demands a grasp of every subject's role in the larger world. A civil servant must know the basics of space technology as well as the richness of ancient Indian history. Embrace the syllabus as a doorway to knowledge, and soon you'll be captivated by the world's it opens for you.

Once you've set foot in this world, there's no turning back. Until then, dream boldly, for college will be among the most transformative years of your life. Pursue your passions, read widely, explore new places with friends, and grow into the best version of yourself.

If you can dream it, you can achieve it. But it will require you to seize each day, or as John Keating urges in *Dead Poets Society*: "Carpe Diem!"



Words That Matter



IPS Abhishek Vashishtha

Dear Aspirants of Bharti College,

This is Abhishek Vashishtha, IPS, reaching out to commend your dedication to the noble journey of civil services preparation. Remember, success in this path demands discipline, consistency, and a vision to serve our nation. Every challenge you face is an opportunity to grow stronger, and every failure a step closer to success. Stay focused, make your preparation holistic, and never underestimate the power of self-belief. The nation awaits leaders like you to bring about positive change. Wishing you all the very best for your future endeavors. Keep striving and shine bright!

Warm regards,

Abhishek Vashishtha, IPS

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NOVEMBER



Monthly News Highlight

Here's what has happened in the last month and what's to come!

NOVEMBER 1, 2024

- The India-US defense cooperation on Artificial Intelligence (AI) refers to collaborative efforts between the two nations to integrate AI technologies in defense systems, enhancing military capabilities and strategic ties under international relations frameworks.

GS - 2 (International Relations)

- The progress report of the National Nutrition Mission highlights the achievements and challenges in addressing malnutrition across India, focusing on governance and policy implementation.

GS - 2 (Governance)

- The Reserve Bank's policy on digital lending apps sets guidelines to regulate online lending platforms, ensuring consumer protection and curbing unethical practices in the digital lending space.

GS - 3 (Economy)

- Preparations for COP28 focus on global negotiations and actions to address climate change, with countries aligning their commitments to meet environmental goals.

GS - 3 (Environment)

- The Supreme Court's landmark judgment strengthens women's property rights, ensuring gender equality in inheritance and ownership under Indian law.

GS - 2 (Polity)

NOVEMBER 2, 2024

- The G20's Working Group on the Digital Economy discusses global cooperation on digital policies, aiming to address economic growth, inclusion, and cybersecurity.

GS - 2 (International Relations)

*November 1
WORLD VEGAN DAY ,
All Saints' Day,
Rajyotsava day
(Karnataka Formation
Day)
Haryana Day*

ACHIEVEMENT

Air Pollution from Wildfires: A study revealed that air pollution from wildfires causes over 1.5 million deaths annually, highlighting the urgent need for action.

*November 2:
All Souls' Day ,
Govardhan Puja ,*



Monthly News Highlight

Here's what has happened in the last month and what's to come!

- India's tiger census highlights conservation challenges, focusing on habitat loss, human-wildlife conflict, and poaching threats to the tiger population.

GS - 3 (Environment)

- India and Australia discuss a trade pact to boost economic ties, focusing on market access, tariffs, and sustainable trade opportunities.

GS - 3 (Economy)

- NSDC launches new skill development programs to enhance workforce skills, improve employability, and support economic growth through vocational training.

GS - 2 (Governance)

- India discusses Nobel-winning physics contributions, focusing on advancements that deepen understanding of quantum mechanics and potential technological applications.

GS - 3 (Science & Tech)

November 3, 2024

- The Election Commission introduces new measures to ensure transparency, prevent malpractice, and promote fair voting practices in upcoming elections.

GS - 2 (polity)

- India's renewable energy capacity surpasses 200 GW, marking progress towards sustainable energy goals and reducing reliance on fossil fuels.

GS - (Environment)

ACHIEVEMENT

AMRUT 2.0: The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 focuses on enhancing the self-sufficiency and water security of Indian cities.

ACHIEVEMENT

India-Singapore Military Exercise (AgniWarrior 2024): This exercise took place from November 28 to 30 at the Devlali Field Firing Ranges in Maharashtra, aiming to enhance military cooperation between the two nations' artillery units.

Monthly News Highlight

Here's what has happened in the last month and what's to come!

- The Supreme Court issues a verdict on hate speech cases, aiming to strengthen legal actions and prevent incitement to communal disharmony.

GS - (Governance).

- The GST Council meets to discuss tax rationalization, aiming to simplify tax structures, boost compliance, and address revenue-related concerns.

GS -3 (Economy)

- ISRO announces a new mission to explore Venus, aiming to study its atmosphere, surface, and potential signs of past water.

GS - 3 (Science & Tech)

November 4, 2024

- India faces increasing concerns over severe air pollution, impacting public health, visibility, and contributing to climate change under environmental sustainability issues (GS-3).

GS -3 (Environment)

- The UNSC addressed global terrorism financing, emphasizing international cooperation to combat funding networks that support extremist activities, impacting global security.

GS - (International Relations)

- Farmers protested against fertilizer subsidy cuts, fearing higher costs will strain their incomes and threaten agricultural productivity and food security

GS -3 (Agriculture)

**November 5:
World Tsunami
Awareness Day**

**November 6:
International day
for preventing
environmental
exploitation during
armed conflict**

ACHIEVEMENT

India Re-elected to UN Peacebuilding Commission: India secured a re-election to the UN Peacebuilding Commission for the 2025-2026 term, reaffirming its commitment to global peace efforts.

Monthly News Highlight

Here's what has happened in the last month and what's to come!

- Indian Railways is upgrading freight infrastructure to boost efficiency, reduce logistics costs, and support economic growth by modernizing transport systems.

GS - 3 (Infrastructure).

- The Supreme Court supports implementing a Uniform Civil Code, urging the government to promote uniform laws for all citizens across India.

GS - 2 (polity)

November 5, 2024

- India hosted the Indo-Pacific Economic Dialogue, fostering regional economic cooperation and strengthening trade, security, and partnerships among participating nations.

GS - 2 (International Relations)

- NITI Aayog's report evaluates India's progress on Sustainable Development Goals, highlighting achievements, challenges, and state-wise performances in meeting targets.

GS - 2 (Governance)

The RBI's analysis highlights inflation trends, noting rising prices due to supply constraints and suggesting measures for economic stability.

GS - 3 (polity)

- National Wetlands Day emphasized the importance of conserving wetlands, promoting awareness of their role in biodiversity, water purification, and climate resilience.

GS - 3 (environment)

- The Ministry of Defense approved major military purchases to enhance India's defense capabilities, focusing on modernizing equipment and strategic preparedness.

GS - 3 (security)

**November 7:
Infant Protection
Day
National Cancer
Awareness Day**

**November 8 :
L.K Advani's
Birthday,
World
Radiography Day**

ACHIEVEMENT

National Awards to Teachers (NAT) 2024:
The Department of Higher Education (DoHE) selected 16 teachers from Higher Education Institutions (HEIs) and Polytechnic for the National Awards to Teachers (NAT) 2024.

Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 6, 2024

The WHO recognized India's vaccination program for its extensive reach and effectiveness in combating diseases and improving public health outcomes.

GS -2 (Health)

- The government introduced new funding schemes to support startups, aiming to boost innovation, entrepreneurship, and economic growth in India.

GS -3 (Economy)

- Himalayan glaciers are melting rapidly due to climate change, threatening water resources, biodiversity, and livelihoods across South Asia.

GS -3 (Environment)

- A parliamentary panel recommended judicial reforms to improve efficiency, transparency, and accountability within India's legal and judicial systems.

GS -2 (polity)

- The NASA-ISRO satellite collaboration progresses with joint efforts in space exploration, satellite technology, and enhancing global space research capabilities.

GS -3 (Science & Tech)

November 7, 2024

- PM inaugurated India's largest hydropower project, (the kundah hydroelectricity project in Tamilnadu) boosting renewable energy capacity and infrastructure development in the country.

GS -3 (Infrastructure)

November 9:
National Legal Services Day ,
Uttarakhand Foundation Day ,
World Freedom Day

November 10:
World Science Day
for Peace &
Development,
World Public
Transport Day,
World Immunization
Day

ACHIEVEMENT

Kerala's New Cattle Insurance Scheme: Kerala introduced a new insurance scheme for cattle, aiming to enhance support for the dairy sector.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

- The World Bank approved a loan for urban development projects in India, supporting infrastructure growth and economic development.

GS -3 (Economy)

- India-China border talks failed to make progress, with ongoing tensions over territorial disputes and lack of diplomatic resolution.

GS -2 (International Relations)

- The National Education Policy faces criticism for its implementation challenges, concerns over inclusivity, and its impact on traditional education.

GS -2 (Education)

- India announced a defense export target for 2030, aiming to enhance defense manufacturing and global exports of military equipment.

GS -3 (Security)

November 8, 2024

- The Supreme Court ruled on addressing water scarcity in urban areas, urging government action for sustainable water management solutions.

GS - 2 (Governance)

- India took the lead in BRICS renewable energy initiatives, promoting sustainable energy development and cooperation among member nations.

GS -2 (international relations)

- Rural employment schemes report declining demand, reflecting reduced rural labor needs and challenges in sustaining job creation efforts.

GS -3 (Economy)

ACHIEVEMENT

India's Participation in COP29: India actively participated in the 29th Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change (UNFCCC), advocating for stronger climate action and support for developing nations.

November 11 :
Armistice Day
(Remembrance Day/Veterans' Day),
National Education Day



Monthly News Highlight

Here's what has happened in the last month and what's to come!

- New agricultural technology aims to enhance productivity through innovation, improving crop yields, efficiency, and sustainability in farming practices.

GS - 3 (Agriculture)

- The UN Climate Report emphasizes India's crucial role in global carbon reduction efforts, urging continued commitment to climate action.

GS - 3 (Environment)

November 9, 2024

- India and Saudi Arabia strengthened energy cooperation, focusing on oil trade, renewable energy, and mutual economic growth opportunities.

GS - 2 (International Relations)

- The Centre plans a major healthcare system overhaul, aiming to improve accessibility, efficiency, and quality of medical services nationwide.

GS - 2 (Health)

- The Supreme Court upheld data privacy as a fundamental right, emphasizing the importance of safeguarding personal information in India.

GS - 2 (Polity)

- Indian oil companies launched green hydrogen projects, aiming to reduce carbon emissions and promote sustainable energy alternatives in India.

GS - 3 (science & environment)

**November 12 :
World Pneumonia
Day**

**November 13 :
World Kindness
Day**

ACHIEVEMENT

Green Certified Zoo: A zoo in India received certification for its efforts in conservation and sustainable practices, becoming the first green-certified zoo in the country.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 9, 2024

- The CAG report criticized fiscal mismanagement, highlighting inefficiencies in government spending and the need for better financial accountability.

GS -3 (Economy)

November 10, 2024

- The Global Hunger Index 2024 highlights India's struggle with hunger, emphasizing the need for improved nutrition and food security.

GS -2 (Governance)

- India's cybersecurity challenges were discussed in a Parliamentary panel, focusing on strengthening infrastructure, policies, and addressing emerging cyber threats.

GS - 3 (Security)

- NSSO data reveals rising unemployment in urban areas, highlighting concerns over job creation, economic slowdown, and labor market challenges.

GS -3 (Economy)

- India celebrated National Science Day, showcasing innovations in science and technology, highlighting research advancements and contributions to societal progress.

GS -3 (Science & Tech)

- Sustainable agriculture techniques are gaining traction in India, focusing on eco-friendly practices, resource conservation, and enhancing long-term farm productivity.

GS -3 (Agriculture)

November 14 :
Children's Day
Jawaharlal Nehru
jayanti ,
World Usability
Day
World Diabetes
Day.

November 15:
Guru Nanak
Jayanti ,
Jharkhand
Foundation Day
Birsa Munda
Jayanti



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 11, 2024

- At COP29, India reaffirmed its commitment to achieve net-zero emissions by 2070, emphasizing renewable energy expansion, sustainable development, and climate resilience as key strategies to combat global climate change.

(GS Paper 3: Environment and Ecology)

- The Indian Cabinet approved a National Biotechnology Policy to foster innovation, strengthen research, promote entrepreneurship, and enhance biotechnology's role in healthcare, agriculture, and industrial development for economic growth.

(GS Paper 3: Science and Technology)

- India's defense exports surged, driven by strengthened partnerships in Southeast Asia, showcasing indigenous defense capabilities and advancing strategic collaborations to promote regional security and self-reliance in military technologies.

(GS Paper 2: International Relations)

November 12, 2024

- The Supreme Court urged immediate action on severe air pollution in the NCR, emphasizing stricter measures, accountability, and coordinated efforts to safeguard public health and environmental sustainability.

(GS Paper 2: Governance, Constitution, Polity, Social Justice)

- The Finance Ministry introduced GST reforms to support MSMEs, simplifying compliance, reducing tax burdens, and enhancing digital processes to boost growth, ease operations, and promote financial inclusion for small businesses.

(GS Paper 3: Economic Development)

**November 16:
International
Day of
Tolerance,
National Press
Day**

ACHIEVEMENT

India and Bosnia and Herzegovina Foreign Office Consultations: The fourth round of consultations was held in Sarajevo, led by Arun Kumar Sahu from India and Tarik Bukvic from Bosnia and Herzegovina.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 12, 2024

- The government will launch the National Digital Health Mission to enhance healthcare access by creating digital health IDs, streamlining records, and improving services for citizens through a unified digital platform.

(GS Paper 2: Health and Education)

November 13, 2024

- India and Japan enhanced their strategic partnership by conducting joint defense drills, focusing on military cooperation, regional security, and strengthening ties to address shared challenges in the Indo-Pacific region.

(GS Paper 2: International Relations)

- India introduced a new policy to attract renewable energy investments, emphasizing solar and wind projects, aiming to enhance energy security, reduce carbon emissions, and achieve ambitious green energy targets.

(GS Paper 3: Environment and Ecology)

November 14, 2024

- The Lok Sabha passed a bill aimed at bolstering India's cybersecurity framework, focusing on improving cyber defense, preventing cyber threats, and enhancing digital infrastructure security across government and private sectors.

(GS Paper 2: Governance, Constitution, Polity, Social Justice)

- Prime Minister Modi inaugurated India's first solar-powered railway station, promoting sustainable energy. The station aims to reduce carbon emissions and set an example for eco-friendly infrastructure in India's railway system.

(GS Paper 3: Infrastructure and Development)

**November 17:
International Students Day
National Epilepsy Awareness Day,
World Day of Remembrance for Road Traffic Victims.**

ACHIEVEMENT

India-ISA Solar Project Agreement: India signed an agreement with the International Solar Alliance to implement solar energy projects in Fiji, Comoros, Madagascar, and Seychelles.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 14, 2024

- NITI Aayog launched a Digital Skill Development Program aimed at empowering rural youth with technical skills, fostering employment opportunities, and bridging the digital divide in rural areas across India.

(GS Paper 2: Education)

November 15, 2024

- India announced a new space mission aimed at exploring the Moon's south pole, focusing on scientific research, lunar resource exploration, and advancing space technology, further solidifying India's space exploration capabilities.

(GS Paper 3: Science and Technology)

- The Indian government launched a nationwide campaign to promote financial literacy, aiming to educate citizens on personal finance, budgeting, savings, and investment, empowering them to make informed financial decisions.

(GS Paper 2: Governance, Constitution, Polity)

- The National Anti-Doping Agency (NADA) signed an agreement with a global testing organization to enhance sports integrity, improve anti-doping efforts, and ensure fair competition through better testing and monitoring systems.

(GS Paper 2: Social Justice and Welfare)

November 16, 2024

- India hosted a global conference on climate change and sustainable development, bringing together international leaders to discuss solutions, promote green initiatives, and emphasize global cooperation in addressing environmental challenges.

(GS Paper 3: Environment and Ecology)

**November 19:
World Toilet Day
International
Men's Day**

ACHIEVEMENT

First Black Hole Triple System Discovered: Scientists announced the discovery of the first known triple black hole system, providing new insights into the dynamics of black holes.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 16, 2024

- UNESCO designated 10 Indian sites as Cultural Heritage to promote tourism, recognizing their historical, cultural, and architectural significance, aiming to boost global awareness and conservation efforts for these landmarks.

(GS Paper 1: Geography)

- The government has approved 5G spectrum auctions to enhance telecommunications infrastructure, aiming to boost high-speed internet connectivity, support digital transformation, and foster economic growth across various sectors.

(GS Paper 3: Science and Technology)

November 17, 2024

- PM Modi inaugurated India's first green hydrogen plant, aiming to reduce carbon emissions by promoting sustainable energy solutions. This initiative supports India's commitment to clean energy and climate change mitigation.

(GS Paper 3: Environment and Ecology)

- India and Russia held bilateral talks to strengthen energy security and defense cooperation, aiming to enhance strategic partnerships, boost energy supply, and address regional security challenges through increased collaboration.

(GS Paper 2: International Relations)

November 18, 2024

- India's new National Maritime Policy aims to boost maritime trade, targeting \$6 billion in exports by enhancing port infrastructure, logistics, and promoting sustainable practices to strengthen the shipping and maritime sectors.

(GS Paper 3: Economic Development)

ACHIEVEMENT

AI Preparedness Index: The AI Preparedness Index was released, evaluating countries on their readiness to adopt and integrate artificial intelligence technologies.

November 20:
Universal
Children's Day
Africa
Industrialization
Day



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 18, 2024

- The central government is allocating funds to state governments for large-scale urban revitalization projects, aiming to improve infrastructure, enhance livability, and promote sustainable development in cities across the country.

(GS Paper 2: Governance and Urbanization)

- India launched a mobile app allowing citizens to report environmental violations, promoting public participation in environmental protection, improving enforcement, and supporting the government's efforts to address pollution and illegal activities.

(GS Paper 3: Environment and Ecology)

November 19, 2024

- The Indian government launched a task force to speed up the digitalization of agriculture, aiming to improve farming efficiency, enhance data access, and promote technological solutions for better productivity and sustainability.

(GS Paper 3: Agriculture and Rural Development)

- The NHRC released new guidelines to safeguard human rights in conflict zones, emphasizing accountability, protection of civilians, and ensuring compliance with international humanitarian laws during armed conflicts and emergencies.

(GS Paper 2: Social Justice and Welfare)

- India's first National Electric Vehicle (EV) Policy, set to launch next month, aims to promote electric mobility, reduce emissions, and boost the adoption of EVs through incentives, infrastructure, and regulations.

(GS Paper 3: Infrastructure and Development)

November 21:
World Television Day,
World Hello Day,
National
Philosophy Day

ACHIEVEMENT

Launch of India's First Indigenous Aircraft Carrier: India launched its first indigenous aircraft carrier, marking a significant milestone in the country's defense capabilities.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 20, 2024

- India and the UAE strengthened their bilateral relations through new agreements, boosting trade, investment, and technology collaboration, aiming to enhance economic growth and foster innovation between the two nations.

(GS Paper 2: International Relations)

- The National Education Policy 2020 introduces reforms in India's school curriculum, emphasizing holistic development, critical thinking, experiential learning, multilingualism, vocational education, and increased focus on digital learning and skill enhancement.

(GS Paper 2: Education)

- India signed a historic agreement to supply renewable energy to ASEAN countries, promoting regional energy cooperation, sustainability, and reducing carbon emissions, while advancing India's role in global clean energy initiatives.

(GS Paper 2: International Relations)

- The government plans a significant overhaul of the Goods and Services Tax (GST) to enhance export competitiveness, simplify tax processes, and improve compliance, aiming to stimulate economic growth and efficiency.

(GS Paper 3: Economic Development)

- India signed a historic agreement to supply renewable energy to ASEAN countries, promoting regional energy cooperation, sustainability, and reducing carbon emissions, while advancing India's role in global clean energy initiatives.

(GS Paper 2: International Relations)

ACHIEVEMENT

Manufacturing Boost: The manufacturing sector saw accelerated growth due to the "Make in India" initiative and Production Linked Incentive (PLI) schemes, emphasizing self-reliance and export-driven growth.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

- The government plans a significant overhaul of the Goods and Services Tax (GST) to enhance export competitiveness, simplify tax processes, and improve compliance, aiming to stimulate economic growth and efficiency.

(GS Paper 3: Economic Development)

November 21, 2024

- 1. Prison Reforms & Accessibility, Highlighting the plight of disabled prisoners, including Professor G.N. Saibaba, the article emphasizes systemic neglect and calls for improved prison infrastructure to ensure dignity and accessibility.

GS -2 (governance, social Justice).

- 2. India-Malaysia Defense Ties, India and Malaysia signed a defense cooperation agreement to enhance bilateral security, focusing on maritime security and defense technology.

GS -2 (international relations).

- Digital Public Goods, The Government of India plans to develop a national framework for digital public goods, aiming to enhance public access to technology-driven solutions, aligning with Sustainable Development Goals.

GS- 3 (science & tech).

November 22, 2024

- Environmental Health Regulation, A call for the establishment of a national environmental health regulatory agency to address pollution-related health concerns

(GS Paper 2 - Governance, Health).

November 23:
Fibonacci Day,
National
Espresso Day,
National Cashew
Day

ACHIEVEMENT

Trade Dynamics:
The services trade surplus expanded, driven by higher exports in IT and business services. Meanwhile, merchandise trade reflected mixed trends with increased imports of crude oil and electronics.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 22,2024

- Judiciary Reforms, Discussions on judicial accountability and the backlog of cases, emphasizing the need for systemic reforms.

(GS Paper 2 - Polity & Governance).

- India's Trade with West Asia , India strengthens its economic ties with West Asian countries, focusing on energy security and trade agreements .

(GS Paper 3 - Economy & International Relations).

November 23,2024

- Adani Energy Firms Under Pressure ,Following a U.S. court ruling, Adani's energy stocks faced a significant decline.

(GS2 - International Relations & Economic Impact).

- Environmental Pollution Control, The Supreme Court to review easing GRAP-4 curbs in Delhi to address pollution.

(GS3 - Environment & Conservation).

- Political Developments in Maharashtra, a significant political shift as Mahayuti secures a landslide victory.

(GS2 - Polity & Governance).

November 24,2024

- Air Quality Crisis in North India, Severe air pollution continues in Delhi-NCR and nearby regions, with paddy stubble burning in Punjab and Haryana exacerbating the situation.

(GS Paper 3 - Environment).

November 24:
Lachit Diwas Day,
Shaheedi Diwas
of Guru Tegh
Bahadur Ji ,

November 25:
International
Day for the
Elimination of
Violence against
Women

November 26:
National Milk
Day,
Constitution
Day



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 24, 2024

- COP-29 Climate Talks , India's stance on the lack of progress on critical climate issues for developing nations during COP-29 in Azerbaijan highlights concerns over climate justice and equity.

(GS Paper 2 - International Relations)

- Adani Group Scandal , the U.S. court indictment of Gautam Adani on charges of bribery and securities fraud could have significant economic and political implications for India.

(GS Paper 3 - Economy)

November 25, 2024

- Urban Infrastructure Challenges , a report highlights India's growing urbanisation and the need for innovative financing solutions to meet infrastructure demands.

GS -2 (Governance)

- NBFCs and Risk Management , RBI's insistence on enhanced risk management has led to funding challenges for Non-Banking Financial Companies (NBFCs).

GS -3 (Economy).

- 6GHz Spectrum Allocation , India faces a dilemma over allocating the 6GHz spectrum for WiFi expansion, raising concerns about future technological advancements.

GS -3 (science & Tech)

*November 28 :
Red Planet Day,
Thanksgiving Day*

*November 29 :
International
Day of Solidarity
with the
Palestinian
People ,
International
Jaguar Day,
Black Friday*

ACHIEVEMENT

SDG Progress:
India showed significant improvement in the SDG Index, excelling in climate action, life on land, and decent work, with Uttar Pradesh as the fastest-progressing state.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 26, 2024

- The Supreme Court has ruled that the words "secular" and "socialist" will remain in the Preamble to the Indian Constitution. This decision reaffirms India's commitment to secularism and socialism as fundamental principles of the nation. The Constitution has always been secular both in spirit and in letter.

(GS 2- governance)

- The central government has stated that five states have yet to publish draft rules for implementing the Labour Codes. This delay may impact the effective implementation of these codes, which aim to simplify labor laws and improve workers' rights in India.

(GS 3 - economy)

- Recent climate talks, nations are gathering to negotiate a treaty aimed at reducing plastic pollution. This treaty seeks to address the growing problem of plastic waste and promote sustainable practices globally. The world must move beyond empty rhetoric on climate change.

(GS 3- environment)

- The Indian government has launched the "One Nation One Subscription" initiative, a ₹6,000 crore plan to provide universities with access to 13,000 research journals on a single platform. This initiative aims to promote research and innovation in Indian universities.

(GS 2- governance)

- The Major Atmospheric Cherenkov Experiment (MACE) telescope in Ladakh has begun observing cosmic gamma rays. This cutting-edge facility will help scientists study high-energy phenomena in the universe, such as black holes and supernovae.

(GS 3 - science and technology)

ACHIEVEMENT

ISRO's NavIC Satellite System Expansion: India successfully expanded its indigenous navigation satellite system, Navigation with Indian Constellation (NavIC), which now operates a constellation of seven satellites providing advanced positioning and timing services. It supports applications in disaster management, vehicle tracking, and more.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 27, 2024

- The National Green Tribunal (NGT) has taken suo motu cognizance of the rapid expansion of Himalayan glacial lakes due to rising temperatures. The NGT has issued a notice to the Centre and others, citing concerns over the increasing risk of natural disasters like floods and landslides. The tribunal has noted that the surface area of glacial lakes in India has increased by 33.7% from 2011 to 2024, with 67 lakes showing an increase of over 40% in surface area, placing them in the high-risk category for potential Glacial Lake Outburst Floods (GLOFs) .

(GS 3- environment)

- Six decades after the launch of India's first rocket from Thumba, a slew of private entities are now preparing to launch their own satellites and rockets. This marks a significant milestone in India's space program, with private companies like Skyroot Aerospace, Agnikul Cosmos, and Pixxel Space set to launch their own vehicles and satellites.

(GS Paper 3 - science and technology)

- Former US President Donald Trump has excluded India from his initial tariff plans, instead targeting China, Mexico, and Canada . This move may benefit Indian exporters, as they can capitalize on the opportunities arising from the tariffs imposed on other countries.

(GS 2 - international relation)

- The income tax department has introduced PAN 2.0, a new system aimed at improving the Permanent Account Number (PAN) application process. This initiative is expected to enhance the efficiency and transparency of the tax administration system.

(GS Paper 2 - governance)

ACHIEVEMENT

GenomeIndia Project Progress: The GenomeIndia project, which aims to sequence the genomes of 10,000 Indians to understand the nation's genetic diversity, made significant advancements.

This initiative showcases India's growing strength in biotechnology, which has seen a 13-fold growth in its bio-economy over the last decade.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 28, 2024

- The Supreme Court is working to strike a balance between granting bail to accused individuals and ensuring they comply with the requirements of a timely trial. It aims to uphold the principles of justice and fairness in India's judicial system.

(GS 2 - governance)

- According to the Ministry of Women and Child Development (WCD), approximately 200,000 child marriages were prevented in a single year. This achievement highlights the government's efforts to combat child marriage and promote children's rights in India.

(GS 2 - governance)

- Recent tax cuts may have resulted in significant savings of around ₹3 lakh crore for India's corporate sector. This move is expected to boost economic growth and encourage business investment in the country.

(GS 3 - economy)

- UNSC Resolution 1701 is a resolution adopted by the United Nations Security Council in 2006, aimed at resolving the Israel-Lebanon conflict. The resolution called for a ceasefire, the withdrawal of Israeli forces from Lebanon, and the disarmament of Hezbollah and other armed groups in the region. It also emphasized the need for Lebanon to exert full control over its territory and for the unconditional release of abducted Israeli soldiers.

(GS 2 - international relation)

ACHIEVEMENT

Semiconductor Ecosystem Development: India and the US made progress in building a robust semiconductor ecosystem, focusing on manufacturing and research collaborations.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 29, 2024

- The Railway Board has formed a five-member committee to investigate concerns raised by the Commissioner of Railway Safety (CRS) regarding the new Pamban bridge in Tamil Nadu. The CRS report highlighted several issues, including track misalignment, corrosion risks, and non-standard girder designs .

(GS 3 - Economy)

- India has successfully tested a ballistic missile with a range of approximately 3,500 kilometers. This development demonstrates India's advancements in missile technology and its commitment to enhancing national security.

(GS 3 - Defence)

- Atishi, a government official, has stated that the government is ready in principle to execute the Centre's Ayushman Bharat scheme. This initiative aims to provide comprehensive healthcare coverage to economically vulnerable families across the country.

(GS 2 - Governance)

- The Dhanush-Nayanthara dispute has raised important questions about copyright law in India. The case involves a dispute over the rights to a film starring the two actors. This issue highlights the need for clearer guidelines and regulations regarding copyright law in the Indian entertainment industry.

(GS 2 - Governance)

ACHIEVEMENT

Green Energy Funding: The World Bank approved \$3 billion to boost India's renewable energy initiatives, including green hydrogen and solar power projects.



Monthly News Highlight

Here's what has happened in the last month and what's to come!

November 30, 2024

- India has expressed concern over the recent surge in extremist rhetoric and violence against minority communities in Bangladesh. The Ministry of External Affairs (MEA) has urged the interim government in Bangladesh to protect the rights of all religious minorities, emphasizing that India stands with the people of Bangladesh during this turbulent time.

(GS 2 - International relation)

- The Union government has proposed increasing the Foreign Direct Investment (FDI) limit in the insurance sector to 100%. This move aims to attract substantial international investment, increase competition, and enhance insurance penetration in the country.

(GS 3 - Economy)

- The former Chief Justice of the Manipur High Court has stated that there is a growing demand for President's Rule in Imphal due to the deteriorating law and order situation in the state. This development highlights the concerns over the ability of the state government to maintain peace and stability in the region.

(GS 2 - Governance)

- Scientists and industry experts are urging the government to pass the new Seeds Bill and implement changes in policy to promote research and development in the agricultural sector. The proposed bill aims to simplify the process of seed registration, enhance seed quality, and encourage the development of new seed varieties.

(GS 3- Economy)

**November 30 :
Saint Andrew's
Day**

ACHIEVEMENT

Quantum Tech Development:
Under the National Quantum Mission, India advanced in quantum computing, communication, and materials research, aiming for global leadership.



NOVEMBER

NOVEMBER

WEEK

FISCAL FEDERALISM IN INDIA



INTRODUCTION

Fiscal federalism in India refers to the division of financial powers and responsibilities between the central government and state governments. This concept is crucial in promoting cooperative governance, ensuring equitable distribution of resources, and fostering economic growth. A robust fiscal federalism framework is essential for shaping a resilient and equitable India, where states are empowered to respond effectively to local needs and priorities, ultimately leading to more inclusive and sustainable development.

Importance of Fiscal Federalism:

Fiscal federalism plays a vital role in India's governance structure. It ensures that resources are allocated efficiently, addressing regional disparities and promoting economic development. By providing states with financial autonomy, fiscal federalism enables them to respond effectively to local needs and priorities.

Historical Background of Fiscal Federalism in India:

The concept of fiscal federalism in India has its roots in the British colonial era. The British introduced a centralized revenue system, which was continued post-independence. The Indian Constitution, adopted in 1950, laid the foundation for fiscal federalism in India. The Constitution divided financial powers between the central government and state governments, with the central government retaining significant control over taxation.

Constitutional Framework of Fiscal Federalism:

• Division of Financial Powers

The Indian Constitution divides financial powers between the central government and state governments.

Article 246 grants the central government exclusive powers to legislate on matters in the Union List (Schedule VII), while the State List in Schedule VII grants state governments powers to legislate on specific subjects.

Article 265 mandates that no tax shall be levied or collected except by authority of law. This ensures the legality of tax imposition by both the center and states.

• Finance Commission

The Finance Commission plays a crucial role in recommending revenue sharing and grants to states. The Commission is constituted under **Article 280** of the Constitution and is tasked with reviewing the financial position of the central government and state governments every five years.

• Grants-in-Aid

Article 275 provides for the central government to give grants-in-aid to states for meeting specific financial needs. These grants are allocated to help states develop specific sectors, such as health, education, and infrastructure.

Judiciary's Role in Fiscal Federalism:

The judiciary has played a significant role in shaping fiscal federalism in India. The Supreme Court has interpreted constitutional provisions related to fiscal federalism, such as the division of financial powers between the central government and state governments. The judiciary has also adjudicated inter-state disputes related to fiscal federalism, including GST compensation disputes.

FISCAL FEDERALISM IN INDIA

Policies and Initiatives:

Several policies and initiatives have been introduced to strengthen fiscal federalism in India. These include:

- Taxation policies, such as the Goods and Services Tax (GST)
- Fiscal Responsibility and Budget Management (FRBM) Act, 2003
- NITI Aayog, which promotes cooperative federalism and guides fiscal policy
- Atal Mission for Rejuvenation and Urban Transformation (AMRUT)
- Smart Cities Mission
- Pradhan Mantri Gram Sadak Yojana (PMGSY)
- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

Current Arguments and Challenges:

- Vertical imbalance: Central government's dominance over taxation
- Horizontal imbalance: Inequalities among states in resource allocation
- GST regime: Impact on state revenues and autonomy
- Local governance: Empowering panchayats and municipalities

Steps Toward Strengthening Fiscal Federalism:

- Enhancing state autonomy in revenue generation
- Streamlining grants with performance-based incentives
- Strengthening institutional mechanisms, such as the Finance Commission under Article 280

Comparative Analysis:

A comparative analysis of fiscal federalism in India with other federal countries, such as the USA and Canada, can provide valuable insights. These countries have more decentralized fiscal systems, with greater autonomy for state and local governments. India can learn from their experiences, particularly in terms of promoting fiscal discipline and improving resource allocation.

Fiscal Federalism and Sustainable Development:

Fiscal federalism is crucial for promoting sustainable development in India. By providing states with financial autonomy, fiscal federalism enables them to respond effectively to local needs and priorities. This can help promote more inclusive and sustainable development, addressing regional disparities and promoting economic growth.

Conclusion:

Fiscal federalism is a critical component of India's governance structure. As envisioned in the introduction, a robust fiscal federalism framework is essential for shaping a resilient and equitable India, where states are empowered to respond effectively to local needs and priorities. By strengthening fiscal federalism, India can promote more inclusive and sustainable development, addressing regional disparities and promoting economic growth. Ultimately, this can lead to the realization of India's vision of a resilient and equitable society, where all citizens have access to opportunities and resources, and where the country can achieve its full potential. By implementing the recommendations outlined in this analysis, India can take a significant step towards achieving this vision.

FISCAL FEDERALISM IN INDIA

Write up

Fiscal Federalism in India refers to the financial relations between the Union and State governments, ensuring a division of fiscal responsibilities and revenue sources to enable effective governance.

Constitutional Framework:- The Indian Constitution divides legislative, administrative, and fiscal powers between the Centre and States through the Union List, State List, and Concurrent List in the Seventh Schedule.

Revenue Sources:- The Centre collects taxes like income tax (excluding agricultural income), customs duties, and central excise. States levy taxes on sales (within GST), state excise on liquor, and property transactions.

Finance Commission:- A constitutional body that recommends the distribution of tax revenues between the Centre and States, addressing vertical (Centre-State) and horizontal (inter-State) imbalances.

Goods and Services Tax (GST):- Introduced in 2017, GST aims to create a unified national market, eliminating cascading taxes and integrating state economies.

Challenges:- Vertical Imbalances: Disparity between revenue generation and expenditure responsibilities. Horizontal Imbalances: Differences in revenue capacities and needs among states. GST Implementation: Issues with compliance and revenue distribution.

Reforms and Measures: Equitable tax devolution, empowering local governments, revising fiscal policies like the FRBM Act, and improving the GST framework.

Conclusion:- Continuous reforms in fiscal federalism are crucial for balanced economic growth, fostering cooperative federalism, and ensuring efficient governance across India's federal structure

By KAIFA
Member

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GEOGRAPHICAL FACTORS IN THE DEVELOPMENT OF ANCIENT INDIA



INTRODUCTION

Geography is often referred to as **"the mother of history"** because it profoundly influences the development of civilizations. In ancient India, geographical features played a pivotal role in determining the patterns of settlement, agriculture, trade routes, and political boundaries. The vast and diverse landscapes of the Indian subcontinent not only nurtured cultural and societal diversity but also helped shape India's prominence as a center of ancient civilizations. Understanding the role of geography in ancient India offers valuable insights into the region's rich historical legacy, its development, and its lasting influence.

Physical Geography of Ancient India:

The Indian subcontinent boasts a unique geography, encompassing diverse landscapes that defined ancient India's development trajectory. These geographical features influenced where and how people lived, traded, and governed. The subcontinent's geography is characterized by:

- **The Himalayan Shield:** The Himalayan range provided natural protection from invasions, acting as a formidable barrier between ancient India and the rest of Asia. It also contributed to the region's weather patterns, bringing seasonal rainfall crucial for agriculture. The Himalayas were also the source of perennial rivers such as the Ganga and Yamuna, which were vital for irrigation and farming.
- **The Indo-Gangetic Plains:** The Indo-Gangetic plains, made up of fertile alluvial soil, were one of the most important regions for early civilization. The region supported the rise of ancient cities like Harappa and Mohenjo-Daro, as well as later settlements that grew due to the fertile soil and abundant water supply. The surplus agricultural production made it possible for these cities to thrive, contributing to economic and cultural growth.
- **The Deccan Plateau:** The Deccan Plateau, rich in minerals like iron, copper, and gold, played a crucial role in the development of metallurgy. This region also became a major trade hub, connecting the north and south of India. Its mineral resources fueled both internal and external trade, contributing to economic prosperity and the rise of urban centers.
- **Coastal Plains:** The coastal regions of India, including the western and eastern coasts, supported maritime trade with ancient civilizations in Mesopotamia, Egypt, and Southeast Asia. Ports like Lothal and Bharuch became thriving trade centers, fostering the exchange of goods like cotton, spices, and metals. Fishing communities also thrived in these areas, supporting India's economy.
- **The Thar Desert:** The Thar Desert, located in the northwest, played an ambivalent role in ancient India. On one hand, it acted as a natural barrier, limiting invasions from the west. On the other hand, its oasis towns became critical points for caravan trade, linking India with the rest of Central Asia and beyond, including the Silk Route.

GEOGRAPHICAL FACTORS IN THE DEVELOPMENT OF ANCIENT INDIA

Climate and Weather Conditions:

The climate and weather conditions of ancient India, influenced by its geographical features, were essential in shaping its agricultural practices and daily life. The impact of monsoons, diverse climates, river systems are as follows:

- **Monsoons:** The monsoon system, which brings seasonal rains to India, had a profound impact on agriculture. The timing of the monsoon rains dictated the planting and harvesting cycles of crops, ensuring food security. The monsoons were vital for irrigation and also affected settlement patterns.
- **Diverse Climates:** From the snow-covered Himalayas to the tropical climate of the coastal regions, India's diverse climates allowed for the cultivation of a variety of crops such as rice, wheat, barley, and cotton. This diversity supported different lifestyles and cultures across the subcontinent.
- **River Systems:** The Ganga, Yamuna, and Indus rivers ensured the consistent supply of water necessary for agriculture. These rivers also supported transportation and trade routes, linking various parts of India.
- **Natural Disasters:** While floods and droughts were challenges faced by ancient societies, they also spurred innovation in agricultural techniques such as water management and irrigation systems, which were critical for survival and development.

Geography and Economic Development:

Geography not only influenced settlement patterns but also played a critical role in shaping the economic framework of ancient India. Fertile lands, access to trade routes, and natural resources helped sustain large urban centers and fostered both internal and external trade. Key aspects of geography and economic development include:

- **Agriculture:** The fertile soil of the Indo-Gangetic plains, watered by rivers like the Ganga, supported the cultivation of staple crops such as rice, wheat, and barley. Efficient irrigation systems, which relied on the natural flow of rivers, improved agricultural output and enabled the growth of urban settlements like Harappa and Mohenjo-Daro. Surplus food production allowed for the rise of specialized labor and trade.
- **Trade and Commerce:** Ancient India's geographical location facilitated trade across land and sea. The coastal regions supported maritime trade, connecting India with ancient civilizations in the Middle East, Africa, and Southeast Asia. On land, the Deccan Plateau served as a trade bridge between the north and south, promoting economic interactions.
- **Urbanization:** Cities like Lothal, located near rivers and coasts, flourished as major trade centers. Rivers acted as natural trade routes, connecting inland areas to ports and coastal cities. Urban centers grew due to trade and agriculture, contributing to the development of Indian civilization.

Geography and Political Structure:

Geography played a crucial role in shaping the rise and fall of ancient Indian dynasties. The location of kingdoms and empires, the fertility of the land, and access to natural resources all influenced political stability and territorial expansion. The geographical factors that impacted the development of various empires are as follows:

- **Indus Valley Civilization:** Flourished along the Indus River, benefiting from fertile lands and proximity to trade routes, enabling economic prosperity.
- **Mauryan Empire:** Established in Magadha, a region located in the Indo-Gangetic plains, the Mauryas leveraged the fertile lands and proximity to trade routes for economic and military dominance.
- **Gupta Empire:** The Gupta Empire expanded across northern India, benefiting from fertile lands, centralized control, and trade routes that promoted the empire's wealth and cultural achievements.

GEOGRAPHICAL FACTORS IN THE DEVELOPMENT OF ANCIENT INDIA

- **Southern Kingdoms (Cholas, Cheras, and Pandyas):** The southern kingdoms utilized their coastal geography to dominate maritime trade routes and establish naval power, fostering economic prosperity.
- **Magadha:** The Magadha region, benefiting from natural defenses such as rivers and forests, became a political powerhouse in ancient India, able to resist invasions and flourish as a center of power.

Modern India: Government Schemes Inspired by Ancient Geographical Factors:

In modern India, several government initiatives have drawn inspiration from ancient geographical practices to address contemporary challenges, particularly in the fields of agriculture, water management, trade, and environmental sustainability. Key initiatives include:

- **River Basin Management:** Programs like Namami Gange aim to revive and clean ancient rivers such as the Ganga, which once supported the growth of civilizations. These modern efforts seek to restore these rivers' ecological importance and promote sustainable water management.
- **Agricultural Schemes:** Modern irrigation schemes, such as the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), are inspired by ancient water management practices that utilized river systems and rainwater harvesting to improve agricultural productivity.
- **Maritime Trade Revival:** The Sagarmala Project aims to enhance port connectivity along India's coasts, echoing ancient maritime trade routes that linked India with the rest of the world.
- **Desert Development Programs:** Modern schemes to combat desertification in Rajasthan reflect ancient practices of oasis settlements, water conservation, and managing desert environments.

Way Forward: Learning from Ancient Geography:

Ancient India's geographical factors provide lessons that can guide future development. By drawing from ancient methods of resource management and disaster preparedness, India can ensure sustainable growth while protecting its historical and cultural heritage. Key takeaways include:

- **Sustainable Practices:** Reviving ancient agricultural methods, such as water harvesting and crop rotation, can help ensure sustainability in modern farming.
- **Cultural Preservation:** Protecting historical and geographical landmarks, such as riverbanks, mountain passes, and ancient cities, will help preserve India's cultural heritage.
- **Modern Trade Routes:** By reviving ancient maritime and inland trade routes, India can enhance global connectivity and promote economic growth.
- **Disaster Preparedness:** Learning from ancient strategies for coping with floods and droughts, such as building resilient infrastructure and implementing effective water management, can help modern India prepare for future natural disasters.

Conclusion:

The geographical diversity of ancient India shaped its history, culture, economy, and political systems. From the fertile plains of the Ganga to the mineral-rich Deccan Plateau, the geography of India provided the foundation for the rise of ancient civilizations. The lessons drawn from ancient India's interaction with its environment continue to influence modern policies and offer pathways for sustainable growth. Geography remains a silent yet powerful force in shaping both India's past and its future.

GEOGRAPHICAL FACTORS IN THE DEVELOPMENT OF ANCIENT INDIA

Write up

Introduction

Imagine a land where majestic mountains meet sacred rivers, and fertile plains stretch as far as the eye can see. This is ancient India, where the geography was not just a backdrop, but a living, breathing entity that shaped the lives of its people. Every mountain range, every river bend, and every fertile valley told a story of resilience, adaptation, and creativity. The geographical factor inspired other country to come and visit India culture and their territory

Ancient India's story is deeply intertwined with its breathtaking geography. Let's embark on a journey to explore how the land shaped its people.

The majestic Himalayas, Vindhyas, and Satpuras stood as sentinels, guarding the nation's borders. The sacred rivers Ganges, Indus, Brahmaputra, and Narmada nourished the soil, fostering agriculture, trade, and urbanization.

The rhythms of the monsoons dictated the farming cycles, influencing settlement patterns. The fertile plains and river valleys cradled crops like rice, wheat, and cotton, sustaining life.

Cities blossomed near rivers and trade routes, like Mohenjo-Daro, Harappa, and Varanasi. Regional specialties flourished, with Gujarat's textiles and Bengal's metalwork becoming renowned. Geography facilitated or hindered movement and trade, shaping cultural exchange.

The land also influenced the spiritual fabric of ancient India. Hinduism, Buddhism, and Jainism drew inspiration from the geography. Social hierarchies emerged, reflecting access to resources and land.

Art and architecture reflected the beauty of the Indian landscape. Regional differences in North, South, and East India crafted distinct cultural narratives.

Historical periods unfolded against this geographic backdrop:

- 1. Indus Valley Civilization (3300-1300 BCE):** Urbanization and trade thrived.
- 2. Vedic Period (1500-500 BCE):** Agricultural growth transformed the Ganges plain.
- 3. Mauryan Empire (322-185 BCE):** Imperial expansion was facilitated by geography.
- 4. Gupta Empire (320-550 CE):** Cultural resurgence bloomed in the Ganges plain and Himalayas.

In ancient India, geography was not just a backdrop; it was the canvas on which human stories unfolded. Understanding this intricate relationship enriches our appreciation of India's rich cultural heritage.

The greatest example was **Nalanda University** which is the first university of the world and situated in Bihar by Kumara Gupta 437 (CE). It has large forest and has sources of income in agriculture from where they earn income and do business not only but the country from Japan China where most of the people come for learning new skills due to which also most of the country come to know more about India and the river system was also vast it has all the resources as a developed country should have. Due to which also most of the country come to know more about India and it came to their eyes and it was destroyed by Bhakitya Khalji India was also called "**Sone ki Chidiya**".

Today China is planning how to capture India because they know that India is known today for their raw material India has raw material but not having so much factories so, they depended more from other country and China was doing their best by proving a close relationship with India neighbour Country like Pakistan, Sri Lanka and building a highway from Pokhara that connects China so, that they can attack India throw Kashmir area and India was not looking or giving importance to North East area because from where China can invade and capture North East area and easily they can get access to invade in India and capture it easily.

Conclusion:-

In my conclusion I would like to say that India is known due to their great diversity where India has all the resources but the problem is that people trust more from out of the nation people and did business blindly due to which they took our precious resource and they divided us and they rule, destroyed our culture, resources, social life, economic system, our heritage. If we are not now looking to our territory system of our country than it would create a big problem and today also we depended more from other country for example like Ukrainian Russia war but we can't take a side of one country and the reason was clearly seen because we were not developed yet and depended on other countries.



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GEOGRAPHICAL FACTORS IN THE DEVELOPMENT OF ANCIENT INDIA

Write up

भौगोलिक दृष्टि से भारत विविधताओं से भरा देश है भारत के सामाजिक अर्थव्यवस्था खास तौर पर प्राचीन भारत में ऊंचे हिमालय पर्वत, रेगिस्तान, उत्तरी मैदान विशाल समुद्र तट, पठार और प्रायद्वीपीय नदियों जैसे व्यापक भौगोलिक कारकों द्वारा आकार लेती थी इन भौगोलिक कारकों और भौगोलिक विविधता ने प्राचीन भारत में विभिन्न क्षेत्रों में अलग-अलग और भाषाई पहचान के उद्भव में महत्वपूर्ण भूमिका निभाई। प्राचीन भारत में मौर्य काल के समय देखा जाए तो मगध शासन में गंगा के किनारे वाली भूमि अन्य के मुकाबले अधिक उपजाऊ थी।

प्राचीन भारत के विकास में भौगोलिक कारकों की भूमिका :-

हिमालय पर्वत : लंबे समय तक भारतीय उपमहाद्वीप को आक्रमण से सुरक्षित रखा , हिमालय ने प्राकृतिक अवरोधक के रूप में भी काम किया जिसने उत्तरी ठंडी हवाओं को भारतीय उपमहाद्वीप में प्रवेश करने से रोका जैसे कि साइबेरिया की ठंड। यह हमें व्यापार संबंध को भी बढ़ावा देता है।

उत्तरी मैदान : उपजाऊ उत्तरी मैदान जैसे की गंगा और ब्रह्मपुत्र नदी तटीय मैदान में मौजूदगी ने कृषि बस्तियों को बहुत अधिक बढ़ावा दिया उत्तरी मैदान की जलोढ़ मिट्टी भी कई तरह के अनाजों फलों सब्जियों की खेती के लिए भी आदर्श मानी जाती थी इससे न केवल स्थानीय उत्पादन को सक्षम बनाया बल्कि व्यापार के लिए भी बहुत महत्वपूर्ण भूमिका निभाई ।

नदीतंत्र :- सिंधु गंगा और ब्रह्मपुत्र जैसी बारहमासी नदियों की उपस्थिति ने सिंधु घाटी सभ्यता वैदिक सभ्यता मगध साम्राज्य गुप्त साम्राज्य जैसी प्रारंभिक सभ्यताओं के लिए जीवन रेखा भी प्रदान की है। नदी प्रणाली न केवल कृषि और पेयजल के लिए होती है बल्कि व्यापार और परिवहन के लिए भी जीवन रेखा प्रदान करती है।

तट रेखा : तटीय बंदरगाह तटीय मैदान में मछली पकड़ने और विदेशियों के साथ व्यापार संबंध को सक्षम बनाया समुद्री व्यापार ने ही सातवाहन, चोल और पल्लव जैसे दक्षिणी भारतीय साम्राज्य के उत्कर्ष में बढ़ावा दिया ।

पठार : - मगध महाजनपद छोटा नागपुर पठार के निकट होने के कारण शक्तिशाली हो गया। 16 महाजन पदों में से यह मुख्य था।

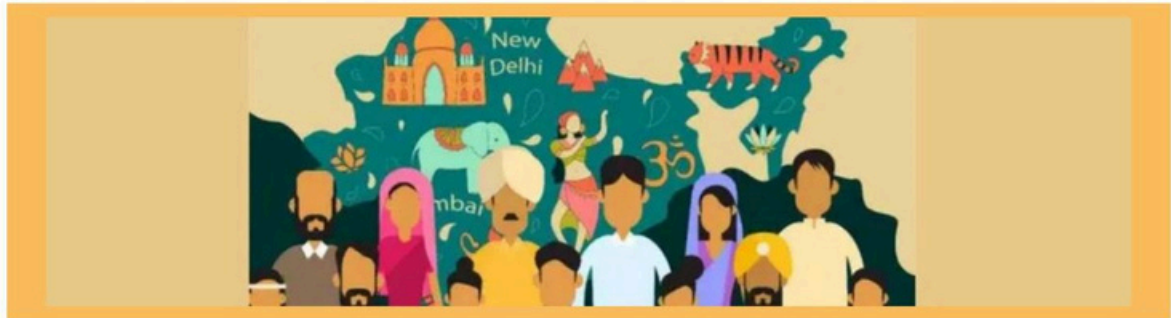
भारतीय पत्थर खनिजों, वन उत्पादों अन्य मुख्य स्रोत के लिए भी विकास में योगदान दिया है।

संक्षेप में कहा जाए तो भौगोलिक कारकों ने प्राचीन भारत की आर्थिक, सांस्कृतिक और सामाजिक गतिशीलता को आकार देने में महत्वपूर्ण भूमिका निभाया है।

BY SHWETA SHARMA
Member
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SALIENT FEATURES OF INDIAN SOCIETY



INTRODUCTION

"Unity in diversity is not just a phrase but a lived reality in India." This profound statement encapsulates the essence of Indian society, where diverse cultures, traditions, and values coexist in a vibrant and complex tapestry. Indian society is a rich tapestry of diverse cultures, traditions, and values. With a history dating back thousands of years, India has evolved into a complex and dynamic society. This essay will explore the core features of Indian society, challenges to Indian society, the significance of understanding Indian society, the way forward, and the conclusion.

Core Features of Indian Society

1. **Unity in Diversity:** India is a multicultural and multilingual society, with people from different castes, creeds, and religions living together. Despite these differences, India has maintained its unity and integrity. Example: India's national motto, "Satyameva Jayate" (Truth alone triumphs), reflects the country's commitment to unity in diversity.
2. **Caste System:** The caste system is a social hierarchy that has been a part of Indian society for centuries. While it has been criticized for its rigidity and inequality, it has also played a role in shaping Indian social norms.
3. **Joint Family System:** The joint family system is a traditional Indian social structure, where multiple generations of a family live together.
4. **Religious and Cultural Pluralism:** India is a secular country, with people from different religions and cultures living together. This pluralism has contributed to India's rich cultural heritage. Example: India celebrates numerous festivals and holidays, such as Diwali, Holi, and Eid, which reflect the country's cultural diversity.
5. **Rural and Agrarian Base:** India is primarily an agricultural country, with a significant portion of its population living in rural areas.
6. **Patriarchy:** Indian society is largely patriarchal, with men holding significant social and economic power.
7. **Linguistic Diversity:** India is a multilingual country, with 22 officially recognized languages.
8. **Tolerance and Accommodation:** Indian society is known for its tolerance and accommodation of different cultures and religions. Example: India has a long history of welcoming refugees and immigrants, such as the Tibetans and the Parsis.
9. **Dynamic Nature:** Indian society is dynamic and has undergone significant changes over the centuries.

SALIENT FEATURES OF INDIAN SOCIETY

Challenges to Indian Society

Despite its many strengths, Indian society faces numerous challenges that need to be addressed:

1. **Poverty and Inequality:** A significant portion of the population still lives below the poverty line, with stark economic disparities.
2. **Caste-based Discrimination and Violence:** The caste system continues to perpetuate social inequalities and violence, despite legal reforms.
3. **Communalism and Religious Intolerance:** Episodes of communal violence and religious intolerance disrupt social harmony.
4. **Corruption and Governance Issues:** Corruption at various levels hampers effective governance and development.
5. **Environmental Degradation and Climate Change:** Rapid industrialization and urbanization have led to significant environmental challenges, including pollution and climate change.

Significance of Understanding Indian Society :

Understanding Indian society is crucial for several key reasons:

- **Appreciation of Diversity:** It helps us appreciate the country's rich cultural and social diversity.
- **Addressing Challenges:** It enables us to understand and effectively address the complex challenges facing Indian society.
- **Effective Governance:** It facilitates informed and inclusive policy-making and governance.
- **Promoting Social Cohesion:** Understanding the diverse elements of society promotes social cohesion and national integration.
- **Fostering Inclusivity:** It helps in promoting a more inclusive society where all members feel valued and respected.

Way Forward:

To strengthen Indian society, we should:

- **Promote Equality:** Reduce social and economic disparities.
- **Eliminate Discrimination:** Tackle caste, gender, and religious biases.
- **Encourage Tolerance:** Foster acceptance through community initiatives.
- **Improve Governance:** Increase transparency and accountability.
- **Adopt Sustainability:** Combat environmental challenges.
- **Activate Citizenship:** Enhance participation in democracy and community.
- **Develop Rural Areas:** Boost quality of life and opportunities in rural regions.

Conclusion:

Indian society is a complex and dynamic entity, shaped by its rich history, cultural heritage, and social norms. While it faces numerous challenges, it also has several strengths, including its diversity, tolerance, and resilience. By understanding Indian society and addressing its challenges, we can build a stronger and more inclusive society for all.

SALIENT FEATURES OF INDIAN SOCIETY

Write up

Introduction

India, with its vast population of 1.39 billion, presents a complex, dynamic and diverse society. Characterized by unity amidst diversity, India's societal fabric weaves together myriad cultures, castes, creeds and languages. This intricate tapestry demands nuanced understanding, acknowledging strengths, weaknesses and challenges. This write-up explores Indian society's core features, challenges, significance, constitutional provisions and government initiatives, ultimately highlighting the imperative of inclusive growth, social cohesion and national integration.

Core Features

- 1. Unity in Diversity:** India's multiculturalism, embracing diverse castes, creeds, religions and languages.
- 2. Caste System:** A centuries-old social hierarchy influencing Indian norms.
- 3. Joint Family System:** Traditional social structure fostering strong family bonds.
- 4. Religious and Cultural Pluralism:** Celebrations like Diwali, Holi, Eid and Christmas.
- 5. Rural-Agrarian Base:** Agriculture drives India's economy.
- 6. Patriarchy:** Indian society's predominantly male-dominated social structure.
- 7. Linguistic Diversity:** 22 officially recognized languages.
- 8. Tolerance and Accommodation:** India's history of welcoming refugees.
- 9. Dynamic Nature:** Indian society's adaptability to change.

Social Challenges

- 1. Poverty and Inequality:** Disparities in wealth distribution and access.
- 2. Caste-Based Discrimination:** Social hierarchy-related violence and inequality.
- 3. Communalism and Religious Intolerance:** Tensions between religious groups.
- 4. Corruption and Governance Issues:** Bureaucratic inefficiencies and corruption.
- 5. Environmental Degradation:** Climate change, pollution and natural resource depletion.
- 6. Population Growth:** Rapidly growing population.
- 7. Urbanization:** Rapid urbanization, social inequality.

Significance of Understanding Indian Society

- 1. Informed Policy-Making:** Understanding societal complexities informs governance.
- 2. Social Cohesion:** Fostering national integration and unity.
- 3. Addressing Challenges:** Identifying solutions to societal issues.
- 4. Cultural Preservation:** Protecting India's rich cultural heritage.

Way Forward

- 1. Promote Social Equality:** Challenge discriminatory practices.
- 2. Foster Tolerance:** Encourage interfaith dialogue.
- 3. Address Poverty:** Implement inclusive economic policies.
- 4. Encourage Active Citizenship:** Community engagement.
- 5. Education and Literacy:** Improve education.

Constitutional Provisions

- 1. Article 14:** Equality before law.
- 2. Article 15:** Prohibition of discrimination.
- 3. Article 17:** Abolition of untouchability.
- 4. Article 21:** Protection of life and personal liberty.

Government Initiatives

- 1. Affirmative Action:** Reservations for SC/ST/OBC.
- 2. National Rural Employment Guarantee Act:** Rural employment.
- 3. National Health Mission:** Healthcare initiatives.
- 4. Sarva Shiksha Abhiyan:** Education initiatives.
- 5. Swachh Bharat Abhiyan:** Sanitation initiatives.

Conclusion

India's complex societal tapestry, woven from diverse cultures, castes and languages, necessitates nuanced understanding. By acknowledging strengths, weaknesses and challenges, we can foster inclusive growth, social cohesion and national integration. Effective governance, policy-making and community engagement can address societal issues, ensuring India's progress toward a harmonious, equitable society. Ultimately, embracing unity amidst diversity will propel India toward a brighter future.

By **SWETA KUMARI**
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FORGOTTEN
OF THE

NOVEMBER



Focus of the month

THE DISCOVERY OF INSULIN*

Introduction

- The discovery of insulin in 1921 by Frederick Banting and Charles Best marked a revolutionary milestone in medical science. This breakthrough transformed diabetes from a fatal disease to a manageable condition, providing hope to millions worldwide. Beyond its medical impact, insulin's discovery has played a pivotal role in societal progress, fostering healthier lives and enabling individuals to lead productive lives despite chronic conditions.

Background

- Before the discovery of insulin, diabetes was a poorly understood and fatal condition. Historical records described it as a disease marked by excessive urination, extreme thirst, and weight loss, often leading to death. Treatment relied on strict dietary restrictions and herbal remedies, which were largely ineffective and unsustainable. This dismal scenario underscored the urgent need for a scientific breakthrough to combat the disease.

The Discovery

- Frederick Banting's innovative idea to extract pancreatic secretions to treat diabetes revolutionized medical science. Collaborating with Charles Best under J.J.R. Macleod's guidance, Banting conducted experiments on dogs that led to the isolation of insulin. James Collip later purified the extract for human use. The first successful human trial in 1922 demonstrated insulin's effectiveness in controlling blood sugar levels, marking it as a life-saving therapy.

Scientific and Medical Impact

- Insulin was the first hormone therapy ever developed, drastically reducing diabetes-related mortality. It has since paved the way for advancements such as synthetic insulin, insulin pumps, and continuous glucose monitoring systems. These innovations have significantly enhanced the quality of life for patients while demonstrating the importance of scientific research in addressing chronic diseases.

Societal Impact

- The introduction of insulin has profoundly benefited society by enabling millions of individuals with diabetes to live longer, healthier, and more productive lives. Insulin has reduced the stigma associated with chronic illnesses, promoting inclusivity and equal opportunities in education, employment, and social activities. In India, where diabetes is a growing concern, insulin therapy has become a crucial tool in combating the disease's societal and economic burdens. By improving health outcomes, insulin has contributed to a healthier workforce, boosting productivity and economic growth.

India's Context

- A Diabetes Hub India, often referred to as the "diabetic capital of the world," faces a daunting challenge with its rapidly increasing diabetic population. The availability of insulin has been pivotal in managing diabetes across the country, particularly in rural areas where traditional healthcare facilities are scarce. Government initiatives like the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS) emphasize the importance of affordable insulin access. However, the rising cost of insulin remains a significant barrier for many Indians, demanding urgent policy interventions to ensure equitable access.

Ethical and Social Aspects

- The discovery of insulin set a benchmark for socially responsible scientific practices. Banting and Best's decision to patent insulin for just \$1 underscored their commitment to humanity over profit, inspiring similar ethical practices in medical research. However, challenges persist, particularly in developing nations, where insulin prices remain prohibitively high. Collaborative global efforts are essential to bridge this accessibility gap and uphold the original vision of making insulin available to all.



Economic and Industrial Implications

- The insulin production industry has grown substantially, with companies like Eli Lilly and Novo Nordisk leading the way. While advancements in production technology have improved global supply, pricing remains a contentious issue. In India, local pharmaceutical companies have stepped up efforts to produce affordable insulin, but further innovation and subsidies are needed to meet the growing demand.

Challenges and Criticisms

- Despite insulin's transformative impact, the rising prevalence of diabetes highlights the need for preventive measures such as lifestyle modifications and public health awareness. Over-reliance on insulin therapy without addressing these root causes exacerbates the burden on healthcare systems. Additionally, affordability remains a pressing issue in low-income settings, limiting its reach to marginalized populations.

Way Forward

- **Affordable Access:** Coordinated global and local efforts are necessary to reduce the cost of insulin, ensuring equitable access for all. Policymakers must prioritize initiatives like the WHO's promotion of generic insulin production.
- **Preventive Measures:** Public health campaigns focusing on diabetes prevention through lifestyle changes, early diagnosis, and awareness programs are crucial.
- **Innovative Research:** Continued investment in alternatives like artificial pancreas systems, oral insulin, and stem cell therapies can offer sustainable solutions.
- **India's Role:** The Indian government should strengthen programs under NPCDCS and partner with local industries to subsidize insulin for low-income populations. Public-private collaborations can enhance production and distribution efficiency.

Conclusion

- The discovery of insulin stands as a landmark achievement in medical history, saving countless lives and transforming chronic disease management. Its societal contributions, particularly in enabling individuals to lead healthier lives, highlight the intersection of science and human welfare. However, addressing the challenges of affordability and accessibility remains critical, especially in countries like India, where the diabetes epidemic continues to grow. By bridging these gaps, we can ensure insulin's legacy as a symbol of hope and progress endures for generations to come.

Focus of the month

GENETICALLY MODIFIED (GM) CROPS

Introduction

- Genetically Modified (GM) crops have been a subject of policy debates and discussions in India due to their potential to revolutionize agriculture by increasing productivity and resistance to pests and diseases. The introduction and regulation of GM crops in India involve multiple stakeholders, including government policies, judiciary interventions, and scientific advancements. Below is a structured approach to understanding GM crops from a UPSC perspective:

Background and Historical Context

- The journey of GM crops in India began with the introduction of Bt Cotton in 2002, which was the first genetically modified crop to be approved for commercial cultivation. Bt Cotton was developed to resist bollworm infestations, significantly improving yields and reducing pesticide usage. However, since then, there has been significant resistance to introducing other GM crops, such as Bt Brinjal and GM Mustard, due to environmental, health, and socio-economic concerns. Globally, GM crops have been adopted in countries like the USA, Brazil, and Argentina, with a focus on maize, soybean, and cotton.

Government Policies and Initiatives

- The Indian government has established a regulatory framework for GM crops, overseen by bodies like the Genetic Engineering Appraisal Committee (GEAC) under the Ministry of Environment, Forest, and Climate Change (MoEFCC).

Key policies and guidelines include

- Rules for Manufacture, Use, Import, Export, and Storage of Hazardous Microorganisms (1989) under the Environment Protection Act, 1986.
- The Biotechnology Regulatory Authority of India (BRAI) Bill (2013), which aimed to streamline the approval process for GM crops, although it has not been passed.
- National Policy on Bio-Technology emphasizes the use of modern biotechnology for sustainable agricultural development.
- Despite these frameworks, the implementation has been cautious, primarily due to public opposition and concerns from civil society.

Supreme Court's Stand

- The Supreme Court of India has played a pivotal role in regulating GM crops. In *Aruna Rodrigues vs Union of India*, the court raised concerns about the lack of scientific rigor in assessing the environmental and health impacts of GM crops. It has called for comprehensive field trials and stringent biosafety evaluations before approving GM crops. The judiciary has also emphasized balancing innovation with public safety and environmental protection.

Impact on Agriculture and Farmers*

- Increased Productivity:** GM crops like Bt Cotton have shown higher yields by reducing losses due to pests.
- Reduced Costs:** Farmers save on pesticide expenses, enhancing profitability.
- Climate Resilience:** GM crops are being developed to tolerate drought, salinity, and extreme temperatures, crucial for India's changing climate conditions.
- Export Opportunities:** Adoption of GM crops can enhance India's agricultural competitiveness globally.
- However, challenges such as dependency on multinational corporations for seeds, loss of indigenous varieties, and potential health risks continue to raise concerns.

Advantages and Concerns

Advantages:

- Higher crop yield and productivity.



- Enhanced nutritional content in crops through biofortification.
- Concerns:**
- Risk of cross-pollination affecting biodiversity.
- Ethical concerns over tampering with natural genetic codes.
- Socio-economic issues like monopolization by seed companies.

Government Schemes Related to Agriculture*

- Paramparagat Krishi Vikas Yojana (PKVY):** Focuses on organic farming but indirectly emphasizes sustainable agricultural practices, including alternatives to GM crops.
- Pradhan Mantri Fasal Bima Yojana (PMFBY):** Helps mitigate risks associated with crop failures, potentially complementing GM crop adoption.
- National Food Security Mission (NFSM):** Aims to increase productivity through technology, which could include GM crops under regulated conditions.

Way Forward

- To harness the potential of GM crops, India needs a balanced approach that includes:
- Comprehensive Biosafety Mechanisms:** Ensure rigorous testing to mitigate environmental and health risks.
- Public Awareness Campaigns:** Educate stakeholders, including farmers, about the benefits and concerns of GM crops.
- Support for Indigenous R&D:** Encourage Indian biotechnology firms and research institutions to develop GM crops suited to local conditions.
- Strengthened Regulatory Framework:** Expedite approvals with transparency and accountability.

Conclusion

- While GM crops offer immense potential to address India's food security and agricultural challenges, their adoption must be accompanied by a robust regulatory framework, inclusive stakeholder engagement, and scientific validation. A balanced approach can ensure that GM crops contribute to sustainable agricultural growth, benefiting both farmers and the environment.

Focus of the month

US PRESIDENTIAL ELECTIONS COMPARED TO INDIA

Introduction

Presidential elections are crucial for any democracy, determining the nation's leadership and shaping its future. In the United States, the President serves as both head of state and government, wielding significant executive powers. In contrast, India's President is primarily a constitutional figurehead, with the Prime Minister holding executive authority. Despite these differences, both systems represent their nations' unique democratic practices.

Constitutional Framework

The US Constitution governs presidential elections under Article II, Section 1, and the 12th Amendment, which formalized the Electoral College system. India's presidential elections are outlined in Articles 52 to 62 of the Constitution, emphasizing the President's role as a ceremonial head of state elected by an Electoral College comprising MPs and MLAs.

Election Process

In the US, the Electoral College system involves indirect voting, where citizens elect state-based electors who then vote for the President. This process includes primaries and caucuses to select party nominees. In India, the President is elected indirectly by an Electoral College through a single transferable vote system, with votes weighted according to population.

Role and Powers of the President

The US President holds executive powers, including commanding the armed forces, signing treaties, and appointing federal judges, under Article II. India's President, outlined in Articles 52-62, primarily acts as a ceremonial head, with discretionary powers exercised only during constitutional crises.

Eligibility Criteria and Term Limits

The US requires Presidents to be natural-born citizens, at least 35 years old, and limited to two terms by the 22nd Amendment. In India, candidates must be citizens, at least 35 years old, and qualified to be elected as MPs, with no term limits.

Election Challenges and Criticisms

The US system faces criticism for its Electoral College, which can result in a President who loses the popular vote. Controversies include voter suppression and foreign interference. In India, criticisms include the limited public role in the process and political influence on candidate selection.

Historical Trends and Key Elections

India's significant elections include Dr. Rajendra Prasad (the first President) and Dr. APJ Abdul Kalam, known for inspiring the youth. US milestones include Barack Obama's 2008 win as the first African-American President and the contentious 2000 Bush-Gore election.

Recent US Presidential Election: Donald Trump and Joe Biden

The 2020 US Presidential Election was one of the most polarized in history, with Joe Biden defeating incumbent Donald Trump. It was marked by high voter turnout and controversies over mail-in ballots. Donald Trump's allegations of voter fraud led to legal battles and culminated in the Capitol riot on January 6, 2021, highlighting divisions in American society. Trump remains a key figure in US politics, announcing his candidacy for the 2024 elections, making him a significant contender.

Impact on Bilateral Relations

Leadership changes in both nations influence India-US ties. The Trump administration emphasized defense and trade partnerships, including arms deals and support for the Indo-Pacific strategy. The Biden administration has built on these, focusing on climate change and technology cooperation. Indian Presidents, being ceremonial, have limited impact, but the Prime Minister plays a crucial role in fostering bilateral ties.



Media and Public Discourse

In the US, presidential campaigns dominate media, with debates shaping public opinion. The 2020 election saw heightened social media influence and misinformation. In India, presidential elections receive less media attention compared to parliamentary elections due to their indirect nature.

Global and Regional Implications

US elections impact global geopolitics, as the President's policies influence alliances and conflicts. India's presidential elections signify stability in the world's largest democracy, but their global impact is limited.

Legal Provisions for Election Disputes

US election disputes, like the 2020 controversies, are resolved in courts, with the Supreme Court as the final arbiter. India's Article 71 empowers the Supreme Court to adjudicate disputes, ensuring constitutional propriety.

Comparison and Lessons

India's simple, cost-effective election process contrasts with the US's expensive and complex system. Both nations can learn from each other—India could enhance voter awareness, and the US could reform its Electoral College to reflect the popular vote.

Conclusion

Presidential elections in the US and India underscore their democratic values. While the US emphasizes leadership through direct executive power, India's system highlights constitutional and ceremonial continuity. The evolving dynamics in both nations offer valuable lessons for strengthening democratic processes worldwide.

Focus of the month

RANTHAMBORE: STRUGGLE FOR SURVIVAL

Introduction

Ranthambore National Park, located in Rajasthan, is one of India's most renowned wildlife sanctuaries. It is a haven for wildlife, especially the Bengal tiger, and attracts both conservationists and tourists alike. Established in 1955 as a sanctuary and later declared a national park in 1980, Ranthambore plays a crucial role in the preservation of wildlife in India. However, like many such parks, it faces numerous challenges to ensure the survival of its ecosystem and its flagship species, the tiger.

Historical Background

Ranthambore was initially used as a hunting ground by the Maharajas of Jaipur, reflecting its royal past. In 1955, it was designated as a wildlife sanctuary by the Government of India, and in 1973, it was included in the Project Tiger initiative. This national conservation program was aimed at preventing the extinction of tigers. In 1980, it was officially declared a national park. Over time, Ranthambore's rich biodiversity and majestic tiger population have made it one of the most iconic parks in India.

Ecological Importance

Ranthambore is situated at the junction of the Aravalli and Vindhya mountain ranges, making its ecosystem rich in both flora and fauna. The park is home to a variety of species, including Bengal tigers, leopards, striped hyenas, crocodiles, and a diverse range of birds and reptiles. The dry deciduous forest, with its mix of dense forests and open meadows, provides an ideal habitat for these species. The park also serves as an essential ecological node, contributing to biodiversity conservation and maintaining the balance of its ecosystem.

Challenges Faced by Ranthambore

Despite its significance, Ranthambore faces several challenges that hinder its conservation efforts:

- *Human-Wildlife Conflict: The increasing encroachment of human settlements into the park's buffer zones leads to conflicts between wildlife and local communities, often resulting in casualties for both animals and humans.

- *Poaching: Despite strict surveillance, poaching continues to be a major issue, driven by the illegal wildlife trade.

- *Habitat Loss and Fragmentation: Illegal mining, agricultural encroachment, and developmental projects have fragmented the park's habitat, affecting wildlife movement and access to resources.

- *Water Scarcity: Seasonal droughts and erratic rainfall patterns have led to water shortages in the park, further exacerbating the stress on wildlife.

- *Tourism Pressure: Although tourism generates significant revenue, the influx of visitors has put pressure on the park's infrastructure and disturbed its natural habitats.

Conservation Efforts and Government Initiatives

To address these challenges, several conservation initiatives have been implemented. Ranthambore's inclusion in Project Tiger has led to funding for anti-poaching efforts, habitat restoration, and wildlife monitoring. The government has established buffer zones around the park to mitigate human-wildlife conflict, and eco-development committees have been formed to involve local communities in conservation efforts. Programs aimed at reducing dependency on forest resources and promoting alternative livelihoods have been launched to benefit both wildlife and local populations.

Role of Judiciary and Policies

The role of the judiciary in wildlife conservation is pivotal, as seen in various rulings that strengthen protection laws for national parks. The Supreme Court has repeatedly intervened in matters concerning poaching, illegal activities in protected areas, and maintaining the ecological balance in parks like Ranthambore. Additionally, the Wildlife Protection Act, 1972 provides legal backing for the establishment of wildlife sanctuaries and national parks, offering protection to species from poaching and habitat destruction.

Articles and Constitutional Provisions Related to Wildlife Conservation

- *Article 48A: This Directive Principle of State Policy directs the state to protect and improve the environment and safeguard forests and wildlife.

- *Article 51A(g): This fundamental duty mandates that every citizen of India protects and improves the natural environment, including wildlife.

- *The Environment Protection Act, 1986: This act empowers the government to take necessary steps to safeguard the environment, including wildlife conservation efforts at national parks like Ranthambore.

Ranthambore's Global and National Significance

Ranthambore has a significant role not only at the national level but also in global wildlife conservation. As a major tiger reserve under Project Tiger, it contributes to the preservation of the Bengal tiger, which is an endangered species. It is also part of the Global Tiger Conservation Landscape recognized by the World Wide Fund for Nature (WWF). The park's role in sustaining biodiversity has a ripple effect on global conservation initiatives, making it a critical area for international ecological balance.



Currently in News and Recent Developments

Recently, the park made headlines when a tiger was brutally killed by villagers in retaliation after it reportedly killed a local man. This tragic incident underscores the ongoing issue of human-wildlife conflict. It also highlights the need for better conflict mitigation strategies, community engagement, and the protection of both wildlife and human life in areas surrounding protected zones. Due to the fluctuating tiger population statistics from the latest All-India Tiger Census, the park has witnessed successful efforts in increasing its tiger numbers, but challenges like human encroachment and poaching persist. Additionally, the government has been focusing on improving tiger corridors that connect Ranthambore with other protected areas like Kailadevi Wildlife Sanctuary and Sariska Tiger Reserve. These corridors are crucial for maintaining genetic diversity and mitigating human-wildlife conflict.

Way Forward

To ensure the survival of Ranthambore's wildlife and its ecosystem, several measures should be taken:

- *Enhanced Protection: Increasing patrolling, using technology like drones and GPS collars, and strengthening security to prevent poaching.

- *Restoration of Habitats: Efforts should be made to restore damaged habitats and expand the park's boundaries to include critical wildlife corridors.

- *Sustainable Tourism: Regulating tourism to reduce its impact on the park's environment while promoting eco-tourism as a source of revenue.

- *Community Engagement: Involving local communities in conservation efforts by providing them with alternative livelihood options and education on sustainable practices.

- *Scientific Research: Continued research on species monitoring, habitat management, and climate change adaptation strategies is essential for informed conservation decisions.

Conclusion

Ranthambore National Park, a symbol of India's wildlife conservation efforts, is a microcosm of the broader struggles faced by protected areas across the country. While it has made significant strides in tiger conservation and biodiversity protection, ongoing challenges like poaching, habitat loss, and human-wildlife conflict continue to threaten its fragile ecosystem. A coordinated effort between the government, judiciary, local communities, and conservationists is necessary to ensure that Ranthambore remains a thriving sanctuary for generations to come. The park's survival is not just a matter of protecting tigers but preserving the delicate balance of nature that sustains all life within it.

Focus of the month

JUSTICE SANJIV KHANNA APPOINTED AS THE 51TH CHIEF JUSTICE OF INDIA

Introduction

Justice Sanjiv Khanna has been appointed as the 51st Chief Justice of India, marking a significant milestone in the country's judicial history. With a distinguished career spanning over four decades, Justice Khanna brings a wealth of experience and expertise to the highest judicial office in the land.

Historical Background

The office of the Chief Justice of India has a long and storied history, dating back to the establishment of the Supreme Court of India in 1950. The Chief Justice holds the highest judicial authority in the country and plays a pivotal role in interpreting the Constitution and safeguarding the rule of law. Justice Khanna's appointment follows a rich legacy of distinguished jurists who have held the position, shaping the judicial landscape of India.

His Key Judicial Rulings

Justice Khanna has authored several significant judgments during his tenure as a judge of the Supreme Court. Some of his notable rulings include:

- VVPAT Verification: Justice Khanna led a bench that rejected a plea for 100% verification of Voter Verified Paper Audit Trail (VVPAT) slips, affirming the Election Commission's safeguards for free and fair elections.
- Electoral Bond Scheme: He was part of a five-judge bench that declared the electoral bond scheme unconstitutional, emphasizing that the right to privacy of donors does not justify the lack of transparency in political funding.
- Abrogation of Article 370: Justice Khanna authored a concurring opinion in a landmark ruling that upheld the abrogation of Article 370, stating it was consistent with India's federal structure.

Qualifications of CJI

To be eligible for the office of the Chief Justice of India, a person should have the following qualifications (as per Article 124 of the Indian Constitution):

- * He should be a citizen of India
- * He should have been a judge of a High Court (or high courts in succession) for at least five years; or
- * He should have been an advocate of a High Court (or High Courts in succession) for ten years; or
- * He should be a distinguished jurist in the opinion of the President.

Appointment Process

- * The President of India appoints the Judges of the Supreme Court and the Chief Justice of India as per Article 124(2) of the Indian Constitution.
- * This selection is done on the advice of the Union Law Minister to the PM of India, and then the Prime Minister advises the President.
- * As per the convention, the senior-most judge of the Supreme Court is designated as the CJI. The seniority is measured by the length of service on the Supreme Court.

Role and Responsibilities

As the Chief Justice of India, Justice Khanna will be responsible for:

- Administrative Functions: He will oversee the administration of the Supreme Court and ensure its smooth functioning.
- Judicial Functions: He will preside over the most important cases and lead the judicial discourse in the country.
- CJI appoints ad-hoc SC judges under Article 127 of the Constitution.
- Constitutional Functions: He will advise the President of India on matters related to the appointment of judges and other constitutional issues.



Removal Process

The CJI can be removed by the President only after Parliament presents an address, supported by a special majority in both Houses (a majority of total members and at least two-thirds of those present and voting), as per article 124 (4).

Collegium System

The Collegium System, established by a series of Supreme Court judgments, is central to the appointment of judges in India. Under this system, the Chief Justice and four senior-most judges of the Supreme Court form a collective body that decides on judicial appointments and transfers. Justice Khanna, as CJI, will head this system and oversee its functioning, which remains a subject of debate regarding transparency and accountability.

Way Forward

As Justice Khanna takes over as the 51st Chief Justice of India, and as Chief Justice judicial system will look up to him for :-

- Strengthen Judicial Independence: He must ensure that the judiciary remains independent and impartial, despite external pressures and influences.
- Implement Judicial Reforms: He should implement reforms to strengthen the judicial system and enhance its efficiency.
- Promote Access to Justice: He must work to promote access to justice for all citizens, particularly the marginalized and vulnerable sections of society.

Conclusion

Justice Sanjiv Khanna's appointment as the 51st Chief Justice of India marks a new chapter in the country's judicial history. With his wealth of experience and expertise, he is well-equipped to tackle the challenges facing the judiciary and promote access to justice for all citizens.

Focus of the month

STATE AND PRIVATE PROPERTY: BALANCING COLLECTIVE NEEDS WITH INDIVIDUAL RIGHTS

"The strength of a nation lies in its ability to balance collective needs with individual rights." This quote highlights the importance of striking a balance between state and private property, a delicate equilibrium that is essential for the well-being of a nation.

Introduction

The relationship between state and private property is complex and multifaceted. On one hand, state property is essential for providing public goods and services, while on the other hand, private property is crucial for promoting individual freedom and entrepreneurship. This discussion aims to explore the nuances of state and private property, highlighting their importance, limitations, and interplay.

Understanding Property

Property refers to the exclusive right to possess, use, and dispose of a thing or a resource. The legal framework governing property rights varies across jurisdictions, but it typically includes laws related to ownership, possession, and transfer of property.

State Property

State property refers to assets and resources owned and controlled by the government. The purpose of state property is to provide public goods and services, such as infrastructure, education, and healthcare. However, state property is not without its challenges, including inefficiencies, corruption, and conflicts over resource allocation.

Private Property

Private property, on the other hand, refers to assets and resources owned and controlled by individuals or private entities. Private property is essential for promoting individual freedom, entrepreneurship, and innovation. However, private property also has its limitations, including the potential for unequal distribution of wealth and resources.

Interplay between State and Private Property

The interplay between state and private property is complex and often contentious. Conflict scenarios arise when state and private interests clash, such as in cases of land acquisition or environmental degradation. However, collaboration models also exist, such as public-private partnerships, which can facilitate the provision of public goods and services.

Challenges and Controversies

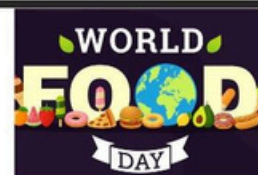
Several challenges and controversies surround state and private property, including:

- Land acquisition: The process of acquiring land for public purposes often raises concerns about compensation, rehabilitation, and environmental impact.
- Regulatory gaps: Inadequate regulations and lack of enforcement can lead to exploitation of state and private property.
- Ethical concerns: Issues related to corruption, crony capitalism, and unequal distribution of wealth and resources raise ethical concerns about the use of state and private property.

Steps towards Harmonization

To harmonize state and private property, several steps can be taken:

- Public initiatives: Governments can establish clear policies and regulations governing state and private property.
- Judicial safeguards: The judiciary can play a crucial role in protecting property rights and resolving disputes.
- Community participation: Community involvement in decision-making processes related to state and private property can help ensure that their interests are taken into account.



Case Studies, Schemes, and Policies

Several case studies, schemes, and policies illustrate the complexities of state and private property:

- The Land Acquisition Act, 2013: This Act aims to provide fair compensation to landowners and ensure that land acquisition is carried out in a transparent and accountable manner.
- The Public-Private Partnership (PPP) model: This model has been used successfully in several infrastructure projects, such as roads, bridges, and airports.
- The Forest Rights Act, 2006: This Act recognizes the rights of forest-dwelling communities to their ancestral lands and resources.

Ethical Dimensions

The ethical dimensions of state and private property are complex and multifaceted:

- The right to property: This right is enshrined in several international human rights instruments, including the Universal Declaration of Human Rights.
- The principle of justice: This principle requires that property rights be distributed fairly and equitably.
- The principle of sustainability: This principle requires that property rights be exercised in a manner that is sustainable and environmentally responsible.

Way Forward

To harmonize state and private property effectively and ensure a balance between collective needs and individual rights, several steps can be taken:

1. Clear Policies: Establish transparent regulations for managing state and private property.
2. Judicial Role: Strengthen legal frameworks to protect property rights and resolve disputes.
3. Community Involvement: Include communities in decision-making processes to reflect their needs.
4. Public-Private Partnerships: Foster collaboration between government and private entities for development.
5. Ethical Governance: Address corruption and ensure fair distribution of resources.

By implementing these steps, we can achieve a balanced approach to managing state and private property, promoting both individual rights and collective well-being.

Conclusion

In conclusion, the relationship between state and private property is complex and multifaceted. While state property is essential for providing public goods and services, private property is crucial for promoting individual freedom and entrepreneurship. By recognizing the importance of both state and private property, and by striving for a balance between collective needs and individual rights, we can create a more just and equitable society.

Focus of the month

MANIPUR VIOLENCE: A COMPLEX ISSUE

"Conflict, if left unresolved, becomes the seed of greater divisions." This quote aptly describes the situation in Manipur, a state in northeastern India that has been plagued by violence and unrest for decades.

Introduction

Manipur, a state with a rich cultural heritage and diverse population, has been embroiled in a complex web of violence and conflict. The state's strategic location, bordering Myanmar and sharing international borders with Bangladesh and China, has made it a hub of geopolitical significance. However, this has also led to a multitude of challenges, including ethnic rivalries, resource scarcity, and external influences.

Historical Context

Manipur's history is marked by a complex interplay of ethnic diversity, colonialism, and post-colonial influences. The state is home to over 30 ethnic groups, each with their own distinct culture, language, and traditions. The British colonial period saw the imposition of a new administrative system, which disrupted the traditional social and economic structures of the state. Post-colonial India saw the integration of Manipur into the Indian Union, which led to a complex process of nation-building and identity formation.

Causes of Recent Violence

The recent violence in Manipur can be attributed to a combination of factors, including:

1. **Ethnic Rivalries:** The state's diverse ethnic population has led to tensions and conflicts between different groups.
2. **Resource Scarcity:** Manipur's rich natural resources, including oil, gas, and minerals, have led to competition and conflict over access and control.
3. **Political Factors:** The state's complex political landscape, including the presence of multiple insurgent groups and a fragile democratic system, has contributed to the violence.
4. **External Influences:** The state's strategic location has made it vulnerable to external influences, including the presence of foreign insurgent groups and the impact of global events.

Key Events and Escalations

The violence in Manipur has escalated over the years, with several key events contributing to the current situation. Some of the notable events include:

1. **The Naga Insurgency:** The Naga insurgency, which began in the 1950s, has been a major contributor to the violence in Manipur.
2. **The Meitei-Pangal Conflict:** The conflict between the Meitei and Pangal communities, which began in the 1990s, has led to significant violence and displacement.
3. **The Armed Forces (Special Powers) Act:** The imposition of the Armed Forces (Special Powers) Act in Manipur has led to widespread human rights abuses and contributed to the escalation of violence.

The violence in Manipur has had significant consequences, including:

1. **Humanitarian Impact:** The violence has led to significant displacement, injury, and loss of life.
2. **Economic Fallout:** The violence has disrupted the state's economy, leading to significant losses in trade, commerce, and industry.
3. **Social Fragmentation:** The violence has led to significant social fragmentation, with communities becoming increasingly polarized and divided.
4. **Impact on Governance:** The violence has weakened the state's governance structures, leading to a breakdown in law and order and a rise in corruption.

Efforts to Address the Violence

Several efforts have been made to address the violence in Manipur, including:

1. **Government Interventions:** The government has imposed several measures, including the Armed Forces (Special Powers) Act, to control the violence.
2. **Civil Society Initiatives:** Civil society organizations have played a significant role in promoting peace and reconciliation in the state.
3. **Judicial Measures:** The judiciary has also played a crucial role in addressing the violence, with several landmark judgments and orders being passed to protect human rights and promote justice.

Challenges in Resolution

Despite these efforts, several challenges remain in resolving the violence in Manipur, including:

1. **Complexity of the Issue:** The violence in Manipur is a complex issue, with multiple factors contributing to the conflict.
2. **Lack of Trust:** There is a significant lack of trust between the different communities and the government, which has hindered efforts to resolve the conflict.
3. **External Influences:** The state's strategic location has made it vulnerable to external influences, which has contributed to the violence.

To resolve the violence in Manipur, a multi-faceted approach is required, including:

1. **Promoting Dialogue and Reconciliation:** Promoting dialogue and reconciliation between the different communities and the government is crucial to resolving the conflict.
2. **Addressing the Root Causes:** Addressing the root causes of the violence, including ethnic rivalries, resource scarcity, and external influences, is essential to resolving the conflict.
3. **Strengthening Governance:** Strengthening the state's governance structures, including the judiciary and the police, is crucial to promoting justice and protecting human rights.

Conclusion

In conclusion, the violence in Manipur is a complex issue that requires a multi-faceted approach to resolve. The state's rich cultural heritage and diverse population are its greatest strengths, but also pose significant challenges. The quote that began this discussion, "Conflict, if left unresolved, becomes the seed of greater divisions," highlights the importance of addressing the root causes of the violence and promoting dialogue and reconciliation between the different communities and the government. Only through a sustained and collective effort can Manipur hope to overcome its current challenges and build a more peaceful and prosperous future for all its citizens.

Focus of the month

AIR POLLUTION

Introduction

Air pollution refers to the presence of harmful substances in the atmosphere, including particulate matter and gases that can negatively impact human health, the environment, and the climate. It arises from both natural and human-made sources and poses a significant challenge to sustainable development worldwide.

In November 2024, Delhi experienced its most polluted November in seven years, with air quality reaching unprecedented lows. Over 22 days were classified in the "very poor" category, and six days reached "severe" levels. Two of these days even fell under the "severe plus" category, the most hazardous classification. The primary contributors were stubble burning in neighboring states, vehicle emissions, construction dust, and industrial pollution. These were exacerbated by the meteorological conditions of November, which tend to trap pollutants closer to the ground.

Visibility was significantly reduced, and health impacts were severe, with an increase in respiratory and cardiovascular conditions. Authorities implemented emergency measures under the Graded Response Action Plan (GRAP), including school closures and construction bans, but these measures offered limited relief.

This trend reflects a worsening trajectory over the years, with no "poor" or better air quality days in November 2024, unlike previous years that had occasional reprieves

Sources of Air Pollution

Natural Sources

- Volcanic Eruptions: Release ash, sulfur dioxide (SO_2), and other gases into the atmosphere.
- Forest Fires: Emit particulate matter (PM), carbon monoxide (CO), and nitrogen oxides (NO_x).
- Dust Storms: Transport large amounts of dust and particulate matter.
- Biogenic Emissions: Release of volatile organic compounds (VOCs) from vegetation.

Anthropogenic Sources

- Industrial Emissions: Factories and power plants release SO_2 , NO_x , and VOCs.
- Transportation: Vehicles emit carbon monoxide (CO), hydrocarbons, and nitrogen oxides (NO_x).
- Agriculture: Activities produce ammonia (NH_3) and methane (CH_4).
- Residential Burning: Burning biomass or coal for cooking and heating generates particulate matter and VOCs.

Particulate Matter (PM)

- Fine particles ($\text{PM}_{2.5}$ and PM_{10}) can penetrate the lungs and bloodstream, causing respiratory and cardiovascular diseases.

Gaseous Pollutants

- Carbon Monoxide (CO): From incomplete combustion of fossil fuels.
- Sulfur Dioxide (SO_2): From burning coal and oil.
- Nitrogen Oxides (NO_x): From vehicles and power plants.
- Volatile Organic Compounds (VOCs): From industrial solvents and fuels.

Greenhouse Gases

- Carbon Dioxide (CO_2): A major contributor to global warming.
- Methane (CH_4): Emitted from agriculture and waste.
- Nitrous Oxide (N_2O): From fertilizers and industrial processes.

Impacts of Air Pollution

Human Health Impacts:

- Respiratory and cardiovascular diseases, including asthma, bronchitis, and heart attacks.
 - Long-term exposure linked to cancer and reduced life expectancy.
- ### Environmental Impacts:
- Acid rain from SO_2 and NO_x harms aquatic ecosystems and corrodes buildings.
 - Ozone depletion caused by certain pollutants like CFCs.

Climate Change:

- Greenhouse gases contribute to global warming, causing rising temperatures, sea levels, and extreme weather events.

Regional and Global Perspectives

Urban Areas:

- Traffic and industrial emissions dominate, causing smog and poor air quality.
- Vulnerable populations face higher exposure due to dense living conditions.

Rural and Agricultural Areas:

- Biomass burning and fertilizer use contribute to ammonia and methane emissions.
- Dust from unpaved roads and fields impacts air quality.

Transboundary Pollution:

- Pollutants like $\text{PM}_{2.5}$ and ozone can travel across borders, affecting regions far from the source.
- Examples include Asian dust storms and European industrial emissions impacting neighboring regions.

Mitigation Strategies:

Technological Solutions

- Clean Energy: Adoption of solar, wind, and hydroelectric power reduces fossil fuel dependence.
- Emission Control: Technologies like scrubbers and catalytic converters minimize pollutants.
- Policy and Regulations: Implementation of air quality standards, such as those by the WHO or EPA.
- International agreements like the Paris Agreement aim to reduce emissions globally.

Public Awareness and Behavioral Changes:

- Promoting public transport, carpooling, and use of bicycles.
- Encouraging waste reduction and energy conservation at individual and community levels.

Delhi's air pollution levels in November 2024 highlight a severe urban environmental crisis. Comparatively, while air pollution is a global issue, the intensity and causes in Delhi contrast starkly with those in other major cities worldwide.

Delhi vs. Other Global Cities

1. Annual Average $\text{PM}_{2.5}$ Levels:

- Delhi frequently ranks among the world's most polluted cities, with annual $\text{PM}_{2.5}$ levels often exceeding $100 \mu\text{g}/\text{m}^3$. This is significantly higher than cities like Beijing, where stringent controls have reduced annual $\text{PM}_{2.5}$ levels to below $40 \mu\text{g}/\text{m}^3$ in recent years.
- In contrast, European cities like London and Paris generally report annual averages below $15 \mu\text{g}/\text{m}^3$ due to stricter air quality standards and fewer contributing factors like crop burning.

2. Pollution Sources:

- Delhi: Major contributors include stubble burning, vehicular emissions, construction dust, and industrial pollutants, combined with unfavorable meteorological conditions in winter.
- Beijing: Previously reliant on coal, Beijing now mitigates pollution through policies like coal-to-gas conversions and stricter vehicle emissions standards.
- Los Angeles: Air pollution is largely driven by vehicle emissions and wildfires, with smog levels generally lower due to cleaner energy policies.

3. Mitigation Efforts:

- Delhi: Emergency measures such as the Graded Response Action Plan (GRAP) include temporary construction bans and vehicle restrictions but have limited impact due to weak enforcement and systemic challenges.
- European Cities: Permanent solutions like congestion pricing (London) and bans on diesel vehicles (Paris) have contributed to significant reductions in pollution.
- China: Investments in public transit, green energy, and industrial relocation have drastically improved air quality over the past decade.

4. Public Health Impact:

- Delhi's pollution causes a surge in respiratory and cardiovascular diseases during winter. For comparison, Los Angeles and European cities experience far fewer pollution-related health crises due to lower $\text{PM}_{2.5}$ levels and better healthcare accessibility.

Challenges for Delhi:

While Delhi's air pollution is among the worst globally, unique factors such as population density, reliance on agriculture, and policy enforcement gaps exacerbate the problem. Addressing these challenges requires sustained efforts in clean energy, public transportation, and regional cooperation, particularly with neighboring states.

Conclusion

Air pollution remains a pressing global issue with severe consequences for health, ecosystems, and the climate. Addressing it requires a multipronged approach involving technology, policy, and individual action. By fostering global collaboration and increasing public awareness, we can mitigate its impacts and work toward cleaner, healthier air for future generations.



Focus of the month

ISRO LAUNCH: A COMPREHENSIVE OVERVIEW

Introduction

The Indian Space Research Organisation (ISRO) has become a beacon of India's scientific progress, symbolizing its ambitions in space exploration. Since its inception, ISRO has made remarkable strides in satellite launches, space missions, and international collaborations, reflecting India's commitment to technological advancement and self-reliance in space technology.

2. Historical Background

ISRO was formed in 1969, succeeding INCOSPAR (Indian National Committee for Space Research), with the vision of utilizing space technology for national development. Dr. Vikram Sarabhai, the visionary behind ISRO, emphasized leveraging space exploration for societal benefits. Early achievements like Aryabhata, India's first satellite, and the SLV-3 program, which placed the Rohini satellite into orbit, laid the foundation for ISRO's robust space program. These milestones showcased India's capability to transition from dependence on foreign assistance to developing indigenous technologies.

3. Objectives and Mandates of ISRO

ISRO's primary objective is to advance space technology and apply it for national development. Its mandates include creating indigenous satellite systems, advancing launch vehicle technology, and conducting space exploration missions. Additionally, ISRO emphasizes using space-based applications in communication, navigation, disaster management, and education to bridge developmental gaps across India.

4. India's Relevance in Space Exploration

India has emerged as a key player in global space exploration due to ISRO's achievements. The success of missions like Chandrayaan-1, Chandrayaan-3, and Mangalyaan have proven India's capability to undertake complex interplanetary missions at a fraction of the cost incurred by other space agencies. ISRO's focus on affordability and efficiency aligns with the global demand for sustainable and cost-effective space technologies, ensuring its significance in the international space community.

5. India's Role in Global Space Technology

ISRO's contributions extend beyond national boundaries, making India a reliable partner in global space technology. Through commercial satellite launches for over 30 countries and collaborations with agencies like NASA and ESA, India has cemented its position as a spacefaring nation. ISRO's PSLV (Polar Satellite Launch Vehicle) has gained a reputation as a dependable and economical option for launching satellites into space, further enhancing India's global standing.

6. Currently in News and Recent Developments

Recent achievements like Chandrayaan-3's historic landing on the Moon's South Pole and the launch of Aditya-L1, India's first solar mission, have brought ISRO into the limelight. The Gaganyaan mission, aimed at sending humans to space, is also progressing steadily, reflecting ISRO's ambition to venture into manned space exploration. These advancements highlight India's growing influence in space exploration and its ability to achieve groundbreaking milestones.

7. Government's Role and Policies

The Indian government has been instrumental in ISRO's growth by providing strategic and financial support. Policies like the Space Activities Bill and the establishment of IN-SPaCE have encouraged private sector participation, fostering innovation in the space industry. Increased budget allocations for space missions like Gaganyaan and exploratory missions to Venus and Mars demonstrate the government's commitment to making India a global leader in space research.

8. Growth and Progress of ISRO

ISRO's journey from launching its first satellite to exploring interplanetary missions showcases its remarkable progress. Over the decades, ISRO has expanded its capabilities in areas like cryogenic engine technology, reusable launch vehicles, and satellite navigation systems. Its focus on innovation and cost-effectiveness has made it one of the world's most respected space agencies.

9. India's Ranking in Space Research

India ranks among the top nations in space research, joining the ranks of the US, Russia, China, and the European Union. Its ability to deliver high-quality outcomes at a fraction of the cost positions ISRO as a leader in affordable space exploration, earning international acclaim and partnerships.

10. Challenges and Limitations

Despite its achievements, ISRO faces challenges like limited funding compared to agencies like NASA and reliance on imports for certain critical technologies. The growing competition in the space industry demands continuous innovation and stronger involvement from the private sector to address these limitations.

11. Future Prospects of ISRO

ISRO's future holds immense potential with plans for ambitious missions such as Shukrayaan (Venus mission) and the Mars Orbiter Mission 2. The agency is also focusing on reusable rockets, human spaceflight, and space tourism. Collaborations with private companies and international agencies are expected to further boost its capabilities, solidifying India's place in global space exploration.

12. Conclusion

ISRO's incredible journey from humble beginnings to global recognition is a story of determination, innovation, and vision. With consistent government support and ambitious goals, ISRO continues to inspire not just India but the world, promising a future where India leads the charge in space exploration and technology.



Focus of the month

RIGHTS OF MINORITIES

1. Introduction

The rights of minorities in India focus on protecting their educational, cultural, and religious identity under the Constitution. Institutions like Madrasas and Aligarh Muslim University (AMU) play a significant role in safeguarding these rights.

2. Background

• Historical Context:

The origins of minority rights in India trace back to the colonial era, particularly the 1909 Morley-Minto Reforms, which introduced separate electorates for Muslims, recognizing their distinct identity. Post-independence, the framers of the Constitution aimed to protect minority rights, ensuring equality and autonomy to preserve India's pluralistic society.

• Key Legislative Framework:

Minority rights are upheld under various provisions of the Constitution, particularly Articles 29, 30, and 14, which ensure educational and cultural autonomy:

-Article 29: Protection of interests of minorities, including the right to conserve their language, script, or culture.

-Article 30: Right of minorities to establish and administer educational institutions of their choice.

-Article 14: Guarantees equality before the law and equal protection of the law, providing a foundation for protecting minority rights against discrimination.

-Article 15: Prohibits discrimination on the grounds of religion, race, caste, sex, or place of birth.

-Article 46: Promotes the educational and economic interests of Scheduled Castes, Scheduled Tribes, and other weaker sections of society, implicitly including minority communities.

3. Minority Rights and Institutions

• Madarsa Act: Regulates and modernizes Madrasas while preserving religious education, though it raises concerns about state interference in their autonomy.

• RTE Act (Right to Education): Exempts minority institutions from certain mandates, allowing them to retain unique educational frameworks.

• National Commission for Minorities: Acts as a watchdog, addressing grievances and ensuring the protection of minority rights.

• Aligarh Muslim University (AMU): Established in 1920, AMU preserves Islamic education and promotes secular learning. Despite legal affirmation of its minority status, it faces challenges like political interference.

4. Judicial Interpretation

The Supreme Court has reinforced the autonomy of minority institutions in key cases, notably the T.M.A. Pai Foundation case (2002), ensuring their right to administer educational institutions independently.

5. Challenges to Minorities' Rights

• Socio-Political Marginalization: Minorities often face exclusion from mainstream political processes.

• Limited Access to Resources: Disparities in access to education and economic resources hinder development.

• Secular vs. Religious Education Debate: Institutions like Madrasas are scrutinized for balancing religious teachings with modern education.

• Discriminatory Practices: Despite legal protections, discrimination persists, particularly in education and employment.

6. Current Relevance

• Debates on Autonomy: Ongoing discussions about the regulation of institutions like AMU and Madrasas highlight the tension between autonomy and accountability.

• Socio-Political Climate: Growing polarization emphasizes the need for stronger protection of minority rights.

• Global Comparisons: Frameworks from the U.S. and U.K. provide models for balancing state oversight and minority autonomy.

7. Opinions & Suggestions

• Scholars' Opinion:

Dr. Faizan Mustafa advocates for a balanced approach that preserves minority autonomy while incorporating modern educational standards.

• Policymakers' Opinion:

Former Union Minister Ramesh Pokhriyal Nishank suggests reforms focusing on transparency and governance, with minimal state interference.

• Judiciary's Opinion:

The judiciary, through various rulings, emphasizes protecting minority autonomy while ensuring adherence to constitutional values.

Recommendations:

1. Inclusive Education Policy (2016):

Guarantees equal educational access for children with disabilities and minorities.

2. Pradhan Mantri Jan Vikas Karyakram (PMJVK): Enhances educational infrastructure and offers financial support to minority institutions.

3. National Minority Scholarship Scheme: Provides financial assistance to students from minority communities.

4. Maulana Azad National Fellowship: Supports minority students pursuing higher education (M.Phil and Ph.D.).

8. Way Forward

• Strengthen Legal Protections: Ensure effective implementation of constitutional safeguards.

• Promote Inclusive Dialogue: Encourage collaboration between the state, minority communities, and institutions.

• Modernize Minority Institutions: Upgrade infrastructure while preserving cultural identity.

• Enhance Transparency: Improve governance and financial accountability without compromising autonomy.

9. Conclusion

The rights of minorities in education are fundamental to maintaining India's secular identity. Striking a balance between autonomy, modernization, and constitutional mandates is crucial for fostering inclusive growth and societal harmony.

Focus of the month

COP 29 AT BAKU

Introduction

COP 29, the 29th United Nations Climate Change Conference, is scheduled to be held in Baku, Azerbaijan, from November 11 to 22, 2024. This annual conference is a pivotal global platform where nations convene to advance international efforts on climate change, including strategies to limit global warming to 1.5°C, adapt to climate impacts, and achieve net-zero emissions by 2050.

The host nation, Azerbaijan, has framed the event around the motto "Strengthening Ambitions and Ensuring Action" and introduced initiatives like the Climate Finance Action Fund, which aims to mobilize resources for renewable energy and climate resilience projects globally. However, the selection of Azerbaijan as the host has drawn criticism, with concerns over its human rights record and reliance on fossil fuels.

Organizational Framework

a) Governing Bodies

1. Conference of the Parties (COP):
 - The central decision-making body of the UNFCCC.
 - Responsible for assessing progress on implementing the Paris Agreement and establishing climate policies.
2. Subsidiary Bodies:
 - SBSTA: Provides scientific and technological advice.
 - SBI: Focuses on operational and implementation matters.
3. Task Forces:
 - Loss and Damage Fund implementation group.
 - Article 6 task force for carbon market mechanisms.

b) Host Nation's Role

- 1- Azerbaijan's presidency, led by Minister of Ecology Mukhtar Babayev, emphasizes the country's commitment to climate action.
- 2- The Azerbaijani government established the Climate Finance Action Fund to encourage contributions from fossil fuel producers and support renewable energy projects.

Key Themes and Agendas

1. Mitigation
 - Strengthening Nationally Determined Contributions (NDCs).
 - Emphasizing renewable energy and phasing out fossil fuels to cap warming at 1.5°C.
2. Adaptation
 - Supporting resilience-building in vulnerable and developing nations.
 - Addressing climate impacts like floods and droughts with improved planning and resources.
3. Finance
 - Operationalizing the Loss and Damage Fund established in COP27.
 - Establishing a new climate finance target beyond the \$100 billion annual goal
4. Carbon Markets
 - Finalizing mechanisms under Article 6 of the Paris Agreement to enable transparent carbon trading and benefit least-developed countries.
5. Transparency
 - Launch of the Enhanced Transparency Framework (ETF) to standardize climate reporting.
 - Encouraging nations to submit Biennial Transparency Reports (BTRs)
6. Stakeholder Participation
 - Inclusive engagement of civil society, indigenous groups, businesses, and youth

Platforms for collaboration, such as Together4Transparency initiatives.

7. Activities and Events

- Plenary Sessions:
High-level discussions involving heads of state and ministers.

- Negotiations:
Technical and political debates on agendas like finance, carbon markets, and NDCs.
- Side Events:
Workshops, exhibitions, and networking opportunities for diverse stakeholders.
- Public Campaigns:
Promoting climate transparency and grassroots solutions

Initiatives to advance global climate action

1. Loss and Damage Fund
 - The fund aims to support vulnerable nations affected by climate impacts, including island nations and least developed countries (LDCs).
 - Governments are working on establishing governance frameworks and identifying funding sources.
2. Climate Finance Action Fund (CFAF)
 - Introduced by Azerbaijan, this fund seeks \$1 billion annually from fossil fuel producers to support:
 - Renewable energy projects.
 - Climate adaptation efforts in developing nations.
 - A portion is reserved for a Rapid Response Funding Facility (2R2F) to address climate-related disasters.
3. New Global Climate Finance Target
 - Negotiations are underway to replace the outdated \$100 billion annual target with a more ambitious and equitable finance goal.
 - Governments are emphasizing contributions from high-income nations and private sectors to bolster

Climate investments.

4. Enhanced Transparency Framework (ETF)
 - Governments are required to submit Biennial Transparency Reports (BTRs) to ensure accountability in climate commitments.
 - This initiative supports monitoring and reporting mechanisms under the Paris Agreement.
5. Support for Nationally Determined Contributions (NDCs)
 - Governments are being encouraged to update their NDCs with stronger targets aligned with the 1.5°C goal.
 - Efforts focus on renewable energy transitions, phasing out fossil fuels, and implementing low-carbon technologies.
6. Carbon Market Mechanisms
 - Governments are finalizing rules under Article 6 of the Paris Agreement to operationalize carbon trading systems.
 - These mechanisms aim to ensure transparency and support developing nations through emission reduction projects.
7. Resilience and Adaptation Programs
 - Emphasis on government-supported infrastructure and policies to strengthen resilience against climate impacts.
 - Focus on water management, agriculture, and disaster response systems in vulnerable regions.

Challenges and Criticisms

1. Greenwashing Allegations:
Activists have criticized Azerbaijan for hosting the event while being a major fossil fuel producer.
2. Human Rights Concerns:
Questions about the country's governance and treatment of dissenting voices
3. Implementation Challenges:
Balancing ambitious global goals with the realities of policy enforcement

Governmental implications

- Policy Alignment with Global Climate Goals
- COP29 emphasizes stronger NDCs and greater accountability in national climate policies.
 - Countries are urged to enhance renewable energy adoption and phase out fossil fuels to meet the 1.5°C target.

Role of India in COP29

India has taken a proactive and multi-faceted stance at COP29 in Baku, emphasizing the need for equitable climate action, significant financial commitments, and technological cooperation to meet global climate goals. Here are the key aspects of India's role and stand:

1. Climate Finance: India has called COP29 a milestone event for climate finance. It highlighted the pressing need for developed nations to meet their commitment to mobilizing \$1 trillion annually for climate action, with a focus on addressing the funding gaps for developing countries. These funds are critical for clean energy projects, disaster-resilient infrastructure, and adaptation measures
2. Technology Transfer: India has stressed the importance of unrestricted technology transfer, particularly for clean energy and carbon removal solutions. The country emphasized that intellectual property rights (IPR) barriers should not obstruct the deployment of green technologies in developing nations
3. Equity and Climate Justice: India has reaffirmed the principles of equity and "common but differentiated responsibilities and respective capabilities" (CBDR-RC). It has also emphasized that developing nations should not bear the consequences of inadequate climate action by developed nations in the past.

4. Carbon Markets and Article 6: India is advocating for clear guidelines on carbon credit trading under Article 6 of the Paris Agreement, which allows countries to trade carbon credits to meet climate targets. India views this as a vital mechanism for supporting global climate ambitions while ensuring fair and transparent operationalization.

5. Collaborative Approach: India has criticized unilateral measures by developed nations that transfer financial and operational burdens to developing countries. Instead, it has called for enhanced international collaboration and trust-building to achieve climate targets.

India's leadership at COP29 aligns with its broader climate commitments, including its updated Nationally Determined Contributions (NDCs) under the Paris Agreement, which aim to reduce the carbon intensity of its economy and expand renewable energy capacity. By advocating for actionable solutions and equitable climate policies, India is positioning itself as a voice for the Global South at this critical conference.

Conclusion

COP29 is a significant milestone in global climate governance. With its focus on advancing mitigation, adaptation, and finance goals, the conference underscores the importance of collaborative action. While challenges remain, particularly concerning equity and implementation, COP29 represents an essential step toward achieving the Paris Agreement's objectives and addressing the pressing needs of vulnerable communities worldwide.

EDITORIAL SECTION



India's Urban Future

Introduction:

- India's urban population is projected to grow from 400 million to 800 million in the next three decades.
- While this demographic shift presents an unparalleled opportunity to transform India's urban landscape, it also poses significant financial and structural challenges.
- A recent World Bank report highlights that India will require approximately ₹70 lakh crore by 2036 to meet its urban infrastructure needs, a figure far beyond current investment levels.

Financial Challenges in Urban Infrastructure

- Investment Gap:
 - Annual urban infrastructure investment in 2018 stood at ₹1.3 lakh crore, just over 25% of the required ₹4.6 lakh crore.
 - Of the ₹70 lakh crore needed by 2036, 50% is earmarked for basic urban services and the rest for urban transport.
- Municipal Finances:
 - Municipal finance has remained stagnant at 1% of GDP since 2002.
 - Municipal bodies contribute 45% of urban investments but struggle with limited self-revenue sources.
 - Central and State transfers have increased from 37% to 44%, but this has not substantially improved municipalities' financial health.
- Revenue Collection Inefficiencies:
 - Urban Local Bodies (ULBs) collect only a fraction of potential revenues, with property tax collections at a meager 0.15% of GDP.
 - Cost recovery for urban services ranges between 20% and 50%, highlighting inefficiencies in revenue generation.
- Unspent Resources:
 - A significant portion of municipal revenue remains unutilized. For instance, Hyderabad and Chennai spent only 50% of their capital expenditure budgets in 2018-19.
 - Central scheme fund utilization is also suboptimal, with AMRUT achieving 80% and Smart Cities Mission 70%.
- Decline in Public-Private Partnerships (PPPs):
 - PPP investments in urban infrastructure have drastically reduced, from ₹8,353 crore in 2012 to ₹467 crore by 2018.
 - Limited project-specific revenues and viability funding hinder PPP attractiveness.

Structural and Administrative Challenges

- Weak Urban Governance:
 - Municipal bodies suffer from inadequate administrative autonomy, fragmented governance structures, and limited capacity for long-term planning.
 - The lack of empowered municipal leadership restricts effective resource allocation, project execution, and accountability.
- Fragmentation of Responsibilities
 - Urban development is managed by a mix of municipal bodies and parastatal agencies. This dual structure creates inefficiencies, overlapping jurisdictions, and delays in decision-making.

Climate Vulnerability and Sustainability Concerns:

- Urban areas are increasingly exposed to climate risks such as floods, heatwaves, and rising sea levels.
- Many urban projects fail to integrate climate resilience into planning, posing long-term risks to investments.

Inadequate Land Management:

- Land use policies often fail to align with infrastructure planning, leading to urban sprawl, inefficient transport systems, and reduced economic productivity.
- Opportunities to capture land value through metro and rail projects remain underutilized.

Opportunities for Urban Transformation

Economic Potential of Urbanization:

- Cities account for over 60% of India's GDP, and their share is expected to grow further.
- With effective infrastructure and governance, urban areas can become hubs of innovation, industry, and global competitiveness.

Role of Digital Public Infrastructure (DPI):

- DPI can streamline urban service delivery, improve operational efficiency, and reduce costs. Applications include:
- Smart meters for utilities to improve cost recovery.
- Integrated transport systems for better public mobility.
- Data-driven urban planning for efficient land use and service provisioning.

Leveraging Land Value

- Integrated planning of metro and transit systems with urban development can help monetize land value, reducing reliance on public funding.
- Transit-oriented development (TOD) can promote mixed-use development, reduce commuting distances, and enhance livability.

Short-term Measures

- Streamlining Revenue Collection:
- Enhancing Fund Utilization

Medium-term Measures

- Scaling PPP Investments
- Decoupling Project Preparation from Funding
- Promoting Urban Innovation

Long-term Reforms

- Empowering Municipalities
- Integrated Urban Planning
- Institutional Capacity Building

Conclusion

- With the right reforms, India can turn its growing urban population into an engine of economic growth and global competitiveness, ensuring equitable and resilient cities for the future.
- The time to act is now, as the decisions made today will shape the urban India of tomorrow.

Source : THE HINDU

EDITORIAL SECTION



The Growing Power and Influence of Big Tech in AI

General Studies-3; Topic: Awareness in the fields of IT, Space, Computers, robotics, Nano-technology, bio-technology and issues relating to intellectual property rights.

Introduction:

- The dominance of Big Tech companies in the Artificial Intelligence (AI) ecosystem is raising alarms among policymakers worldwide.
- This has raised global concerns about equitable AI development, the monopolization of technology, and its socio-economic implications.
- The need for inclusive AI development models has never been more urgent to ensure that AI serves humanity equitably rather than concentrating power in the hands of a few.

Challenges of Big Tech Dominance

- High Computational Costs:
 - Deep learning, the most prominent form of AI, requires immense computational resources.
 - Models like Gemini Ultra cost around \$200 million to train, making it nearly impossible for smaller players to compete.
 - New entrants often depend on Big Tech for computational credits, reinforcing Big Tech's dominance.
- Advocacy for Larger Models:
 - Big Tech benefits from advocating for larger models, creating a cycle where high costs lock out smaller competitors.
 - This reinforces their role as dominant actors while recovering costs through their proprietary platforms.
- Integrated Developer Tools and Ecosystems:
 - Big Tech provides end-to-end solutions, including developer tools, cloud infrastructure, and algorithmic models.
 - These tools reduce development costs but increase dependence on Big Tech.
 - Switching costs for developers to alternate providers are prohibitively high.
- Data Monopolies:
 - Big Tech collects and utilizes vast amounts of data from diverse sources, giving them unmatched data intelligence.
 - Public data initiatives, while aiming to democratize data access, often fall prey to commercial capture, leaving Big Tech best positioned to leverage open data.
- Declining Academic Role in AI Research:
 - Industry players now dominate AI research with more academic publications and citations than universities.
 - Big Tech's dominance shapes the direction of AI research, often prioritizing commercial interests over broader societal benefits.

Challenges for India

- Dependence on Big Tech Infrastructure:
 - Indian start-ups and researchers rely heavily on cloud infrastructure and developer tools provided by Big Tech companies like Google, Amazon, and Microsoft.
 - This dependency increases costs and reduces the scope for local innovation.
- Data Inequality:
 - While India generates vast amounts of data, much of it is monetized and controlled by Big Tech.
 - India's local players lack access to the data ecosystems required for building competitive AI solutions.
- Insufficient Compute Infrastructure:
 - India's public infrastructure for computational resources is limited compared to Big Tech's global data centers.
 - Initiatives like the National Supercomputing Mission are yet to achieve the scale needed for advanced AI research.

Fragmented Policy Environment:

- India lacks cohesive policies on data sharing, privacy, and AI governance.
- Brain Drain:
 - Indian AI talent often migrates to global Big Tech companies due to better research opportunities and resources.
 - This creates a void in domestic capabilities and innovation.
- Limited Participation in Hardware Manufacturing
 - India's focus on software development is not matched by investments in AI hardware, such as chips and processors, which are crucial for AI competitiveness.

India's Efforts to Counter Big Tech Dominance

- Sovereign Cloud and Compute Infrastructure:
 - India is investing in sovereign cloud and compute resources through initiatives like MeghRaj (GI Cloud) and indigenous supercomputers under the National Supercomputing Mission.
 - These efforts aim to reduce dependence on Big Tech for computational needs.
- Open Data Platforms
 - The National Data and Analytics Platform (NDAP) and India's Data Empowerment and Protection Architecture (DEPA) aim to democratize data access and enable local innovation.
 - These initiatives promote data sharing while ensuring privacy and security.
- Digital Public Infrastructure
 - India's success with platforms like UPI, Aadhaar, and Open Network for Digital Commerce (ONDC) demonstrates its ability to create scalable public infrastructure.
 - These models can be extended to AI development by fostering interoperability and inclusivity.
- Promoting Local AI Start-ups
 - The Ministry of Electronics and IT's (MeitY) Startup Hub supports AI start-ups through mentorship, funding, and collaboration opportunities.
 - Initiatives like SAMRIDH (Startup Accelerators of MeitY for Product Innovation, Development, and Growth) aim to strengthen the local ecosystem.
- AI for Social Development
 - **India's AI for All strategy** focuses on leveraging AI to achieve developmental goals in healthcare, agriculture, and education.
 - This aligns AI development with societal needs, reducing the focus on commercial surveillance models.

Way Forward

- Promote Small and Purpose-Driven AI
- Invest in Competitive Public Infrastructure
- Develop public compute infrastructure that is competitive with Big Tech's offerings, including advanced developer tools, algorithmic models, and data preparation platforms.
- Ensure open access to resources for start-ups, academia, and local innovators.
- Strengthen Open Data Initiatives

Conclusion

- Breaking Big Tech's hold over AI requires rethinking the fundamental principles of AI development. Policymakers must shift away from the "big-data" paradigm and prioritize small, purpose-driven AI models anchored in domain expertise and theories of change.
- By focusing on democratization and inclusivity, nations can build an AI ecosystem that fosters innovation, reduces reliance on Big Tech, and addresses societal challenges effectively.

Source : **THE HINDU**

EDITORIAL SECTION



Need for an Environmental Health Regulatory Agency (EHRA)

General Studies-3; Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

Introduction:

- India faces an environmental and public health crisis with pollutants in air, water, and soil posing significant risks.
- Reports like the Emissions Gap Report 2024 reveal that India's greenhouse gas emissions increased by 6%, showcasing the severity of the issue.
- This pollution crisis, coupled with the challenges of rapid economic growth, demands integrated solutions that prioritize health, environment, and economic sustainability.
- An Environmental Health Regulatory Agency (EHRA) is essential to address these interlinked issues systematically.

Current Environmental and Health Landscape

- Scale of Pollution Across Sectors:
 - Air Pollution:
 - India is home to 22 of the world's 30 most polluted cities.
 - Particulate matter (PM_{2.5} and PM₁₀) is a leading cause of respiratory and cardiovascular diseases.
 - Water Pollution
 - Over 70% of India's surface water is polluted due to untreated industrial discharge and sewage.
 - High levels of heavy metals like lead and arsenic affect millions, especially in rural areas.
 - Land and Soil Pollution:
 - Pesticides, fertilizers, and industrial waste have degraded arable land, impacting agriculture and food security.
- Health Impacts:

Epidemiological studies link pollution to:

 - Non-communicable diseases (NCDs): Respiratory disorders, heart diseases, cancers, and diabetes.
 - Neurological and developmental disorders in children.
 - Impacts on pregnancy outcomes, including low birth weights and preterm deliveries.
- Economic Implications:
 - Increased healthcare expenditure due to pollution-induced diseases.
 - Reduced labor productivity and higher absenteeism.
 - Long-term impacts on the agricultural sector and rural livelihoods.

Existing Gaps in Governance

- Fragmented Responsibilities:
 - The Central Pollution Control Board (CPCB) focuses on monitoring and controlling pollution but lacks a direct link to public health outcomes.
 - The Ministry of Environment, Forest, and Climate Change (MoEFCC) manages environmental policies but does not integrate health risks.
 - The Ministry of Health and Family Welfare (MoHFW) handles disease management without robust environmental data.
- Lack of Integration:
 - No centralized framework exists to track cumulative pollution impacts across sectors.
 - Data silos across ministries hinder informed and evidence-based policymaking.
- Reactive Governance:
 - Current policies react to crises (e.g., smog episodes) rather than preventing them through early interventions and long-term strategies.

Why India Needs an EHRA

- Integrated Governance for Health and Environment:
 - An EHRA can centralize environmental and health data to:
 - Identify pollution hotspots.
 - Predict health impacts and implement timely interventions.
 - Create multi-disciplinary frameworks involving environmental scientists, public health experts, and economists.
- Learning from Global Models:
 - U.S. Environmental Protection Agency (EPA): Combines environmental monitoring with health-focused research and robust enforcement.
 - Germany's Federal Environment Agency (UBA): Balances sustainability goals with health-oriented climate and energy policies.
 - Japan's Ministry of the Environment (MOE): Tackles urban pollution and ecosystem protection while integrating health risk assessments.
- Evidence-Based Policy Formulation:
 - The EHRA can commission research on India-specific challenges:
 - Persistent organic pollutants (POPs) in agricultural areas.
 - Vector-borne diseases exacerbated by climate change.
 - Groundwater contamination from industrial zones.
 - Health Impact Assessments (HIAs) can be mandated for all major infrastructure and industrial projects.
- Strengthen India's compliance with the Paris Agreement and SDGs particularly:
 - SDG 3 (Good Health and Well-Being).
 - SDG 13 (Climate Action).

Challenges in Implementation

- Bureaucratic and Political Hurdles:
 - Resistance to inter-ministerial coordination due to existing silos.
 - Limited capacity of state and municipal bodies to implement EHRA-led initiatives.
- Industry Pushback:
 - Concerns over stricter regulations affecting profitability.
 - Need for incentivized compliance mechanisms to ease transitions.
- Resource and Infrastructure Constraints:
 - Significant investment needed to build infrastructure for monitoring, data collection, and enforcement.
 - Collaborations with international organizations like WHO and World Bank for technical and financial support can bridge this gap.

Way Forward

- Strategic Vision for EHRA:
 - Operational independence guided by scientific expertise.
 - Clear frameworks for measurable goals and accountability.
- Data-Driven Decision-Making:
 - Develop an integrated digital platform for real-time data on pollution and health outcomes.
 - Use AI and predictive analytics to model future risks.
- Regional Customization:
 - Shift from national-level strategies to localized policies addressing regional challenges.
 - Example: Focus on groundwater contamination in Punjab and air pollution in Delhi-NCR.
- Strengthening Public-Private Partnerships:
 - Collaborate with industries to develop sustainable technologies.
 - Engage academic and research institutions to fill knowledge gaps.

Conclusion

- By integrating pollution control, health risk mitigation, and sustainable development, the EHRA can position India as a global leader in innovative, inclusive, and evidence-based environmental governance.
- While challenges remain, India's track record of meeting renewable energy goals and its commitments to international frameworks like the Paris Agreement demonstrate its capacity for ambitious, systemic reforms.

Source : **THE HINDU**



EDITORIAL SECTION



Prison Conditions in India

General Studies-2; Topic: Role of civil services in a democracy.

Introduction:

- The Indian prisons have a long history of poor conditions, including violence, mistreatment, and systemic neglect.
- Bhagalpur Blindings (1979–80): The shocking incident of acid being poured into prisoners' eyes highlighted the extent of cruelty in the prison system.
- Mulla Committee Report (1980s): Recommendations for extensive prison reforms were largely ignored, resulting in continued substandard conditions.

Current State of Prisons

- **Overcrowding:**
 - Statistics: As of 2022, Indian prisons hold 5.73 lakh inmates against a capacity of 4.36 lakh (NCRB). Some prisons operate at over 200% capacity.
 - Impact: Overcrowding leads to inadequate resources, strained facilities, and increased violence and abuse.
- **Abuse and Neglect:**
 - Violence by prison staff and other inmates is rampant.
 - Prisoners often face a lack of access to healthcare, basic hygiene, and nutritious food.
- **Prisoners with Disabilities:**
 - Challenges: Vulnerability to abuse, inaccessibility of basic facilities, and neglect of their specific needs.
 - Examples:
 - Father Stan Swamy: Aged and suffering from Parkinson's, denied basic assistive devices like a straw and sipper.
 - G.N. Saibaba: A wheelchair-bound prisoner, confined in a cell without accessibility, reliant on others for basic tasks, leading to frequent injuries.
- **2018 Audit Findings:**
 - Accessibility gaps in Delhi prisons included non-functional wheelchairs, inaccessible toilets, and facilities like water coolers located in areas without ramps or lifts.

Judicial Interventions

- **Rama Murthy vs State of Karnataka (1996):**
 - A landmark case that directed the government to address critical issues such as overcrowding, delays in trials, and neglect in prison administration.
 - Lack of Impact: Even after nearly three decades, the directives remain largely unimplemented.
- **Upendra Baxi vs State of U.P. (1983):**
 - The Supreme Court emphasized that prisoners have the right to live with dignity, even in incarceration.
 - This judgment affirmed that the state has a responsibility to provide humane living conditions to prisoners.

Rights of Prisoners

- **Constitutional Protections:**
 - Article 14 (Equality), Article 19 (Freedom), and Article 21 (Right to Life and Personal Liberty) guarantee rights even to prisoners.
 - The state is bound to ensure humane treatment, as reiterated by the judiciary in multiple cases.
- **International Commitments:**
 - Nelson Mandela Rules (2015): Call for reasonable accommodations and humane treatment of prisoners.
 - UN Convention on the Rights of Persons with Disabilities: Prohibits torture and mandates accessibility for persons with disabilities.
- **Domestic Legislation:**
 - Rights of Persons with Disabilities Act, 2016: Requires protection from abuse, violence, and neglect for persons with disabilities.
 - Model Prison Manual (2016): Mandates dignified living conditions in prisons.
 - Accessibility Guidelines (2024): Detail infrastructure changes required to make prisons accessible to persons with disabilities.

Implementation Challenges

- **Policy–Implementation Gap:**
 - While laws and guidelines exist on paper, their enforcement is abysmal.
 - Cases like Father Stan Swamy and Prof. Saibaba highlight systemic failures in protecting even the most basic rights of prisoners.
- **Cultural and Political Apathy:**
 - Public perception of prisoners as undeserving of humane treatment leads to societal indifference.
 - Lack of political will hampers meaningful prison reforms.

Government Responsibility

- **State Subject:** Prisons fall under the jurisdiction of State governments, making them primarily responsible for ensuring compliance with laws and international standards.
- **Non-Negotiable Obligations:** Governments must uphold prisoners' rights, including accessibility and protection against mistreatment, irrespective of political will.

Broader Implications

- **Human Rights Violations:**
 - Denial of basic rights in prisons undermines India's commitment to human rights and tarnishes its image globally.
 - Such neglect also violates India's international obligations under conventions like the UN Convention on the Rights of Persons with Disabilities.
- **Judicial Backlog and Delays:**
 - Overcrowding is exacerbated by undertrial prisoners, who make up a significant proportion of the prison population. Judicial delays must be addressed to alleviate this burden.
- **Impact on Rehabilitation:**
 - Dehumanizing conditions impede the primary goal of imprisonment—rehabilitation and reintegration into society.

Way Forward

- **Implement Existing Guidelines:** Enforce the Model Prison Manual and Accessibility Guidelines to ensure dignified living conditions.
- **Accessibility Upgrades:** Prioritize making prisons disability-friendly with functional wheelchairs, accessible toilets, and proper assistive devices.
- **Data Collection:** The government must maintain comprehensive data on prisoners with disabilities to address their specific needs effectively.
- **Monitoring Mechanisms:** Regular audits and inspections to track compliance and address gaps.
- **Sensitization and Training:** Educate prison staff on the rights and needs of prisoners, particularly those with disabilities.
- **Judicial Oversight:** Courts must proactively intervene to ensure enforcement of prisoners' rights.
- **Community Engagement:** Society must shift its perception from punitive justice to rehabilitation, fostering support for reforms.

Conclusion

- The systemic neglect of Indian prisons, compounded by apathy toward prisoners with disabilities, calls for urgent reforms.
- Prison reforms, including accessibility and humane treatment, must become a priority to align India's prison system with its democratic and humanitarian values.

Source : **THE HINDU**

EDITORIAL SECTION



Delhi's Air Quality Crisis

General Studies-3; Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

Current Situation

- Delhi's temperature dipped below normal for the first time this winter.
- Air Quality Index (AQI) reached "severe" levels, marking the most delayed occurrence in 10 years. Peak Particulate Matter (PM) levels have fallen, but average pollution has increased.
- Average PM 2.5 levels are the highest in five years.
- Pollution persists even after the crop residue burning season, indicating the need for year-round policies.

Broader Implications

- Persistent pollution leads to severe respiratory and cardiovascular health issues.
- Affects vulnerable populations like children and the elderly disproportionately.
- Increased healthcare expenditure and reduced productivity due to pollution-related illnesses.
- Negative impact on tourism and urban development.

Government Measures

- Smog Towers:
 - Function as localized air purifiers with limited efficacy.
 - Lack of audits for emissions from these towers.
- Water Sprinklers: Immediate but short-term impact on reducing particulate matter.
- Cloud Seeding and Drones: Effectiveness remains unproven and is under debate.

Institutional Role and Gaps

- Commission for Air Quality Management (CAQM):
 - Replaced Environment Pollution (Prevention and Control) Authority (EPCA) as the nodal agency for pollution control in Delhi.
 - Invested little in data-driven and science-based solutions over three years.
 - Largely operates as a regulatory body without coordinating local and regional pollution management.
- Need for Coordination:
 - Airshed Pollution Management: Targets pollution hotspots and requires collaboration between local and state-level agencies.
 - CAQM must adopt a comprehensive approach beyond seasonal stubble burning.

Regional Pollution Context

- Pollution in Neighboring States:
 - Farm fires in Punjab and Haryana have reduced, but high pollution levels persist.
 - Cities like Chandigarh reported the second-worst air quality in the country.

Municipal Responses:

- Similar measures as Delhi, such as water sprinkling and fogging machines, with limited effectiveness.
- Municipalities lack capacity and mandate for regional coordination.

International Best Practices for Air Quality Management

- California's Airshed Management Approach (USA):
 - Collaboration between state-level agencies and local air quality management districts.
 - Enforcing stringent emissions caps on industries, vehicles, and other major sources.
- Beijing's Clean Air Action Plan (China):
 - Moving high-pollution industries out of urban areas.
 - Establishing zones where only clean energy vehicles are permitted.
 - Implementing a robust digital air quality monitoring and reporting system.
- Singapore's Haze Mitigation Measures:
 - Real-time satellite tracking of fires and haze in neighboring countries.
 - Accessible air quality indices and advisories to mitigate health risks.
- Japan's Air Pollution Control Act:
 - Mandates frequent emissions audits for industries and vehicles.
 - Encourages industries to adopt cutting-edge pollution control technologies.

Way Forward

- Shift from emergency responses to year-round, institutionalized measures.
- Invest in data-driven and technology-based solutions for air quality improvement.
- CAQM must lead the effort with long-term, data-backed strategies for regional and local collaboration.
- Implement airshed pollution management strategies for targeted interventions.
- Facilitate cooperation between Delhi, Punjab, Haryana, and Chandigarh for unified strategies.
- Address non-seasonal pollution sources like vehicular emissions, construction dust, and industrial pollution.

Conclusion

- Delhi's air quality crisis requires a holistic, multi-stakeholder approach beyond quick fixes.
- A focus on sustainable practices is essential to mitigate health, economic, and environmental impacts effectively.

Source : THE HINDU

EDITORIAL SECTION



India's Venture Capital Fund for the Space Sector

General Studies-3; Topic: Science and Technology- developments and their applications and effects in everyday life.

Introduction

- The Union Cabinet's approval of the Rs 1,000 crore fund marks a decisive step towards positioning India as a leader in the global space economy.
- India's space economy is projected to grow to \$44 billion by 2033, driven by advancements in satellite launches, exploration missions, and commercial space activities. This fund acts as the financial backbone for this growth.

Key Features of the Venture Capital Fund

- Financial Structure and Management:
 - The fund will be managed by IN-SPACe (Indian National Space Promotion and Authorization Centre), ensuring transparency and accountability.
 - Focused on providing equity-based early-stage funding to Indian space startups.
- Support for Innovation:
 - Targets startups involved in developing satellite technology, hypersonic propulsion systems, earth observation platforms, and advanced navigation systems.
 - Provides financial stability to startups like "StarTech," enabling them to scale operations and hire skilled talent.
- Multistage Investment:
 - The fund aims to attract private sector co-investments, creating a multiplier effect that sustains the growth of early-stage ventures and facilitates their transition to maturity.

Role of IN-SPACe

- Promotion and Oversight:
 - Established as a central regulatory body, IN-SPACe is tasked with promoting private-sector involvement in the space economy.
- Bridge for Public-Private Collaboration:
 - Acts as a facilitator, aligning private-sector projects with ISRO's capabilities and national space policy goals.
- Ease of Operations:
 - Provides clearances, funding support, and ensures adherence to safety and environmental regulations.

Key Applications Across Sectors

- Supply Chain and Logistics:
 - Satellite-driven Positioning, Navigation, and Timing (PNT) technologies enable real-time tracking, reduce transportation costs, and improve operational efficiency.
 - Integration of IoT and Earth observation data ensures optimized delivery routes and on-time deliveries, revolutionizing logistics.
- Food and Beverage:
 - SATELLITE-BASED PRECISION IN LAST-MILE DELIVERY ENHANCES THE EFFICIENCY OF FRESH PRODUCE DISTRIBUTION.
 - Space-based research enables the development of nutrient-rich foods in zero-gravity environments, addressing global malnutrition challenges.
- State-Sponsored Defense:
 - Strengthens India's intelligence, surveillance, and reconnaissance (ISR) capabilities.
 - Facilitates real-time satellite imagery, enabling rapid deployment and strategic defense planning.
- Retail, Consumer Goods, and Lifestyle:
 - Expands e-commerce penetration to remote areas through satellite internet connectivity.
 - Boosts demand for consumer devices integrated with location-based services.
- Humanitarian Aid and Disaster Management:
 - Advanced sensors and satellite data improve early warning systems for natural disasters.
 - Enhances humanitarian responses by providing real-time data on infrastructure damage and migration patterns.

Economic Impact

- Direct and Indirect Job Creation:
 - Direct jobs: Engineering, data analytics, software development, and space manufacturing sectors.
 - Indirect jobs: Component manufacturing, logistics, supply chain management, and professional services.
 - Each investment could create thousands of jobs, boosting India's employment ecosystem.
- Bridging the Digital Divide:
 - Satellite internet ensures access to education, healthcare, and economic opportunities in underserved areas.
 - Promotes social inclusion by enabling remote regions to participate in the digital economy.

Alignment with Atmanirbhar Bharat

- Self-Reliance in Space Technology:
 - Reduces dependence on foreign technologies and fosters indigenous innovation.
 - Encourages startups to remain domiciled in India, strengthening the local innovation ecosystem.
- Strengthening Supply Chains:
 - Boosts local manufacturing capabilities for critical space components, aligning with the vision of a resilient domestic economy.

Global Context

- Strategic Comparisons:
 - The move aligns India with global powers such as the US, Russia, China, UK, Japan, and Saudi Arabia, which have also launched space-focused venture capital funds.
- Competitive Edge:
 - India leverages cost-efficient space missions (e.g., Chandrayaan and Mangalyaan) to attract global partnerships.
 - Aims to increase India's market share in satellite launches, estimated to grow significantly in the coming decade.

Challenges

- Space Debris Management:
 - Increasing orbital congestion poses risks to satellites and requires effective debris mitigation strategies.
- Regulatory Barriers:
 - Simplification of licensing and compliance requirements is needed to encourage private-sector participation.
- Competition from Terrestrial Alternatives:
 - Terrestrial technologies like fiber optics and 5G may challenge the expansion of satellite-based internet.
- Sustained Funding Needs:
 - Space projects are capital-intensive, requiring consistent funding and long-term commitment.

Policy Recommendations

- Public-Private Collaboration:
 - Encouraging ISRO to partner with startups for technology-sharing and joint ventures.
- Incentivizing Investments:
 - Offering tax benefits and subsidies to attract private investors into the space ecosystem.
- Education and Awareness:
 - Promoting space education in universities and raising public awareness about the socioeconomic benefits of space technologies.
- Sustainability Focus:
 - Developing policies for eco-friendly satellite launches and sustainable space exploration.

Conclusion:

- India's Rs 1,000 crore venture capital fund for the space sector represents a bold step toward transforming the nation into a global leader in the space economy.
- It not only addresses India's domestic needs but also positions the country as a key player in shaping the future of global space exploration and technology.

Source : IE

EDITORIAL SECTION



India-Middle East-Europe Corridor (IMEC)

General Studies-2; Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Introduction

- The India-Middle East-Europe Corridor (IMEC), announced during the G20 Summit in September 2023, is an ambitious transcontinental trade and connectivity initiative designed to link India, the Middle East, and Europe.
- Positioned as an alternative to traditional maritime routes like the Suez Canal, the corridor promises to reduce transit time by 40% and transportation costs by 30%, thereby revolutionizing international trade.

Current Progress

- Eastern Segment (India-UAE):
 - a. Significant progress due to strengthening economic ties between India and the UAE.
 - b. Comprehensive Economic Partnership Agreement (CEPA) Impact:
 - Bilateral trade grew by 93% between 2020-21 and 2023-24.
 - Non-oil trade surged, indicating diversification of exports.
 - c. Virtual Trade Corridor (VTC):
 - Launched to streamline trade processes, reduce logistics costs, and improve ease of trade.
 - Acts as a model for cross-border trade facilitation under IMEC.
- Western Segment (West Asia):
 - Progress stalled due to the Israel-Palestine conflict (October 2023), delaying implementation in Saudi Arabia and Jordan.
 - Geopolitical sensitivities between Arab countries and Israel are a key challenge.
 - Focus on connectivity development paused until regional tensions subside.

Key Features of IMEC

- Connectivity:
 - Fast and cost-effective trade routes linking India, the Middle East, and Europe.
- Economic Integration:
 - Diversifies trade by integrating India with global supply chains and enhancing its export potential.
- Clean Energy and Technology:
 - Proposes energy grid linkages, undersea fiber-optic cables, and pipelines for sustainable energy trade.
- Digital Trade Facilitation:
 - India-UAE's Virtual Trade Corridor (VTC) serves as a blueprint for other IMEC participants to adopt efficient trade systems.

Challenges

- Geopolitical Risks:
 - Israel-Palestine conflict delays progress in the western segment.
 - Collaboration between Arab nations and Israel faces diplomatic hurdles.
- Uneven Development:
 - Eastern segment progresses steadily, while the western segment remains uncertain.
- Technical and Financial Feasibility:
 - Infrastructure for clean energy pipelines, telecommunication lines, and fiber-optic cables requires multilateral funding and technical cooperation.

Opportunities for India

- Domestic Infrastructure Enhancement:
 - Upgrade ports like Mumbai, Mundra, and Kochi to integrate with IMEC.
 - Develop economic zones near connectivity nodes to boost exports.
- Global Supply Chain Hub:
 - Position India as a reliable supply chain alternative to China by leveraging IMEC.
- Digital Logistics Transformation:
 - Enhance the digital footprint of domestic logistics to reduce costs and improve efficiency.
- Clean Energy Collaboration:
 - Leverage India's renewable energy potential to become a key partner in IMEC's clean energy initiatives.

Strategic Importance

- Economic:
 - Boosts India's export potential to Europe and the Middle East.
 - Promotes regional trade standardization and logistics efficiency.
- Geopolitical:
 - Counters China's Belt and Road Initiative (BRI) by offering an alternative trade corridor.
 - Strengthens India's diplomatic and economic ties with Gulf Cooperation Council (GCC) nations.
- Environmental:
 - Encourages sustainable trade and energy practices, including the use of green hydrogen.

Recommendations for India

- Establish an IMEC Secretariat:
 - Coordinate efforts among participating countries.
 - Develop frameworks for cross-border trade facilitation.
 - Promote research on corridor benefits to attract new participants.
- Strengthen Domestic Capacities:
 - Upgrade logistics and infrastructure for seamless integration with IMEC.
 - Improve domestic manufacturing competitiveness to enhance India's role in global value chains.
- Diplomacy in West Asia:
 - Advocate for peace and conflict resolution to accelerate progress in the western segment.
 - Leverage India's neutral position to mediate between stakeholders.
- Expand Trade Facilitation Models:
 - Build on India-UAE VTC's success to create standardized trade processes across IMEC.

Broader Implications

- For Global Trade:
 - IMEC reduces reliance on traditional routes like the Suez Canal, diversifying global trade options.
- For India's Economic Growth:
 - By improving connectivity and competitiveness, IMEC positions India as a key player in international trade.
- For Participating Nations:
 - Promotes sustainable energy, telecommunication integration, and digital trade facilitation.

The Road Ahead

- Short-Term Goals:
 - Focus on the eastern segment by strengthening India-UAE trade relations.
 - Push for VTC adoption among other IMEC stakeholders.
- Medium-Term Goals:
 - Prepare India's ports and logistics networks to handle increased trade volumes.
 - Develop clean energy and digital connectivity components.
- Long-Term Goals:
 - Expand IMEC to include additional participants in Africa and Central Asia.
 - Position IMEC as a model for inclusive and sustainable global trade.

Conclusion

- The IMEC, while ambitious, holds the potential to reshape global trade dynamics.
- By addressing geopolitical and logistical challenges, leveraging digital and clean energy opportunities, and strengthening domestic capacities, India can ensure the corridor's success and establish itself as a central player in the evolving maritime and trade order.

Source : **THE HINDU**

EDITORIAL SECTION



Child Protection and Rights in India

General Studies-2; Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Introduction

- India has a young population, comprising nearly one-fifth of the world's children, which can be an asset in an ageing world.
- However, children require dedicated protection and nurturing, which they currently lack due to their dependency on adults and lack of political agency (inability to vote).
- Despite their significance, children are often overlooked in policy and societal priorities, leaving them vulnerable to various crimes, such as physical and sexual abuse.

Alarming Statistics on Crimes Against Children

- According to the National Crime Records Bureau (NCRB), an average of 18 crimes against children were reported every hour in India in 2022.
- One-third of these crimes fall under the Protection of Children from Sexual Offences (POCSO) Act, with offenders often being acquaintances or family members.
- India also has the highest number of child labourers in the 5-14 age group globally, with over 10 million children engaged in labour, as per the Census 2011.

Legal Framework for Child Protection

- India has several laws designed to protect children's rights, including:
 - Juvenile Justice (Care and Protection of Children) Act, 2015 – Focuses on the care and rehabilitation of vulnerable children.
 - POCSO Act, 2012 – Addresses sexual abuse against children.
 - Prohibition of Child Marriage Act, 2006 – Prevents child marriages.
 - Child Labour (Prohibition and Regulation) Amendment Act, 2016 – Regulates and restricts child labour.
- Despite these legal frameworks, children continue to suffer due to ineffective implementation and lack of systemic attention.

Constitutional Provisions for Child Protection in India

- Article 15(3) – Special Provisions for Children:
 - This article empowers the State to make special provisions for children.
- Article 21A – Right to Education:
 - This article guarantees free and compulsory education for all children aged 6-14 years.
- Article 23 – Prohibition of Trafficking and Forced Labor:
 - This article prohibits human trafficking, forced labour, and bonded labour.
- Article 24 – Prohibition of Child Labor:
 - Article 24 prohibits the employment of children below 14 years in hazardous occupations and industries.
- Article 39(e) and (f) – Directive Principles for Child Welfare:
 - Article 39(e) directs the State to ensure that children are not forced by economic necessity to enter vocations unsuited to their age or strength.
 - Article 39(f) directs the State to provide children with opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity, and to protect them against exploitation and moral and material abandonment.
- Article 45 – Provision for Early Childhood Care and Education:
 - This article directs the State to endeavour to provide early childhood care and education for all children until they complete the age of six years.
- Article 47 – Duty of the State to Raise Nutrition Levels:
 - This article enjoins the State to raise the level of nutrition and the standard of living and improve public health, which directly benefits children by addressing issues like malnutrition, anemia, and health inequities.
- Article 51A(k) – Fundamental Duty of Parents:
 - Under this provision, it is a fundamental duty of parents or guardians to provide opportunities for education to their children between the ages of 6 and 14 years.

Reasons for the Elusiveness of Child Rights

- Lack of Focus on Child-Specific Crimes:
 - Crimes against children are often not prioritized in law enforcement reviews or policy discussions.
 - Focus tends to be on high-profile crimes (e.g., murder, rape), neglecting crimes against children unless they involve individuals from specific socio-political backgrounds.
- Poor Implementation of Child-Centric Laws:
 - Mandates, such as child-friendly rooms in police stations under the Juvenile Justice Act, are rarely fulfilled.
 - Overcrowded childcare institutions often lack proper rehabilitation services, and child welfare officers are not adequately deployed.
 - POCSO Act cases show low conviction rates, with a high number of acquittals due to family pressure on victims and a non-child-friendly criminal justice system.

Prevalence of Child Labor and Child Marriage:

- Economic factors, cultural practices, and inadequate law enforcement have led to high rates of child labour and child marriage in India, exposing children to a cycle of poverty and vulnerability.
- Despite legal safeguards and specific child protection laws, children in India remain vulnerable to various forms of exploitation and abuse.
- They lack political voice and are financially dependent, making them one of the most marginalized and overlooked groups in society.

Required Reforms and Solutions for Child Protection

- Making Children a Priority:
 - Child-related issues should be placed high on the government's agenda.
 - Regular reviews of state and district performances should include assessments of child-related crimes to ensure accountability.
- Legislative and Procedural Enhancements:
 - The POCSO Act could have special provisions for 16-18-year-olds, addressing cases of elopement due to a lack of legal awareness.
 - Establish one-stop centres for child victims modelled on Nirbhaya Centres, offering medical, legal, and psychological support under one roof.
- Creating Child-Friendly Police Stations:
 - Establish child-friendly spaces in police stations and ensure child welfare officers are available to assist young victims.
 - Non-compliance with the JJ Act provisions should attract punitive measures to ensure child-friendly practices.
- Strengthening Childcare Institutions (CCIs):
 - Joint inspections of CCIs should be conducted by senior officials (DM and SP) to monitor conditions and services.
 - Post-CCI support, like mentorship programs, can help children transition into independent life, with coordination from schools and vocational training centers.
- Community and Stakeholder Involvement:
 - Sensitization programs for police, judiciary, and other stakeholders to handle child-related cases with empathy and care.
 - Extensive community outreach programs, village protection committees, and awareness campaigns to empower communities in child protection.

International Best Practices in Child Protection

- In Sweden and Norway, child-friendly legal systems are emphasized with specialized child advocacy centers. These centers ensure that child victims of abuse or other crimes are interviewed in supportive environments by trained professionals, reducing the risk of trauma.
- The UK's social services system is well-integrated, with child protection at its core. The "Every Child Matters" framework ensures that every child has access to healthcare, education, and a safe environment.
- In countries like Australia and the USA, professionals who work with children (teachers, doctors, social workers) are legally mandated to report any suspicions of child abuse. This early reporting system helps detect and prevent child abuse at an early stage, encouraging timely intervention and protection for children at risk.
- Iceland's "Barnahús" (Children's House) model is a one-stop center for children who are victims of violence or abuse. It offers all necessary services under one roof, including medical examinations, forensic interviews, counseling, and legal assistance.

Vision for a Safe and Secure Future for Children

- On Bal Diwas (Children's Day), the nation must reaffirm its commitment to creating a safe environment where children can grow without fear.
- Children are the future custodians of India's development, and their well-being is essential to realizing the vision of a developed India by 2047 (Viksit Bharat).
- Ensuring a nurturing environment will enable children to reach their full potential, contributing meaningfully to the country's progress and societal health.

Conclusion

- India's young population is a valuable demographic asset. However, without robust protective measures, children remain vulnerable to crime and exploitation.
- By recognizing child protection as a priority, enforcing child-friendly policies, and involving the community, India can provide a safe, nurturing environment. This collective commitment will be instrumental in shaping a brighter, more prosperous future for the nation.

Source : IE

EDITORIAL SECTION



Conference of Parties (COP)-29: Climate Finance and Carbon Markets

General Studies-3; Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

Introduction:

- COP-29 has placed a renewed emphasis on climate finance, aiming to close the funding gaps required for both mitigation and adaptation measures, especially in developing countries.
- Climate finance is increasingly seen not just as a responsibility of developed nations but also as an opportunity for countries like India to attract investments by enhancing their climate resilience and green economy initiatives.

Global Carbon Credit System Debates

- The division between developed and developing countries on carbon credits centers on issues like equity, historical emissions, and the availability of finance for developing countries to adapt and transition.
- Developed nations advocate for stringent measures to ensure high-quality carbon credits, while developing nations, including India, stress the need for equitable access to carbon markets without compromising their development priorities.

India's Carbon Credit Framework and Legislative Support

- Energy Conservation (Amendment) Act of 2022:
 - The act provided India a legislative framework for its Carbon Credit Trading Scheme (CCTS).
 - It aligns with India's NDCs by laying the groundwork for a structured carbon market.
 - This amendment is essential for formalizing India's carbon credit mechanism and ensuring regulatory oversight.
- Domestic Carbon Market Objectives:
 - India's domestic carbon market aims to balance economic growth with climate commitments.
 - By internalizing carbon costs, India hopes to drive sustainable development, reduce emissions, and attract investments in low-carbon technologies.

Economic Opportunities and Climate Finance Aspirations

- Attracting Investment in Low-Carbon Technologies:
 - A credible carbon market can attract international and domestic investments in renewable energy, energy efficiency, and green infrastructure.
 - This aligns with India's climate finance aspirations, providing much-needed funds to transition to a low-carbon economy.
- Boosting Rural and Agroforestry Sectors:
 - Carbon credits generated from agroforestry, reforestation, and other rural initiatives can directly benefit local communities while contributing to carbon sequestration.
- Balancing Development and Emission Reduction:
 - India's carbon market can support the country's goal of reaching net-zero emissions by 2070.
 - By monetizing emissions, businesses are incentivized to adopt more sustainable practices.

Challenges and Risks in Carbon Credit Integrity

- Integrity Concerns:
 - The credibility of carbon credits is paramount, as poor-quality credits could lead to "greenwashing," where emissions reductions are overstated or falsely claimed.
 - Integrity risks in the voluntary carbon market (VCM) are well-documented, particularly in forestry and reforestation projects, where the benefits are often difficult to quantify and verify.
- Risks of Non-Scientific and Non-Additional Projects:
 - India's Green Credit Programme (GCP) has faced criticism for non-scientific tree plantation initiatives, which may not achieve genuine carbon sequestration.

Mitigating Risks through Verification Protocols:

- Developing a robust national registry for carbon credits will track credit issuance and transfers, preventing double counting and maintaining transparency.
- Learning from global standards such as those of the Gold Standard and International Emissions Trading Association (IETA), India can build a high-integrity carbon market that attracts investors.

Alignment with International Carbon Markets and Article 6 of the Paris Agreement

- International Market Linkages under Article 6.2:
 - Article 6.2 of the Paris Agreement allows for Internationally Transferred Mitigation Outcomes (ITMOs), enabling countries to trade emissions reductions to achieve their climate targets.
 - For India, harmonizing with these standards is crucial to ensuring that credits are recognized and accepted internationally.
- Environmental Integrity under Article 6:
 - The COP-26 Article 6 rulebook provides a roadmap for countries to engage in carbon trading while maintaining environmental integrity.
 - The World Bank's report on Article 6 underlines the importance of environmental integrity to maintain credibility and prevent "low-quality" credits from undermining the global climate agenda.

Transparency and Compliance in Carbon Credit Systems

- Importance of Disclosure and Transparency:
 - By establishing a centralized, accessible platform for comprehensive disclosure of project details, techniques, and verification results, India can ensure that credits reflect actual emissions reductions.
- Oversight and Regular Audits:
 - Regular audits by independent, Bureau of Energy Efficiency (BEE)-approved auditors can help verify the sustainability and integrity of projects.
 - Real-time tracking of credit transactions provides accountability, offering investors and stakeholders clear insights into the project impacts and environmental outcomes.
- Voluntary Carbon Markets Integrity Initiative (VCMI):
 - The VCMI introduces a tiered approach to validate carbon credit claims, ensuring transparency and avoiding false or exaggerated claims of emissions reductions.

Way Forward

- Scaling up Regulatory Capacity:
 - Building a credible carbon market requires establishing a comprehensive national registry, robust tracking mechanisms, and training for third-party verifiers.
- Addressing Cost and Accessibility Challenges:
 - Small projects often face challenges in meeting stringent monitoring, reporting, and verification requirements due to cost constraints.
 - Addressing these issues can make India's carbon market more inclusive.
- Promoting Market Integrity through Continuous Improvement:
 - Continuous evaluation and adaptation based on market feedback and global standards will be essential.
 - Incorporate innovations in data management, blockchain-based tracking, and AI-driven analytics to ensure accountability and integrity.

Conclusion

- The COP-29's emphasis on climate finance and India's response in establishing a structured carbon credit market demonstrate a significant commitment toward climate resilience.
- If designed meticulously with integrity, transparency, and alignment with global standards, India's carbon market can achieve dual objectives: catalyzing economic development and fulfilling climate goals.

Source : **THE HINDU**

EDITORIAL SECTION



Recent Digital Strike by Women Gig Workers in India

General Studies-1; Topic: Role of women and women's organization

Introduction

- The digital strike, led by the Gig and Platform Services Workers Union (GIPSWU), marks a significant event as India's first major organized labour action by women gig workers, highlighting their struggles within the gig economy.

The Gig Economy and Systemic Exploitation

- Discount-Driven Profits at Workers' Expense:
 - Platform companies offer heavy discounts to attract customers, particularly during festivals.
 - However, these discounts reduce workers' wages, as platform firms compensate by lowering payout rates or increasing delivery targets.
- Growth at the Expense of Workers:
 - Gig companies, backed by venture capital, prioritize rapid expansion over sustainable profit models, often relying on underpaid and overworked gig workers to fuel this growth.
- Narrative Manipulation:
 - These companies shape public perception by framing themselves as "wealth creators" and job providers.
 - This narrative obscures the underlying exploitative conditions, where gig workers lack stable income, social security, and worker protections.

Challenges and Exclusion from Legal Protections

- Absence of Comprehensive Legal Rights:
 - Gig workers fall outside traditional employment laws, leaving them vulnerable to precarious working conditions.
 - This means they are not protected by standard labor rights related to minimum wages, safe working conditions, or job security.

Specific Challenges Faced by Women Gig Workers

- Digital Reinforcement of Patriarchal Roles:
 - Gig platforms often restrict women workers to roles traditionally viewed as "female jobs" (e.g., beauticians, cooks, cleaners), perpetuating a digital form of patriarchy.
- Vulnerability in Job Assignments:
 - Women gig workers face job insecurity as platform algorithms "auto-assign" tasks.
 - Refusing tasks due to poor compensation or unsafe conditions leads to downgrades in ratings or even termination, impacting their livelihoods.
- Socioeconomic Realities:
 - Many women gig workers are single mothers, survivors of domestic violence, or lack other viable employment options.
 - This socio-economic vulnerability makes them easy targets for exploitative practices, as they are less likely to unionize or demand better conditions.

Illusions of Flexibility and Financial Independence

- Myth of Autonomy:
 - While gig platforms advertise flexibility in choosing working hours, workers are pressured to meet unrealistic targets, making "flexibility" more theoretical than real.
- Hidden Financial Burdens:
 - Gig workers must cover various expenses, including transportation, platform fees, and supplies.
 - Despite being essential to their work, these costs are not reimbursed by the companies, which reduces their net earnings.

Lack of Social Security and Fair Wages:

- The absence of benefits like health insurance, pensions, or minimum wage requirements puts additional pressure on women gig workers, many of whom struggle to earn enough for basic needs, let alone save for emergencies or retirement.

Concerns / Challenges

- Absence of Regulation and Protection:
 - Despite the rapid growth of the gig economy, India's regulatory framework has not caught up.
 - This gap enables platform companies to operate with minimal oversight, perpetuating labor exploitation.
- Patriarchal Reinforcement in Digital Work:
 - Digital platforms replicate traditional gender roles, assigning women to specific service roles and controlling their income.
 - This digital patriarchy hinders women's economic empowerment and traps them in exploitative cycles.
- Contradictions in Government Initiatives:
 - Despite campaigns like "Beti Bachao Beti Padhao," which advocate for women's empowerment, the exploitation of women in the gig economy reveals a contradictory reality.

The Role of Grassroots Movements and GIPSWU's Leadership

- Empowerment Through Grassroots Organization:
 - GIPSWU's digital strike has empowered gig workers to assert their rights and build solidarity.
 - This grassroots movement has raised awareness and boosted worker morale, showing them that collective action can drive change.
- Inspiration for Global Gig Worker Solidarity:
 - This action by Indian gig workers has drawn attention from gig workers worldwide, inspiring others to organize and advocate for fair treatment and working conditions.

Way Forward

- Need for Comprehensive Policies and Legal Reforms:
 - GIPSWU's actions underscore the urgent need for labour policies that protect gig workers, including social security, fair wages, and job security.
 - India must establish labour rights that encompass gig workers as a distinct but protected labour category.
- Recognizing Gig Workers as Essential Contributors:
 - Gig workers are integral to India's service economy. Policies should recognize their contributions by granting them labour protections, healthcare, and insurance benefits, similar to those enjoyed by formal sector workers.
- Ensuring Algorithmic Transparency:
 - Regulating the algorithms that determine job assignments, ratings, and earnings would help reduce the digital exploitation that gig workers face.
 - Clear standards on algorithmic transparency and accountability would protect workers from arbitrary penalties and terminations.

Conclusion

- The digital strike by women gig workers signals the beginning of a potentially transformative movement within India's labour landscape, pressing for recognition, fair wages, and protective laws.
- This movement has the potential to inspire similar actions worldwide, making India's women gig workers pioneers in the fight for equitable treatment and labour rights within the gig economy.

Source : **THE HINDU**



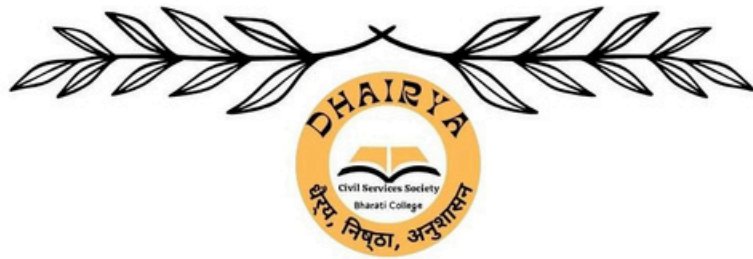
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OCTOBER ISSUE!!**

As we conclude this edition of Dhairya Times, I extend my sincere appreciation to Editorial Board Members of Dhairya : The Civil Services Society for their unwavering commitment and excellence in bringing this magazine to life. Your dedication to fostering a culture of learning and collaboration is truly commendable.

To our aspirants, this magazine represents more than just a publication; it is a resource and a companion in your journey towards the Civil Services Examination.

We hope it inspires, informs, and motivates you to pursue your goals with unwavering determination and strategic preparation.

Together, let us continue to build a community driven by knowledge, resilience, and purpose.
Wishing you all success in your endeavors.

Best regards,

Vimlok Tiwari
Convenor, Dhairya: The Civil Service Society

