

DHAIRYA TIMES

TABLE OF CONTENTS



INTRODUCTION	01	
ACKNOWLEDGMENT	02	Section 2
MESSAGE		THE STATE OF THE S
PRINCIPAL PROF. SALONI GUPTA	03	
MENTOR IRS RAJESH GUPTA	04	2024 SPECIAL
IPS PREETI KUMARI	05	24 Highlights of 2024



IPS ABHISHEK VASHISHTHA



25

FOCUS OF THE MONTH	30	
EDITORIAL SECTION	43	

NEWS HIGHLIGHTS OF THE MONTH

07

06



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



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 peptalk 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!"





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

M I N 3 H Ш ZIН I





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

December 1, 2024

UN declares December 21 as World Meditation Day to promote global mental health initiatives.

UPSC GS Paper II (International Relations)

Farmers demand higher income support at the pre-budget meeting amid discussions on agricultural policies.

UPSC GS Paper III (Economic Development)

Rajnath Singh to oversee the commissioning of the warship "Tushil" in Russia, strengthening defense ties.

UPSC GS Paper II (International Relations)

December 2, 2024

RBI Governor emphasizes the balance between growth and inflation amidst economic challenges.

UPSC GS Paper III (Economic Development)

China issues a warning to Taiwan against U.S. support for its independence, raising regional security concerns.

UPSC GS Paper II (International Relations)

Gyanvapi Mosque Committee opposes petitions challenging the Places of Worship Act.

UPSC GS Paper II (Governance)

<u>December 3, 2024</u>

PM Modi highlights the Northeast as a focus for inclusive development initiatives.

UPSC GS Paper II (Governance)(Justice)

WORLD AIDS DAY -DECEMBER 1

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.

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

The government, in partnership with the World Bank, to develop four new tourist destinations in Jammu & Kashmir.

UPSC GS Paper II (International Relations)

EPFO receives a global award for excellence in social security systems.

UPSC GS Paper II (Social Justice)

December 4,2024

Michell Bachelet to be honored with the Indira Gandhi Peace Prize for contributions to peace and human rights.

UPSC GS Paper II (International Relations)

Jaishankar credits former U.S. President Trump for the formation of the Quad, underscoring strategic partnerships.

UPSC GS Paper II (International Relations)

December 5,2024

Genetically modified parasites show promise in preventing malaria, a significant biotechnology advancement.

UPSC GS Paper III (Science and Technology)

Textile sector protests the proposed GST hike on apparel, citing potential economic impacts.

UPSC GS Paper III (Economic Development)

December 6,2024

RBI retains the repo rate at 6.5% as inflationary pressures persist.

UPSC GS Paper III (Economic Development)

ACHIEVEMENT

AMRUT 2.0: The
Atal Mission for
Rejuvenation and
Urban
Transformation
(AMRUT) 2.0
focuses on
enhancing the selfsufficiency 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.



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

Vikram Misri to visit Dhaka for diplomatic discussions amid rising India-Bangladesh tensions.

UPSC GS Paper II (International Relations)

China reiterates its warning to Taiwan against relying on U.S. support for independence.

UPSC GS Paper II (International Relations).

December 7,2024

RBI Governor addresses growth and inflation challenges, reaffirming economic stability measures.

UPSC GS Paper III (Economic Development)

RBI launches 'MuleHunter' initiative to tackle digital financial fraud.

UPSC GS Paper III (Economic Development)

RBI Governor rules out de-dollarization, clarifying currency diversification strategies.

UPSC GS Paper III (Economic Development)

<u>December 8,2024</u>

India's GDP growth is projected to slow down in the second quarter, raising economic concerns.

UPSC GS Paper III (Economic Development)

RBI announces plans to launch a podcast for better communication with the public.

UPSC GS Paper II (Governance)

December 2 International Day for Abolition of Slavery

2 DECEMBER

National
Pollution
Control Day
to honor the
memory of those
who died in
the Bhopal
gas tragedy of
1984.

ACHIEVEMENT

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



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

Small Finance Banks permitted to transfer loan amounts via UPI, promoting financial inclusion.

UPSC GS Paper III (Economic Development)

December 3
International
Day of
Persons with
Disabilities

<u>December 9,2024</u>

The 16th Finance Commission arrived in a state for a three-day visit to discuss key issues like revenue sharing, tax devolution, and fiscal federalism. They met with the chief minister, ministers, and senior officers to discuss demands for grants-in-aid for the next five years, amounting to nearly ₹1 trillion.

UPSC GS Paper 2 (Polity and governance)

The Uttar Pradesh government invoked the Essential Services Maintenance Act (ESMA), imposing a six-month ban on protests. This move aims to maintain law and order, prevent disruptions to essential services, and ensure public safety.

UPSC GS Paper 2 (Polity and governance)

Former US President Donald Trump called for an "immediate" ceasefire in Ukraine and suggested that a US withdrawal from NATO is possible. This statement has significant implications for global politics, highlighting the ongoing tensions between Russia and Ukraine, as well as the United States' role in European security.

UPSC GS Paper 2 (International relations)

December 10, 2024

The Supreme Court of India advised the West Bengal government that reservation (affirmative action in education and jobs) should not be based on religion. This comes after the state's move to provide quotas for Muslims under the OBC category was challenged. The Court emphasized that reservation should be based on social and economic criteria rather than religion.

December 4
Indian Navy
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.



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

The Supreme Court has been informed that the National Food Security Act (NFSA), which provides subsidized food to millions of people, still uses data from the 2011 census to determine beneficiaries. The Court raised concerns over the outdated figures, as demographic changes and population growth have likely altered the numbers, leading to disparities in food distribution.

UPSC GS Paper 2 (Polity and governance)

This is a geopolitical analysis of the changing dynamics in the Middle East, focusing on Syrian President Bashar al-Assad's fall from power and the regional implications. It highlights how shifts in alliances, U.S. foreign policy, and internal conflicts have contributed to a reordering of power structures in the region, and what the future may hold for Middle Eastern politics.

UPSC GS Paper 2 (Polity and governance)

Sanjay Malhotra has been appointed as the new Governor of the Reserve Bank of India (RBI). His appointment comes amid economic challenges, and he will be responsible for shaping the country's monetary policy, addressing inflation, managing the financial system, and supporting overall economic growth.

UPSC GS Paper 3 (economy)

December 11,2024

ISRO and the Indian Navy conducted recovery trials for the Gaganyaan mission, India's human spaceflight program. The trials, which took place off the coast of Vishakhapatnam, tested the "Well Deck" recovery method, where the crew module is towed into a ship's flooded well deck. This method allows for quick and comfortable recovery of the crew.

UPSC GS Paper 3 (Science and technology)

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.

5 December World Soil Day

10 December World Human Rights Day.



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

South Africa, Namibia, and Turkey have expressed support for India's opposition to a China-led pact at the World Trade Organization (WTO). This development highlights India's growing influence in international trade and diplomacy.

UPSC GS Paper 2 (international relations)

The Prime Minister paid tribute to Subramania Bharati, a renowned Indian poet, writer, and freedom fighter.
This homage acknowledges Bharati's significant contributions to Indian literature and the country's struggle for independence.

UPSC GS Paper 1 (History)

December 12,2024

Indian scientists have developed a new gene therapy for treating haemophilia, a genetic disorder that impairs blood clotting. This breakthrough could significantly improve treatment options, reducing dependency on regular blood factor injections and offering long-term solutions for patients.

UPSC GS Paper 3 (Science and technology)

Multiple pleas have been filed in the Supreme Court to protect places of worship, citing the need to preserve the country's cultural and religious heritage. The pleas argue that the Places of Worship (Special Provisions) Act, 1991, should be upheld to prevent disputes over places of worship.

UPSC GS Paper 2 (Polity and governance)

The Railways (Amendment) Bill, 2024 proposes changes to existing railway laws, including measures for improving the safety and efficiency of the railway

December 18

International Migrants Day

ACHIEVEMENT

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



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

system. The amendments aim to address infrastructural challenges, enhance passenger safety, and modernize the railway sector.

UPSC GS paper 2 (Polity and governance)

December 13,2024

The Union Cabinet has approved two Bills to facilitate simultaneous elections for the Lok Sabha and State Assemblies. One Bill proposes a constitutional amendment to enable simultaneous elections, while the other Bill aligns the terms of Union Territories with Legislative Assemblies with State Assemblies.

UPSC GS paper 2 (Governance)

Pakistan has been actively engaging with the United Nations Security Council (UNSC), highlighting key issues such as Kashmir, Palestine, and counter-terrorism. Pakistan's efforts aim to promote regional peace and security.

UPSC GS paper 2 (International relations)

The Lok Sabha has passed a Bill to amend the Disaster Management Act of 2005. The amendment aims to strengthen disaster management in India by improving response mechanisms and enhancing preparedness.

UPSC GS paper 3 (Disaster management)

Union Minister H.D. Kumaraswamy has unveiled the 'Green Steel Taxonomy for India', a framework that aims to promote sustainable steel production in India. This initiative is expected to reduce the environmental impact of the steel industry.

UPSC GS paper 3 (Economy)

Nine years after its finalization, the Paris Agreement is being reexamined. The agreement aims to mitigate climate change by 'World Meditation Day' 2024

First World Meditation Day celebrated on 21 December 2024.

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.



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

limiting global warming to well below 2°C. A critical look at the agreement highlights its achievements and challenges in addressing global climate change.

UPSC GS Paper 3 (Environment)

December 14,2024

The Kerala High Court emphasized that women's clothing choices should not be subject to moral policing. The court made this statement while hearing a custody dispute between a divorced couple, where the mother's attire and lifestyle were questioned. The court noted that a woman's sartorial preferences are her own choice and cannot be subjected to moral policing or assessment, particularly by courts.

UPSC GS Paper 2 (governance)

Sri Lankan President is set to begin a three-day visit to India, aiming to strengthen bilateral ties between the two nations.

UPSC GS Paper 2 (International relations)

The return of Donald Trump to politics may have significant implications for South Asia. Trump's previous policies and statements on issues like Afghanistan, Pakistan, and India may influence the region's geopolitical dynamics.

UPSC GS Paper 2 (International relations)

India and the United Arab Emirates (UAE) have strengthened their strategic partnership through a joint commission meeting. The meeting aimed to enhance cooperation in areas like trade, energy and defense, further solidifying the bilateral relationship between the two nations.

UPSC GS Paper 2 (international relations)

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.



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

December 15,2024

Switzerland stated that the temporary freeze on the Most-Favored-Nation (MFN) status for India by some countries would not have a significant impact on foreign investments. The MFN clause guarantees that a country will not be discriminated against in favor of others in trade and investment. Despite such concerns, Switzerland believes that India remains an attractive destination for investments due to its growing market and economic potential.

UPSC GS paper 2 (international relations) and GS Paper 3 (economy)

There is a push to finalize the Free Trade Agreement (FTA) between India and the European Union (EU) as a strategy to combat rising global protectionism. An FTA would promote trade liberalization, reduce tariffs, and enhance economic cooperation, which would help both parties counter global trends towards protectionism, potentially boosting economic growth and trade.

UPSC GS Paper 2 (international relations) and GS Paper 3 (economy)

Prime Minister Narendra Modi accused the Congress party of undermining the original intent and spirit of India's Constitution. He criticized the party for its actions, which, according to him, did not align with the values enshrined in the Constitution, such as democratic governance, secularism, and equality. This is a part of the ongoing political debate over the role of different parties in shaping India's constitutional values

UPSC GS Paper 2 (Polity and governance)

Gene therapy for Hemophilia A involves introducing a functional copy of the faulty gene responsible for the disorder. Hemophilia A is caused by a deficiency in clotting factor VIII, leading to excessive bleeding. Gene therapy aims to correct this by inserting the necessary gene into the patient's cells,

December 22

National Mathematics Day' 2024

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.



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

potentially offering a long-term or permanent solution, reducing the need for frequent blood transfusions or clotting factor injections.

UPSC GS Paper 3 (science and technology)

December 16,2024

The Indian government launched the 'Jalvahak' scheme to promote cargo movement via inland waterways, offering up to 35% reimbursement on operating costs for distances over 300 km.

UPSC GS Paper II

The Supreme Court is urged to address violations of the Places of Worship Act, 1991, which prohibits altering the religious character of places of worship as of August 15, 1947.

UPSC GS paper II (polity)

Over 78% of top-paid H-1B applicants in the U.S. are from India, highlighting India's dominance in skilled labor migration and its role in the global tech industry.

UPSC GS Paper II (IR); GS Paper III (Globalisation)

December 17,2024

Renowned composer Ilaiyaraaja was denied entry to the Arthamandapam at Tamil Nadu's Srivilliputhur Andal Temple due to standard protocols restricting access to devotees. He dismissed allegations of caste-based discrimination as false rumors.

UPSC GS Paper II (Social Justice)

December 23

'National Farmers' Day / Kisan Diwas'

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.



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

The proposal suggests increasing GST rates on tobacco and sugary beverages to curb health issues and generate revenue.

UPSC GS Paper III (Economy, Health)

La Niña typically brings cooler and wetter conditions to India, influencing monsoon patterns, often resulting in above-average rainfall.

UPSC GS Paper II and III

December 18,2024

The Indian Parliament is discussing two Bills proposing simultaneous elections for the Lok Sabha and State Assemblies. The debate has sparked concern over constitutional implications and election management.

UPSC GS Paper II (Governance)

China has become the world's largest debt collector, lending extensively to developing nations. This has sparked concerns over debt sustainability, influencing global trade, finance, and geopolitics.

UPSC GS Paper II (International Relations)

The Finance Minister stated that the Q2 growth slowdown is a temporary issue, assuring that economic recovery will continue.

UPSC GS Paper III (Economy)

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 exportdriven growth.



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

December 19,2024

India-China talks show signs of positive outcomes, with both nations engaging diplomatically to ease tensions.

UPSC GS Paper III (International Relations)

The assembly of Gaganyaan's Human Lander Module (HLVM3) for an uncrewed flight has begun at ISRO, marking progress towards India's manned space mission.

UPSC GS Paper III (Science and Technology)

Strengthening the roots of an agri-carbon market" refers to initiatives promoting carbon trading in agriculture to combat climate change.

UPSC GS Paper III (Economic Development & Environmental Issues)

December 20,2024

The Supreme Court stayed Kerala High Court's directives on elephant parades during temple festivals, focusing on animal rights and regulation.

UPSC GS Paper II (Governance, Constitution, Polity, Social Justice)

India and France signed a Memorandum of Understanding (MoU) for a new National Museum, enhancing cultural exchange and cooperation.

UPSC GS Paper II (International Relations)

India is now the world's highest tariff major economy, imposing the highest average tariffs among large economies.

UPSC GS Paper II (Governance); GS Paper III (Economic Development)

December 24

National Consumer 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.



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

December 21,2024

The Prime Minister's visit to Kuwait focuses on enhancing bilateral relations, discussing economic, strategic, and cultural ties.

UPSC GS Paper II (International Relations)

The White House warned that Pakistan's ballistic missile program poses an emerging threat to U.S. security.

UPSC GS Paper II (International Relations); **GS Paper III (Security)**

India has raised concerns with the EU over trade barriers, focusing on issues such as tariffs and market access.

UPSC GS Paper II (Governance); GS Paper III (Economic Development)

<u>December 22,2024</u>

A report states that 25% of India's total land area is covered in green, highlighting efforts in environmental conservation.

UPSC GS Paper III (Environment)

Indian Prime Minister Narendra Modi referred to the Indian diaspora in Kuwait as "mini-Hindustan," recognizing their contribution to Kuwait's economy and culture.

UPSC GS Paper II (International Relations)

A parliamentary panel recommends subsidies for farmers to maintain non-milching livestock, addressing economic challenges in rural agriculture.

UPSC GS Paper II (Welfare and Policy)

GOOD GOVERNANCE DAY' 2024

Good Governance Day, or Sushasan Diwas, is observed every year on 25 December to mark the anniversary of former Prime Minister Atal Bihari Vajpayee. GOOD **GOVERNANCE DAY** -This year is commemorated as the 100th birth anniversary of former Prime Minister of India Atal Bihari Vajpayee.



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

December 23,2024

A study reveals that one in three women experiences a urinary tract infection (UTI) before 25 years of age. This highlights the importance of awareness and preventive measures.

UPSC GS Paper II (Governance and Social justice)

A recent update revised the minimum possible mass of dark matter particles, offering insights into their nature and role in the universe's structure.

UPSC GS Paper III (Science and Technology)

India and Kuwait have elevated their bilateral relationship to a 'strategic partnership,' focusing on trade, defense, and cultural cooperation. This includes agreements on defense collaboration, cultural exchanges, and joint initiatives in technology and infrastructure.

UPSC GS Paper II (International Relations)]

December 24,2024

Israeli Raid on Key Gaza Hospital Shuts Down Operations
UPSC GS Paper II (International Relations)

India's Defence Exports Cross ₹25,000 Crore for the First Time UPSC GS Paper III (Economy/Defence)

NITI Aayog Emphasizes India's Need for Urban Infrastructure Overhaul

UPSC GS Paper III (Economy)

Veer Bal
Diwas is
observed on
26 December
to mark the
supreme
sacrifice
made by the
four sons of
Guru Gobind
Singh and his
mother.

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 fastestprogressing state.



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

New Wildlife Protection Rules Approved for Ecologically Sensitive Zones

UPSC GS Paper 3 (Environment)

December 25,2024

India's Push for Self-Reliance in IT Hardware Manufacturing UPSC GS Paper 3 (Economy)

Global Temperatures Breach 1.5°C Threshold for the First Time UPSC GS Paper 3 (Environment)

Hawaii's Kilauea Volcano Erupts Again, Raising Concerns UPSC GS Paper 1 (Geography)

UN Security Council Discusses Framework for Cybersecurity and Data Privacy

UPSC GS Paper 2 (International Relations)

<u>December 26,2024</u>

Former PM Manmohan Singh Passes Away at 92 UPSC GS Paper 2 (Polity)

India Observes 'Good Governance Day' Honoring Atal Bihari Vajpayee"

India commemorated 'Good Governance Day' on the birth anniversary of former PM Atal Bihari Vajpayee, celebrating his contributions to transparency, accountability, and development-oriented governance.

UPSC GS Paper 2 (Governance)

"INS Vikrant Successfully Conducts Complex Air Operations" India's first indigenous aircraft carrier, INS Vikrant, completed a

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.



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

a series of complex air operations involving MiG-29K fighter jets and advanced helicopters. This milestone enhances India's maritime capabilities, showcasing its self-reliance in defense technology.

UPSC GS Paper 3 (Defence Technology)

World Bank Report Highlights India's Growth Amid Global Economic Slowdown

UPSC GS Paper 3 (Economy)

December 27,2024

RBI Releases Report on State Finances: A Study of Budgets of 2024-25

UPSC GS Paper 3 (Economy)

India-Nepal Joint Military Exercise 'Surya Kiran' Commences India and Nepal began the 20th edition of their joint military exercise 'Surya Kiran' in Saljhandi, Nepal, focusing on counterterrorism, disaster response, and humanitarian aid. The exercise aims to strengthen defense ties and enhance regional cooperation.

UPSC GS Paper 2 (International Relations)

Supreme Court Directs Fast-Tracking of Pending Criminal Cases UPSC GS Paper 2 (Polity)

WHO Warns of Rising Global Antibiotic Resistance

UPSC GS Paper 3 (Health)

December 28,2024

ISRO's PSLV-C60 Mission to End 2024 Successfully

UPSC GS Paper 3 (Science and Technology)

India-Australia Economic Cooperation Agreement Marks Two Years UPSC Paper 2 (International Relations)

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.



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

IMD Predicts El Niño to Impact 2025 Monsoon Season UPSC GS Paper 1 (Geography)

NITI Aayog Releases Report on Renewable Energy Progress UPSC GS Paper 3 (Environment/Economy)

December 29,2024

SC Emphasizes Judicial Accountability for Transparency in Processes

UPSC GS Paper 2 (Polity)

India Records Highest Coal Production in 2023-24 Fiscal Year UPSC GS Paper 3 (Economy)

Solar Activity Surges with Multiple X-Class Flares UPSC GS Paper 3 (Science and Technology)

India-China Border Talks Yield No Resolution on Pangong Lake Disputes

UPSC GS Paper 2 (International Relations)

December 30,2024

India's Inflation Hits 5-Year Low Amid Stabilized Oil Prices UPSC GS Paper 3 (Economy)

SC Calls for Review of Sedition Law in Landmark Hearing UPSC GS Paper 2 (Polity)

UN Climate Report Stresses Carbon Capture Technologies UPSC GS Paper 3 (Environment)

Central Asia Economic Cooperation Summit Held in Astana UPSC GS Paper 2 (International Relations)

ACHIEVEMENT

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



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

December 31,2024

India Approves Key Defence Deals for Indigenous Fighter Jets UPSC GS Paper 3 (Defence/Economy)

Xi Jinping Reiterates China's Claim Over Taiwan
Chinese President Xi Jinping reiterated Beijing's claim over
Taiwan, describing its reunification as a "historical mission" while
warning against external interference. The statement comes amid
heightened tensions in the Taiwan Strait.

UPSC GS Paper 2 (International Relations)

Union Budget 2025: Focus on Health, Education, and Infrastructure

UPSC GS Paper 3 (Economy)

Renewed Focus on Blockchain for Electoral Reforms in India UPSC GS Paper 2 (Governance/Science and Technology)

ACHIEVEMENT

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

sehins lk vorballi enling." SHID JH N I he sard We U ELISETHE Worllien Н Ϊ Enniferantivitilmsiremiti.m on fulling survey to me Mantentile Chinaltana

24 OF 2024

1.ISRO Placed Aditya-L1 in Halo Orbit

On January 6, 2024, the Indian Space Research Organisation (ISRO) successfully inserted the Aditya-L1 spacecraft into its targeted halo orbit around the Sun-Earth Lagrange Point 1 (L1). This mission is India's first solar observatory and aims to study solar phenomena such as coronal mass ejections and solar flares.

2.World's First Vedic Clock in Ujjain

In March 2024, the world's first Vedic clock was inaugurated in Ujjain (Madhya Pradesh) which uses ancient Indian timekeeping methods. Positioned on an 85-foot tower at Jantar Mantar, it displays time based on the ancient Panchang system. It also provides planetary positions, Muhurat, and astrological data.

3. Devastating Landslide in Wayanad

In July, the Wayanad district of Kerala experienced a devastating landslide that resulted in over 250 deaths, injuries to approximately 397 others, and significant destruction. Approximately 10,000 people were displaced, and property damage is estimated at around ₹1,200 crore. The incident highlighted the vulnerability of hilly regions to natural disasters, especially during heavy rainfall.

4.50th Year of Emergency

In June 2024, India marked the 50th anniversary of the National Emergency declared from 1975 to 1977. The Emergency, imposed by then-Prime Minister Indira Gandhi, suspended civil liberties, curtailed press freedom, and resulted in widespread political repression. It remains a dark chapter in India's history, sparking debates about democracy, power, and governance.

5.Bangladesh's Political Crisis

In early 2024, Bangladesh faced a significant political crisis that led to the resignation and ousting of Prime Minister Sheikh Hasina in August. The political turmoil led to widespread protests and unrest, with various groups competing for power. This situation raised concerns about stability in the region and is now threatening border security for India.

6. Inauguration of Ram Mandir in Ayodhya

The Ram Mandir in Ayodhya, Uttar Pradesh, stands as a symbol of faith, devotion, and perseverance for millions of Hindus. The temple was inaugurated on January 22, 2024, in a grand ceremony attended by devotees and dignitaries. This marked the culmination of decades of legal and political battles over the site.

7. Unified Pension Scheme (UPS) Approved by Cabinet

The Government of India approved the Unified Pension Scheme (UPS) that will be implemented on April 1, 2025, benefiting 23 lakh central government employees. The scheme guarantees a pension equal to 50% of the average basic pay from the last 12 months before retirement, particularly for those with at least 25 years of service.

8.India's Export Surge in 2024

India reported a remarkable surge in exports, reaching record levels despite global economic challenges. India's cumulative overall exports during April-October 2024 were estimated at USD 468.27 billion, marking a growth of 7.28% compared to the same period in 2023. Major contributors to this growth include engineering goods, electronic goods, rice, and textiles.

9.BRICS Summit 2024 in Kazan

The 16th BRICS Summit took place in Kazan, Russia, from October 22 to 24, 2024, under the chairmanship of President Vladimir Putin. The summit focused on strengthening multilateralism for global development and security. This summit was particularly notable as it marked the first gathering of BRICS after the admission of new members—Egypt, Ethiopia, Iran, and the UAE—in 2024.

10. The 33rd edition of the Olympics started in Paris.

The Paris 2024 Games will see 32 different sports being played. The first-ever Olympics were held in Athens, Greece in 1896. Since then, the Olympic Games have been held every four years. The Olympic motto is 'Citius-Altius-Fortius'. The three Latin words translate to 'Faster-Higher-Stronger' in English.

India won six medals including a silver and five bronze to be ranked 71st amongst the 206 NOCs that participated in the Olympics.

11.G20 Summit 2024 in Rio de Janeiro

The 2024 G20 Summit was held in Rio de Janeiro, Brazil, on November 18 and 19, 2024. It marked the first time Brazil hosted the G20 summit, under the presidency of Luiz Inácio Lula da Silva. The theme for the summit was "Building a Just World and a Sustainable Planet." The summit reaffirmed the G20's role in fostering global cooperation, addressing inequality, and promoting climate action.

12.One Nation, One Election Bill In Lok Sabha

In December month, the Indian government introduced two important bills in the Lok Sabha to implement the "One Nation, One Election" policy. The Constitution (129th Amendment) Bill aims to align Lok Sabha and state assembly elections, while the Union Territories Laws Amendment Bill seeks to synchronize elections in Union Territories.

13. Death of Ex-PM and Renowned Economist Dr. Manmohan Singh

Former Prime Minister and renowned economist Dr. Manmohan Singh passed away on December 26, 2024, at the age of 92. Dr. Singh, India's served as Prime Minister from 2004 to 2014 and was credited with major economic reforms, including liberalization and privatization. He was the first Sikh to hold the office.



14. Israel Unleashes Operation Days of Repentance: A Wave of Strikes Across Iran, Iraq, and Syria

On 26 October 2024, Israel launched a series of strikes, codenamed Operation Days of Repentance, against 20 locations in Iran, Iraq, and Syria. The operation consisted of three waves of strikes, escalating into a series of conflict and confrontations.

15. Narendra Modi sworn in as Prime minister for Third consecutive Term

On June 9, 2024, Narendra Modi was sworn in as India's Prime Minister for an unprecedented third consecutive term, a milestone last achieved 62 years ago. He became the third Prime Minister to achieve this, after Jawaharlal Nehru and Atal Bihari Vajpayee. Following the BJP's decisive 2024 Parliamentary election victory, the party ruled 13 of India's 29 provinces, with its allies governing an additional six.

16. India achieved a 7.93% reduction in greenhouse gas (GHG) emissions

as part of its commitment to combating climate change. This milestone highlights India's focus on transitioning to renewable energy, improving energy efficiency, and adopting sustainable practices across industries. The reduction is attributed to initiatives such as increased use of solar and wind power, afforestation drives, and stringent environmental policies.

This achievement demonstrates India's role in global climate resilience efforts, aligning with its goals under the Paris Agreement to reduce emissions intensity and promote sustainable development while balancing economic growth.

17. India-China Disengagement along the LAC

India's External Affairs Minister said that about 75% of the "disengagement problems" with China have been "sorted out" along the Line of Actual Control (LAC) in Ladakh.

India and China have mutually agreed on and verified disengagement from five friction points, including Galwan Valley, Pangong Tso, and Gogra-Hot Springs.

However, Demchok and Depsang remain unresolved.

18.Technological milestone was the Indian Light Tank (ILT) 'Zorawar', developed by the Defence Research and Development Organisation (DRDO) in collaboration with Larsen & Toubro

The Indian Light Tank (ILT) 'Zorawar', developed by the Defence Research and Development Organisation (DRDO) in collaboration with Larsen & Toubro, marks a significant technological milestone in India's defense capabilities. Designed to enhance mobility and firepower in mountainous and border areas, the ILT serves as a strategic asset for the Indian Army, underscoring India's focus on indigenizing defense technology.

19.India's humanitarian instincts were on display through "Operation Sadbhav," an initiative to deliver emergency relief supplies to Myanmar, Laos, and Vietnam in the wake of Typhoon Yagi. The storm, deemed Asia's most powerful of the year, caused widespread devastation, displacing thousands.

Operation Sadbhav" exemplifies India's commitment to humanitarian aid, as the country provided emergency relief supplies to Myanmar, Laos, and Vietnam following Typhoon Yagi, the most powerful storm in Asia that year. This operation highlights India's role in international disaster relief efforts, aligning with its foreign policy goals of fostering goodwill and strengthening ties with neighboring nations.

20.India's Medal Tally in Olympic and Paralympic Games

During the 2024 Paris Olympic and Paralympic Games, India showcased remarkable talent. India won a total of 6 medals in the Olympics 2024 and a total of 29 medals in the Paralympics 2024. This achievement reflects India's growing prowess on the global stage and highlights the effectiveness of government initiatives.



21. Some important laws passed in India in 2024 include:

• The Constitution (One Hundred and Twenty-Ninth Amendment) Bill, 2024:

This bill allows the Election Commission to hold elections for Lok Sabha and state assemblies simultaneously.

• The Appropriation (No. 3) Bill, 2024:

This bill allows the government to spend money from the Consolidated Fund of India for the financial year 2024-25.

• The Water (Prevention and Control of Pollution) Amendment Act, 2024:

This act decriminalizes minor violations of the Water (Prevention and Control of Pollution) Act, 1974.

• The Public Examination (Prevention of Unfair Means) Act, 2024:

This act aims to make public examinations more transparent and fair.

• The Jammu and Kashmir Local Bodies Laws (Amendment) Act, 2024:

This act provides reservations for Other Backward Classes in Jammu and Kashmir.

• The Waqf Amendment Bill 2024:

This act allows separate Waqf Boards for Sunni and Shia sects, as well as for Aghakhani and Bohra sects.

The Bharatiya Vayuyan Vidheyak Bill 2024:

This bill gives the DGCA more powers to regulate the aviation sector, including aircraft design, manufacture, and maintenance.

• The Disaster Management (Amendment) Bill, 2024:

This bill aims to strengthen disaster risk reduction and management.

22. Some of the important judgments of the Supreme Court of India in 2024 include:

• Bilkis Bano gang rape case

The Supreme Court quashed the remission granted to 11 convicts in the Bilkis Bano gang rape case.

• Electoral bonds scheme

The Supreme Court struck down the electoral bonds scheme to uphold transparency in political funding.

Article 31C

A nine-judge bench unanimously held that Article 31C continued to exist in the Constitution.

Validity of automatic vacation of stay orders

A five-judge Constitution Bench held that stay orders granted in pending cases do not automatically lapse after six months.

Criminal case against in-laws of a complaint-wife

The Supreme Court quashed a criminal case under Section 498A of the Indian Penal Code.

· Freedom of speech

The Supreme Court affirmed freedom of speech and quashed a criminal case against a professor.

• The Supreme Court of India ruled that states can sub-classify Scheduled Castes (SCs) and Scheduled Tribes (STs).

The decision in State of Punjab v Davinder Singh upheld the constitutional validity of subclassification within reserved categories.

Same sex marriage

In 2024, the Supreme Court of India rejected petitions to review its 2023 ruling on same-sex marriage. The court also established a commission to evaluate the needs of the LGBTQ community.



SC dismisses pleas to review Article 370 judgment

A Constitution Bench had upheld the abrogation of Article 370, an event which had led to the reorganisation of the full-fledged State of Jammu and Kashmir to two union territories and denuding it of its special privileges.

• Supreme Court declares electoral bonds scheme unconstitutional

Amendments to the law, which allowed companies to make unlimited financial contributions to political parties under the cover of absolute anonymity, declared 'manifestly arbitrary.

• The Supreme Court of India (SC) overturned its 1967 decision in S. Azeez Basha v. Union of India.

SC ruled that Aligarh Muslim University (AMU) could be a minority institution. The SC laid down parameters for determining minority status and directed a smaller bench to decide on AMU's status.

• The Supreme Court of India (SC) has issued a series of orders and directives to curb the practice of "bulldozer justice" in Uttar Pradesh (UP) and across India.

The SC has ordered the state to compensate victims of illegal demolitions and has issued guidelines to regulate the practice.

23. Donald Trump Wins US Elections 2024, Returns as 47th US President

With Donald Trump winning the US presidential election, India closely watches developments, as strong US ties are crucial for its trade, security, and geopolitical interests.

24.In 2023-24, 160 products were given Geographical Indication (GI) tags in India.

There was a 300% increase from the previous year. On March 30, 2024, a record 63 GI tags were issued in a single day. Some examples are Nayagarh Kanteimundi Brinjal Kai Chutney; a Red Weaver ant chutney from Mayurbhanj district, Odisha; Magji Laddoo from Odisha; Sambhal Horn Craft from Uttar Pradesh; Baghpat Home Furnishings from Uttar Pradesh; Barabanki Handloom Product from Uttar Pradesh

I L C CTION who resolution con nless did econional. M olonel. Can all E



Focus of the month

RBI RELEASES 'FINANCIAL STABILITY REPORT, DECEMBER 2024'

Introduction

• The Reserve Bank of India (RBI) has released its 'Financial Stability Report, December 2024', a bi-annual publication that provides an assessment of India's financial system. This report is significant as it offers insights into the stability of the financial sector, highlighting potential risks and vulnerabilities. The purpose of this report is to inform policymakers, financial institutions, and other stakeholders about the current state of the financial system and provide recommendations for mitigating potential risks.

Key Highlights

- 1. Global and Domestic Economic Overview
- Global economic growth remains sluggish due to ongoing geopolitical tensions and inflationary pressures.
- · India's economy has shown resilience, with GDP growth expected to remain robust.
- 2. Resilience of Financial Institutions
- Indian banks have strengthened their balance sheets, with improved capital adequacy ratios.
- Non-banking financial companies (NBFCs) have also shown improvement in their asset quality.
- 3. Stress Testing Results
- The RBI's stress tests indicate that Indian banks can withstand potential shocks, including a global economic downturn.
- · However, NBFCs remain vulnerable to liquidity risks.
- 4. Emerging Risks
- · Cybersecurity risks remain a major concern for the financial sector.
- Climate change and environmental risks are increasingly relevant for financial institutions.

Regulatory Measures

The RBI has taken several policy actions to strengthen the financial system, including:

- · Tightening regulatory norms for NBFCs.
- · Enhancing cybersecurity requirements for banks and financial institutions.
- · Promoting sustainable finance practices.

Implications

The report's findings have significant implications for:

- · Policymakers: highlighting the need for continued vigilance and regulatory oversight.
- Financial institutions: emphasizing the importance of risk management and resilience.
- Economy: underscoring the potential risks and opportunities for India's economic growth.

Comparison with Past Reports

Compared to previous reports, the December 2024 report highlights:

- · Improved resilience of Indian banks.
- · Increased focus on emerging risks, such as cybersecurity and climate change.

Challenges and Future Outlook

The report identifies several challenges for the financial sector, including:

- · Managing emerging risks.
- Enhancing cybersecurity.
- · Promoting sustainable finance practices.

The future outlook remains cautious, with a focus on maintaining stability and resilience in the face of potential risks.



Conclusion

· In conclusion, the RBI's 'Financial Stability Report, December 2024' provides a comprehensive assessment of India's financial system. The report highlights the resilience of Indian banks, emerging risks, and regulatory measures to strengthen the financial sector. As noted in the introduction, the report's findings have significant implications for policymakers, financial institutions, and the economy. By addressing the challenges and risks identified in the report, India can maintain a stable and resilient financial system, supporting sustainable economic growth.

References

- Reserve Bank of India. (2024).
 Financial Stability Report, December 2024. Retrieved from https://rbi.org.in
- World Bank. (2024). Global Economic Prospects. Available at https://worldbank.org
- IMF. (2024). World Economic Outlook: Resilience Amid Uncertainty.
 Accessed from https://imf.org
- Financial Express. (2024). Indian
 Banks Continue to Strengthen Balance
 Sheets. Retrieved from
 https://financialexpress.com
- LiveMint. (2024). RBI Report Highlights Emerging Cybersecurity and Climate Risks. Available at https://livemint.com



Focus of the month

BHOPAL GAS TRAGEDY: A DEVASTATING INDUSTRIAL DISASTER

Introduction

On December 3, 1984, a catastrophic gas leak occurred at the Union Carbide
pesticide plant in Bhopal, Madhya Pradesh, India. The Bhopal Gas Tragedy, as it
came to be known, was one of the world's worst industrial disasters, resulting in
unprecedented human suffering and environmental damage. This article will delve
into the causes, impact, response, and aftermath of the tragedy, highlighting the
significance of the Bhopal Gas Tragedy as a turning point in industrial safety and
corporate responsibility.

Causes of the Tragedy

The Bhopal Gas Tragedy was a result of a combination of factors, including:

- Safety Negligence: Inadequate safety measures, poor maintenance, and lack of emergency preparedness at the Union Carbide plant.
- Design Flaws: Plant design and construction issues, including inadequate gas storage and handling facilities.
- Human Error: Mistakes made by plant operators, including improper handling of chemicals and failure to follow safety protocols.

Impact of the Tragedy

The impact of the Bhopal Gas Tragedy was devastating:

- Immediate Effects: Estimated 3,787 deaths, over 5,00,000 injured, and widespread environmental damage.
- Long-term Consequences: Ongoing health problems, birth defects, and environmental contamination.
- Economic Impact: Significant economic losses, damage to local businesses, and loss
 of livelihoods.

Response and Relief Efforts

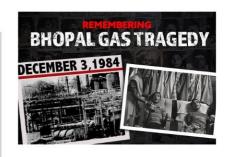
The response to the tragedy was initially slow and inadequate:

- Initial Response: Delayed and inadequate response from Union Carbide and government authorities.
- Relief Efforts: Eventual provision of medical aid, financial compensation, and rehabilitation programs.
- Criticisms and Controversies: Allegations of inadequate compensation, lack of transparency, and insufficient accountability.

Legal and Environmental Aftermath

The Bhopal Gas Tragedy led to significant legal and environmental consequences:

- Litigation and Settlements: Prolonged legal battles, eventual settlement of \$470 million, and ongoing compensation disputes.
- Environmental Cleanup: Inadequate and delayed cleanup efforts, ongoing contamination concerns.
- Legacy and Lessons: Improved safety regulations, increased corporate accountability, and ongoing advocacy for victims' rights.



Conclusion

The Bhopal Gas Tragedy was a devastating industrial disaster that resulted in unprecedented human suffering and environmental damage. As we remember the tragedy, we must also recognize its significance as a turning point in industrial safety and corporate responsibility. By learning from the causes, impact, and aftermath of the tragedy, we can work towards preventing future disasters and promoting a safer, more responsible industrial environment.

References

- Government of India. (1985). Bhopal Gas Leak Disaster (Processing of Claims) Act, 1985. Retrieved from https://legislative.gov.in
- International Campaign for Justice in Bhopal. (2024). Resources on Bhopal Gas Tragedy. Available at https://bhopal.net
- Amnesty International. (2004).
 Clouds of Injustice: Bhopal Disaster
 Years On. Retrieved from https://amnesty.org
- The Hindu. (2024). Bhopal Gas
 Tragedy: 40 Years Later. Accessed at
 https://thehindu.com
- Union Carbide Corporation. (1985).
 Statement on Bhopal Gas Tragedy.
 Available at https://unioncarbide.com
- BBC News. (2010). Bhopal Gas

 Tragedy: Timeline of Events

Tragedy: Timeline of Events.
Retrieved from https://bbc.com

NOVEL GENE THERAPY

Introduction

Gene therapy is a revolutionary approach in biomedical science that involves modifying or replacing defective genes to treat or prevent diseases. With advancements in genomic editing technologies like CRISPR-Cas9, novel gene therapy has entered a transformative phase, offering hope for curing previously untreatable conditions.

Understanding Gene Therapy

Gene therapy works by delivering therapeutic genes into a patient's cells, often using vectors like viral particles. It can be classified into:-

- Somatic gene therapy: Targets non-reproductive cells to treat conditions without inheritable changes.
- Germline gene therapy: Modifies reproductive cells, making changes inheritable.
- Key methods include gene replacement, gene editing, and RNA-based therapies.

Emerging Trends in Novel Gene Therapy

- CRISPR-Cas9: Revolutionizing precision gene editing.
- Base editing and Prime editing: More accurate and efficient alternatives to traditional CRISPR.
- In vivo gene therapy: Direct administration of therapeutic genes into patients.
- Epigenome editing: Targeting gene expression without altering DNA sequences.
- mRNA therapeutics: A novel approach seen in COVID-19 vaccines, now applied in gene therapy.

Applications in Medicine

- Inherited disorders: Cystic fibrosis, hemophilia, and sickle cell anemia.
- · Cancer treatment: CAR-T cell therapy to target specific tumor cells.
- Neurological diseases: Treatments for Parkinson's, Huntington's, and spinal muscular atrophy.
- Rare diseases: Addressing genetic disorders like SCID and muscular dystrophies.

Challenges and Ethical Considerations

- Technical hurdles: Delivery systems, off-target effects, and immunogenicity.
- Ethical concerns: Germline editing raises moral questions regarding designer babies.
- Access and equity: High costs limit availability in low- and middle-income countries.
- · Long-term safety: Risks of unintended mutations and oncogenesis.

Regulatory and Policy Landscape

- Global regulations: Divergence in rules across countries like the FDA (US), EMA (Europe), and ICMR (India).
- Clinical trials: Establishing safety, efficacy, and ethical compliance.
- Intellectual property: Patent disputes around technologies like CRISPR.
- Public policy: Balancing innovation with ethical safeguards.

Economic and Social Impact

- · Healthcare costs: High upfront costs, but potential long-term savings by curing chronic conditions.
- Pharmaceutical industry: Driving investment and innovation in biotech.
- Social equity: Bridging the gap between advanced therapies and underserved populations.
- Employment opportunities: Growth in the biotech and genomics sectors.

Case Studies & Success Stories

- Zolgensma: Approved for spinal muscular atrophy, offering life-saving benefits.
- Luxturna: Restoring vision in patients with inherited retinal disorders.
- · Sickle cell treatment: Successful use of CRISPR in clinical trials.
- Leber's Congenital Amaurosis (LCA): Pioneering gene therapy for genetic blindness.

Future Prospects

- Development of universal delivery vectors for enhanced safety and efficiency.
- Expansion of gene therapy for polygenic diseases like diabetes and hypertension.
- Integration of AI in genomic research for personalized medicine.
- Enhanced global collaboration to ensure equitable access to therapies.

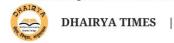


Conclusion

Novel gene therapy is a beacon of hope in modern medicine, bridging the gap between genetic disorders and effective treatments. However, addressing technical, ethical, and regulatory challenges is crucial for sustainable growth. Collaborative efforts in research, policy, and societal awareness are key to harnessing its full potential for humanity.

Reference

- 1. National Institutes of Health (NIH)- Gene Therapy Resources (<u>https://www.nih.gov/</u>)- Comprehensive information on gene therapy advancements, clinical trials, and regulatory updates.
- 2. Nature and Science Journals
- Nature Reviews Genetics (<u>https://www.nature.com/nrg/</u>)
- Science Magazine
 (https://www.sciencemag.org/) Recent breakthroughs in gene editing technologies like CRISPR.
- 3.FDA Gene Therapy Regulations and Approvals (<u>https://www.fda.gov/</u>) -Information on approved gene therapy treatments like Zolgensma and Luxturna.
- 4. WHO Ethical and Social Considerations of Gene Editing (<u>https://www.who.int/</u>) -Ethical guidelines and global perspectives on gene editing.
- 5. Research Publications and Textbooks
- Articles from PubMed (<u>https://pubmed.ncbi.nlm.nih.gov/</u>)
- Textbooks like "Gene Therapy: Prospective Technology Assessment in Medicine" by Bláha and others.
- 6. News and Popular Science Platforms
- Scientific American
 (https://www.scientificamerican.com/)
- MIT Technology Review
 (https://www.technologyreview.com/) –
 Updates on trends like CRISPR and mRNA therapeutics.



ISRO'S SPACE DOCKING EXPERIMENT MISSION AND ITS SIGNIFICANCE IN INDIA'S SPACE PROGRAMME.

Introduction

- Context: The Indian Space Research Organisation (ISRO) has been at the forefront of space technology, with numerous
 achievements in recent years. ISRO's space docking experiment mission is a significant milestone in India's space
 program.
- News: ISRO has launched a space docking experiment mission, marking a significant milestone in India's space program.
 This mission aims to demonstrate the capability of autonomous space docking.

Key Detail

- 1. Mission Objective: The primary objective of the mission is to demonstrate the capability of autonomous space docking. This involves the rendezvous and docking of two spacecraft in orbit.
- 2. Spacecraft Involved: The mission involves two satellites, with one acting as the "chaser" and the other as the "target". The chaser spacecraft will dock with the target spacecraft in orbit.
- 3.Launch Vehicle: The satellites were launched on a PSLV rocket from the Satish Dhawan Space Centre. The PSLV rocket is a reliable and versatile launch vehicle that has been used for numerous ISRO missions.
- 4. Orbit: The satellites will operate in a low-Earth orbit. This orbit allows for easy communication and navigation between the spacecraft.

Importance of Docking Technology

- 1. Future Space Missions: Docking technology is crucial for future space missions, such as the Indian space station, which is planned to be launched in the next few years. Docking enables the transfer of crew and cargo between spacecraft.
- Spacecraft Servicing: Docking enables the servicing of spacecraft in orbit, extending their lifespan and improving their performance. This can include refueling, maintenance, and repair of spacecraft.
- 3. Crewed Space Missions: Docking is essential for crewed space missions, facilitating crew and cargo transfer between spacecraft. This is critical for long-duration space missions, such as those to the Moon or Mars.

Global Context

- 1. International Cooperation: Space agencies worldwide are developing docking technology, with NASA, ESA, and Roscosmos being some of the key players. International cooperation is essential for advancing docking technology and promoting global cooperation in space exploration.
- 2.Global Space Exploration: Docking technology is vital for deep space missions and space station operations, with the International Space Station being a prime example. The ability to dock spacecraft in orbit enables the transfer of crew and cargo, extending the duration of space missions.
- 3. India's Position: ISRO's achievement demonstrates India's growing capabilities in space technology and its commitment to advancing space exploration. India is poised to play a significant role in global space exploration, with its expertise in space technology and its commitment to international cooperation.

Historical Context

- Evolution of Docking Technology: The development of docking technology dates back to the 1960s, with the first docking
 experiment being conducted by NASA's Gemini program. Since then, docking technology has evolved significantly, with
 numerous space agencies developing their own docking systems.
- ISRO's Previous Achievements: ISRO has a rich history of achievements in space technology, including the successful
 launch of the Mangalyaan mission to Mars and the Chandrayaan mission to the Moon. ISRO's expertise in space
 technology has been demonstrated through its numerous successful missions.
- India's Space Program: India's space program was established in 1969, with the launch of the first Indian satellite, Aryabhata. Since then, India's space program has grown significantly, with numerous achievements in space technology and exploration.

Economic Impacts

- 1.Cost Savings: Docking technology can reduce mission costs by extending spacecraft lifespan and improving their performance. This can result in significant cost savings for space agencies and private companies.
- 2. New Opportunities: Docking enables new space-based services, such as satellite servicing and space tourism, which can generate significant revenue. This can create new opportunities for space agencies and private companies.
- 3. Job Creation: The development of docking technology can create new job opportunities in the space sector, driving economic growth. This can result in the creation of new jobs and careers in the space industry.

Environmental Considerations

- Space Debris: The risk of space debris generation during docking operations is a significant concern, with the potential to
 harm operational spacecraft and satellites. Space agencies and private companies must take steps to mitigate this risk.
- Sustainable Space Exploration: The development of docking technology must be done in a sustainable manner, with a
 focus on minimizing environmental impact and ensuring responsible space operations. This can result in the development
 of more sustainable space technologies.



Way Forward

- Refining Docking Technology: ISRO will continue to refine and improve docking technology, with a focus on increasing efficiency and reducing costs. This can result in the development of more advanced docking systems.
- Future Space Missions: The successful demonstration of docking technology will pave the way for future Indian space missions, including the Indian space station and crewed space missions.
- International Collaboration: ISRO will continue to collaborate with international space agencies to advance the development of docking technology and promote global cooperation in space exploration.

Conclusion

- Summary: ISRO's space docking experiment mission marks a significant milestone in India's space program, demonstrating the country's growing capabilities in space technology.
- Implications: The successful demonstration of docking technology has far-reaching implications for India's space program and global space exploration, enabling new space-based services and opportunities.
- Future Prospects: The development of docking technology will continue to drive innovation and advancement in space exploration, with India poised to play a leading role in this field.

References

- Indian Space Research Organisation. (2024).
 Space Docking Experiment (SpaDeX) Mission.
 (www.isro.gov.com)
- The Hindu. (2024). ISRO launches space docking experiment mission. (<u>https://www-thehindu-com</u>)
- SpaceNews. (2024). ISRO launches space docking experiment mission. (www.spacenews.com)
- NASA. (2024). Low-Earth Orbit. (<u>https://www.nasa.gov/</u>)
- The Economic Times. (2024). Job Creation through Space Technology. (https://m.economictimes.com/)



INDIA REPORTED DECLINE IN INTERNET SHUTDOWNS IN 2024

Introduction

- Context: India has witnessed a significant decline in internet shutdowns in 2024, marking a positive development in the country's digital landscape.
- Significance: Internet shutdowns have been a contentious issue in India, with implications for citizens' fundamental rights, economic development, and national security.

Key Highlights

- Decline in Shutdowns: India reported a decline in internet shutdowns in 2024, with a total of 60 shutdowns recorded, marking the lowest number in eight years.
- Regions Affected: Jammu and Kashmir and Manipur have historically been the most affected regions, but saw fewer shutdowns in 2024.
- Duration of Shutdowns: The average duration of internet shutdowns also decreased in 2024, indicating a more targeted approach to addressing public order and national security concerns.

Reasons for Decline

- Improved Governance: Enhanced governance and administrative measures may have contributed to the reduction in shutdowns, as authorities became more adept at addressing public order concerns without resorting to blanket shutdowns.
- 2. Increased Awareness: Growing awareness among authorities and the public about the economic and social costs of internet shutdowns might have played a role in the decline, as stakeholders recognized the need for more nuanced approaches to addressing public order concerns.
- 3.Legal Interventions: Court rulings, such as the Anuradha Bhasin vs. Union of India case, which deemed indefinite internet shutdowns unconstitutional, may have influenced the decline, as authorities became more mindful of the legal implications of shutdowns.

Global Context

- 1. Global Trends: Internet freedom has declined globally for the 13th consecutive year, with 29 countries experiencing deteriorations in their online environments, highlighting the need for India to continue improving its digital landscape.
- 2. Comparative Analysis: India's reduction in internet shutdowns is a positive development, but the country still has one of the highest numbers of shutdowns worldwide, underscoring the need for continued improvement.

Recommendations for Policy Measures

- 1.Transparency and Accountability: Establish a centralized database to track internet shutdowns, ensuring transparency and accountability, and enabling more effective monitoring and evaluation of shutdowns.
- Proportionality and Necessity: Ensure that shutdowns are proportionate to the threat and necessary, adhering to international human rights standards, and minimizing the impact on citizens' rights and freedoms.
- 3. Alternative Measures: Explore alternative measures to address public order and national security concerns, such as targeted restrictions on specific websites or services, rather than blanket shutdowns.

Case Studies

- Jammu and Kashmir: Despite being one of the most affected regions, Jammu and Kashmir saw fewer shutdowns in 2024, indicating improved governance and administrative measures.
- Manipur: The state's experience with extended shutdowns highlights the need for alternative measures to address public order concerns, rather than relying solely on blanket shutdowns.

Implications

- 1. Economic Impact: Internet shutdowns can have significant economic costs, affecting businesses, education, and healthcare, and underscoring the need for more targeted approaches to addressing public order concerns.
- 2. Social Impact: Shutdowns can also have social implications, limiting access to information, hindering communication, and exacerbating social tensions, highlighting the need for more nuanced approaches to addressing public order concerns.

Challenges

- 1. Balancing Security and Rights: Authorities must balance national security and public order concerns with citizens' fundamental rights to freedom of expression and access to information, requiring careful consideration and nuanced approaches.
- Infrastructure and Capacity: Improving governance and administrative capacity, as well as investing in alternative measures, can help address challenges and minimize the need for shutdowns.



Way Forward

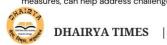
- Strengthening Governance: Enhance governance and administrative measures to minimize the need for shutdowns, ensuring that authorities are better equipped to address public order concerns without resorting to blanket shutdowns.
- Promoting Digital Literacy: Foster digital literacy and awareness among citizens, promoting responsible internet use and mitigating the need for shutdowns, and ensuring that citizens are better equipped to navigate the digital landscape.

Conclusion

India's decline in internet shutdowns in 2024 is a positive development, but the country must continue to address the challenges and implications associated with shutdowns. By strengthening governance, promoting digital literacy, and exploring alternative measures, India can ensure that citizens' fundamental rights are protected while maintaining national security and public order.

References

- Internet Shutdown Tracker. (2024). Internet Shutdowns in India. (https://internetshutdowns.in/)
- Freedom House. (2024). Freedom on the Net Report. (https://freedomhouse.org)
- The Indian Express. (2024). India sees decline in internet shutdowns in 2024. (https://indianexpress.com/)
- UNESCO. (2024). Internet Shutdowns: A Growing Global Trend. (https://www.unesco.org/en)
- The Hindu. (2024). Jammu and Kashmir sees decline in internet shutdowns. (www.thehindu.com)
- The Economic Times. (2024). Manipur's experience with internet shutdowns highlights need for alternative measures. (https://m.economictimes.com/)
- International Telecommunication Union. (2024). Guidelines for the Implementation of Internet Shutdowns.(https://www.itu.int/)



INDIA'S DIGITAL REVOLUTION

Introduction

India's digital revolution marks a transformative period where technology has become a cornerstone of economic, social, and cultural development. Driven by rapid advancements in information technology, widespread internet penetration, and government initiatives, this revolution has reshaped industries and empowered citizens.

Historical Context

The seeds of India's digital transformation were sown in the late 20th century with the liberalization of the economy in 1991. Key milestones include the establishment of the National Informatics Centre (NIC) in 1976, the IT boom of the 2000s, and the launch of Digital India in 2015. The introduction of Aadhaar, UPI, and broadband connectivity accelerated digital inclusion in the country.

Pillars of the Digital Revolution

- 1.Connectivity: Expansion of 4G and 5G networks, BharatNet initiative for rural broadband, and affordable smartphones.
- 2.Digital Infrastructure: Aadhaar for identity, DigiLocker, and the India Stack for secure digital transactions.
- 3.Digital Literacy: Initiatives like PMGDISHA (Pradhan Mantri Gramin Digital Saksharta Abhiyan) to enhance digital literacy.
- 4. Innovation Ecosystem: Start-up India, and the growth of unicorns in technology and fintech.

Key Drivers

- 1. Affordable Internet: Jio's entry in 2016 significantly reduced data costs.
- 2. Smartphone Penetration: High smartphone adoption, making technology accessible to millions.
- 3. Government Policies: The Digital India campaign, Start-Up India, and Make in India.
- 4.Private Sector Innovation: Growth of IT giants like Infosys, TCS, and Wipro, along with emerging start-ups.

Impact on Society

- 1. Economic Growth: Boosted GDP through the IT and e-commerce sectors.
- $2. Social \ Inclusion: Improved \ access \ to \ education, \ healthcare, \ and \ financial \ services.$
- Governance: E-governance platforms like UMANG, MyGov, and the JAM (Jan Dhan-Aadhaar-Mobile) trinity.
- 4. Empowerment: Enabled rural and marginalized communities to access digital resources.

Challenges and Concerns

- 1. Digital Divide: Disparities in access between rural and urban areas.
- 2. Cybersecurity Threats: Increasing cases of data breaches and cybercrimes.
- 3. Infrastructure Gaps: Inadequate digital infrastructure in remote regions.
- 4. Regulatory Hurdles: Balancing innovation with data privacy and protection.

Government Policies and Initiatives

- 1. Digital India Mission: Focused on digital empowerment and infrastructure development.
- 2. Start-Up India: Promoting entrepreneurship and innovation.
- 3. India Stack: Comprehensive digital framework enabling interoperability.
- 4. National Broadband Mission: Aiming for universal internet access.

Global Context

India's digital revolution aligns with global trends like Industry 4.0 and the digital economy. India is recognized as a global IT hub and has become a major exporter of software services. Collaborations with countries on AI, blockchain, and 5G highlight India's growing influence.

Case Studies

- 1. Aadhar and UPI: Revolutionized identity verification and digital payments.
- 2. Jio's Impact: Made high-speed internet affordable for millions, driving digital adoption.
- 3.E-Governance: Platforms like GSTN (Goods and Services Tax Network) and Co-WIN (for vaccination management) showcase successful large-scale implementation.



Future Prospects

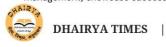
India aims to become a \$1 trillion digital economy by 2025. With advancements in AI, IoT, blockchain, and the implementation of 5G, the digital landscape is poised to revolutionize sectors like healthcare, education, and manufacturing. Bridging the digital divide and ensuring data protection will remain priorities.

Conclusion

India's digital revolution is a testament to the country's resilience and innovation. It has empowered citizens, enhanced governance, and positioned India as a global leader in the digital age. With sustained efforts, India is set to achieve unparalleled growth and inclusion in the coming decades.

Reference

- Government of India Digital India Website (<u>https://www.digitalindia.gov.in/</u>)
- NITI Aayog Reports on Digital Economy and Transformation (https://www.niti.gov.in/)
- Press Information Bureau (PIB)
 (https://pib.gov.in/) for updates on government initiatives like Digital India, Start-Up India, and others.
- Reports by IT and Consulting Firms: 1.McKinsey Global Institute reports on India's digital economy.
- 2. Nasscom studies on India's IT and innovation ecosystem.
- Major News Outlets: The Hindu, Economic Times, Business Standard, and others frequently cover topics related to India's digital transformation.



INDIA'S DEFENCE EXPORTS

Introduction

India delivered the first batch of BrahMos to the Philippines.

Recent years have witnessed a steady increase in India's defence exports to countries such as Seychelles, the Maldives, Mauritius and Ecuador.

Reasons for the rise in India's Defence exports

· Financial push:

- Enhanced Foreign Direct Investment (FDI) limit: Up to 74% through the Automatic Route for companies seeking new defence industrial licenses. Up to 100% through the government route wherever it is likely to result in access to modern technology.
- 2. Venture Capital funds: Agreement to facilitate infusion of Venture Capital into the defence ecosystem through the iDEX Innovators Hub (iIH). Financing from Exim Bank for defence exports
- 3. Encouraging Private Sector Participation: Government has earmarked 25% of the defence research budget for the private sector in 2022-23.
- · Initiatives to promote indigenous innovation:

Example:-

- 1. Innovation for Defence Excellence (iDEX) was launched to achieve self-reliance and foster innovation and technology development in the defence sector.
- 2. Mission Raksha Gyan Shakti to inculcate and strengthen Intellectual Properties into defence manufacturing. Reduced dependence on foreign equipment manufacturers: E.g., 5th Positive Indigenisation List was announced in October 2023, listing Defence Items to be procured from indigenous sources.
- Defence diplomacy: It includes measures like-Line of Credit (e.g. to African countries for purchase of weaponry), Defence Offset Policy (to leverage capital acquisitions to develop the Indian defence industry) Marketing products to potential buyers from overseas, etc.
- Infrastructure: Defence Industrial Corridors established in Uttar Pradesh and Tamil Nadu have attracted largescale investments.

Benefits of Rising Defence Exports

- Defence Export as a Strategic Tool: Increases diplomatic leverage and scope of strategic partnership with
 partner nations. Moreover, technological dependencies (related to maintenance, repair, spares, components,
 future upgrades) influence the geopolitical stance of nations.
- Compatibility between exporting and receiving nations enhances military interoperability through the conduct
 of military exercises and joint operations.
- · Integration with defence value chain by exporting to major countries.
- It also insulates countries from supply line disruptions during conflicts such as Russia, Ukraine conflict, Israel-Hamas war etc.
- High Value Nature of defence exports: It adds to economic strength through earnings of forex reserves, creation
 of high-skilled job opportunities, new market opportunities for domestic defence manufacturing etc.

Other benefits

- 1. Enhances R&D base in defence through involvement of private players.
- 2. Strengthens national security
- 3. Self-reliance through Indigenization of Defence

Challenges faced in India's defence export

- 1. Inadequate R&D spending: India spending is less than 1% in R&D as a part of total defence budget expenditure. China and the USA spend around 20% and 12% respectively.
- 2. Limited budget: The defense allocation for FY 24-25 is just about 1.9% of the GDP.
- 3. Credibility issues: Indian defence products have less credibility than their counterparts (USA, France, Russia) because of their dependency on imports for advanced weapons. As per Stockholm International Peace Research Institute, India has been the world's highest arms importer from 2019 to 2023.
- 4. Inadequate capacity: Massive gap exists with respect to India's manufacturing & export capacity as compared to dominant players. Even though India exports military hardware to 85 countries, its share in world export is minuscule. India remains outside the top 25 arms exporters in the world.
- 5. Over-reliance on DPSUs: It leads to supply of monopolies and creates hurdles in integrating the private sector into defence innovation and the industrial ecosystem.
- 6. Other Issues: Diplomatic issues and competition from other nations; Non-time delivery of services due to lack of proper infrastructure; Lack of cohesion and coordination between the Indian Armed Forces, the DPSUs, private manufacturers, and the Ministry of Defence etc.



Way Forward

If India to become a dominant force in the global arms market meets its target of US\$5 billion in export revenue, following measures can be taken:-

- Use of Export revenue to enhance funding of DPSU R&D budgets or capital expenditure of the government.
- Utilization of Present opportunities in the geopolitics and external factors such as weak and inconsistent performance of China's arms export. (Myanmar's grounding of Chinese jets).
- Establishment of a single point agency responsible for coordination between all stakeholders, executing plans, and meeting the targets for defence exports.
- Quality Assurance and Standardization by adhering to international standards and obtaining certifications thereby enhancing global credibility of Indian defence products.
- MSME Sustainable (ZED) Certification schemes which strive to create an ecosystem of competitive, clean and quality manufacturing, could be leveraged.
- Invest in international marketing and branding to change perceptions about the quality and reliability of its defence products.
- Promote Public-Private Partnerships by greater involvement of the private sector through offering incentives, facilitating technology transfer, and promoting joint ventures.
- Securing export deals of high value weapons (e.g Pinaka, AKash, Dhruva). by offering of incentives through lines of credit, government-to-government route

Conclusion

Defence exports provide an opportunity to embellish India's growing stature on the global table and improve its strategic leverage with partner nations.



GLOBAL STRATEGY TO REVOLUTIONIZE DRYLAND FARMING

Introduction

Dryland farming occurs in regions with less than 500mm of annual rainfall, facing challenges like water scarcity, extreme temperatures, and soil erosion. Climate change further exacerbates these issues, making traditional farming unsustainable. A global strategy is essential to ensure food security, economic stability, and environmental sustainability in these areas.

Current Scenario

- Global Perspective: Drylands cover 40% of the Earth's land, supporting around 2 billion people, particularly in India, Australia, and parts of Africa.
- Technological Advancements: Techniques like rainwater harvesting, drought-resistant crops, and drip irrigation (pioneered by Israel) have improved productivity.

International Efforts

- 1. Global Organizations: The FAO and UNCCD are leading initiatives for sustainable dryland farming (FAO, UNCCD).
- 2. Country Strategies: India's PMKSY and Australia's Drought Assistance Programs provide technology, financial aid, and subsidies (PMKSY, Australia Drought Programs).

Importance and Relevance

- 1. Food Security: Dryland farming is crucial for producing cereals and legumes globally.
- 2. Sustainable Development: It supports SDGs like zero hunger, clean water, and climate action.
- 3. Economic Impact: Improved farming can reduce poverty, stimulate rural economies, and create jobs.

Challenges and Solutions

- 1.Water Management: Techniques like drip irrigation, rainwater harvesting, and solar desalination address water scarcity.
- Soil Health: No-till farming, organic fertilizers, and cover crops enhance soil fertility and prevent erosion.
- 3. Climate Adaptation: Drought-resistant crops and agroforestry help adapt to climate change.
- Technological Innovations: Al, IoT, and satellite monitoring optimize resources and improve efficiency.

Strategic Framework

- 1.Research and Development: Investment in new technologies and research is vital.
- 2. Policy and Governance: Governments must incentivize sustainable practices and secure land rights.
- Capacity Building: Empowering farmers and communities facilitates the adoption of innovative practices.
- 4. Financial Support: Access to credit, insurance, and subsidies helps mitigate financial risks.

Future Outlook

- 1.Long-Term Benefits: Revolutionizing dryland farming can increase productivity and improve livelihoods.
- 2. Innovative Practices: Advances like gene editing, precision irrigation, and blockchain will enhance farming efficiency.
- 3. Monitoring and Evaluation: Ongoing monitoring is essential for refining strategies and tracking progress.



Conclusion

Transforming dryland farming is crucial for addressing challenges in arid regions. A coordinated global effort with investments in research, technology, and supportive policies can ensure a resilient and sustainable future, contributing to global food security and economic stability.

Reference

- FAO. (2020). The Future of Food and Agriculture: Trends and Challenges.
 Retrieved from http://www.fao.org
- UNCCD. (2017). The Global Land Outlook: Land Degradation and Sustainable Land Management. Retrieved from https://www.unccd.int
- Indian Government. (2015). Pradhan Mantri Krishi Sinchayee Yojana (PMKSY). Retrieved from https://pmksy.gov.in
- Australian Government. (2021).
 Drought Assistance Programs.
 Retrieved from https://www.agriculture.gov.au
- WRI. (2020). Water Scarcity and Agriculture: Solutions for the Global Water Crisis. Retrieved from https://www.wri.org



FALL OF BASHAR AL ASSAD'S REGIME

Why in News?

A setback was faced By Syrian President Bashar al-Assads Regime by the Syrian Rebels are led by the Islamic Militant Group named Hayat Tahrir al-Sham, establishing their control over Homs, Syria's third largest city.

Syrian Civil War

- Backdrop: Since 1971, Syria has been under the rule of the Assad family, beginning with Hafez al-Assad, who led the country with an iron fist until his passing in 2000. His leadership was marked by a mix of political repression and efforts to stabilize the country amidst regional tensions. After Hafez's death, his son Bashar al-Assad took over the presidency.
- Arab Spring: The Arab Spring, which began in 2010, was a wave of pro-democracy protests across the Middle East and North Africa, driven by widespread frustration with authoritarian regimes. People rallied against high unemployment, economic inequality, and rampant corruption. In Syria, the Assad regime, led by the Alawite minority, was accused of marginalizing the Sunni majority, fueling anger and protests. What started as peaceful demonstrations quickly escalated into violent conflict, as the government cracked down on dissent, ultimately leading to the devastating civil war that has since ravaged the country.
- Civil War: The Arab Spring in Syria began as peaceful protests against the Assad regime, driven by hopes for change and greater freedoms. However, the government's brutal response quickly escalated the situation, leading to violent repression and widespread unrest.

Rise of Rebel Factions and their influence

- 1. Hayat Tahrir al-Sham (HTS) is a prominent militant group in Syria, originally linked to al-Qaeda, that has played a significant role in the Syrian conflict. Over the years, HTS has captured and controlled key areas, including parts of Damascus, Aleppo, Homs, and Hama. The group's goal is to establish a Sunni Islamic state, and it has been one of the most determined opponents of Bashar al-Assad's regime. HTS's influence has shaped much of the opposition's military efforts, though it has also faced criticism for its harsh rule in the areas it controls.
- 2.The Syrian Democratic Forces (SDF) is a Kurdish-led militia that has been a key player in the Syrian conflict. Their primary focus has been securing autonomy and rights for Syria's Kurdish population, which has long been marginalized. While the SDF is not directly focused on overthrowing Assad, it is part of the broader opposition to the regime, and has been involved in fighting against both Assad's forces and ISIS.
- 3.The Free Syrian Army (FSA) is a faction that emerged early in the Syrian conflict, with the goal of overthrowing the Assad regime. Supported by Turkey, the FSA opposes both Assad's government and Kurdish forces, largely due to concerns over Kurdish separatism in Syria.

Fall of Assad's Regime

Bashar al-Assad's regime has long relied on external support from allies like Russia, Iran, and Hezbollah to maintain its hold on power. However, this support began to weaken due to shifting geopolitical realities.

- 1.For instance In 2023, Israel's airstrikes in Syria further diminished Assad's military strength, while Russia shifted its focus to the war in Ukraine, reducing its involvement in Syria.
- Moreover, Iran scaled back its presence after suffering significant losses among its personnel in Syria.
- 3. These changes have strained the Assad regime's ability to maintain control, making it more vulnerable in the face of ongoing challenges.

India and Syria

- 1. Syria has traditionally been an important member of the Non-Aligned Movement (NAM).
- 2. India has maintained stable relations with Syria, viewing this partnership as crucial for strengthening ties with key players in the Middle East.
- 3. These relationships also help India counter Pakistan's influence in Muslim-majority nations, as both countries compete for political and diplomatic support in the region.
- 4.India sent humanitarian aid to Syria following an earthquake in February 2023 as part of Operation Dost (friend).



Way Forward

India must be cautious amid such crisis in Syria considering it's relation with the same.

- The U.S. support for a post-Assad transition in Syria, combined with its strong strategic partnership with India, has the potential to positively impact Syria-India relations.
- As India continues to strengthen its ties with the U.S. and plays a role in regional diplomacy, this could open up opportunities for India to engage more with Syria, particularly in rebuilding and stabilizing the country after the conflict.
- India's neutral stance and efforts to maintain balanced relationships across the Middle East could position it as a valuable partner in any future transition in Syria.
- India's neutral stance on Syria's internal affairs allows it to maintain diplomatic flexibility, positioning the country to engage with whatever leadership emerges in the future.
- A neutral approach could enable India to build constructive relationships based on mutual interests, focusing on regional stability and development, without being tied to one particular side in the ongoing conflict.
- It could give India the opportunity to play a positive, mediating role in Syria's recovery and broader Middle Eastern diplomacy.



NANO BUBBLE TECHNOLOGY

Introduction

Nano bubble technology involves the creation and use of extremely small gas bubbles, typically less than 200 nanometers in diameter, in liquids. These bubbles exhibit unique physical and chemical properties that make them beneficial in various industrial, medical, and environmental applications. Unlike larger bubbles, nano bubbles remain stable in liquids for a long time due to their high surface charge, preventing them from coalescing or bursting easily.

Key Properties of Nano Bubbles:

- 1. **Stability**: They can persist in liquids for weeks or months due to their size and surface charge.
- 2. **High Surface Area**: Their small size offers a large surface area, enhancing their interaction with substances in the liquid.
- 3. **Gas Transfer Efficiency**: Nano bubbles improve gas dissolution in liquids, making processes like oxygenation and ozonation more efficient.
- 4. **Zeta Potential**: Nano bubbles often carry a negative surface charge, enabling them to attract and remove impurities or bacteria.

Applications:

- 1. Water Treatment:
- Nano bubbles can remove contaminants, bacteria, and algae by increasing oxygen levels and enhancing oxidation.
- · Ozone-filled nano bubbles can be used for advanced oxidation processes.
- 2. Agriculture and Aquaculture:
- Enhance plant growth by oxygenating water and delivering nutrients more effectively.
- Improve fish farming conditions by oxygenating ponds and reducing harmful bacteria.
- 3. Medical and Healthcare:
- Used in wound healing and sterilization due to their ability to enhance oxygen levels and kill pathogens.
- · Potential for drug delivery and cancer treatment.
- 4. Industrial Cleaning:
- Nano bubbles are effective in cleaning surfaces and machinery without the need for harsh chemicals.
- 5. Environmental Remediation:
- Aid in cleaning polluted water bodies by increasing oxygen levels and breaking down contaminants.

How Nano Bubbles Are Generated?

Common methods for generating nano bubbles include:

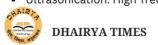
- Hydrodynamic Cavitation: High-speed liquid flow creates bubbles through pressure changes.
- Electrolysis: Electric currents generate gas bubbles in a liquid.
- · Ultrasonication: High-frequency sound waves produce



Reference

- Ahmed, M., & Santos, R. (2018). "Nanobubble Technology for Environmental Applications."
 Science of the Total Environment, 637-638, 550-560. [DOI link]
 (https://doi.org/10.1016/j.scitotenv.2018.05.0 87)
- Zimmer, S. (2020). "Nanobubbles: Unique Properties and Applications in Water Treatment." Environmental Science & Technology. [ACS Publications] (https://pubs.acs.org/doi/10.1021/acs.est.9b0 2821)
- Wang, L., et al. (2021). "Application of Nanobubbles in Agriculture: Mechanisms and Impacts." Agricultural Water Management, 248, 106797. [DOI link] (https://doi.org/10.1016/j.agwat.2021.106797)
- Tsuge, H. (2014). Micro- and Nanobubbles: Fundamentals and Applications. CRC Press. [Google Books](https://www.crcpress.com)
- Fang, M., & Fu, C. (2022). "Advancements in Nanobubble Technology for Aquaculture and Fisheries." Aquaculture Reports, 25, 100953.
 [DOI link]
- (<u>https://doi.org/10.1016/j.aqrep.2022.100953</u>)
- Jiang, Z., et al. (2019). "Nanobubbles: Generation Methods and Applications in Medicine." Advances in Colloid and Interface Science, 269, 14-30. [DOI link] (https://doi.org/10.1016/j.cis.2019.04.005)
- Wikipedia Contributors. (n.d.). "Nanobubble."
 Wikipedia. [Link]

(https://en.wikipedia.org/wiki/Nanobubble)



SEA LEVEL RISE AND IT'S IMPACT ON COASTAL ZONES

The term coastal crisis refers to a range of environmental, social, and economic challenges faced by coastal regions around the world. These issues arise from natural processes, human activities, and climate change, often threatening the sustainability and resilience of coastal ecosystems and communities.

Climate Change Impacts

- Sea-Level Rise: Rising sea levels threaten low-lying coastal areas, leading to flooding, land loss, and displacement of communities.
- Increased Storm Intensity: Hurricanes, cyclones, and typhoons are becoming more frequent and severe, causing widespread damage to coastal infrastructure and ecosystems.
- Coastal Erosion: Accelerated erosion affects beaches, cliffs, and wetlands, undermining natural habitats and man-made structures.

Pollution and Degradation

- Marine Pollution: Coastal waters are often polluted by industrial waste, agricultural runoff, and plastic debris, harming marine life and ecosystems.
- Overfishing: Excessive fishing activities disrupt the ecological balance, leading to the decline of fish stocks and biodiversity.
- Habitat Destruction: Mangroves, coral reefs, and other coastal habitats are being destroyed due to urbanization, deforestation, and industrial expansion.

Urbanization and Population Pressure:

- Coastal regions are densely populated, with many of the world's largest cities located near coasts. This
 leads to overuse of resources, habitat destruction, and increased vulnerability to natural disasters.
- Urban sprawl and industrial activities often result in the loss of wetlands and other natural buffers
 against flooding and storms.

Economic and Social Challenges

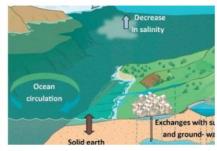
- Coastal crises often have economic repercussions, such as loss of livelihoods for fishing communities, decreased tourism revenue, and expensive disaster recovery efforts.
- Social inequalities can worsen, with marginalized communities bearing the brunt of environmental degradation and displacement.

Biodiversity Loss

 Coastal ecosystems like coral reefs, mangroves, and seagrass beds are home to a wide range of species. The degradation of these habitats threatens biodiversity and disrupts ecological balance.

Addressing the Coastal Crisis

- 1. Sustainable Development Practices:
- Promote sustainable urban planning and construction to minimize habitat destruction.
- Encourage eco-tourism and other environmentally friendly economic activities.
- 2. Conservation and Restoration Efforts:
- Protect and restore mangroves, coral reefs, and wetlands, which act as natural buffers against storms and erosion.
- Implement marine protected areas (MPAs) to conserve biodiversity.
- 3. Climate Change Mitigation and Adaptation:
- Reduce greenhouse gas emissions to limit global warming and its impacts on sea levels and storms.
- Develop adaptive infrastructure, such as seawalls and elevated buildings, to protect coastal areas.
 4. Community Engagement:
- · Educate and involve local communities in coastal conservation and disaster preparedness.
- Promote policies that address social inequalities and support vulnerable populations.
- 5. Research and Monitoring:
- Invest in research to understand coastal processes and the impacts of climate change.
- Use advanced technologies like satellite monitoring to track coastal changes and predict disasters.



Reference

- Nicholls, R. J., & Cazenave, A. (2010).
 "Sea-Level Rise and Its Impact on Coastal
 Zones." *Science,* 328(5985), 1517-1520.
 [DOI link]
 - (https://doi.org/10.1126/science.1185782)
- Halpern, B. S., et al. (2008). "A Global Map of Human Impact on Marine Ecosystems." *Science,* 319(5865), 948-952. [DOI link] (https://doi.org/10.1126/science.1149345
- IPCC. (2021). "Climate Change 2021: The Physical Science Basis."
 Intergovernmental Panel on Climate Change (IPCC). [Link]
 (https://www.ipcc.ch/report/ar6/wg1/)
- Barbier, E. B. (2017). "Marine Ecosystem Services and Climate Change." *ICES Journal of Marine Science,* 74(6), 1347-1355. [DOI link]
 - (https://doi.org/10.1093/icesjms/fsx030)
- World Bank. (2019). *Resilient Coastal Economies: Investing in Natural Infrastructure to Adapt to Climate Change.* [Link]
 - (https://www.worldbank.org/)
- Spalding, M., Kainuma, M., & Collins, L.
 (2010). *World Atlas of Mangroves.*

 Earthscan. [Google Books]
 (https://www.google.com/books/edition/World Atlas of Mangroves/)
- UNEP. (2021). *Global Environment Outlook – Marine and Coastal Ecosystems.* United Nations Environment Programme. [Link] (https://www.unep.org/)
- UNESCO. (2020). "Managing Coastal World Heritage in a Changing Climate."
 United Nations Educational, Scientific and Cultural Organization (UNESCO).
 [Link](<u>https://whc.unesco.org/en/)</u>



PUBLIC DISTRIBUTION SYSTEM

Introduction

- Context: The Public Distribution System (PDS) is a crucial component of India's food security framework, aiming to provide essential commodities to the poor and vulnerable sections of society.
- Background: The PDS has its roots in the pre-independence era, with the British government introducing the rationing system during World War II.
- Objective: The primary objective of the PDS is to ensure food security and availability of
 essential commodities to the poor and marginalized sections of society, thereby upholding the
 right to life guaranteed under Article 21 of the Indian Constitution.

Overview of Public Distribution System (PDS)

- 1. Definition and Purpose
- The PDS is a government-sponsored program that aims to provide subsidized food grains and other essential commodities to the poor and vulnerable sections of society.
- 2. History and Evolution
- The PDS has undergone significant changes since its inception, with major reforms introduced in the 1990s.
- 3. Key Components
- Fair Price Shops (FPS)
- · Ration Cards
- Supply Chain and Logistics

Structure and Functioning of PDS

- 1. Central Government's Role: The central government is responsible for procurement and allocation of food grains.
- State Government's Role: State governments are responsible for implementing the PDS in their respective states.
- 3. Fair Price Shops (FPS) and Ration Cards: FPS sell subsidized commodities to beneficiaries holding ration cards.

Stakeholders' Perspectives

- 1. Beneficiaries: Beneficiaries expect access to subsidized commodities, quality, and quantity.
- 2. Government Bodies: Government bodies aim to improve efficiency, reduce leakages, and enhance transparency.
- 3.NGOs and Civil Society: NGOs and civil society organizations promote transparency, accountability, and support beneficiaries.

Benefits and Challenges of PDS

- Benefits
- 1. Food Security
- 2. Poverty Alleviation
- 3. Social Welfare
- Challenges
- 1. Inefficiencies
- 2. Corruption
- 3. Exclusion Errors 4. Lack of Transparency

Reforms and Initiatives in PDS

- 1. National Food Security Act (NFSA), 2013
- 2. End-to-End Computerization and Digitization
- 3. Direct Benefit Transfer (DBT) and Cash Transfers



Conclusion and Way Forward

- Summary of Key Points
 The PDS is a critical component of
 India's food security framework,
 essential for upholding the right to life
 guaranteed under Article 21 of the Indian
 Constitution.
- Recommendations for Improving PDS
- Strengthen Supply Chain and Logistics
- 2.Enhance Transparency and Accountability
- 3. Support Beneficiaries
- Future Scope of PDS Reform
 The PDS has the potential to be
 transformed into a more efficient and
 effective system, ensuring food security
 and upholding the right to life for all
 citizens.

Reference

- The Constitution of India, Article 21.
- National Food Security Act, 2013.
- Planning Commission, Government of India. (2013). National Food Security Act: Operational Guidelines.
- Food Corporation of India. (2020).
 Public Distribution System (PDS): An Overview.



DISASTER MANAGEMENT

Introduction

- Context: The Disaster Management Amendment Bill is a crucial legislation aimed at strengthening India's disaster management framework. With the increasing frequency and severity of disasters, there is a need for a robust legal framework to mitigate and respond to disasters. This is particularly important given the country's vulnerability to natural disasters, as highlighted in the National Disaster Management Policy.
- Background: The Disaster Management Act, 2005, was enacted to provide for the effective
 management of disasters. However, over the years, it has been realized that the Act needs to be
 amended to address emerging challenges and to align with international best practices. The
 amendment bill aims to address these gaps and strengthen the disaster management framework.
- · Objective:
- 1. The objective of the Disaster Management Amendment Bill is to amend the Disaster Management Act, 2005, to strengthen the disaster management framework in India. This objective is aligned with the country's commitment to disaster risk reduction and management, as outlined in the Sendai Framework for Disaster Risk Reduction.
- 2. The Disaster Management Amendment Bill, 2024, is a significant legislation aimed at strengthening India's disaster management framework. The Bill amends the Disaster Management Act, 2005, which was enacted to provide for the effective management of disasters.

Key Provisions of the Disaster Management Amendment Bill, 2024:

- 1. Expansion of Definition: The Bill expands the definition of "disaster" to include biological disasters, cyber-attacks, and chemical disasters.
- 2. **National Disaster Management Authority (NDMA):** The Bill strengthens the NDMA by providing for the appointment of a Vice-Chairperson and increasing the number of members.
- 3. State Disaster Management Authorities (SDMAs): The Bill provides for the establishment of SDMAs in each state to ensure effective disaster management at the state level.
- 4. **District Disaster Management Authorities (DDMAs):** The Bill provides for the establishment of DDMAs in each district to ensure effective disaster management at the district level.
- 5. Disaster Risk Reduction and Management: The Bill emphasizes the importance of disaster risk reduction and management by providing for the development of disaster risk reduction plans at the national, state, and district levels.

The Disaster Management Amendment Bill, 2024, was introduced in Lok Sabha on August 1, 2024, and passed on December 12, 2024. The Bill aims to address emerging challenges and align with international best practices in disaster management.

Analysis of the Bill

- Strengths
- Comprehensive framework: The Bill provides a comprehensive framework for disaster management, covering all aspects of disaster management, including prevention, mitigation, response, and recovery.
- Strengthening of institutions: The Bill strengthens the NDMA, SDMAs, and DDMAs, providing for more effective disaster management at all levels.
- 3. Emphasis on disaster risk reduction: The Bill emphasizes the importance of disaster risk reduction and management, providing for the development of disaster risk reduction plans at all levels.
- Weaknesses
- 1. Limited funding: The Bill does not provide for adequate funding for disaster management, which could limit its effectiveness.
- Lack of clarity on roles and responsibilities: The Bill does not provide clarity on the roles and responsibilities of different stakeholders, which could lead to confusion and overlapping of efforts.



Way Forward

- · Recommendations
- Adequate funding: Provide adequate funding for disaster management to ensure effective implementation of the Bill.
- Clarity on roles and responsibilities: Provide clarity on the roles and responsibilities of different stakeholders to avoid confusion and overlapping of efforts.
- Capacity building: Provide for capacity building of stakeholders, including government officials, to ensure effective implementation of the Bill.

Conclusion

The Disaster Management Amendment Bill is a crucial legislation aimed at strengthening India's disaster management framework. While the Bill has several strengths, including a comprehensive framework and strengthening of institutions, it also has some weaknesses, including limited funding and lack of clarity on roles and responsibilities. To ensure effective implementation of the Bill, adequate funding, clarity on roles and responsibilities, and capacity building of stakeholders are essential.

Reference

 Ministry of Parliamentary Affairs, Government of India. (n.d.). Bills List. PRS Legislative Research. (2024). The Disaster Management (Amendment) Bill, 2024. VisionIAS. (2024). The Disaster Management (Amendment) Bill, 2024 passed by Lok Sabha.



Rupee Depreciation Against the Dollar

General Studies-3; Topic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment

Introduction:

- The Indian rupee has breached the psychological barrier of ₹85 against the US dollar, reaching its all-time low. The steep and sustained depreciation has raised concerns about the economy.
- The depreciation has both positive and negative implications, necessitating comprehensive policy responses.

Key Causes of Rupee Depreciation

1. Domestic Factors

- · Economic Slowdown:
 - India's GDP growth has fallen to a three-quarter low, dampening investor confidence.
 - Industrial production and manufacturing sectors show subdued growth, further weakening economic fundamentals.
- · Widening Trade Deficit:
 - India's merchandise trade deficit has expanded due to a rise in imports, particularly crude oil, while exports remain sluggish.
 - Higher import bills have increased demand for dollars, putting downward pressure on the rupee.
- · Inflationary Pressures:
 - Rising domestic inflation reduces the rupee's purchasing power and erodes investor confidence.
- Costlier imports, especially energy and technology, exacerbate inflationary trends.
 2.Global Factors
- Strengthening US Dollar:
 - The US dollar has gained strength amid robust economic growth in the US and a proactive Federal Reserve.
 - Investors seeking stability in volatile global markets prefer dollar-denominated assets, further bolstering the dollar.
- Federal Reserve's Tight Monetary Policy:
 - Despite a 25 basis point rate cut, the Federal Reserve remains hawkish in its approach to inflation control.
 - Higher interest rates in the US attract capital flows away from emerging markets like India, increasing pressure on the rupee.
- Global Economic Volatility:
 - Geopolitical tensions, energy crises, and supply chain disruptions have created uncertainty, prompting global investors to shift toward safer currencies like the dollar
- Weakness in Other Currencies:
 - Most global currencies, including the Euro, have depreciated against the dollar, further accentuating the rupee's relative decline.

Implications of a Weaker Rupee

1. Negative Impacts

- Imported Inflation:
 - A weaker rupee increases the cost of imported goods such as crude oil, fertilizers, and technology.
 - This rise in costs is passed on to consumers, fueling inflation. SBI estimates that a 5% decline in the rupee raises inflation by 25-30 basis points.
- Capital Outflows:
 - Depreciation often triggers foreign institutional investors (Flls) to withdraw capital from Indian markets, reducing foreign exchange reserves.
- Corporate Challenges:
 - Companies relying on imported raw materials face higher costs.
 - Firms with foreign-denominated loans experience increased repayment burdens, affecting profitability.
- Impact on Forex Reserves:
 - RBI interventions to stabilize the rupee can deplete foreign exchange reserves, reducing the country's ability to handle future external shocks.
- Higher Fiscal Deficit:
 - Increased costs for importing crude oil and other essentials can widen the fiscal deficit, impacting macroeconomic stability.

- 2.Positive Opportunities
- Export Competitiveness:
 - A weaker rupee makes Indian goods cheaper in global markets, benefiting export-oriented sectors like textiles, IT, and pharmaceuticals.
- · Encouragement of Domestic Manufacturing:
 - Costlier imports push industries and consumers to rely on domestic alternatives, promoting local production.
- Opportunity for Policy Reforms:
 - Depreciation provides a window for structural reforms to reduce import dependency and boost domestic capacities.

Policy Responses

- · RBI Interventions:
 - The Reserve Bank of India can stabilize the rupee through forex market interventions, such as selling dollars to increase supply.
 Interest rate adjustments can help control inflation and stabilize the rupee.
- · Inflation Control:
 - Tight monetary policies, including increased reportates, can reduce inflationary pressures stemming from a weaker rupee.
- Boosting Domestic Manufacturing
 - Strengthen the "Make in India" initiative to reduce dependence on imports, particularly in energy, electronics, and capital goods.
 - Promote self-reliance in critical sectors like energy and defense through targeted investments and policy support.
- Enhancing Export Competitiveness:
 - Diversify export products and markets to reduce dependency on specific sectors or regions.
 - Provide targeted incentives for export-oriented industries like textiles, pharmaceuticals, and agriculture.
- Energy Independence:
 - Reduce reliance on imported crude oil by investing in renewable energy sources and domestic energy production capabilities.
- Infrastructure Development:
 - Build robust trade and logistical infrastructure to improve the efficiency of exports and domestic manufacturing.

Strategic Measures

- · Efficient Public Expenditure:
 - Avoid fiscal slippages by prioritizing productive investments over subsidies and unproductive expenses.
- · Strengthening Forex Reserves:
 - Diversify forex reserves into stable assets to ensure resilience against external shocks
- · Collaborations with Major Economies:
 - Enhance trade relations with stable economies to attract investments and increase export markets.
- Counter Geopolitical Risks:
 - Engage diplomatically to reduce risks from geopolitical tensions that impact global trade and energy prices.

Conclusion

- The depreciation of the rupee to a historic low against the dollar reflects structural weaknesses in the Indian economy and global economic volatility.
- Strategic fiscal and monetary policies, coupled with infrastructure and trade
- reforms, are essential for addressing the challenges posed by rupee depreciation.

 Proactive measures can turn these challenges into opportunities for sustainable

economic growth.

Source : Anonymous

India as a Global Leader in Tsunami Disaster Management

General Studies-3; Topic: Disaster and disaster management.

Introduction:

- The tsunami of December 26, 2004, which claimed over 230,000 lives across 14 countries, was a turning point in global disaster management.
- For India, this tragedy underscored the urgent need for robust preparedness measures, leading to the establishment of the Indian Tsunami Early Warning System (TEWS).
- Today, India stands as a global leader in tsunami disaster management, with a state-of-the-art warning system that is a model for international cooperation and technological excellence.

Key Features of the Indian Tsunami Early Warning System (TEWS)

- Genesis and Institutional Framework
 - Following the 2004 Indian Ocean tsunami, the Government of India established the Indian Tsunami Early Warning Centre (ITEWC) under the Indian National Centre for Ocean Information Services (INCOIS) in Hyderabad.
 - Operational since 2007, the centre is now central to India's disaster preparedness and response capabilities.
- · Technological Components
 - Seismic Sensors: A network of stations monitors tectonic activity in the Indian Ocean and beyond, providing real-time data on undersea earthquakes.
 - Deep-Ocean Pressure Recorders (DART): These measure changes in ocean pressure that indicate tsunami waves.
 - Wave Rider Buoys: Installed in strategic locations, they track wave parameters to refine tsunami predictions.
 - Tide Gauges: These measure sea-level changes to confirm tsunami events.
 - Satellite Communication Systems: Critical for transmitting data and disseminating alerts swiftly.
- Operational Mechanism
 - Detection: Continuous monitoring of tectonic activity by seismic stations.
 - Simulation: Advanced computer models simulate tsunami propagation and predict impacts on coastal areas.
 - Monitoring: Instruments like DART buoys and tide gauges monitor the tsunami's trajectory and refine predictions.
 - Alert Dissemination: Rapid communication of alerts via SMS, emails, television, radio, and social media.

India's Global Role in Tsunami Preparedness

- International Collaboration
 - India's TEWS integrates data from global seismic networks and collaborates with agencies such as the Pacific Tsunami Warning Center and Japan Meteorological Agency (JMA).
 - Indigenous innovations like the Deep-Ocean Assessment and Reporting of Tsunamis (DART) buoys are pivotal in real-time ocean pressure monitoring.
- Regional Support
 - Designated as a Regional Tsunami Service Provider by UNESCO's Intergovernmental Oceanographic Commission, India provides advisories to 25 Indian Ocean Rim countries.
 - The system's accurate prediction during events like the 2012 Banda Aceh earthquake demonstrates its reliability.
- · Comparative Analysis with Global Systems
 - Japan: Renowned for its advanced TEWS, backed by high seismic activity and technological innovation.
 - United States: The National Oceanic and Atmospheric Administration (NOAA) leads TEWS efforts for the Pacific and Atlantic coasts.
 - Indonesia: Located in the Pacific Ring of Fire, Indonesia's system focuses on frequent seismic threats.
 - Chile: A robust TEWS managed by the Hydrographic and Oceanographic Service of the Navy.
 - Australia and New Zealand: Comprehensive systems for the Indian and Pacific Oceans, emphasizing regional safety.

Challenges and Areas for Improvement

- Evolving Threats
 - Beyond Plate Boundaries: While tsunamis are primarily associated with tectonic plate boundaries, events in the Pacific suggest that they can occur at plate tails due to realignments. The Indian Ocean's Makran and Sumatra sources require continuous study.
 - Non-Seismic Causes: Tsunamis caused by landslides, meteorite impacts, or nuclear explosions pose unique challenges for prediction.
- Natural Precursors
 - Observations like ocean withdrawal, unusual ocean sounds, specific odors, and animal behaviors can act as precursors but remain underutilized.
- · Public Awareness and Connectivity
 - Enhancing public awareness, ensuring last-mile connectivity for alerts, and conducting regular drills are essential to minimize casualties.
- · Impact of Climate Change
 - Rising sea levels and increased coastal vulnerabilities necessitate integrated planning for long-term resilience.

Way Forward

- Enhanced Research and Development
 - Invest in understanding tsunamigenic processes beyond traditional sources, including landslides, meteorite impacts, and tectonic realignments.
 - Develop advanced models for predicting tsunamis arising from non-seismic causes.
- Public Engagement and Awareness
 - Strengthen public education campaigns on tsunami precursors and safe evacuation protocols.
 - Implement community-based monitoring systems to leverage local knowledge and observations.
- International Collaboration
 - Foster deeper collaboration with global agencies to share data and methodologies.
 - Actively participate in international drills and workshops to stay updated on global best practices.
- Technological Upgrades
 - Expand the deployment of DART buoys and tide gauges in critical zones.
 - Utilize artificial intelligence and machine learning for real-time data analysis and prediction.
- Infrastructure and Coastal Resilience
 - Develop robust coastal infrastructure capable of withstanding tsunami impacts.
 - Integrate climate change mitigation strategies to address rising sea levels and coastal erosion.
- Policy and Governance
 - Formulate policies that mandate regular mock drills and ensure compliance with disaster management standards.
 - Allocate sustained funding for TEWS operations and upgrades.

Conclusion

- India's Tsunami Early Warning System is a testament to its commitment to disaster preparedness and regional cooperation.
- While challenges persist, the advancements made over the past two decades highlight India's leadership in leveraging technology for humanitarian purposes.
- By integrating global best practices, enhancing public awareness, and addressing emerging threats, India can further solidify its position as a global leader in tsunami disaster management.
 Source: Anonymous



India-China relations

General Studies-2; Topic: India and its neighbourhood-relations.

Introduction:

- The 23rd meeting between India's National Security Adviser (NSA) and Chinese Foreign Minister as Special Representatives (SRs) has renewed focus on bilateral relations amidst years of strain.
- This diplomatic dialogue represents a critical step forward after the 2020 Galwan Valley clash, marking an effort to restore stability in bilateral ties.

Background

- · Special Representatives Mechanism:
 - Established two decades ago, the SR process serves as a framework for addressing bilateral disputes, particularly the complex boundary issue.
 - Previous rounds of SR talks provided a platform to maintain peace along the Line of Actual Control (LAC) while working toward broader agreements.
- · Recent Diplomatic Revival:
 - The meeting between Prime Minister Narendra Modi and Chinese President Xi Jinping during the BRICS summit in October 2023 laid the groundwork for the resumption of talks.
 - Troop disengagement at the LAC signaled mutual interest in de-escalation and dialogue.

Key Outcomes of the Meeting

- Cultural and Economic Cooperation:
 - Resumption of Kailash-Mansarovar Yatra: A significant step symbolizing people-to-people connections and cultural diplomacy.
 - Revival of Border Trade in Sikkim: Enhancing local economic activity and restoring trust in trade mechanisms.
- · Scientific and Environmental Cooperation:
 - Trans-boundary River Data Sharing: Crucial for flood management and addressing environmental concerns, especially during monsoons.
 - This aligns with long-standing Indian concerns about water security and China's dam-building activities upstream.
- Connectivity and Exchange Programs:
 - Discussions on restarting direct flights, easing visa restrictions for students and businesses, and enhancing journalist exchanges signal a move toward normalizing relations.
- · Commitment to Border Peace:
 - Agreement on maintaining peace along the border to prevent disruptions in bilateral ties.
 - China articulated a six-point consensus reflecting commitment to peaceful coexistence, while India cautiously referred to the outcome as "positive directions."

Challenges in India-China Relations

- Boundary Dispute:
 - Unresolved border issues, including differing perceptions of the LAC, remain the core irritant.
 - While disengagement has occurred in some areas, deescalation and demilitarization across the entire LAC are yet to be achieved.

- Trust Deficit:
 - The 2020 Galwan clash eroded mutual trust, and China's actions, such as aggressive patrolling, continue to raise concerns
 - India remains cautious about Beijing's intentions, given its history of sudden policy shifts.
- · Economic and Strategic Concerns:
 - Trade relations are imbalanced, with India importing significantly more from China than it exports.
 - China's influence in South Asia, including in Pakistan, Nepal, and Sri Lanka, challenges India's strategic interests.
- Global Power Dynamics:
 - Changes in international alliances, such as India's growing ties with the U.S., QUAD (India, U.S., Japan, Australia), and its participation in I2U2 (India, Israel, UAE, U.S.), influence bilateral relations with China.
 - China's aggressive posture in Taiwan and the South China Sea also shapes global perceptions.

Way Forward

- Confidence-Building Measures:
 - Continued disengagement and de-escalation at the LAC are essential.
 - Mechanisms for transparency in military activities along the border should be strengthened.
- Broadening Cooperation:
 - Deepening partnerships in areas of mutual interest, such as climate change, public health, and infrastructure development, could provide common ground.
- Economic Realignment:
 - Addressing the trade deficit through enhanced market access for Indian goods in China and diversifying supply chains to reduce dependency.
 - Promoting joint ventures in technology and renewable energy.
- Multilateral Engagement:
 - Leveraging forums like BRICS, SCO (Shanghai Cooperation Organization), and G20 to foster dialogue and reduce tensions.
 - Engaging with other global players to maintain balance in regional geopolitics.
- · Strategic Vigilance:
 - Strengthening ties with allies in the Indo-Pacific, including the QUAD and ASEAN nations, to counterbalance China's influence.
 - Enhancing India's military and economic preparedness to safeguard its interests.

Conclusion

- The recent meeting represents a cautious but meaningful step toward normalizing India-China relations.
- A balanced approach combining diplomacy, strategic vigilance, and economic resilience will be critical for India in managing its complex relationship with China amidst an evolving global landscape.
 Source: Anonymous

Judicial code of conduct

General Studies-2; Topic: Structure, organization and functioning of the Executive and the Judiciary; Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

Introduction:

- The recent communal remarks by Justice Shekhar Kumar Yadav of the Allahabad High Court have brought judicial conduct and independence under intense scrutiny.
- His comments, which equate communal majoritarianism with democracy, not only violate the ethos of constitutional democracy but also contravene the oath of office, raising questions about judicial accountability.
- It also highlights the challenges posed by political influence over the judiciary and the need for robust mechanisms to uphold judicial impartiality and accountability.

Key Issues Exposed by the Incident

- · Violation of Judicial Oath and Constitutional Values:
 - Judges, under the Third Schedule of the Constitution, swear to uphold the integrity of India and perform their duties "without fear or favour, affection or illwill."
 - Justice Yadav's remarks contradict this oath by openly disparaging minorities and reflecting a biased ideological stance.
- Public Confidence and Judicial Impartiality:
 - The judiciary derives its legitimacy from public trust. When judges express overt political or communal biases, it erodes this trust.
 - The Supreme Court in the Ravichandran lyer case (1995) emphasized that judicial behavior is pivotal for maintaining public faith in democracy, liberty, and justice.
- · Growing Political Influence on the Judiciary:
 - Justice Yadav's remarks are not an isolated incident but part of a trend where certain judges lean toward political power centers.
 - Such tendencies undermine the judiciary's role as an impartial arbiter and weaken the democratic framework.
- Impact on Judicial Independence:
 - Judicial independence, a cornerstone of democracy, is compromised when judges align themselves with political ideologies or external pressures.
 - The comments by Justice Yadav highlight the need for stringent safeguards to prevent judicial behavior from being influenced by personal or political agendas.

Global and Historical Perspectives on Judicial Accountability

- Judiciary and Democratic Erosion:
 - Scholars like David Landau and Rosalind Dixon have demonstrated how courts can inadvertently contribute to democratic backsliding by legitimizing executive overreach.
 - In his work, J.A.G. Griffith argued that judicial impartiality is often a "myth" and warned against the judiciary being co-opted by political interests.
- Judicial Review and Legitimacy:
 - Judicial review, intended as a check on arbitrary executive action, can become a tool for legitimizing such actions if judges are swayed by political or ideological biases.
 - This reinforces the need for mechanisms to ensure judicial decisions are grounded in constitutional values rather than personal or political considerations.
- International Standards
 - The Bangalore Principles of Judicial Conduct (2002) outline values such as independence, impartiality, integrity, and equality that judges must uphold in both personal and professional capacities.
 - Global recognition of these principles highlights their relevance in maintaining judicial accountability and public trust.

Mechanisms for Judicial Accountability in India

- In-House Procedure (1997)
- The Supreme Court introduced an in-house procedure to address allegations of misconduct among judges.

- · Impeachment Process:
 - The constitutional provision for removing a judge requires a majority in both Houses of Parliament, making it impractical in most cases due to political partisanship.
- · Restatement of Judicial Values (1997):
 - The Supreme Court's code of conduct advises judges to avoid public debates, political opinions, and actions that may erode public confidence.
- Role of Bar Associations:
 - Legal luminaries like Justice Krishna lyer advocated for bar associations to play an active role in addressing judicial aberrations.

Broader Implications for Judicial Independence and Democracy

- · Quality of Democracy and Judiciary:
 - Judicial independence directly influences the quality of democracy.
 - A compromised judiciary weakens democratic institutions and fosters authoritarian tendencies.
- Preventing Political Co-optation:
 - Judges must remain insulated from political and ideological influences to ensure fair and unbiased adjudication.
- Strengthening Accountability Mechanisms:
 - Transparent and independent oversight mechanisms are needed to address judicial misconduct effectively.
 - Efforts should focus on democratizing accountability processes while ensuring they do not undermine judicial independence.

Way Forward

- Establishing Independent Oversight Mechanisms:
 - Create a judicial accountability commission independent of both the judiciary and the executive to investigate allegations of misconduct.
- Strengthening the In-House Procedure:
 - Make the in-house procedure more transparent, with well-defined guidelines for addressing judicial aberrations.
 - Ensure that disciplinary actions are visible to the public to restore faith in the judiciary.
- Regulating Judicial Conduct:
 - Enforce stricter adherence to the Restatement of Judicial Values and the Bangalore Principles.
 - Prohibit judges from participating in politically or religiously motivated events during their tenure.
- · Banning Post-Retirement Appointments:
 - Prevent judges from accepting political or administrative roles postretirement to eliminate potential conflicts of interest.
- Enhancing Public Scrutiny:
 - Encourage public and academic discourse on judicial accountability to ensure continuous pressure for reform.

Conclusion

- The remarks by Justice Shekhar Kumar Yadav underscore a pressing need to address judicial accountability in India. While the judiciary is often considered the guardian of democracy, its integrity depends on the conduct of individual judges.
- The current controversy is a reminder that judicial accountability is not just a legal necessity but a democratic imperative.

Source: Anonymous



EDITORIA SECTION SSSSSSSS

The Misuse of Dowry Harassment Laws in India

General Studies-2; Topic: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Introduction

- The tragic suicide of Atul Subhash in Bengaluru has reignited the debate around the misuse of dowry harassment laws in India.
- · Atul's case is a stark reminder of the devastating consequences that false allegations can have on individuals and families
- While Section 498A of the Indian Penal Code (IPC) was enacted to address dowryrelated violence and harassment against women, its misuse has led to numerous cases of injustice, undermining its original purpose.

Historical Context of Section 498A

- Enactment:
 - · Section 498A was introduced in 1983 to address the rampant issue of dowryrelated violence and harassment in India.
- - · To criminalize cruelty by husbands or their relatives.
 - Provide women with swift legal recourse against physical and mental abuse.
- - Offense is non-bailable, cognizable, and non-compoundable.
 - Immediate arrest without prior investigation is permitted under this section to protect victims.
- · Significance:
 - · The law empowered women to fight against the deeply entrenched social evil of dowry harassment, saving countless lives.

Rise in Misuse and Its Implications

While Section 498A was created with noble intentions, its misuse has caused significant harm, leading to a debate on its effectiveness and fairness.

1. Patterns of Misuse

- · False Allegations:
 - A growing number of cases involve baseless accusations made to extort money, harass the husband's family, or as an act of revenge.
 - o Innocent individuals are dragged into prolonged legal battles, resulting in emotional and financial strain.
- · Malicious Intentions:
 - · Allegations are sometimes used as bargaining chips during divorce or settlement proceedings.
 - · Blackmail or coercion to gain custody of children, property, or financial advantages is common.

2. Consequences of Misuse

- Psychological and Emotional Impact:
 - False accusations can lead to depression and even suicides, as in the case of Atul Subhash.
 - · Families of the accused often face humiliation and harassment, disrupting their personal and professional lives.
- · Legal and Economic Strain:
 - o Prolonged legal battles drain financial resources.
 - · The accused often lose their livelihoods due to societal stigma.
- Dilution of Genuine Cases:
 - · False cases erode the credibility of genuine victims, making it harder for them to seek justice.
 - · Courts and law enforcement are overburdened with frivolous complaints, delaying the resolution of real cases.
- Judiciary's Stance:
 - The Supreme Court has repeatedly acknowledged the misuse of Section 498A.
 - o In Rajesh Sharma v. State of Uttar Pradesh (2017), the court described the misuse as "legal terrorism."

Why Does Misuse Happen?

- Absence of Safeguards:
 - · Arrests are made based on unverified complaints without any preliminary investigation.
- · There is no penalty for filing false complaints, encouraging misuse.

- · Gender-Biased Nature of Law:
 - · Section 498A is perceived as one-sided, offering no protection to men or their families falsely implicated.
 - The law does not account for the possibility of malicious intent by the complainant.
- Social and Cultural Factors:
 - · Societal norms often stigmatize the accused even before the truth is
 - · Families of the accused are presumed guilty, intensifying the harassment.

Judicial Responses to Misuse

- Supreme Court Observations:
 - The judiciary has repeatedly cautioned against the automatic arrest of the accused in dowry harassment cases.
 - · Arnesh Kumar v. State of Bihar (2014): The court directed police to avoid unnecessary arrests and emphasized the need for preliminary inquiries before legal action.
- · Recommendations
 - · Establishment of family welfare committees to screen complaints before registering FIRs.
 - · Advocating for mediation and reconciliation in marital disputes.
- · Balanced Approach:
 - · The judiciary has emphasized the importance of balancing the protection of genuine victims with the rights of the accused.

- Strengthen Investigation Mechanisms
 - · Complaints should be thoroughly vetted by a neutral authority before filing an FIR.
 - · Police should be required to gather substantial evidence before making arrests
- · Penalize False Complaints
 - o Introduce stringent penalties, including fines and imprisonment, for individuals filing false cases.
 - · Publicly acknowledge cases where accusations are proven false to deter misuse.
- · Gender-Neutral Provisions
 - · Amend Section 498A to provide safeguards for men and families falsely
 - o Include mechanisms to protect the reputations and livelihoods of the accused during investigations.
- · Empower the Judiciary and Police
 - o Provide specialized training for judges and police to identify false accusations and recognize signs of manipulation.
 - · Encourage courts to focus on mediation and counseling for resolving marital disputes.
- Increase Public Awareness
 - Launch campaigns to educate the public about the proper use of Section 498A.
 - o Promote awareness about legal rights for both complainants and the accused.

Conclusion

- · Atul Subhash's case is a tragic reflection of the need for reform in the legal
- · The judiciary and legislature must work together to recalibrate the law, ensuring that it safeguards genuine victims while preventing its exploitation.
- · Only by striking this delicate balance can we uphold the principles of justice and equity in society.

Source: Anonymous

India-Bhutan Relations

General Studies-2; Topic: India and its neighbourhood-relations.

Introduction

- The visit of Bhutan's King and Queen to India in December 2023 highlights the enduring strategic and historical partnership between the two countries.
- Against the backdrop of growing Chinese pressure and Bhutan's domestic challenges, this visit assumes significant geopolitical importance.

Key Takeaways from the Visit

1. Reaffirmation of India-Bhutan Relations

- The meeting underscored the unique, time-tested partnership between India and Bhutan, rooted in mutual trust and cooperation.
- India reiterated its commitment to Bhutan's socio-economic development, exemplified by the doubling of financial support from ₹5,000 crore to ₹10,000 crore for the 2024-2029 period.
- Bhutan's Gelephu Mindfulness City Project, a flagship initiative by King Jigme Khesar, received Indian backing, reinforcing New Delhi's willingness to align with Bhutan's developmental priorities.
- 2. Discussions on Strategic Areas
- · Clean Energy and Hydropower:
 - Bhutan remains a critical partner in India's renewable energy strategy.
 Hydropower is central to Bhutan's economy, with the bulk of its energy exports directed to India.
 - Strengthened cooperation in this area aligns with India's push for regional energy security.
- Infrastructure Development:
 - The visit emphasized connectivity and infrastructure projects underlined by Bhutan's geostrategic importance in the Himalayan region.

Geopolitical Context: China's Growing Influence

- · China-Bhutan Border Issue
 - Bhutan and China have been negotiating their border disputes since 1984. In 2023, they signed a cooperation agreement to expedite boundary settlement and demarcation.
 - China's push to resolve boundary disputes reflects its broader strategy to weaken India's influence in Bhutan. Beijing has expressed its willingness to establish formal diplomatic relations with Bhutan after border settlement.
 - The border disputes, particularly in areas close to India's Siliguri Corridor (Chicken's Neck), are of immense strategic importance to New Delhi. Any territorial adjustment could jeopardize India's access to its Northeastern states.
- · Construction of Villages in Disputed Areas
 - China's construction of villages along disputed territories with Bhutan is a tactic
 to alter ground realities. These settlements serve both as civilian hubs and as
 part of a broader Chinese military strategy.
 - By creating infrastructure in disputed areas, China aims to legitimize its territorial claims over time.
- Economic Engagement and Coercion
 - China is offering economic incentives to Bhutan, including promoting it as a top destination for Chinese tourists and investing in Bhutan's telecom sector.
 - Beijing's carrot-and-stick approach aims to lure Bhutan into closer economic and diplomatic alignment.

India's Role in Bhutan's Security and Sovereignty

- Strategic Dependence on India
 - Bhutan's small military relies heavily on India for training, logistical support, and defense planning.
 - The 2017 Doklam standoff highlighted India's critical role in safeguarding Bhutan's territorial integrity. Indian troops intervened to prevent Chinese road construction in disputed territory.
- · Friendship Treaty and Its Implications
 - The India-Bhutan Friendship Treaty underpins their bilateral relations.
 - The treaty emphasizes Bhutan's sovereignty while ensuring India's role in Bhutan's foreign and defense policies.
- Mitigating Chinese Pressure
 - India's enhanced financial support to Bhutan is aimed at countering China's economic offers.

Challenges for Bhutan

1. Balancing India and China

- Bhutan faces a tightrope walk between preserving its friendship with India and managing growing Chinese assertiveness.
- While engaging with China may provide short-term economic benefits, Bhutan's sovereignty and historical ties with India limit its diplomatic maneuverability.
- 2.Domestic Issues
- · Youth Migration:
 - Bhutan is witnessing significant outmigration, particularly among its youth, to countries like Canada and Australia. This trend poses longterm challenges to its economy and labor market.
- · Limited Economic Diversification:
 - As a landlocked nation, Bhutan's economic growth remains constrained. Over-reliance on hydropower and limited industrial development leave it vulnerable to external pressures.
- 3. Sovereignty Concerns:
- China's tactics of altering territorial narratives pose a direct threat to Bhutan's sovereignty.
- Bhutan must carefully navigate its diplomatic engagements to avoid being drawn into Beijing's sphere of influence.

The Strategic Importance of Bhutan to India

- Siliguri Corridor
 - Bhutan's geographical location makes it critical for the security of the Siliguri Corridor, the narrow strip connecting mainland India to its Northeast.
 - Any Chinese presence in the disputed regions could jeopardize this vital corridor.
- Hydropower Partnership
 - Bhutan's hydropower exports are central to India's renewable energy strategy. Collaboration in this sector strengthens bilateral ties and ensures mutual benefits.
- Geopolitical Buffer
 - Bhutan serves as a buffer state between India and China, making its sovereignty essential for India's strategic stability in the Himalayas.

Way Forward

- Strengthening Bilateral Cooperation:
 - India must continue to prioritize Bhutan's developmental needs, ensuring that its financial and infrastructural assistance addresses Bhutan's domestic challenges.
- Regional Engagement:
 - Bhutan's engagement with China must be monitored closely, and India should proactively address Bhutan's concerns to prevent any diplomatic drift.
- · Empowering Bhutan:
 - Supporting Bhutan's economic diversification and capacity-building efforts will reduce its reliance on external actors, including China.
- Multilateral Diplomacy:
 - India can leverage regional platforms like SAARC and BIMSTEC to reinforce Bhutan's strategic alignment with India.

Conclusion:

- While Bhutan's balancing act between India and China reflects its strategic compulsions, its deep-rooted ties with India remain a cornerstone of its foreign policy.
- Bhutan's sovereignty and stability are crucial for regional security, and New Delhi's proactive engagement is essential to ensuring a "Viksit Bharat" that includes a stable and friendly Himalayan neighborhood.

Source: Anonymous

EDITORIA SECTION SSSSSSSS

India-Nigeria Relations and Strategic Engagement

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

Introduction

- · Prime Minister Modi's Recent Visit (2024):
 - · First visit by an Indian Prime Minister to Nigeria in 17 years.
 - · Strategic stopover on the way to the G-20 Summit in Brazil, signaling renewed emphasis on Africa in India's foreign policy.
- · Recognition of India's Role:
 - · Nigerian President Bola Ahmed Tinubu personally welcomed PM Modi, highlighting Nigeria's high regard for India.
 - o PM Modi awarded Nigeria's second-highest civilian honor, the Grand Commander of
 - o Only the second foreign dignitary to receive this award since Queen Elizabeth II in
 - · Recognition of India's growing stature in the Global South.

Strategic Importance of Nigeria

- Regional Leadership:
- Nigeria is Africa's largest economy and democracy.
- A regional hegemon in West Africa and a key member of the African Union.
- Plays a mediating role in resolving African conflicts and promoting democracy on the continent.
- · Economic Potential:
 - · Major exporter of oil and natural gas.
 - · Abundant natural resources, including minerals critical for global energy transitions,
 - o Opportunities in sectors like agriculture, technology, healthcare, and renewable energy.
- Global South Dynamics:
 - o Both India and Nigeria are leaders in the Global South.
 - · Strengthening ties benefits collaborative efforts on shared global challenges like climate change, development financing, and equitable trade systems.

Areas of Collaboration

- Defence and Security
 - · Shared concerns over terrorism, piracy, and separatism.
 - PM Modi emphasized counterterrorism cooperation, particularly against Islamist groups like Boko Haram.
 - Growing role of India as a defense supplier to Africa.
 - a.Indian weapons sales to countries like Egypt, Algeria, Morocco, Tanzania, and Mozambique
 - b. Nigeria has shown interest in purchasing Indian arms and technologies.
 - o Earlier in 2024, an Indian defense industry delegation visited Lagos to explore opportunities.
- **Energy Cooperation:**
 - Nigeria is a major oil and gas exporter, critical for India's energy security.
 - · Potential for investments in renewable energy infrastructure to support Nigeria's energy transition.
- · Economic Engagement:
 - Bilateral trade between India and Nigeria stood at \$7.89 billion in 2023-24, down from \$14.95 billion in 2021-22 due to India's diversification of oil imports from Russia.
 - · Focus areas: Technology, education, healthcare, agriculture, and industrial goods.
- Developmental Assistance: o India's concessional loans to Nigeria: \$100 million for various projects.
 - Capacity-building programs for Nigerian professionals under India's development partnership model
 - A distinctive "India Way" approach focusing on mutual growth and capacity building.
- o Opportunities for Indian pharmaceutical companies to expand access to affordable
- medicines in Nigeria.
- Indian universities and educational institutions could establish partnerships to strengthen human capital in Nigeria.

Nigeria's Relationship with China

- China's Dominance in Infrastructure:
- Over \$47 billion invested in 22 large-scale projects, including:
 - a.Lekki Deep Sea Port: One of West Africa's largest ports, expected to generate 170,000 jobs.
- b.National Public Security Communications System: Improving national security
- c. Abuja Light Rail Project: Enhancing urban connectivity

- · Loans and Debt Dependence:
 - o Chinese loans account for 11.28% of Nigeria's \$27.67 billion external debt (March 2020)
 - · Huawei's extensive presence in Nigeria:
 - a. Trained 3,000 Nigerians in cybersecurity and technology.
 - b. Deployed over 27,500 mobile towers and 10,000 km of fiber optic cables.
- Mining Sector:
 - o China involved in Nigeria's lithium mining for EV battery production.
 - Example: Kaduna State's collaboration with Ming Xin Mineral Separation Nig

Challenges in India-Nigeria Relations

- Trade Decline:
 - · Bilateral trade reduced significantly due to India's diversification of oil imports from Russia.
 - Need to explore new trade opportunities in non-oil sectors.
- · China's Influence:
 - o China's dominance in infrastructure, technology, and mining sectors poses challenges for India.
 - o India needs to present itself as a sustainable alternative to China's debtheavy financing model.
- · Lack of High-Level Engagement:
 - The 17-year gap in Indian Prime Ministerial visits underscores the need for consistent diplomatic outreach.

Way Forward

- · Expanding Trade and Investment:
 - o Diversify trade beyond oil to include sectors like technology, pharmaceuticals, and renewable energy.
 - · Encourage Indian private sector investment in Nigerian industries.
- · Collaborative Infrastructure Development:
 - · Compete with China by offering sustainable and transparent financing models.
 - o Partner in renewable energy projects, particularly solar and wind power.
- Strengthening Defence Ties:
 - · Enhance defense sales and joint training programs to boost counterterrorism capabilities.
 - Develop security partnerships to address maritime piracy and drug trafficking.
- Developmental Cooperation:
 - Expand capacity-building programs and concessional loans to support Nigeria's socio-economic development.
 - Promote cultural and educational exchanges to strengthen long-term ties.
 - Sustained Diplomatic Engagement:
 - Regular high-level visits and strategic dialogues to maintain momentum in bilateral relations.
 - Increased cooperation in multilateral forums like G-20, BRICS, and the African Union.

Conclusion

- · Nigeria's economic and geopolitical significance makes it a cornerstone of India's
- · Converting goodwill generated by PM Modi's visit into tangible outcomes requires consistent and strategic action.
- A stronger India-Nigeria partnership will serve as a model for inclusive, sustainable, and equitable growth in the Global South, fostering mutual progress and global leadership.

Source: THE HINDU

EDITORIA SECTION SSSSSSSS

Analysing the Outcomes of COP29 and the New Collective Quantified Goal (NCQG)

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

Introduction

- The global climate crisis has reached unprecedented levels of urgency, with the Intergovernmental Panel on Climate Change (IPCC) warning that global warming must be limited to 1.5°C above pre-industrial levels to avoid catastrophic impacts.
- However, current global policies are projected to lead to a temperature rise of 3.1°C
- COP29, held in Baku, Azerbaijan, branded as the "Finance COP," focused on the financial mechanisms necessary to accelerate climate action, particularly through the New Collective Quantified Goal (NCQG). While progress was made, significant gaps remain.

Key Issues Highlighted by COP29

1. The Financing Gap in Climate Action

- - · Developing countries require between \$5 trillion and \$7 trillion by 2030 to meet their climate action goals, as estimated by the Standing Committee on Finance under the UNFCCC. However, current pledges are far below these requirements.
- Developing World Challenges:
 - · High Upfront Costs: Transitioning to renewable energy and green technologies involves significant initial investments that are unaffordable for many developing nations without external support.
 - · Limited Fiscal Capacity: Developing nations often prioritize essential development activities like healthcare and education, leaving little room for climate investments
 - Risks of Green Technologies: Many green technologies, though promising, are still evolving and carry a risk of failure, deterring large-scale investments without substantial subsidies.

2. India's Approach to Climate Action

India is a prime example of a developing nation balancing climate commitments with economic challenges:

- **Budgetary Allocations:**
 - The Ministry of New and Renewable Energy (MNRE) received a record allocation of ₹19,100 crore in the 2024-25 budget.
 - Additional subsidies, such as ₹5,790 crore under FAME Phase-II, aim to promote the adoption of electric vehicles.
- · Focus Areas:
 - · Expanding renewable energy infrastructure.
 - Promoting energy efficiency and clean technologies.
 - · Encouraging private sector participation through subsidies and incentives.
- Challenges
 - Financing green energy projects amidst competing developmental needs.
 - Addressing the high cost of borrowing in India, which increases the cost of renewable energy projects.

Opportunities and Positive Developments

- Strengthening Multilateral Mechanisms
 - Increased resources for the Adaptation Fund, Least Developed Countries Fund. and Special Climate Change Fund can support vulnerable nations in addressing immediate climate challenges.
- Focus on Just Transitions
 - The NCQG discussions highlighted the need for equitable transitions, ensuring that no nation is left behind in the shift to a low-carbon economy.
- Innovation in Financing
 - Emerging mechanisms, such as green bonds and blended finance models, can attract private capital while mitigating risks for investors in developing countries.

Role and Limitations of the NCQG

1. Origin and Expectations

The NCQG was conceived during COP21 in Paris to establish a robust financial framework for climate action:

- Base Commitment: Building on the \$100 billion annual pledge from Cancun (2010).
- Intended Objectives:
 - · Create specific, quantifiable climate finance targets.
 - Ensure transparency and accountability in financial commitments.
 - Align financial flows with the scale of global climate action needs.

2 COP29 Outcomes

The NCQG set a target of \$300 billion annually from 2025 to 2035. However, this outcome was widely criticized:

- Inadequate Ouantum:
 - The figure is a fraction of the \$1.3 trillion annually demanded by developing nations to meet their conservative climate finance needs.
- o It fails to represent a transformative shift in global financial flows.
- · Reliance on Private Capital:
 - · A significant portion of the \$300 billion is expected to be mobilized through private capital, reducing the burden on developed nations but increasing uncertainty for recipient countries.
 - · Developing nations prefer public grants, which are more predictable and do not exacerbate debt burdens.

3.Structural Challenges

- · Inequitable Burden Sharing:
 - The NCQG fails to adhere to the principles of Common but Differentiated Responsibilities and Respective Capabilities (CBDR and RC).
 - · It does not account for historical emissions or the disproportionately high impact of climate change on developing nations.
- · Inefficient Financial Mechanisms:
 - · High debt burdens in developing nations limit their ability to access debt-based

Developing World's Challenges in Financing

- · The Cost of Capital
 - · Developing countries face significantly higher borrowing costs than developed nations, making large-scale climate investments unaffordable.
 - · The disparity in interest rates and risk premiums limits the flow of private capital to developing nations.
- · Lack of Predictable Financial Flows
 - · Climate finance flows remain concentrated within OECD countries, with limited transfer to the Global South.
 - Uncertainty regarding the availability and timing of funds hinders long-term planning for climate action.
- · Grant vs. Loan Debate
 - · Developing countries advocate for public grants over loans to avoid increasing their
 - Loans, even at concessional rates, burden nations with repayment obligations, diverting resources from essential development activities.

The Road Ahead

- Increasing Financial Ambition
 - Developed nations must recognize the scale of the climate crisis and commit to higher
 - · Climate finance must prioritize grants and concessional funding to ensure accessibility for developing countries.
- · Strengthening Global Cooperation
 - Climate change transcends geographical boundaries, requiring collective global action.
 - Multilateral forums must emphasize equity and climate justice, respecting the principles of CBDR and RC.
- Leveraging Technology and Innovation
 - · Developing nations should focus on adopting cost-effective and scalable clean technologies
 - International collaboration on technology transfer can accelerate transitions while reducing costs.
- Continued Negotiations
 - Climate finance discussions must remain a priority in future COP meetings.
 - · Transparent monitoring and accountability mechanisms are essential to ensure that financial commitments translate into real action.

- · The way forward lies in fostering stronger multilateral cooperation, increasing financial flows to developing nations, and ensuring that climate action aligns with principles of equity and
- · Only by bridging the gap between ambition and action can the global community effectively combat the existential threat of climate change. Source: THE HINDU



The Rights of Persons with Disabilities Act (RPWD Act) and the Role of State Commissioners

General Studies-2; Topic: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Introduction:

- The 2011 Census of India reported that 2.21% of the Indian population lives with disabilities, but this is a significant underestimation.
- The 2019 Brief Disability Model Survey by WHO estimated the prevalence of severe disability among Indian adults at 16%. This disparity highlights the need for accurate data collection mechanisms to plan inclusive policies effectively.

United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)

- India ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2007. The Convention emphasizes a rightsbased approach to disability, focusing on dignity, equality, and inclusion.
- The UNCRPD obligates states to align their national legislation with the Convention's principles.

Persons with Disabilities (Equal Opportunities, Protection of Rights, and Full Participation) Act, 1995

- The Persons with Disabilities (Equal Opportunities, Protection of Rights, and Full Participation) Act, 1995 was the first national law on disability.
- However, it followed a welfare model, lacking emphasis on equality and human rights
- The Rights of Persons with Disabilities (RPwD) Act, 2016 replaced the 1995 Act, incorporating a human rights-based approach. It expanded the definition of disability and introduced provisions for education, employment, healthcare, and accessibility.

Key Provisions of the RPWD Act

- · Expanded Scope of Disabilities:
 - The RPWD Act recognizes 21 disabilities, including autism spectrum disorder, thalassemia, acid attack survivors, and Parkinson's disease, reflecting a more inclusive approach.
- State Commissioners for Disabilities:
 - The RPWD Act mandates the establishment of State Commissioners with quasi-judicial powers to oversee the implementation of the Act.
 - Powers and Functions:
 - a. Conduct inquiries into complaints of rights violations.
 - b.Intervene suo motu in cases of policy violations.
 - c. Recommend corrective measures for policies or actions contravening the RPWD $\mbox{\sc Act}.$
 - d. Monitor and review disability-related policies, schemes, and quotas.

Challenges in Implementing the RPWD Act

- Delay in Appointments of State Commissioners
- Many states delay appointing State Commissioners, creating gaps in implementing the RPWD Act.
- The Seema Girija Lal vs. Union of India case highlighted this issue, urging timely appointments.
- The RPWD Act allows for the appointment of experts from law, human rights, education, social work, and NGOs. However:
 - Most commissioners are civil servants from the nodal ministry, creating a conflict of interest.
 - Only eight states have appointed non-civil servants as commissioners.
 - This undermines the impartiality of the office, as the commissioner cannot hold the executive accountable effectively.

- Underutilization of Suo Motu Powers
 - Few commissioners proactively investigate such cases.
 - This passivity erodes public trust in the statutory office.
- · Commissioners often lack training in:
 - Quasi-judicial functions.
 - Legal procedures for conducting inquiries.
 - o Data analysis to monitor disability-related schemes.
- State governments often fail to provide adequate resources, infrastructure, and staff support.

Best Practices in Disability Governance

- · Karnataka's Model:
 - Mobile Adalats: Reaching out to persons with disabilities in remote areas to address grievances on the spot.
 - District Disability Management Review (DDMR): A governance tool to monitor the implementation of welfare programmes at the district level.
 - Collaboration with Law Schools: Strengthening the quasi-judicial capacity of the office through partnerships with legal experts.
 - Designation of District Magistrates: As Deputy Commissioners for persons with disabilities, ensuring localized disability inclusion.
- Delhi's Approach:
 - Efficient grievance redress mechanisms and proactive engagement with disability organizations.

Way Forward

- Strengthening Appointments:
 - Appoint individuals with substantial experience in human rights, education, or rehabilitation as State Commissioners.
 - Increase the representation of women with disabilities to address intersectional discrimination.
- · Capacity Building:
 - Provide training to State Commissioners in their quasi-judicial roles.
 - Collaborate with law schools, NGOs, and UN entities to enhance understanding of disability laws and policies.
- · Increased Accountability:
 - Develop online dashboards to track the number of cases received, resolved, and pending.
 - Publish annual reports with recommendations for government action
- Enhanced Research Functions:
 - Promote research on disability inclusion in areas such as social protection, climate change, and care economy, in collaboration with global organizations.

Conclusion

- The RPWD Act is a progressive legislation that has the potential to transform the lives of persons with disabilities in India. However, its success depends on the political will of state governments to strengthen the State Commissioners' offices and address systemic gaps.
- India must uphold its commitment to the UNCRPD by addressing these challenges and ensuring that disability rights are protected, promoted, and fulfilled across all states and union territories.

Source: THE HINDU

Research Security in India's Strategic and Emerging Sectors

General Studies-3; Topic: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention

Introduction

- As India aspires to become a developed nation by 2047, science and technology (S&T) play a pivotal role in achieving its development objectives.
- Strategic investments in emerging technologies like artificial intelligence, quantum computing, space exploration, and biotechnology are essential for global competitiveness and addressing societal challenges.
- However, with intensified R&D efforts, the importance of research security has become paramount to safeguard national interests.

Understanding Research Security

- Definition:
 - Research security entails protecting sensitive scientific data, intellectual property (IP), and infrastructure from threats such as espionage, cyberattacks, unauthorized access, and insider threats.
- · Significance:
 - · Prevents misuse of strategic research outputs by foreign actors.
 - Ensures the confidentiality of data with economic and national security implications.
 - Shields technological advancements from exploitation, which could undermine India's progress in critical areas.

India's Strategic and Emerging Technologies

- India is making significant investments in:
 - Space and Defence: Advancing satellite technology, missile systems, and space exploration capabilities.
 - Semiconductors: Reducing reliance on imports to secure critical electronic supply chains.
 - Biotechnology: Enhancing healthcare solutions, agricultural resilience, and vaccine development.
 - Quantum and Al Technologies: Building leadership in quantum computing, Al-driven automation, and cybersecurity.

With these advancements, research security becomes essential to maintain technological leadership and prevent exploitation.

Global Challenges and Lessons

International Case Studies:

- Harvard University Case:
 - A senior professor and Chinese students were arrested for undisclosed ties to Chinese funding while receiving U.S. defense research funds.
 - Highlighted the vulnerabilities in research collaboration.
- COVID-19 Vaccine Cyberattacks (2020):
- Research facilities were targeted to steal vaccine development data.
- European Space Agency Breaches:
 - Cyberattacks aimed at sabotaging and stealing sensitive aerospace research.

These incidents underline the global nature of research security threats and their severe implications.

Global Responses:

- United States:
 - Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act: Includes strict research security provisions.
 - National Institute of Standards and Technology (NIST) Framework: Provides research security guidelines tailored to institutions.
- Canada
 - National Security Guidelines for Research Partnerships.
 - Policy on Sensitive Technology Research to avoid collaborations with highrisk institutions.

- · European Union:
 - A risk-based approach emphasizing sectoral self-governance and proportionate responses.
- Guidelines under Horizon Europe to secure EU-funded research projects.
 China's Role:
 - The Chinese Communist Party's military-civil fusion strategy integrates civilian academic research with military needs, making research security a global concern.

Current Challenges

- Lack of Awareness:
 - Research security has not been adequately prioritized in India's policy circles or academia.
- Vulnerabilities:
 - o Foreign collaborations in sensitive sectors lack proper scrutiny.
 - Weak data protection mechanisms in research labs.
- Inadequate personnel vetting and access controls.
- · Conflict with Academic Freedom:
 - Researchers may view security measures as an infringement on collaboration and openness.

Recommendations for Research Security in India

- Development of Guidelines:
 - A risk-based and proportionate response, as adopted by the EU, can balance security with academic openness.
- · Dedicated Research Security Office:
 - Establish within the Anusandhan National Research Foundation (ANRF) to coordinate national efforts.
- · Classification of Research:
 - Define sensitive research areas, including space, defence, and biotechnology, requiring higher levels of security.
- Collaborative Approach:
- Engage researchers and institutions to ensure regulations are practical and effective.
- International Cooperation:
- Collaborate with trusted nations for knowledge-sharing and best practices.
- Digital Infrastructure Upgrades:
 - Strengthen cybersecurity measures to prevent data breaches.

Way Forward

- Establish Governance Mechanisms: Create a unified framework for research security with clear roles for institutions, agencies, and policymakers.
- Funding and Resources: Invest in training, infrastructure, and surveillance to secure India's R&D ecosystem.
- Promote Security Awareness: Launch awareness campaigns for researchers to understand the importance of security without stifling innovation.
- Engage Global Partners: Collaborate with nations like the U.S. and EU to align research security standards.

Conclusion

India's ambitious S&T roadmap for 2047 demands robust research security
measures. Protecting strategic R&D investments while fostering global
collaboration is the need of the hour. A carefully calibrated, inclusive, and riskbased framework will empower India to achieve its scientific goals while
safeguarding national interests. By integrating security into its innovation
ecosystem, India can reinforce its position as a global leader in science and
technology.

Source: THE HINDU



Air Pollution Crisis in India with Focus on Delhi

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

Introduction

- Delhi is grappling with lethal air pollution, with Air Quality Index (AQI) peaking at 491 on November 18, 2024, near the upper limit of 500.
- Pollution levels are reported to be 50 times higher than the World Health Organization's (WHO) permissible standards, posing severe health and economic challenges.

Current State of Air Pollution in Delhi

- Severity of Pollution Levels
- AQI consistently crosses "severe plus" levels, disrupting flights, railways, and public
- Visibility has been significantly reduced due to particulate matter (PM) 2.5 and PM 10 concentrations.
- · Health Crisis
 - Premature mortality: Air pollution contributes to 2 million deaths annually in India.
 - Chronic conditions: Prolonged exposure causes lung diseases, cardiovascular illnesses, and impaired cognitive development, especially among children and the elderly.
 - Psychological stress: Continuous smog triggers mental health issues like anxiety and depression.
- Economic Loss
 - Loss of productivity: Poor air quality affects work efficiency, especially in outdoor occupations.
 - Healthcare costs: Rising illnesses strain the already overwhelmed healthcare infrastructure.
 - Impact on tourism: Air pollution damages Delhi's reputation as a tourist destination.

Major Causes of Delhi's Air Pollution

- Vehicular Emissions
 - Vehicles contribute to around 40% of Delhi's air pollution.
 - High reliance on diesel and petrol vehicles, along with the increasing number of vehicles, worsens emissions.
- Industrial Emissions
 - Unregulated industries, particularly in Delhi's periphery, emit nitrogen oxides, sulfur oxides, and particulate matter.
 - Thermal power plants in nearby states contribute to toxic emissions.
- Agricultural Waste Burning (Stubble Burning)
 - Farmers in Punjab, Haryana, and Uttar Pradesh burn crop residues during October– November, contributing to 40% of Delhi's smog.
- Urban Development
 - Dust from construction activities and demolition is a significant contributor to particulate matter pollution.
 - Poorly planned urban expansion has reduced green cover.
- Use of Solid Fuels
 Reliance on coa
 - Reliance on coal, wood, and biomass for cooking and heating in nearby rural areas exacerbates the crisis.
- Meteorological Conditions
 - In winters, temperature inversion traps pollutants close to the ground, aggravating smog formation.
 - Low wind speeds reduce pollutant dispersion.

Implications of Air Pollution

- Public Health
- Short-term Effects: Respiratory infections, reduced oxygen supply to organs, and acute eye irritation.
- Long-term Effects: Chronic obstructive pulmonary disease (COPD), lung cancer, heart attacks, and reduced life expectancy.
- Environment
- Soil contamination: Deposition of heavy metals affects soil fertility.
- Water pollution: Pollutants settle into water bodies, affecting aquatic life.
- Biodiversity loss: Polluted air harms plants, animals, and ecosystems.
- Socioeconomic Impact
- · Educational disruption: Schools are frequently closed due to hazardous air quality.
- Inequality: Poor communities without access to air purifiers or healthcare bear the brunt.
- Global Commitments
- Failing to control air pollution undermines India's progress on Sustainable Development Goals (SDGs) and its climate commitments under the Paris Agreement.

Government Initiatives

- Transition to Cleaner Fuels
- Conversion of public transport to Compressed Natural Gas (CNG) in Delhi.
- Expansion of LPG connections under the Pradhan Mantri Ujjwala Yojana (PMUY).

- Graded Response Action Plan (GRAP)
 - Restrictive measures like halting construction and increasing public transport during emergencies.
- National Clean Air Programme (NCAP)
 - Launched in 2019 with the aim to reduce PM2.5 and PMIO levels by 20-30% by 2024
- Green Energy Transition
 - Focus on renewable energy and shutting down older coal-based power plants near Delhi.
- · Stubble Burning Management
 - Subsidizing farm machinery like Happy Seeders to reduce the need for stubble burning.

Challenges in Implementation

- Weak Enforcement
 - Existing laws and policies are often poorly enforced, particularly in construction and industrial zones.
- · State-Level Coordination
 - Lack of cooperation between Punjab, Haryana, Uttar Pradesh, and Delhi in managing stubble burning.
- Behavioral Challenges
 - · Resistance from farmers to adopt alternative methods due to lack of incentives.
 - Public reluctance to switch to electric vehicles (EVs) due to high costs.
- Lack of Infrastructure
- Insufficient public transport and EV charging stations make sustainable practices difficult.
- · Economic Constraints
 - Implementation of clean technologies requires significant financial investments.

Opportunities Amidst Crisis

- · Economic Transformation
- Investments in green technologies can boost employment and economic growth.
- · Strengthening South Asian Solidarity
- Joint efforts to tackle air pollution can improve regional relations and create trust for addressing larger issues.
- · Public Health Revolution
- Addressing pollution will reduce healthcare costs and improve overall quality of life.

Way Forward

- Strengthening Regulations
 - Enforce strict penalties for construction dust and industrial emissions.
 - Mandate use of clean technologies in power plants and factories.
- · Sustainable Agriculture
 - Incentivize farmers to use crop residue for bioenergy production.
- Increase access to subsidized farm equipment like Happy Seeders.
- Promoting Clean Mobility
 - Expand electric vehicle infrastructure and offer financial incentives for EV adoption.
- Develop mass rapid transit systems to reduce dependency on private vehicles.
- Urban Planning and Green Infrastructure
- Increase urban green spaces to act as natural air filters.
- Promote vertical gardens and rooftop farming in urban areas.
- Regional and Global Collaboration
 - Facilitate dialogue with Pakistan and Bangladesh to address transboundary pollution.
 - Strengthen partnerships with international organizations like UNEP for technical support.

Conclusion

- Air pollution in Delhi is not just an environmental crisis but a public health emergency and a socioeconomic disaster.
- The solutions are well-known and feasible; what remains is political will and public accountability.
- Ultimately, clean air is not a luxury but a fundamental right for all, and it is imperative for India to act decisively to safeguard the health and future of its citizens.

Source: IE

EDITORIA SECTION SSSSSSSS

The 2025 Census and National Population Register (NPR) Update

General Studies-2; Topic: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Introduction

- The 2025 Census introduces a crucial initiative: updating the National Population Register (NPR), which forms the foundation for the establishment of the National Register of Indian Citizens
- This development has far-reaching implications for governance, security, and inclusion in India.

Historical and Legislative Context

- Origin of NRIC
 - The concept of the National Register of Indian Citizens (NRIC) dates back to the 1951 Census, which created the first record of citizens and residents.
 - The need for a verified citizens' registry gained urgency post-Kargil War (1999). The Subrahmanyam Committee recommended a robust citizen database to distinguish citizens from non-citizens for national security.
- · Amendments to the Citizenship Act, 1955:
 - The addition of Section 14A mandated
 - a. Compulsory registration of Indian citizens.
 - b. Issuance of identity cards to document citizenship status.
- - o Early implementations, such as the Multi-Purpose National Identity Card (MNIC) and fishermen identity cards, laid the groundwork for NPR and NRIC. These pilots faced mixed results due to limited infrastructure and public awareness.
- · Mandate of NPR and NRIC:
- While NPR is a database of all residents in India, NRIC is the subset that identifies verified citizens through stringent documentation.

Objectives of NRIC

- Enhancing National Security:
 - · The NRIC ensures a verified citizen registry, aiding the government in identifying non-citizens and preventing illegal immigration.
 - It addresses the persistent challenge of cross-border infiltration, particularly in states with historical immigration issues
- · Improving Identity Verification:
 - The NRIC aims to reduce identity fraud and duplication, ensuring an accurate citizen database. It complements existing systems like Aadhaar but focuses exclusively on verifying citizenship.
- · Streamlining Welfare Programs:
 - NRIC helps ensure that government benefits reach eligible recipients.
- · This eliminates leakages in welfare schemes and improves governance efficiency
- · Administrative Efficiency:
 - o It becomes easier to plan policies, manage resources, and address socio-economic

Aadhaar and NRIC: Complementary but Distinct Roles

- Aadhaar's Purpose:
 - Aadhaar is a biometric-based identity system issued by UIDAI.
 - It focuses on linking individuals with services like subsidies, banking, and digital identity, and can be held by residents irrespective of citizenship.
- NRIC's Purpose
 - NRIC verifies citizenship and creates a definitive record of Indian citizens.
- Unlike Aadhaar, it excludes non-citizens and requires proof of citizenship
- · Complementary Roles:
 - · Aadhaar ensures inclusive service delivery, while NRIC provides a secure citizen registry for
 - Together, they enhance India's identity management ecosystem

The Assam NRC Experience and Lessons for NRIC

- Overview of Assam NRC:
 - Assam undertook an NRC update in 2019 under the Assam Accord (1985) to identify illegal immigrants, particularly from Bangladesh.

 - The exercise faced significant challenges, including:
 a.Exclusion of genuine residents due to stringent documentation requirements.
- b. Inclusion of errors, leading to legal and humanitarian issues.
- Key Lessons for NRIC:
 - Documentation Challenges: Many rural residents and marginalized communities lack the required documents to prove citizenship.
 - · Humanitarian Concerns: Exclusion from the NRC impacts livelihoods and creates a climate of fear, necessitating robust grievance mechanisms
 - Administrative Preparedness: A nationwide NRIC would involve far greater logistical challenges, requiring comprehensive planning and public awareness.

Challenges in Implementing NRIC

- · Data Privacy Concerns:
 - o The NRIC involves the collection of sensitive demographic and citizenship data, raising fears of misuse or breaches.
 - · Existing data protection laws in India are inadequate, necessitating robust safeguards.
- · Risk of Exclusion:
 - · Vulnerable communities, including marginalized groups, women, and rural populations, face higher risks of exclusion due to lack of
 - This could exacerbate socio-economic inequalities.
- · Logistical Complexities:
 - o Implementing the NRIC nationwide would require significant administrative resources, coordination, and transparency.
 - Verification processes must balance thoroughness with fairness to avoid unnecessary disputes.
- Public Awareness:
 - Ensuring citizens understand the process and their rights is critical to preventing misinformation and panic.

Potential Benefits of NRIC

- Strengthened Security:
 - o A verified citizens' registry helps address illegal immigration and strengthens internal security.
- Governance Efficiency:
 - Streamlined citizen data supports targeted welfare delivery and policy planning.
- Global Comparison:
 - · The NRIC aligns India with other nations like the United States, which maintains a comprehensive citizen registry for security and governance.

Way Forward

- Citizen Participation:
 - Encouraging citizens to actively verify records and raise concerns ensures a fair and transparent process.
- Simplified Documentation:
 - · Accepting alternative proofs of citizenship can reduce the risk of exclusion for vulnerable communities.
- Robust Data Protection Framework:
 - · Enacting stringent data privacy laws is critical to safeguard sensitive demographic and biometric data.
- Capacity Building:
 - Training administrative personnel and establishing grievance redressal mechanisms can address logistical and operational challenges.
- · Drawing lessons from the Assam NRC and ensuring robust public engagement will be crucial for its success.

Conclusion

- The 2025 Census and NPR update are transformative steps toward establishing the National Register of Indian Citizens (NRIC).
- balanced approach, prioritizing fairness, transparency, accountability, can make the NRIC a cornerstone of India's governance and national security framework.

Source: THE HINDU

















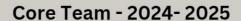












Dhairya: The Civil Services Society



DHAIRYA-

2024-25









Editorial Board

SESSION 2024 - 2025



EDITOR-IN-CHIEF - PRERNA BHUTE MANAGING EDITOR - ARYAMA SHARMA

RESEARCH HEAD - PREETI GULIA , GRAPHICS HEAD - SNEHIL JAISWAL PHOTOGRAPHY HEAD - TANISHKA BATRA

EDITORIAL BOARD MEMBERS -

MEHAK, HARSHITA, DIVYANSHI, SWETA KUMARI, AYUSHI SINGH, SAKSHI KUNTAL, GARIMA, NIKITA JOON, NIKITA, ZIKRA,RIYA.

As we conclude yet another edition of Dhairya Times, I extend my sincere appreciation to Editorial Board Members of Dhairya - The Civil Services Society for committing to provide this horizon to Aspirants in and across. Their anticipated attribution to this publication is an enhanced learning effort and sign of true team work.

To all the Aspirants and our devoted readers, I hope this is bringing out some benefits, perspectives and learning course in your daily life, just the way we planted the effort to. We are obliged by your response so far and continue to yield the best in our capability to Dhairya Times - A Quest For Horizon.

This edition has an addition which sums up this year's (2024), 24 important highlights that stood in par with the year's progress making them significant.

Let's continue to strive and emmerse ourselves in Reading, perceiving and standing up tall with all the awareness we must. This community seeks our dedication to publish and yours to read and we shall take that down to the coming year as well.

Best regards,

ri y

Vimlok Tiwari Convenor, Dhairya: The Civil Service Society