

NEXT IAS

Current Affairs

September 2024

Chief Editor

B. Singh (Ex. IES)

CMD, NEXT IAS & MADE EASY Group



MADE EASY Publications Pvt. Ltd.

Corporate Office: 44-A/4, Kalu Sarai, New Delhi-110016

Visit us at: www.madeeasypublications.org

☎ 011-45124660, 8860378007

E-mail: infomep@madeeasy.in

© Copyright 2024

MADE EASY Publications Pvt. Ltd. has taken due care in collecting the data before publishing this book. In spite of this, if any inaccuracy or printing error occurs then MADE EASY Publications owes no responsibility. MADE EASY Publications will be grateful if you could point out any such error. Your suggestions will be appreciated. © All rights reserved by MADE EASY Publications Pvt. Ltd. No part of this book may be reproduced or utilized in any form without the written permission from the publisher.

Disclaimer: The views and opinions expressed in this magazine are those of the authors and do not necessarily reflect policy or position of CURRENT AFFAIRS Magazine or MADE EASY Publications. They should be understood as the personal opinions of the author/ authors. The MADE EASY assumes no responsibility for views and opinions expressed nor does it vouch for any claims made in the advertisements published in the Magazine. While painstaking effort has been made to ensure the accuracy and authenticity of the informations published in the Magazine, neither Publisher, Editor or any of its employee does not accept any claim for compensation, if any data is wrong, abbreviated, cancelled, omitted or inserted incorrect.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without either the prior written permission of the Publisher.

Compilation of UPSC relevant news from 1st August to 31st August 2024

Contents

Cover Story

Women's Safety in India.....	6
Regime Change in Bangladesh.....	11
Sub Classification of SC/STs.....	14
Lateral Entry into Civil Services.....	17

Feature Articles

Waqf (Amendment) Bill, 2024.....	21
Tourism Sector in India.....	24
E-Commerce Sector in India.....	27
Contribution of Space Sector to India's GDP.....	29
India-Ukraine Relation.....	31
India-Japan Relation.....	34
AUKUS New Deal.....	36
Global South Summit.....	38
Instability in India's Neighbourhood.....	43
FTA talk with BIMSTEC.....	48
New Ramsar Sites.....	50
Increase in Global Flooding Incidence.....	53
Disaster Management (Amendment) Bill, 2024.....	56
INS Arighaat.....	58
e-Mobility in India.....	59
BioE3 Policy.....	63
Unified Pension Scheme (UPS).....	66
India's Performance in Paris Olympics.....	68

1 Polity & Governance

Bail is Rule and Jail is Exception': SC.....	71
Central Law on Health Care Professions.....	72
Senior Advocates of SC.....	72
Privilege Motion.....	73
Law Ministry Report on Judicial Infrastructure.....	74
No-confidence Motion Against Vice-President.....	75
Jan Poshan Kendras.....	75
Deen Dayal SPARSH Yojana.....	75
Pradhan Mantri JI-VAN Yojana.....	76
FloodWatch India 2.0.....	76
Model Solar Village'.....	77

2 International Relation

India-Sri Lanka Fishermen Issue.....	78
Supply Chain Council.....	79
Ukraine Votes to join ICC.....	79
Rail Force One.....	80
Prime Minister's State Visit to Poland.....	80

3 Economy

J&K Lithium Block gets no Bids.....	81
Latest Revelation by Hindenburg on the SEBI Chief.....	82
US has become Second Largest Supplier of LNG in India.....	84
Middle-Income Trap.....	85
States Can Directly Buy Rice from FCI.....	86
Policy Change for Aircraft Maintenance, Repair and Overhaul.....	86
Horticulture Clusters.....	87
Exploration of Geothermal Energy.....	87
Yen Carry Trade.....	88
RBI Enhances UPI Transaction Limit for Tax Payments.....	88
Banking Laws (Amendment) Bill, 2024.....	89
Global Employment Trends for Youth 2024.....	89
Housing Finance Companies (HFCs).....	91
Space-Driven Solutions for Agricultural Transformation in India.....	91
Andhra Pradesh Community-Managed Natural Farming (APCMNF).....	92
Performance Review of Regional Rural Banks (RRBs).....	93

4 Environment

Draft notification to declare Western Ghats as Eco-sensitive.....	95
Ground-level Ozone Pollution.....	96
Guru Ghasidas-Tamor Pingla Tiger Reserve.....	97
Management of Ballast Water.....	98
Gymnema Sylvestre (Gurmar).....	99
Malabar Tree Toad (MTT).....	99
Microplastic Contamination in Food.....	100
India's Ethanol Blended Petrol (EBP) Programme.....	102
Mettukurinji (Strobilanthes Sessilis).....	103

5 | Geography

Death due to Lightening	104
'National Disaster' Tag for Landslide	106
Pyrocumulonimbus Clouds.....	107
Botswana Discovered the World's Second Largest Diamond.....	108
Mass Wasting of Sedongpu Gully of Tibetan Plateau	108
Mount Kilimanjaro	109
St Martin's Island.....	110
Guam Island	110
Gumti River.....	111

6 | Internal Security

GAURAV LRGB.....	112
54th Foundation Day of BPR&D.....	112
Bilateral Exercises	113

7 | Science & Technology

WHO Declares Mpox as Public Health Emergency	114
Extremophile	114
Vigyan Dhara	114
Tanager-1 Satellite	115
Vaccine-Derived Poliovirus (VDPV)	116
Quantum Nonlocality	116
Giant Radio Sources	117
Axiom-4 Mission	117
Ceramic Objects.....	117
UN Convention Against Cybercrime	118
UNESCO Kalinga Prize for Popularisation of Science.....	119
DDoS Attack.....	120

8 | Society

Justice Hema Committee Report	121
Women Entrepreneurship Programme.....	121
Dhangars of Maharashtra	122
Pasmanda Muslim	123
Right to Disconnect.....	124
HP Increases Minimum Age of Marriage for Women.....	125

9 | Culture & History

Udham Singh.....	126
Pingali Venkayya.....	126
Srinagar gets tag of 'World Craft City'.....	127
Quit India Movement.....	128
152 nd Birth Anniversary of Sri Aurobindo	128
Namdhari Sect.....	130

10 | Miscellaneous

National Geoscience Awards.....	131
Eri Silk.....	131
Rashtriya Vigyan Puraskar	131
Vadhvan Port: A Game-Changer for Viksit Bharat.....	132
Pumped Storage Projects	132
NATS 2.0	133
Global Traditional Medicine Centre.....	133
National Institutional Ranking Framework (NIRF) 2024.....	134

11 | Data Recap

.....	135
-------	-----

Test Yourself

Mains Questions	136
-----------------------	-----

MADE EASY

Leading Institute for ESE, GATE & PSUs

Announcing

FOUNDATION COURSES for ESE 2025 • GATE 2025

- ✓ Classes by experienced & renowned faculties.
- ✓ Systematic subject sequence & timely completion of syllabus.
- ✓ Comprehensive & updated study material.
- ✓ Regular performance assessment through class tests.
- ✓ Exam oriented learning ecosystem.
- ✓ Result oriented teaching with comprehensive coverage.
- ✓ Concept of problems solving through workbooks.
- ✓ Similar teaching pedagogy in online and offline classes.

DELHI OFFLINE BATCHES

Admissions Open



Scan to Enroll

LIVE-ONLINE BATCHES

Admissions Open



Scan to Enroll

TABLET COURSES

Admissions Open



Scan to Enroll

RECORDED COURSES

Admissions Open



Scan to Enroll

MADE EASY is the most trusted and preferred institute which has consistently produced **Top Rankers** in **ESE & GATE** with largest number of selections.

MADE EASY students top in ESE 2023

1
AIR
CE



Vineet
Jain

1
AIR
ME



Romit
Sharma

1
AIR
EE



Atul Kumar
Singh

1
AIR
E&T



Gorantla Sai
Charan

4 Streams, 4 Toppers, all 4 MADE EASY Students

38 out of 40 in Top 10
(All Streams)

379 Selections out of
401 Vacancies

95% of Total Selections
are from MADE EASY

79% of total selections are from
Classroom & Online Courses

MADE EASY students top in GATE 2024

1
AIR
CE



Bhanu Pratap
Singh

1
AIR
CS



Piyush
Kumar

1
AIR
EE



Shivam

1
AIR
EE



Manoj Kumar
Sinha

1
AIR
ME



Suraj Kumar
Samal

1
AIR
EC



Raja
Majhi

1
AIR
IN



Rishabh
Gupta

1
AIR
PI



Kumar
Vishesh

1
AIR
ES



Gaddipati
Yaswanth Babu

1
AIR
XE



Ghanshyam
Girish Dhamat

10 All India Rank 1
(CE, ES, ME, PI, EE, EC, CS, IN, XE)

62
Selections
in Top 10

405
Selections
in Top 100

71% of total selections are from
Classroom & Online Courses

Corporate Office : 44 - A/1, Kalu Sarai, Near Hauz Khas Metro, New Delhi - 110016 | Ph : 9021300500

MADE EASY Centres : Delhi | Hyderabad | Jaipur | Bhopal | Pune | Kolkata

www.madeeasy.in

NEXT IAS

BIG LEARNINGS MADE EASY

GENERAL STUDIES: FIRST STEP

Step-up for CSE from Class 11

This course is especially designed for undergraduate college going UPSC aspirants.

Key Features

- ✔ **NCERT Based Curriculum:**
NCERT is a proven best resource to start building one's base in General Studies. It not only offers in-depth knowledge in easy language and helps in building fundamental concepts but is also closely aligned with syllabus of many competitive examinations.
- ✔ **LIVE ONLINE Mode:**
Classes will be conducted on weekends in Live-Online mode keeping in mind the requirements of college going students. Moreover, extra doubt clearing sessions and tests will be conducted at regular intervals during the course.
- ✔ **High Quality Teaching:**
Lectures will be delivered by experienced and knowledgeable faculties. Lecture plan is designed to cover the basics from scratch in order to cater the requirements of fresher students.
- ✔ **Focus on Concepts and Analytical Ability:**
Conceptual clarity and analytical ability is an essential condition for laying a strong foundation for success in Civil Services Examination. FIRST STEP course is designed to clear concepts and develop analytical ability of the students for the basic subjects which are part of Civil Services Exam.
- ✔ **Answer Writing & Strategy Sessions:**
Good answer writing skill is essential to clear Mains (Stage-II) of CSE. FIRST STEP course aims to improve answer writing skills through specially designed sessions by CSE qualified rank holders at periodic intervals.
- ✔ **Provision of Academic Coach:**
The course provides facility of interaction with highly qualified Academic Coaches for personalized and dedicated academic support, mentor-ship and guidance.
- ✔ **Performance Assessment:**
Students will be assessed regularly through objective and subjective questions based tests at regular intervals for performance evaluation and continuous improvement.
- ✔ **Exclusive Study Materials.**
High quality lectures will be supplemented with latest and updated study materials, made exclusively for FIRST STEP course students.

Subjects Covered: History, Geography, Economy, Polity, General Science & Technology, Environment & General Knowledge

Course Duration: 12 Months • Classes 4 days in a week (Tuesday, Wednesday, Saturday & Sunday)

Admission Open • For more details, visit : www.nextias.com

Delhi Centre :
Old Rajinder Nagar :
27-B, Pusa Road, Metro Pillar No. 118,
Near Karol Bagh Metro, New Delhi - 60
Ph : 8081300200

Mukherjee Nagar :
1422 Main Mukherjee Nagar Road,
Near Batra Cinema, New Delhi - 09
Ph : 9311667076

Jaipur Centre :
Plot No. 6 & 7, 3rd Floor,
Sree Gopal Nagar, Gopalpura
Bypass, Jaipur - 302015
Ph : 9358200511

Prayagraj Centre :
31/31 Sardar Patel Marg,
Civil Lines Prayagraj,
Uttar Pradesh - 211001
Ph : 9958857757

 www.nextias.com
 info@nextias.com

WOMEN'S SAFETY IN INDIA

Recently, a horrific crime occurred in Kolkata that shocked the nation.

About:

- A 31-year-old postgraduate trainee doctor at RG Kar Medical College and Hospital was raped and murdered inside a seminar hall on the hospital premises.
- The crime took place in the early hours of August 9, 2024.
- The incident highlighted significant lapses in security and raised questions about the safety of women, even in professional environments like hospitals.

SEXUAL CRIMES AGAINST WOMEN IN INDIA

• Hathras Gang Rape (2020):

- ♦ **Incident:** A 19-year-old Dalit woman was allegedly gang-raped in Hathras, Uttar Pradesh, in September 2020. She succumbed to her injuries two weeks later in a hospital in Delhi.
- ♦ **Outcome:** The case led to widespread condemnation and demands for justice, bringing attention to the vulnerabilities faced by Dalit women in India.

• Hyderabad Veterinary Doctor Rape and Murder (2019):

- ♦ **Incident:** In November 2019, a 26-year-old veterinary doctor was raped, murdered, and then her body was set on fire by four men near Hyderabad. The crime was premeditated, with the perpetrators deflating her scooter tire to create an opportunity for the attack.
- ♦ **Impact:** This case reignited discussion on women's safety, leading to the demand for stricter laws and faster trials in cases of sexual violence.

• Unnao Rape Case (2017):

- ♦ **Incident:** A minor girl was raped in Uttar Pradesh. The case gained national attention when the victim attempted self-immolation in front of the Uttar Pradesh Chief Minister's residence in 2018 after facing harassment and threats.
- ♦ **Significance:** The case highlighted the misuse of power and the difficulties faced by victims in obtaining justice, especially when the accused are influential figures.

• Mumbai Shakti Mills Gang Rape (2013):

- ♦ **Incident:** In August 2013, a 22-year-old photojournalist was gang-raped by five men in the abandoned Shakti Mills compound in Mumbai. The incident occurred when she and a male colleague were on assignment.
- ♦ **Legal Outcome:** The swift trial resulted in the conviction of

the perpetrators, with three of them being sentenced to death under the newly introduced anti-rape laws.

• Nirbhaya delhi gang rape case (2012):

- ♦ The 2012 Nirbhaya Delhi gang rape case refers to a brutal incident that occurred on the night of December 16, 2012, in New Delhi, India.
- ♦ A 23-year-old physiotherapy intern, later named "Nirbhaya" (meaning "fearless") by the media to protect her identity, was gang-raped and assaulted on a moving bus by six men. Her male companion, who was with her, was also severely beaten.

Legal Proceedings:

- ♦ **Arrests:** All six perpetrators were arrested shortly after the incident. One of them was a juvenile, tried separately under the Juvenile Justice Act.
- ♦ **Convictions:** Four of the adult attackers were sentenced to death in 2013 by a fast-track court, which was upheld by the Delhi High Court and later by the Supreme Court of India.
- ♦ **Execution:** The four convicted men were executed by hanging on March 20, 2020, after multiple appeals and delays.

Impact:

- ♦ **Legislative Changes:** The case led to significant amendments to Indian laws, including the introduction of the Criminal Law (Amendment) Act, 2013, which expanded the definition of rape and increased the penalties for sexual violence.
- ♦ **Cultural Impact:** The Nirbhaya case became a turning point in India's approach to sexual violence, prompting a national and international dialogue about gender-based violence and the need for systemic change.

The day a Woman can walk freely on the, that day the roads at at night, night,
day we can say that India has achieved independence

—Mahatma Gandhi

Safety Issues Faced by Women in India:

- **Domestic Violence:**
 - ♦ **Physical Abuse:** Many women experience physical violence from intimate partners or family members. This can include beatings, assaults, and other forms of physical harm.
 - ♦ **Marital Rape:** Though illegal in many countries, marital rape remains a controversial and often unrecognized issue in India.
 - **Sexual Violence:**
 - ♦ **Rape:** High-profile cases have drawn attention to the prevalence of rape in India, but many cases go unreported due to stigma and fear of retaliation.
 - ♦ **Sexual Assault:** Women face sexual assault in public spaces, workplaces, educational institutions, and even within their own homes. They are susceptible to sexual crime from womb to tomb.
 - ♦ **Child Sexual Abuse:** Girl children are particularly vulnerable to sexual abuse, often by someone they know.
 - **Street Harassment (Eve-Teasing):**
 - ♦ **Verbal Harassment:** Catcalling, lewd comments, and unwanted advances are common experiences for women in public spaces.
 - ♦ **Physical Harassment:** Unwanted touching or groping in crowded public places like markets, buses, or trains is a frequent concern.
 - ♦ **Stalking:** Women often face stalking by strangers or acquaintances, leading to fear and distress.
 - **Workplace Harassment:**
 - ♦ **Sexual Harassment:** Despite laws like the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013, many women face harassment at work, including inappropriate comments, advances, and coercion.
 - ♦ **Discrimination:** Gender-based discrimination in hiring, promotions, and pay creates a hostile work environment for many women.
 - **Cyber Harassment:**
 - ♦ **Revenge:** Non-consensual sharing of intimate images or videos is a growing issue, causing severe psychological trauma to victims.
 - ♦ **Online Abuse:** Women often face abuse on social media platforms, including threats of violence, hate speech, and trolling. *For e.g.* A Woman in the US claims she was virtually 'groped' in Meta's VR metaverse.
 - **Cultural Practices:**
 - ♦ **Honor Killings:** In some regions, women who are perceived to have brought dishonor to their families (e.g., by choosing their own partners) may face violence or even death.
 - ♦ **Dowry-Related Violence:** Despite being illegal, the practice of dowry continues, and women who cannot meet dowry demands are often subjected to violence, including dowry deaths.
 - ♦ **Deep-Rooted Patriarchal Norms:** Indian society is deeply rooted in patriarchal traditions that often view women as subordinate to men. This mindset permeates many aspects of life, leading to the normalization of gender-based violence and discrimination.
 - ♦ **Victim-Blaming:** Women who experience violence often face societal stigma and victim-blaming, which discourages them from reporting crimes. This perpetuates a cycle of silence and underreporting.
- **Limited Legal Protection and Justice:**
 - ♦ **Underreporting of Crimes:** Many crimes against women go unreported due to fear of social stigma, victim-blaming, and lack of trust in the justice system.
 - ♦ **Delayed Justice:** Even when crimes are reported, delays in the judicial process and low conviction rates discourage women from seeking justice.
 - ♦ **Corruption and Inefficiency:** Corruption within law enforcement agencies often leads to compromised investigations and a lack of accountability.
 - ♦ **Legal Loopholes:** Certain legal provisions, such as marital rape not being criminalized, leave women vulnerable to violence within their own homes.
- ### Government Initiatives:
- **Legal Reforms:**
 - ♦ **Criminal Law (Amendment) Act, 2013 (Nirbhaya Act):** Following the 2012 Delhi gang rape case, this act was introduced to expand the definition of sexual offenses, increase penalties, and introduce new crimes like acid attacks, stalking, and voyeurism. It also made provisions for faster trials and stricter punishment for offenders.
 - ♦ **Protection of Women from Domestic Violence Act, 2005:** This act provides a legal framework to protect women from domestic violence, including physical, emotional, sexual, and economic abuse. It also offers protection orders, residence orders, and financial assistance to victims.
 - ♦ **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013:** Commonly known as the POSH Act, this law mandates the establishment of Internal Complaints Committees (ICCs) in workplaces to address complaints of sexual harassment, ensuring a safer working environment for women.
 - **Policing and Law Enforcement Initiatives:**
 - ♦ **One Stop Centres (OSCs):** Also known as Sakhi Centres, these centers provide integrated services, including medical aid, police assistance, legal aid, psychological counseling, and temporary shelter, all under one roof for women affected by violence.
 - ♦ **Women's Helpline (181):** A nationwide toll-free helpline that provides 24/7 emergency response services for women in distress, offering immediate assistance and linking them to relevant authorities.

- ♦ **Bharosa Centres:** These are comprehensive support centers in various states that offer counseling, medical, legal, and shelter support to women and children who are victims of violence.
- **Public Awareness Campaigns:**
 - ♦ **Beti Bachao Beti Padhao:** This campaign aims to address issues of gender discrimination and promote the education of girl children.
 - ♦ It focuses on changing societal attitudes toward girls and improving their status through education and empowerment.
 - ♦ **Nirbhaya Fund:** Established in 2013, this fund is dedicated to supporting initiatives that enhance the safety and security of women in India.
 - ♦ Projects under this fund include the establishment of OSCs, creation of women's helplines, and funding of technological solutions like panic buttons on mobile phones and GPS tracking in public transport.
- **Technological and Infrastructure Measures:**
 - ♦ **Safe City Project:** Launched in several cities, this initiative aims to create safer urban spaces for women by improving infrastructure, installing CCTV cameras, setting up emergency response systems, and ensuring the presence of women police officers in public places.
 - ♦ **Panic Buttons in Public Transport:** Under the Nirbhaya Fund, public transport vehicles, including buses and taxis, are mandated to have panic buttons linked to emergency response systems, ensuring immediate help in case of harassment or assault.
 - ♦ **GPS Tracking:** To improve the safety of women in public transport, vehicles in several cities are equipped with GPS tracking, allowing authorities to monitor and respond to any distress situations effectively.
- **Social and Economic Empowerment Programs:**
 - ♦ **Mahila Shakti Kendra:** This scheme aims to empower rural women through community participation.
 - ♦ It provides training in legal rights, financial literacy, and skill development, helping women to be more self-reliant and aware of their rights.
 - ♦ **Ujjwala Scheme:** This scheme aims to prevent trafficking of women and children and rehabilitate victims by providing them with safe shelters, vocational training, and legal aid.
- **National Database on Sexual Offenders (NDSO) (2018):**
 - ♦ **Purpose:** To track and monitor convicted sexual offenders across the country.
 - ♦ **Usage:** This database is accessible only to law enforcement agencies and is intended to help in preventing sexual offenses by identifying and tracking repeat offenders.

Implications of Unsafe Environment for Women in India:

- **Psychological and Emotional Impact:**
 - ♦ **Trauma and Mental Health Issues:** Women who experience violence or harassment often suffer from long-term psychological trauma, including depression, anxiety, and Post-Traumatic Stress Disorder (PTSD). This can severely impact their quality of life and ability to function in daily activities.
 - ♦ **Fear and Anxiety:** The constant fear of harassment or violence can lead to chronic anxiety, limiting women's freedom of movement and ability to participate in public life.
 - ♦ **Loss of Self-Esteem:** Experiencing or even fearing violence can diminish women's self-esteem and confidence, affecting their personal and professional lives.
- **Social and Cultural Implications:**
 - ♦ **Perpetuation of Gender Inequality:** An unsafe environment reinforces patriarchal norms and gender stereotypes, perpetuating gender inequality. It normalizes the subordination of women and limits their roles in society.
 - ♦ **Social Isolation:** Women may become socially isolated as they avoid public spaces, social gatherings, or educational and work opportunities due to safety concerns.
 - ♦ **Impact on Families:** Violence against women also affects families, particularly children, who may witness domestic violence or suffer the consequences of a mother or sister being harmed. This can perpetuate cycles of violence and trauma across generations.
- **Economic Implications:**
 - ♦ **Reduced Workforce Participation:** Fear of violence or harassment can deter women from participating in the workforce, leading to lower female labor force participation rates.
 - ♦ This not only limits women's economic independence but also hampers overall economic growth.
 - ♦ **Loss of Productivity:** Women who are victims of violence or harassment may be unable to work or may be less productive due to psychological distress, resulting in economic losses for businesses and the broader economy.
 - ♦ **Healthcare Costs:** Addressing the physical and psychological consequences of violence against women requires significant healthcare resources.
 - ♦ The cost of treating injuries, mental health issues, and long-term disabilities adds to the economic burden on families and the healthcare system.
- **Educational Implications:**
 - ♦ **Hindrance to Girls' Education:** Safety concerns often lead to girls being withdrawn from school, especially in rural areas. Parents may fear for their daughters' safety during commutes or at school, leading to higher dropout rates.



FACTS RELATED TO WOMEN SAFETY IN INDIA

National Crime Records Bureau (NCRB) Data:

- **Crimes against Women:** NCRB 2023 Report highlights an alarming rise in crimes against women in India, with a 4% increase in 2022.
 - ♦ Over 4.45 lakh cases were reported, marking a significant rise from previous years.
 - ♦ The most common crimes include cruelty by husbands or relatives (31.4%), kidnapping and abduction (19.2%), assault with intent to outrage modesty (18.7%), and rape (7.1%).
- **Rape Cases:** In 2021, NCRB reported over 31, 677 cases of rape, with an average of 86 cases reported daily.
 - ♦ Most of the victims knew their assailants, with acquaintances, neighbors, and family members being the primary perpetrators.
- **Dowry Deaths:** There were 6, 910 reported cases of dowry deaths in 2021, reflecting the ongoing issue of dowry-related violence despite legal prohibitions.

Gender-Based Violence:

- **Sexual Harassment:** According to NCRB data, there were 14, 192 cases of sexual harassment in 2021.
- **Acid Attacks:** In 2021, 176 cases of acid attacks were reported; a heinous crime that often leaves victims with lifelong physical and psychological scars.

Workplace Harassment:

- A 2017 survey by the Indian National Bar Association found that 38% of women had faced harassment at the workplace, though most did not report it due to fear of retaliation or loss of employment.

Cybercrime against Women:

- The NCRB reported 10, 405 cases of cybercrime against women in 2021, including cyberstalking, online harassment, and revenge porn.
- With the increasing use of digital platforms, cybercrimes against women are on the rise.

Public Perception and Fear:

- **Safety Perception:** A 2018 survey by Thomson Reuters ranked India as the most dangerous country for women, based on expert perceptions regarding sexual violence, human trafficking, and cultural practices.

- **Mobility Restrictions:** A 2019 survey by ActionAid India found that 79% of women reported feeling unsafe in public spaces, especially during the evening and night, leading many to avoid certain areas or limit their movements.

Violence Against Marginalized Women:

- Dalit women are particularly vulnerable to violence, including sexual violence used as a tool of oppression.
- A 2018 study by Human Rights Watch highlighted the high incidence of rape and other forms of violence against Dalit women, often perpetrated with impunity.

Impact of COVID-19:

- During the COVID-19 lockdowns, there was a significant increase in domestic violence cases.
- The National Commission for Women (NCW) reported 2.5 times increase in complaints of domestic violence in 2020 compared to pre-pandemic levels.

Global Comparisons:

- **Global Gender Gap Index:** In the 2023 World Economic Forum's Global Gender Gap Index, India ranked 127th out of 146 countries, reflecting significant gender inequality, particularly in the areas of economic participation and political empowerment.
- **Women, Peace, and Security Index 2021-22:** India ranked 148th out of 170 countries.

Legal and Judicial Data:

- **Conviction Rates:** Conviction rates for crimes against women remain low.
 - ♦ In 2021, the conviction rate for rape cases was around 30%, indicating challenges in the judicial process, including delays, lack of evidence, and victim intimidation.
- **Pendency of Cases:** As of 2021, over 50% of cases related to crimes against women were pending in Indian courts, contributing to delays in justice.

Survey Findings:

- **NFHS-5 (2019-21):** The National Family Health Survey (NFHS-5) indicated that 29.3% of women aged 18-49 have experienced physical violence since the age of 15, and 5.2% have experienced sexual violence.

- ♦ **Impact on Academic Performance:** Girls who face harassment or live in fear of violence may experience anxiety and stress, affecting their concentration and academic performance.
 - ♦ **Barrier to Higher Education:** Women may be discouraged from pursuing higher education or professional courses if they perceive educational institutions as unsafe environments.
 - ♦ This limits their career opportunities and contributes to the gender gap in various fields.
 - ♦ **Barrier to Sustainable Development Goals (SDGs):** An unsafe environment for women hinders the achievement of several Sustainable Development Goals (SDGs), particularly those related to gender equality, health, education, and economic growth.
 - **Impact on National Image and Tourism:**
 - ♦ **Negative International Perception:** Countries where women's safety is a significant issue may suffer from a negative international image, affecting diplomatic relations and global standing.
 - ♦ **Impact on Tourism:** Safety concerns can deter tourists, particularly solo female travelers, from visiting India, negatively impacting the tourism industry, which is a significant source of revenue for the country.
- Way Forward:**
- **Legal Reforms and Enforcement:**
 - ♦ **Strengthening Existing Laws:** Ensure that laws protecting women, such as those against domestic violence, sexual harassment, and rape, are effectively implemented. Amend laws to close gaps, such as the non-criminalization of marital rape.
 - ♦ **Fast-Track Courts:** Establish more fast-track courts to expedite cases of gender-based violence, ensuring swift justice and reducing the trauma of prolonged legal battles.
 - ♦ **Accountability Mechanisms:** Introduce strict accountability measures for law enforcement agencies to ensure that they handle cases of violence against women with the seriousness and sensitivity they deserve.
 - **Police and Judicial Reforms:**
 - ♦ **Women Police Officers:** Increase the recruitment and presence of women in police forces and in leadership positions to ensure that women feel more comfortable reporting crimes.
 - ♦ **Specialized Units:** Expand the presence of specialized police units like SHE Teams, Anti-Romeo Squads, and women-only police stations to handle cases of violence and harassment more effectively.
 - **Education and Awareness:**
 - ♦ **Gender Sensitization in Schools:** Integrate gender sensitization and awareness about women's rights into school curriculums from an early age to challenge and change patriarchal attitudes.
 - ♦ **Public Awareness Campaigns:** Launch sustained public awareness campaigns to educate both men and women about gender equality, the importance of respecting women's rights, and the legal consequences of gender-based violence.
 - **Empowerment and Economic Independence:**
 - ♦ **Women's Economic Empowerment:** Promote women's economic independence through vocational training, entrepreneurship programs, and access to financial resources.
 - ♦ Economic empowerment can reduce women's vulnerability to violence and give them the means to leave abusive situations.
 - ♦ **Support for Survivors:** Provide comprehensive support services for survivors of violence, including counseling, legal aid, medical care, and safe shelters.
 - ♦ Rehabilitation programs should focus on helping survivors rebuild their lives.
 - **Infrastructure and Safe Public Spaces:**
 - ♦ **Safe Public Transportation:** Improve the safety of public transportation by installing surveillance cameras, increasing police patrols, and training transport staff to handle incidents of harassment.
 - ♦ **Emergency Helplines and Apps:** Ensure that emergency helplines (like 181) and safety apps are well-publicized, accessible, and responsive.
 - ♦ Increase public awareness of these resources and improve their integration with law enforcement for quick action.
 - **Strengthening Institutions:**
 - ♦ **Women's Commissions and Ombudsmen:** Strengthen the functioning of national and state women's commissions, giving them more power and resources to address complaints, conduct inquiries, and recommend actions.
 - ♦ **Corporate Responsibility:** Encourage businesses and employers to take responsibility for women's safety, both in the workplace and in surrounding areas. Implement strict workplace harassment policies and provide training on gender sensitivity.
 - **Partnerships and Collaboration:**
 - ♦ **Collaboration with NGOs and Civil Society:** Strengthen partnerships with non-governmental organizations (NGOs) and civil society groups that work on women's rights and safety.
 - ♦ These organizations can play a crucial role in advocacy, support services, and community engagement.
 - ♦ **International Cooperation:** Collaborate with international organizations and other countries to share best practices, resources, and strategies for ensuring women's safety.

REGIME CHANGE IN BANGLADESH

Recent exit of Bangladesh's Prime Minister from power could jeopardize India-Bangladesh relationships and affect growing trade ties, restricting the movement of people and goods etc. between the two countries.

Factors Behind Sheikh Hasina's Departure:

- **Nationwide Movement Triggered by Student Protests:** What began as a peaceful student protest against the 30% civil service reservation for freedom fighters escalated into a nationwide movement due to the government's harsh response.
 - ♦ The situation worsened when the Awami League's student wing, Bangladesh Chhatra League, attacked protesters, and the government imposed a strict curfew with a 'shoot-on-sight' order.
 - ♦ **Labeling** the demonstrators as 'Razakars'—a term historically associated with collaborators during the 1971 war—further heightened tensions.

ADDITIONAL INFORMATION

- In Indian Context, the Razakars were a volunteer militia in the princely state of Hyderabad, established to defend the Nizam's rule and resist Hyderabad's integration into India.
- They were considered as the '**Anti-integration Militia**' of erstwhile Princely state of Hyderabad.
- **Economic Slowdown:** Under Sheikh Hasina's leadership, Bangladesh saw rapid economic growth, with per capita income tripling over a decade and over 25 million people lifted out of poverty according to World Bank estimates.
 - ♦ However, the COVID-19 pandemic in 2020 and subsequent global economic slowdown severely impacted the garment industry, leading to rising unemployment, inflation, and growing public discontent.
- **Erosion of Democratic Values:** The parliamentary elections in 2014, 2018, and 2024 were marred by controversy, low voter turnout, violence, and boycotts by opposition parties, raising concerns about the erosion of democratic values in Bangladesh.
- **Reliance on Hard Power:** To maintain control, Hasina's government increasingly relied on hard power, fostering a climate of fear and repression.
 - ♦ **For instance**, the Digital Security Act of 2018 became a tool for the government and ruling party activists to silence critics and curb freedom of online expression.
- **Rising Economic Inequality:** Despite overall economic progress, public discontent grew due to increasing economic inequality, fueled by bank scams, a growing list of loan defaulters, and rampant corruption.
 - ♦ Notable examples include companies like CLC Power, Western Marine Shipyard, and Remex Footwear, which topped the list of defaulters with bad loans ranging from 965 crore to 1,649 crore Bangladeshi Taka.

India-Bangladesh Relations under Sheikh Hasina's Regime:

- **Eradication of Anti-India Terror Groups:** Under Sheikh Hasina's leadership, anti-India terror groups and their supporter, Jamaat-e-Islami Bangladesh, which had operated from safe havens in Bangladesh during the BNP-Jamaat rule from 2001-2006, were eradicated following her return to power.

ADDITIONAL INFORMATION

- The **Bangladesh Nationalist Party (BNP) and the Awami League** are the two major political parties in Bangladesh.
- The BNP, founded by **Ziaur Rahman**, advocates for nationalist policies, while the Awami League, led by **Sheikh Hasina**, is rooted in secularism and was pivotal in Bangladesh's independence movement in 1971.
- BNP is considered as anti-India and Awami League is considered as Pro-India.
- **Growth in Bilateral Trade:** Bilateral trade between India and Bangladesh flourished during Sheikh Hasina's regime.
 - ♦ In FY 2023–24, trade between the two countries reached \$13 billion, with Bangladesh becoming India's largest trade partner in the subcontinent, while India emerged as Bangladesh's second-largest trade partner in Asia, after China.
 - ♦ India has offered duty-free quota access to Bangladesh on all tariff lines except tobacco and alcohol under the South Asian Free Trade Area (SAFTA) since 2011.
- **Enhanced Connectivity Projects:** A number of infrastructure and connectivity projects were developed between India and Bangladesh during Sheikh Hasina's tenure, including:
 - ♦ The inauguration of the **Akhaura-Agartala cross-border rail link** and the **Khulna-Mongla Port rail line** in November 2023.
 - ♦ Five operational bus routes connecting Kolkata, Agartala, and Guwahati to Dhaka.
 - ♦ An agreement allowing the use of Chittagong and Mongla ports to facilitate cargo movement between mainland India and the Northeast.
 - ♦ India's extension of three lines of credit to Bangladesh since 2016, amounting to \$8 billion, for the development of road, rail, shipping, and port infrastructure.
- **Free Trade Agreement (FTA) Discussions:** During Sheikh Hasina's regime, India and Bangladesh initiated negotiations for a **FTA**. The proposed FTA would reduce or eliminate customs duties on goods traded between the two countries and simplify norms to further promote trade and investment.

- **Land Boundary Agreement (2015):** India and Bangladesh resolved a major long-standing dispute by swapping disputed enclaves and allowing residents to choose their country of residence, marking a significant milestone in their relationship.
- **Energy Cooperation:** Energy collaboration between India and Bangladesh deepened during Sheikh Hasina's tenure. Bangladesh now imports nearly 2,000 megawatts of electricity from India.
 - ♦ Additionally, the India-Bangladesh Friendship Pipeline, connecting Siliguri in West Bengal and Parbatipur in Bangladesh, will transport one million **Metric Tonnes Per Annum (MMTPA)** of high-speed diesel to Bangladesh.
- **Defence Cooperation:** The India-Bangladesh border, spanning 4,096.7 km, is the longest land boundary India shares with any neighbor.
 - ♦ The two countries have enhanced defense cooperation, conducting joint exercises such as Exercise Sampriti (Army) and Exercise Bongosagar (Navy).
- **Tourism Sector:** Bangladeshis constitute a significant portion of tourists visiting India. In 2017, the number of tourists from Bangladesh surpassed those arriving from Western Europe.
- **Medical Cooperation:** Bangladesh accounts for more than 35% of India's international medical patients and contributes to over 50% of India's revenue from medical tourism.

Immediate Challenges:

- **Sheikh Hasina's Presence and Extradition Issues:** Sheikh Hasina's presence in India is raising suspicions in Dhaka.
 - ♦ If the new Bangladeshi government requests her extradition, it could lead to further diplomatic complications.
- **Potential BNP Return to Power:** Upcoming elections in Bangladesh might see the BNP regain power. India's past experience with the BNP government (2001-2006), which harbored anti-India groups and aligned with China and Pakistan, raises concerns about future relations.
- **Concerns Over Minority Protection:** Prime Minister Modi's appeal for the protection of Hindus and minorities in Bangladesh, coupled with the establishment of a protection committee, is perceived as partisan in Dhaka, potentially straining bilateral relations.
- **Risk of Increased Regional Instability:** Political changes in Bangladesh could lead to regional instability, which may indirectly affect India's security interests and its strategic position in South Asia.
- **Disruption of Trade Ties:** Sheikh Hasina's departure could impact the robust trade relations between India and Bangladesh, potentially disrupting the \$13 billion bilateral trade and affecting India's position as Bangladesh's second-largest trade partner in Asia.

INDIA'S APPROACH TO ADDRESSING THE BANGLADESH CRISIS:

- **Cautious and Discreet Engagement:** India should exercise caution and discretion in its reactions to the evolving situation in Bangladesh.
 - ♦ Maintaining open channels for continued close and mutually beneficial ties is essential, similar to India's approach with the Maldives under the regime of Mohamed Muizzu.
- **Diplomatic Engagement:** Maintain open and proactive diplomatic channels with the new Bangladeshi government.
 - ♦ Address any concerns about Sheikh Hasina's presence through diplomatic negotiations to prevent escalation.
- **Prepare for Political Shifts:** Strategize for potential changes in Bangladesh's political landscape, including a possible BNP return. Build relationships with various political factions to ensure stability in bilateral relations regardless of the ruling party.
- **Balance Humanitarian and Diplomatic Concerns:** Continue advocating for the protection of minorities in Bangladesh while ensuring that such actions are framed diplomatically to avoid perceptions of partisanship.
 - ♦ Engage in joint initiatives to support minority rights and address grievances collaboratively.
- **Strengthen Regional Cooperation:** Reinforce regional ties through economic and security cooperation.
 - ♦ Enhance collaborative projects and trade agreements to build resilience against potential political shifts and strengthen regional stability.
- **Monitor and Adapt:** Closely monitor the evolving political situation in Bangladesh and adapt policies and strategies accordingly.
 - ♦ Prepare contingency plans to address potential diplomatic, economic, and security challenges.

Significance of India-Bangladesh Relation:

- **Historical and Cultural Links:**
 - ♦ India was one of the first countries to recognize Bangladesh and establish diplomatic relations immediately after its independence in December 1971.
 - ♦ The **national anthems** of both India and Bangladesh have been taken from Nobel laureate Rabindranath Tagore's works.
 - ♦ Cultural exchanges such as **Yoga, Kathak, Manipuri dance, Hindi and Bengali** languages, and Hindustani classical music promote **people-to-people contacts**.
- **Geopolitical Significance:**
 - ♦ Bangladesh provides India with **strategic access to the Bay of Bengal** and reinforces its strategic position in the Indian Ocean.
 - ♦ Bangladesh is considered a **gateway to Southeast Asia**.
 - ♦ India and Bangladesh share a long land border, and maintaining stability in the region is important to check insurgent activities and smuggling.
 - ♦ India-Bangladesh relations serve as a geopolitical counterbalance to China's influence in the region, countering China's encirclement of India.
 - ♦ Joint efforts can address common challenges, fostering a positive geopolitical environment in the region. Collaborations in **regional forums like BIMSTEC** help stabilize India's neighborhood.
 - ♦ **Land Boundary Agreement (LBA):** The historic **100th Constitutional Amendment Act of 2015** resolved the undemarcated land boundary dispute between the two countries.
 - ♦ Facilitated the transfer of 111 enclaves from India to Bangladesh, and India received 51 enclaves in return.
 - ♦ **Joint River Commission (JRC):** India and Bangladesh share 54 common rivers. JRC has been working since June 1972 to maintain liaison between the two countries to maximize benefits from common river systems.
- **Geo-economic Links:**
 - ♦ Bangladesh is India's biggest trade partner in South Asia, and India is the second biggest trade partner of Bangladesh in Asia.
 - ♦ India is Bangladesh's largest export destination in Asia, with approx USD 2 billion of Bangladeshi exports to India in FY 2022-23. In FY 2022-23, the total bilateral trade has been reported as USD 15.9 billion.
- **Connectivity:**
 - ♦ **Passenger Terminal Building:** For modernization of border infrastructure and strengthening of cross-border connectivity, it was inaugurated at Integrated Check Post (ICP) Petrapole in 2021.
 - ♦ **Bangladesh-Bhutan-India-Nepal (BBIN) MOU** for an integrated and seamless road and rail network for easy movement of goods and passengers across the region.

- ♦ **Agartala-Akhaura Rail Link:** 12.24 km project connecting Tripura (Agartala) with Bangladesh (Akhaura).
- **Defence Cooperation:**
 - ♦ **Joint Exercises:** Exercise Sampriti (between Army) and Exercise Milan (Navy).
 - ♦ Around \$8 billion Line of Credit (LoC) has been extended to Bangladesh, including \$500 million for defense-related procurement from India.

Broader Challenges:

- **Teesta Water Dispute:** The Teesta River flows through Sikkim, West Bengal, and merges with the Brahmaputra in Assam and the Jamuna in Bangladesh. In 2011, a proposed agreement suggested that India would receive 42.5% of Teesta's water, while Bangladesh would receive 37.5%. The dispute is still unresolved and is regarded as a litmus test for the bilateral relations.
- **Porous Border:** A porous border allows for easy and unauthorized movement of people, goods, or information across it. This leads to illegal migration from Bangladesh to India, straining bilateral relations. Additionally, it facilitates large-scale gold and cattle smuggling.
- **Rohingya Issue:** The Rohingya Muslim minority in Myanmar has faced persecution, causing many to flee to neighboring countries, including Bangladesh. Bangladesh seeks international support, including from India, to address the refugee crisis.
- **Citizenship Amendment Act, 2019:** This act allows migrants from Pakistan, Afghanistan, and Bangladesh belonging to Hindu, Sikh, Buddhist, Jain, Parsi, and Christian communities till 2014 to gain Indian citizenship.
 - ♦ There are apprehensions that Indian Muslims might flee to Bangladesh fearing detention, which raises concerns in Bangladesh about an increased influx of migrants.
- **China's Influence:** Bangladesh is a key part of China's Belt and Road Initiative and is alleged to be part of China's "**String of Pearls**" strategy. This concept refers to China's strategic naval presence in the Indian Ocean through a network of military bases and ports, perceived as an attempt to encircle India.

Way Forward:

- **Collaborative Approach:** Prioritize technical and diplomatic discussions to find a mutually beneficial solution, involving both national and state-level stakeholders.
- **Enhanced Border Security:** Strengthen border infrastructure and surveillance to reduce illegal activities and unauthorized movement.
- **Humanitarian Assistance:** Provide continued humanitarian support to Bangladesh for Rohingya refugees and work diplomatically with Myanmar for safe repatriation.
- **Reassurance and Dialogue:** Engage in dialogue with Bangladesh to address concerns and reassure that the Citizenship Amendment Act, 2019 is not intended to harm bilateral relations.

SUB CLASSIFICATION OF SC/STS

The seven-judge bench, led by Chief Justice DY Chandrachud, ruled by a 6: 1 majority that states are permitted to create sub-classifications within SCs and STs for the purpose of reservations.

2024 Verdict:

- This decision overturned the 2004 judgment in the **EV Chinniah v. State of Andhra Pradesh case**, which had previously declared such sub-classifications impermissible.
- **Supreme Court Verdict:** The Supreme Court delivered a landmark verdict, allowing for the sub-classification of SCs and STs. The Court held that sub-classification was permissible to ensure that affirmative action benefits reached the most disadvantaged sections within these communities.
- **Guidelines for Implementation:** The Court laid down guidelines for implementing sub-classification, emphasizing the need for data-driven policies, legislative action, and regular monitoring to ensure equity and justice.

Post-Verdict Developments:

- **Legislative and Policy Actions:** Following the verdict, the central and state governments began working on legislative and policy measures to implement sub-classification.
- **Stakeholder Engagement:** Extensive consultations were held with community groups, experts, and civil society organizations to develop an inclusive and effective framework for sub-classification.
- **Monitoring and Evaluation:** Mechanisms were put in place for regular monitoring and evaluation to assess the impact of sub-classification and make necessary adjustments.

FACTS RELATED TO SCs AND STs

Constitutional Provisions:

- **Article 341 and Article 342:**
 - ♦ **Article 341:** Defines Scheduled Castes. The President may specify the castes, races, or tribes or parts of or groups within castes, races, or tribes which shall be deemed to be Scheduled Castes in relation to that State or Union Territory.
 - ♦ **Article 342:** Defines Scheduled Tribes. The President may specify the tribes or tribal communities or parts of or groups within tribes or tribal communities which shall be deemed to be Scheduled Tribes in relation to that State or Union Territory.
- **Article 15(4) and 16(4):**
 - ♦ **Article 15(4):** Enables the State to make special provisions for the advancement of any socially and educationally backward classes of citizens or for SCs and STs.
 - ♦ **Article 16(4):** Provides for reservation in appointments or posts in favor of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.

- **Article 46:** Directs the State to promote with special care the educational and economic interests of SCs, STs, and other weaker sections and to protect them from social injustice and all forms of exploitation.
- **Article 244:** Provides for the administration of Scheduled Areas and Tribal Areas. The Fifth and Sixth Schedules of the Constitution provide for the administration and control of these areas.
- **Article 330 and Article 332:**
 - ♦ **Article 330:** Provides for the reservation of seats for SCs and STs in the House of the People (Lok Sabha).
 - ♦ **Article 332:** Provides for the reservation of seats for SCs and STs in the Legislative Assemblies of the States.
- **Article 338 and Article 338A:**
 - ♦ **Article 338:** Establishes the National Commission for Scheduled Castes to investigate and monitor all matters relating to the constitutional and other legal safeguards for SCs.
 - ♦ **Article 338A:** Establishes the National Commission for Scheduled Tribes with similar functions for STs.

Key Data:

- **Population:** According to the 2011 Census, Scheduled Castes constitute about 16.6% of India's total population, while Scheduled Tribes constitute about 8.6%.
- **Reservation in Education and Employment:** In educational institutions and public sector employment, reservations are provided as follows:
 - ♦ **SCs:** 15% reservation.
 - ♦ **STs:** 7.5% reservation.

Key Highlights of Verdict:

- **Legal and Constitutional Clarity:**
 - ♦ **Overturning Previous Rulings:** The 2024 verdict overruled the **2004 EV Chinniah judgment**, which had prohibited sub-classification. This provides a new legal foundation for states to implement sub-classification within SCs and STs.
 - ♦ **Constitutional Interpretation:** The ruling clarifies that sub-classification aligns with the principles of substantive equality and social justice enshrined in the Indian Constitution, ensuring that affirmative action policies are more effective and equitable.
- **Enhanced Social Justice and Equity:**
 - ♦ **Targeted Benefits:** By allowing sub-classification, the Court ensures that the most marginalized sub-groups within SCs and STs can access reservation benefits. This addresses the issue of more advanced sub-groups cornering the benefits, thus promoting equitable distribution.

- ◆ **Historical Redress:** The decision acknowledges and seeks to rectify historical and intra-community disparities, providing support to those who have been most disadvantaged within the broader SC and ST categories
- **Policy and Administrative Implications:**
 - ◆ **Guidance for State Governments:** States now have clear judicial backing to implement sub-classification in their reservation policies, leading to more targeted and effective affirmative action measures.
 - ◆ **Data-Driven Policies:** The requirement for sub-classification to be based on "quantifiable and demonstrable data" ensures that policies are evidence-based and justified, promoting transparency and accountability
- **Political and Social Impact:**
 - ◆ **Influence on Political Dynamics:** The verdict may influence political strategies and dynamics, as political parties may adjust their approaches to gain support from various sub-groups within SCs and STs. This could lead to a more nuanced approach to caste-based politics.
 - ◆ **Encouraging Inclusive Growth:** By ensuring that all sub-groups within SCs and STs benefit from reservations, the verdict promotes inclusive social and economic growth, contributing to overall societal development
- **Judicial Precedent and Future Implications:**
 - ◆ **Setting a Precedent:** The ruling sets a significant judicial precedent for future cases related to reservations and sub-classification, providing a clear legal framework for addressing similar issues
 - ◆ **Framework for Review:** The verdict establishes a framework for judicial review of state policies on sub-classification, ensuring that such policies are implemented fairly and justly.
- **Challenges and Criticisms Addressed:**
 - ◆ **Balancing Unity and Diversity:** While there are concerns about fragmentation within SC and ST communities, the ruling emphasizes that sub-classification aims to address real disparities and promote unity by ensuring that all sections receive due support.
 - ◆ **Preventing Political Manipulation:** By requiring sub-classification to be based on empirical data and subject to judicial review, the verdict seeks to prevent arbitrary or politically motivated decisions, thereby safeguarding the integrity of affirmative action policies

BACKGROUND OF THE COURT CASE

Early Debates and Initial Attempts:

- **1950s-1980s:**
 - ◆ **Constitutional Provisions:** The Constitution of India, enacted in 1950, included provisions for affirmative action for SCs and STs to address historical injustices and discrimination.

- ◆ **Reservations in Education and Employment:** Over the decades, the government implemented various reservation policies in education, employment, and political representation for SCs and STs.
- **1980s-1990s:**
 - ◆ **Growing Disparities:** As affirmative action policies were implemented, it became evident that benefits were not equitably distributed within SC/ST communities. Some sub-groups within these communities were seen as cornering a larger share of the benefits.
 - ◆ **Initial Proposals for Sub-Classification:** Policymakers and scholars began to propose sub-classification within SCs and STs to ensure more equitable distribution of benefits.

Legal and Political Developments:

- **1990s-2000s:**
 - ◆ **State-Level Initiatives:** Some states, notably Andhra Pradesh, attempted to introduce sub-classification within SCs to address intra-group disparities. These measures faced legal challenges and were often struck down by the courts.
 - ◆ **Political Mobilization:** Various sub-groups within SCs and STs began to mobilize politically, demanding more equitable distribution of affirmative action benefits.
- **2000s-2010s:**
 - ◆ **Court Cases and Judicial Pronouncements:** Several cases challenging state-level sub-classification policies reached the higher judiciary. The courts generally held that sub-classification within SCs and STs was not permissible under the Constitution as it stood.
 - ◆ **Legal Precedents:** Key judgments, such as the E V Chinniah case (2005), ruled that states did not have the power to further sub-divide SC/ST communities for the purpose of reservations.

Committees formed for Sub-categorisation of SCs/STs/OBCs:

- **Justice Usha Mehra Commission (2007):**
 - ◆ **Objective:** The commission was set up to examine the status of SCs in different states and recommend measures for equitable distribution of benefits.
 - ◆ **Findings:** The commission highlighted significant disparities within the SC community and suggested the need for sub-categorization to ensure that benefits reach the most marginalized sections.
- **Justice Raghunath Rao Committee (2008):**
 - ◆ **Objective:** Formed by the Andhra Pradesh government, the committee's purpose was to analyze the status of different sub-castes within the SC category in the state.
 - ◆ **Recommendations:** It recommended the sub-classification of SCs in Andhra Pradesh to ensure a fair distribution of reservation benefits.

National Commission for Scheduled Castes (NCSC) Reports:

- ◆ **Role:** NCSC, a constitutional body, has periodically examined the implementation of reservation policies and highlighted the need for sub-categorization in its reports.
- ◆ **Recommendations:** The NCSC has recommended a more nuanced approach to reservations, recognizing the disparities within SCs.

Justice G. Rohini Commission (2017):

- ◆ **Objective:** The commission was established by the central government to examine the issue of sub-categorization within Other Backward Classes (OBCs) but its work has relevance for SCs and STs as well.
- ◆ **Progress:** Although its primary focus was on OBCs, the findings and recommendations of the Rohini Commission have informed the broader discourse on sub-categorization.

National Commission for Backward Classes (NCBC) Reports:

- ◆ **Role:** Although primarily focused on OBCs, the NCBC has periodically examined issues related to intra-group disparities and the need for sub-categorization within backward classes, including SCs and STs.
- ◆ **Recommendations:** The NCBC has highlighted the importance of data-driven policies and regular monitoring to ensure equitable distribution of benefits.

- ◆ Without strict guidelines and oversight, sub-classification could become arbitrary, favoring certain sub-groups based on political considerations rather than genuine socio-economic need.

Administrative and Implementation Challenges:

- ◆ **Quantifiable Evidence:** Ensuring that sub-classification policies are based on quantifiable and demonstrable data is crucial. This requires comprehensive socio-economic surveys and continuous monitoring, which can strain administrative capacities.
- ◆ **Implementation Complexity:** States need adequate resources to implement sub-classification effectively. This includes financial resources for data collection, analysis, and monitoring, as well as training and capacity building for administrative staff.

Socio-Economic Impact:

- ◆ **Balancing Act:**
 - ◆ **Equity vs. Unity:** While sub-classification aims to promote equity within SCs and STs, it must balance this with the need to maintain unity and avoid further marginalization of already vulnerable groups.
 - ◆ **Long-Term Impact:** The long-term impact of sub-classification on social mobility and economic empowerment of SCs and STs needs careful evaluation to ensure that it achieves its intended goals without unintended negative consequences.

Possible Challenges:

Legal and Constitutional Challenges:

- ◆ **Constitutional Ambiguities:** Critics argue that sub-classification by states could violate **Articles 341 and 342** of the Constitution, which grant the President the authority to specify SCs and STs, subject to parliamentary approval. This raises questions about the constitutional validity of state-level sub-classifications
- ◆ **Judicial Inconsistency:** The Supreme Court's 2004 EV Chinniah ruling declared sub-classification impermissible. The 2024 verdict overturned this, creating potential legal inconsistencies and challenges in interpreting past and future judgments.

Social and Political Challenges:

- ◆ **Intra-Community Tensions:** Sub-classification could exacerbate existing divisions within SC and ST communities, leading to increased intra-community tensions and weakening collective solidarity.
 - ◆ More advanced sub-groups within SCs and STs might perceive sub-classification as unfair, leading to social unrest and resistance against the new policies.
- ◆ **Political Manipulation:** There is a risk that sub-classification could be used by political parties for electoral gains, leading to policies that are politically rather than socially driven. This could undermine the primary goal of achieving social justice.

Way Forward:

- ◆ **Legislative Action:** The government may need to introduce new legislation or amend existing laws to implement the Supreme Court's directives. This could include:
 - ◆ **Defining Criteria for Sub-Classification:** Establishing clear and objective criteria for sub-classifying SC/ST communities based on socio-economic status, educational attainment, or other relevant factors.
 - ◆ **Ensuring Equitable Distribution:** Creating policies to ensure that benefits are equitably distributed among sub-categories within SC/ST communities to address intra-group disparities.
- ◆ **Constitutional Amendments:** If required, the government might consider constitutional amendments to provide a clear framework for sub-classification, ensuring it aligns with the broader objectives of social justice and equality enshrined in the Constitution.
- ◆ **Data Collection and Analysis:** Accurate data collection and analysis will be crucial for effective implementation:
 - ◆ **Comprehensive Surveys:** Conducting detailed socio-economic surveys to identify disparities within SC/ST communities.
 - ◆ **Regular Monitoring:** Establishing mechanisms for regular monitoring and evaluation to assess the impact of sub-classification and make necessary adjustments.

LATERAL ENTRY INTO CIVIL SERVICES

In August 2024, the UPSC advertised 45 posts for lateral entry, the largest such recruitment drive to date. However, the process has faced criticism, particularly regarding the lack of reservation for SC, ST, and OBC candidates.

About:

- In response to **political pressures**, the government requested the cancellation of this recruitment drive, highlighting the ongoing debate around the fairness and transparency of the lateral entry process.
- **Meaning of Lateral entry into civil services** it refers to the recruitment of professionals from the private sector, academia, or other non-governmental sectors directly into middle and senior-level positions in government ministries and departments.
 - ♦ This approach is different from the traditional recruitment process, which typically involves entry through competitive examinations like the Civil Services Examination conducted by the Union Public Service Commission (UPSC) in India.

HISTORICAL CONTEXT

- **Early Post-Independence Period:**
 - ♦ **Dominance of Generalists:** After independence in 1947, India inherited the British system of administration, which primarily relied on a generalist cadre of civil servants.
 - ♦ The Indian Administrative Service (IAS), along with other allied services, became the backbone of the Indian bureaucracy.
 - ♦ These officers were recruited through the Union Public Service Commission (UPSC) and were expected to serve in various capacities across different domains, often without specialized training in specific sectors.
- **Need for Specialization:**
 - ♦ **Economic Reforms of the 1990s:** With the economic liberalization policies of the 1990s, India experienced rapid changes in its economic landscape.
 - ♦ The government began to recognize that the traditional generalist approach of the civil services was inadequate to handle the complexities of a liberalized and globalized economy.
 - ♦ There was a growing recognition of the need for domain experts, particularly in areas like finance, infrastructure, technology, and social development.
 - ♦ **International Influence:** During this period, India also began to look at international examples where lateral entry of experts into government roles was a common practice.
 - ♦ Countries like the United States and the United Kingdom had systems where experts from the private sector, academia, and think tanks were inducted into government roles to provide specialized knowledge and fresh perspectives.
- **Administrative Reforms and Reports:**
 - ♦ **Kothari Commission (1976):** The Kothari Commission on Recruitment Policy and Selection Methods first highlighted the need for lateral recruitment at the middle and senior levels in the civil services to introduce fresh blood and expertise.
 - ♦ However, this recommendation did not gain much traction at that time.
 - ♦ **Second Administrative Reforms Commission (2005-2009):** The 2nd ARC, chaired by Veerappa Moily, strongly advocated for lateral entry as part of its broader recommendations to reform the civil services.
 - ♦ The commission emphasized that lateral entry could bring in expertise, break the monopoly of career bureaucrats, and ensure that the administration kept pace with the changing socio-economic realities.
- **Initial Attempts and Challenges:**
 - ♦ **1990s and 2000s:** There were sporadic attempts at introducing lateral entry, particularly through the appointment of technocrats and professionals in advisory roles.
 - ♦ However, these were limited and often faced resistance from within the bureaucracy due to concerns over turf, hierarchy, and the perceived undermining of the traditional system.
- **Formal Introduction of Lateral Entry:**
 - ♦ **Narendra Modi Government (2014 onwards):** The idea of lateral entry gained significant momentum under the Modi government, which was keen on modernizing the bureaucracy as part of its "**Minimum Government, Maximum Governance**" agenda.
 - ♦ In 2018, the Department of Personnel and Training (DoPT) officially invited applications for lateral entry at the Joint Secretary level, marking a significant shift in policy.
- **Current Scenario and Future Prospects:**
 - ♦ **Institutionalization of Lateral Entry:** Since 2018, there have been multiple rounds of lateral entry, with professionals from diverse backgrounds being appointed to key positions.
 - ♦ The process has started to become more institutionalized, with discussions about expanding lateral entry to other levels of government.

Key Features:

- **Objective:**
 - ♦ The primary goal is to bring in specialized skills, expertise, and fresh perspectives to the public sector, which might not be adequately present among traditional career civil servants.
 - ♦ This is particularly important for roles requiring domain-specific knowledge, such as finance, technology, and infrastructure.
- **Positions Involved:**
 - ♦ The scheme typically targets positions at the levels of Joint Secretary, Director, and Deputy Secretary within the central government.
 - ♦ These roles are crucial as they involve significant policy-making and administrative responsibilities.
- **Implementation:**
 - ♦ The recruitment process is overseen by the UPSC, which advertises vacancies for specific positions. Applicants are selected based on their qualifications, experience, and suitability for the role.
 - ♦ Unlike traditional civil servants, who are recruited through competitive exams, lateral entrants are selected through a more direct process, often involving interviews and evaluations based on their professional achievements.
- **Appointment Terms:**
 - ♦ Lateral entrants are usually appointed on a contractual basis for a term of three to five years, which can be extended based on performance.
 - ♦ This contractual nature distinguishes them from traditional civil servants, who typically have long-term careers within the government.
- **Global Comparison:**
 - ♦ Lateral entry is not unique to India; many countries, including the United States, the United Kingdom, and Australia, have similar systems in place to bring in external talent to enhance the efficiency and effectiveness of their public sectors.

RATIONALE BEHIND LATERAL ENTRY

1. **Addressing Skill Gaps and Specialization Needs:** Modern governance has become increasingly complex, requiring specialized knowledge and expertise in various sectors such as finance, health, technology, environment, and infrastructure.
 - ♦ The traditional civil services, though highly competent, may not always have the specific skills required to manage these complex issues.
 - ♦ **Domain Expertise:** Lateral entry allows the government to bring in professionals with deep domain expertise from outside the traditional civil services.

- ♦ These individuals, who may have decades of experience in their respective fields, can provide the technical knowledge and strategic insights needed to tackle specialized challenges effectively.

2. Infusing Fresh Perspectives and Innovation:

- ♦ **Avoiding Bureaucratic Inertia:** One of the criticisms of the traditional civil services is that it can become resistant to change and innovation due to its hierarchical and rule-bound nature.
 - ♦ Lateral entry is seen as a way to infuse fresh perspectives and innovative approaches into the bureaucracy, helping to break down silos and encourage more dynamic problem-solving.
- ♦ **Bringing Private Sector Efficiency:** Professionals from the private sector often bring with them a focus on efficiency, results-oriented approaches, and an understanding of best practices that can be beneficial in improving the effectiveness of government operations.

3. Enhancing Policy Formulation and Implementation:

- ♦ **Bridging the Knowledge Gap:** The presence of lateral entrants with specialized knowledge can enhance the quality of policy formulation and implementation.
 - ♦ For example, experts in digital technology can help design better e-governance platforms, while financial experts can contribute to more effective fiscal management.
- ♦ **Better Decision-Making:** Lateral entrants can provide evidence-based inputs and data-driven insights that can lead to more informed decision-making within the government.
 - ♦ This can be particularly valuable in areas like economic policy, public health, and environmental regulation, where technical knowledge is crucial.

4. Addressing Capacity Constraints:

- ♦ **Filling Senior Positions:** The civil services sometimes face shortages of officers at the senior levels due to retirements, promotions, or the time it takes to train new recruits.
 - ♦ Lateral entry can help fill these gaps by bringing in experienced professionals who are ready to take on senior roles without the need for extensive training.
- ♦ **Supplementing the Existing Cadre:** Lateral entrants are not meant to replace career bureaucrats but to supplement them, particularly in areas where there is a need for additional capacity.
 - ♦ This helps ensure that the government has the necessary human resources to manage its various functions effectively.

5. **Global Competitiveness:** As India seeks to position itself as a global economic leader, there is recognition that its governance structures must be competitive with those of other leading nations.

- ♦ Lateral entry is seen as a way to ensure that the Indian government has access to the best talent, whether from within the country or from the Indian diaspora.

6. Improving Public Service Delivery:

- ♦ **Focus on Results and Outcomes:** One of the goals of lateral entry is to shift the focus of the civil service from process-oriented to results-oriented governance.
 - ♦ Professionals from the private sector are often accustomed to working in environments where performance is closely tied to outcomes, and they can help introduce this mindset into the civil service.
- ♦ **Citizen-Centric Governance:** Lateral entry is also seen as a way to make governance more responsive to the needs of citizens.
 - ♦ By bringing in professionals who have experience in customer service or consumer-focused industries, the government hopes to improve the quality of public service delivery and enhance citizen satisfaction.

Criticisms of Lateral Entry in Civil Services in India:

1. Challenge to the Meritocratic System:

- ♦ **Bypassing the UPSC Examination:** The Union Public Service Commission (UPSC) examination is the traditional gateway into the Indian civil services, known for its rigorous and competitive nature.
 - ♦ Critics argue that lateral entry undermines this system by allowing individuals to bypass this established route.
 - ♦ They fear that this could dilute the meritocratic principles that have long underpinned the civil services.
- ♦ **Fairness Concerns:** There are concerns that lateral entry might lead to favoritism or nepotism. Detractors argue that without the transparent and competitive process of the UPSC, the lateral entry process could be susceptible to bias, where individuals are selected based on connections rather than merit.

2. Resistance from Career Bureaucrats:

- ♦ **Threat to Career Progression:** Career civil servants, particularly those from the Indian Administrative Service (IAS), have expressed concerns that lateral entrants could block their career progression.
 - ♦ Positions that would typically go to career bureaucrats are now being opened to external candidates, leading to frustration and dissatisfaction among those who have risen through the ranks over many years.
- ♦ **Cultural Clash:** There is also apprehension about potential cultural clashes between career bureaucrats, who are deeply embedded in the traditions and values of the Indian civil services, and lateral entrants, who may bring in different working styles and approaches from the private sector. This could create friction and reduce the effectiveness of governance.

3. Accountability and Performance Issues:

- ♦ **Lack of Accountability Mechanisms:** Lateral entrants, who are often appointed on contracts, may not be subject to the same accountability mechanisms as regular civil servants.
 - ♦ Critics argue that without a clear framework for performance evaluation and accountability, it might be difficult to ensure that lateral entrants are held to the same standards as their career counterparts.
- ♦ **Short-Term Focus:** There is concern that lateral entrants, who may be brought in for specific projects or goals, might focus more on short-term results rather than the long-term public interest.
 - ♦ Career civil servants are seen as custodians of continuity in governance, and critics worry that this might be compromised by lateral entry.

4. Political and Ideological Opposition:

- ♦ **Privatization of Governance:** Some political parties and commentators have criticized lateral entry as an attempt to "privatize" the civil services.
 - ♦ They argue that bringing in professionals from the private sector could shift the focus of governance towards market-driven policies, potentially at the expense of public welfare.
- ♦ **Erosion of Bureaucratic Neutrality:** Another concern is that lateral entrants might bring in political or corporate biases, which could undermine the neutrality of the civil services.
 - ♦ The civil service in India is traditionally expected to be apolitical and serve the government of the day impartially. Critics fear that lateral entry could lead to a blurring of these lines.

5. Effectiveness and Integration Concerns:

- ♦ **Integration Challenges:** The integration of lateral entrants into the existing bureaucratic structure has been a significant challenge.
 - ♦ There are concerns that lateral entrants might not be able to adapt to the bureaucratic environment, which operates under different constraints compared to the private sector.
 - ♦ This could lead to inefficiencies and conflicts within departments.
- ♦ **Effectiveness in Public Administration:** While lateral entrants may bring in valuable expertise, there is skepticism about whether they can effectively navigate the complexities of public administration in India.
 - ♦ Governance in India requires a deep understanding of social, political, and cultural nuances, which lateral entrants from the private sector might lack.

6. Legal and Constitutional Debates:

- ♦ **Legal Challenges:** There have been legal challenges to the lateral entry process, with some arguing that it violates the principles of equal opportunity in public employment as guaranteed by the Constitution of India (Article 16).

- ♦ Petitioners have contended that the process lacks transparency and fairness, leading to potential legal and constitutional challenges.
- ♦ **Debate on Constitutional Validity:** Some legal experts have raised questions about whether lateral entry aligns with the constitutional mandate of ensuring equality of opportunity in public employment.
- ♦ The lack of a competitive examination for lateral entrants is seen as a deviation from this principle.

7. Bypassing the Reservation Policy:

- ♦ **Social Equity Concerns:** One of the most significant criticisms is that lateral entry positions are not subject to the reservation policies that apply to regular civil service recruitment through the UPSC.
- ♦ This means that the lateral entry system could potentially sideline the constitutional mandate to ensure representation for Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Classes (OBCs), and Economically Weaker Sections (EWS).
- ♦ **Undermining Inclusivity:** Critics argue that by not incorporating reservation, the lateral entry system may undermine the efforts to create an inclusive bureaucracy that reflects India's diverse social fabric.

INSTITUTIONALIZATION OF LATERAL ENTRY IN INDIA

The current system of lateral entry into India's civil services is often criticized for not being fully institutionalized. Here's what that means:

- **Ad Hoc Implementation:**
 - ♦ **Lack of a Formal Framework:** The lateral entry process is currently implemented on an ad hoc basis, without a formal, standardized framework governing how it should be carried out.
 - ♦ This means that each instance of lateral entry is treated as a separate case, with no consistent rules or procedures guiding the recruitment, selection, and appointment process.
 - ♦ **Case-by-Case Basis:** The recruitment of lateral entrants is often initiated by the government on a need basis, rather than as part of a regular, institutionalized process.
 - ♦ This can lead to inconsistencies in how lateral entry is approached across different ministries and departments.
- **Absence of a Dedicated Institution:**
 - ♦ **No Dedicated Recruitment Body:** Unlike the Union Public Service Commission (UPSC), which institutionalizes the recruitment of civil servants through a well-defined process, there is no equivalent dedicated body or mechanism for overseeing lateral entry.
 - ♦ This absence can lead to issues of transparency and accountability in the selection process.

Way Forward:

- **Institutionalizing Lateral Entry:**
 - ♦ **Establish a Dedicated Agency:** Create a dedicated agency or commission responsible for overseeing the lateral entry process, ensuring transparency, consistency, and fairness in recruitment.
 - ♦ **Develop Standardized Procedures:** Institutionalize clear guidelines and standardized procedures for the selection, induction, and evaluation of lateral entrants to ensure uniformity across different departments and ministries.
- **Incorporating Reservation and Inclusivity:**
 - ♦ **Extend Reservation Policies:** Consider extending the existing reservation policies to lateral entry positions to ensure that candidates from marginalized communities have access to these opportunities.
 - ♦ **Diverse Recruitment Panels:** Ensure that recruitment panels are diverse and inclusive to prevent biases and promote fair representation in the selection of lateral entrants.
- **Enhancing Transparency and Accountability:**
 - ♦ **Transparent Selection Process:** Make the selection process for lateral entrants transparent, with publicly accessible criteria and clear communication of the selection process and outcomes.
 - ♦ **Public Disclosure of Appointments:** Publish details of lateral appointments, including qualifications, experience, and reasons for selection, to build public trust and accountability.
- **Performance Management and Evaluation:**
 - ♦ **Rigorous Performance Appraisals:** Establish robust performance appraisal systems for lateral entrants, with clear benchmarks and regular assessments to ensure they are contributing effectively to governance.
 - ♦ **Feedback Mechanisms:** Develop mechanisms for receiving and acting on feedback from colleagues, stakeholders, and the public on the performance of lateral entrants.
- **Strengthening Collaboration and Integration:**
 - ♦ **Foster Collaboration:** Encourage collaboration between lateral entrants and career bureaucrats through joint projects and team-building initiatives to build mutual respect and enhance overall governance.
 - ♦ **Mentorship Programs:** Pair lateral entrants with experienced civil servants to help them navigate the complexities of government work and facilitate smoother integration.
- **Addressing Concerns of Career Bureaucrats:**
 - ♦ **Engage and Communicate:** Engage with career civil servants to address concerns related to lateral entry, emphasizing that it complements rather than replaces the traditional civil service.
 - ♦ **Career Development Opportunities:** Ensure that career civil servants continue to have opportunities for advancement and professional growth, alongside the introduction of lateral entrants.

WAQF (AMENDMENT) BILL, 2024

The Waqf (Amendment) Bill, 2024 was introduced in Lok Sabha on August 8, 2024. It amends the Waqf Act, 1995.

About:

- **Definition of Waqf:** The Act defines waqf as an endowment of movable or immovable property for purposes considered pious, religious, or charitable under Muslim law.
- Every state is required to constitute a Waqf Board to manage waqf.
- The Bill renames the Act to **'United Waqf Management, Empowerment, Efficiency and Development Act, 1995'**
- However, the Bill has faced strong opposition from various parties, who have criticized it as unconstitutional, divisive, and anti-minority. It has been referred to a Joint Committee of Parliament for in-depth review and deliberations.

MAJOR HIGHLIGHTS OF THE BILL

Provision	Existing Act	Proposed Changes (Bill)
Formation of Waqf	Waqf can be formed by: (i) declaration, (ii) waqf by user, or (iii) waqf-alal-aulad.	Only a Muslim practicing for at least five years can declare waqf; must own the property; remove waqf by user; ensure waqf-alal-aulad doesn't deny inheritance rights.
Government Property as Waqf	Not explicitly stated.	Any government property identified as waqf will cease to be so; ownership disputes to be resolved by the Collector.
Power to Determine Waqf Property	Waqf Board empowered to determine if a property is waqf.	Removes this power from Waqf Board.
Survey of Waqf	Survey Commissioner and additional commissioners appointed for waqf survey.	Collectors empowered to conduct surveys; pending surveys to be conducted under state revenue laws.
Central Waqf Council	Composed entirely of Muslim members, with at least two women.	Requires two non-Muslim members; only certain members must be Muslims; ensures two Muslim women members.
Waqf Boards	Elected members from Muslim MPs, MLAs, MLCs, and Bar Council; at least two members must be women.	State government to nominate members; requires two non-Muslim members; mandates representation from Shias, Sunnis, Backward classes, Bohra, and Agakhani communities.
Composition of Tribunals	Tribunals include: (i) a Judge (Class-1, District, Sessions, or Civil Judge), (ii) a state officer equal to an Additional District Magistrate, and (iii) a person knowledgeable in Muslim law.	Removes the requirement for a person knowledgeable in Muslim law; new composition includes a current/former District Court judge and an officer of rank joint secretary or above.
Appeal on Tribunal Orders	Tribunal decisions are final; limited appeal options to the High Court.	Allows appeals to the High Court within 90 days; removes finality of Tribunal decisions.
Powers of the Central Government	State government may audit waqf accounts at any point.	Central government can make rules on registration, accounts, and proceedings; can also have accounts audited by CAG or a designated officer.
Waqf Boards for Bohra and Agakhani	Separate Waqf Boards allowed for Sunni and Shia sects if Shia waqf constitute more than 15% of properties or income.	Allows separate waqf boards for Aghakhani and Bohra sects.

JOINT PARLIAMENTARY COMMITTEE (JPC)

- **Purpose and Formation:** The JPC is an ad-hoc committee established by Parliament to conduct a thorough examination of specific subjects or bills.
- **Composition:** It consists of members from both Houses of Parliament and includes members from both ruling and opposition parties. The committee is chaired by a Lok Sabha member appointed by the Speaker of the Lok Sabha.
- **Appointment and Term:** The Parliament determines the JPC's composition, with no fixed limit on the number of members. The committee is dissolved upon completing its task.
- **Recommendations:** The JPC's recommendations are advisory and not mandatory for the government to follow. However, suggestions from Select Committees and JPCs are more frequently accepted, especially when led by ruling party members.
- **Evidence Gathering:** The JPC has the authority to gather evidence from experts, public bodies, associations, individuals, or interested parties, either on its own initiative or in response to their requests.
- **Historical Cases:** Notable JPC investigations have included:
 - ♦ Bofors scandal (1987)
 - ♦ Harshad Mehta stock market scam (1992)
 - ♦ Ketan Parekh share market scam (2001)
 - ♦ National Register of Citizens (NRC, 2016)
 - ♦ Personal Data Protection Bill (2019)

WAQF BOARDS

- **About:**
 - ♦ A body under the state government managing Waqf properties.
 - ♦ Separate boards exist for Shia and Sunni communities.
 - ♦ Oversees prominent mosques and other Waqf properties in the state.
- **Composition:**
 - ♦ Chairperson
 - ♦ One or two nominees from the state government
 - ♦ Muslim legislators and parliamentarians
 - ♦ Muslim members of the state Bar Council
 - ♦ Recognized Islamic theology scholars
 - ♦ Mutawallis of Waqfs with an annual income of Rs 1 lakh and above
- **Powers and Functions:**
 - ♦ Administers Waqf properties and recovers lost properties.
 - ♦ Sanctions transfer of Waqf property (sale, gift, mortgage, exchange, lease) requiring a two-thirds majority vote.

CENTRAL WAQF COUNCIL (CWC)

- **About:** Established in 1964 and it supervises and advises state-level Waqf Boards across India.
- **Functions:**
 - ♦ Provides guidance to central and state governments and Waqf Boards on property management.
 - ♦ Requires Waqf Boards to provide performance information, including financial records and reports.

WAQF TRIBUNAL

- **About:**
 - ♦ Established under the Waqf Act 1995 to resolve disputes related to Waqf properties.
 - ♦ Decisions of the tribunal are final regarding the status of Waqf properties.
- **Composition:**
 - ♦ **Chairperson:** State judicial officer not below the rank of District, Sessions, or Civil Judge, Class I
 - ♦ Officer from the state civil services
 - ♦ Expert in Muslim law and jurisprudence

Significance:

- **Enhanced Transparency and Accountability:** The Bill strengthens the oversight and accountability mechanisms by removing the Waqf Board's unilateral power to determine waqf properties and assigning these responsibilities to state authorities like the Collector.
- **Inclusivity and Representation:** By including non-Muslims in the Central Waqf Council and allowing the inclusion of various Muslim sects in Waqf Boards, the Bill promotes inclusivity and ensures that diverse community interests are represented.
- **Simplified Legal Processes:** The Bill removes ambiguities in the legal framework governing waqfs, such as by eliminating the concept of waqf by user and clearly defining the role of government authorities in waqf management. This simplifies legal processes and reduces potential conflicts.
- **Improved Gender Equity:** By mandating that Waqf-alal-aulad must not deny inheritance rights, including those of women heirs, the Bill addresses gender equity concerns and strengthens the legal rights of women in waqf-related matters.
- **Centralized Oversight:** The enhanced powers granted to the central government, including the ability to audit waqf accounts through the CAG, centralize oversight and potentially improve the transparency and efficiency of waqf management across the country.
- **Minimizing Property Disputes:** The government believes that the amendments will help reduce the number of disputes over waqf properties by providing clear definitions and mandating the verification of property claims, thus minimizing legal conflicts.

- **Dispute Resolution and Legal Recourse:** The Bill's provisions for appealing Tribunal decisions to the High Court provide additional legal recourse for aggrieved parties, ensuring a fair and transparent dispute resolution process.
- **Economic Sustainability:** Improved governance and oversight mechanisms can potentially unlock the economic value of waqf properties, generating more resources for the welfare of communities and creating opportunities for sustainable development.
- **Balanced Secularism:** The inclusion of non-Muslims in the Central Waqf Council reflects a commitment to secular governance by promoting shared responsibility and oversight of religious endowments, fostering greater interfaith collaboration.
- **Technological Integration:**
 - ♦ **Digitalization of Waqf Records:** The Bill emphasizes the digitalization of waqf property records, improving access to information, reducing fraud, and ensuring transparency through more efficient record-keeping and real-time monitoring of waqf assets.
 - ♦ **Use of Modern Audit Mechanisms:** By allowing audit mechanisms like the Comptroller and Auditor General (CAG) to audit waqf accounts, the Bill encourages the adoption of modern financial accountability tools, ensuring better financial management.

Issues:

- **Violation of Religious Rights:** Critics argue that the bill infringes upon the freedom of religion as provided by Article 25 and compromises the autonomy of the Muslim community to manage their own religious affairs.
- **Increased Government Control:** The proposed amendments grant greater powers to the government over Waqf properties, including involving district collectors in property disputes. This raises concerns about potential bureaucratic delays and judicial-executive overreach.
- **Inclusion of Non-Muslims in Waqf Boards:** Critics contend that the inclusion of non-Muslims undermines the integrity of these religious bodies, as non-Muslim members may lack a comprehensive understanding of Islamic cultural and religious practices.
- **Potential for Increased Disputes:** The removal of the Waqf Tribunal's authority and assigning this role to district collectors could lead to more disputes over Waqf properties, complicating the resolution process and exposing properties to further legal challenges.
- **Lack of Community Consultation:** The bill has been criticized for being drafted without adequate consultation with the Muslim community and relevant stakeholders. Organizations like the All India Muslim Personal Law Board have expressed concerns over the lack of input from the community.
- **Impact on Religious Institutions and Women's Rights:** The bill could affect the financial and administrative independence of

religious institutions reliant on Waqf properties and may allow discriminatory practices against women in managing Waqf assets.

Way Forward:

- **Enhanced Community Consultation:** Engage with Muslim community representatives and stakeholders during the bill's drafting and revision process to ensure their concerns and perspectives are adequately addressed.
- **Clarification of Property Ownership:** Define clear guidelines for determining Waqf property ownership to avoid conflicts and inconsistencies between district collectors and Waqf Boards.
- **Maintain Judicial Oversight:** Ensure that judicial tribunals retain authority over disputes to uphold legal expertise and impartiality in resolving Waqf-related issues.
- **Balanced Representation in Waqf Boards:** Consider revising the provisions for non-Muslim representation in Waqf Boards to balance religious integrity with broader representation, ensuring effective management of Waqf properties.
- **Decentralize Authority:** Reassess the centralization of powers and explore ways to empower state Waqf Boards in decision-making processes, promoting a more balanced and localized approach.
- **Capacity Building and Training:**
 - ♦ **Training for Waqf Officials:** Introduce comprehensive training programs for Waqf Board members, government officials, and stakeholders to enhance their understanding of waqf laws, property management, and dispute resolution. This will improve the professional handling of waqf properties and reduce governance-related issues.
 - ♦ **Capacity Building for Local Authorities:** Provide technical assistance and capacity-building initiatives for district collectors and local officials to ensure they have the expertise and resources needed to manage waqf properties effectively and fairly.
- **Complete Digitalization of Waqf Records:** Fast-track the digitalization of all waqf property records, ensuring real-time monitoring and access for the public, stakeholders, and government authorities. This will reduce the possibility of property fraud, encroachment, and illegal transfers.
- **Codify Waqf Laws Across States:** Encourage uniformity by developing a codified set of laws governing waqf properties that can be adopted by all states, ensuring consistency in the interpretation and application of waqf regulations across the country.

Conclusion:

- The Waqf (Amendment) Bill 2024 introduces key changes to the management of Waqf properties and has been referred to a **Joint Parliamentary Committee**. This process will ensure thorough evaluation and refinement before it takes the final shape of legislation.

TOURISM SECTOR IN INDIA

According to the Travel and Tourism Development Index (TTDI) 2024 report published by the World Economic Forum (WEF), India is ranked 39th among 119 countries.

About:

- In the previous index published in 2021, **India was ranked 54th.**
- **Improvement in Key Areas:** India's scores have shown improvement in three significant areas:
 - ♦ **Prioritization of Travel & Tourism:** Reflects the country's increased focus on enhancing the tourism sector.
 - ♦ **Safety & Security:** Indicates improved measures to ensure the safety of tourists.
 - ♦ **Health & Hygiene:** Points to better healthcare and sanitary conditions for travelers.
- In 2022, the world saw 975 million international tourist arrivals. India contributed to this with 14.3 million international tourist arrivals, representing 1.47% of the global inbound tourism market.
- Within the Asia & Pacific region, India accounted for 15.66% of the international tourist arrivals in 2022, highlighting its significant role in the regional tourism market.

WORLD ECONOMIC FORUM (WEF)

- **Organization Overview:**
 - ♦ The World Economic Forum (WEF) is an international organization focused on fostering public-private cooperation.
 - ♦ It engages leading figures from political, business, cultural, and other sectors to shape global, regional, and industry-specific agendas.
- **Headquarters:** Geneva, Switzerland.
- **Founder:**
 - ♦ WEF was founded in 1971 by Klaus Schwab, a German professor with expertise in mechanical engineering.
 - ♦ He also holds a Master of Public Administration from Harvard University. Initially, the organization was known as the European Management Forum.
- **Major Reports:**
 - ♦ **Global Competitiveness Report:** Assesses the competitiveness of countries worldwide.
 - ♦ **Global Gender Gap Report:** Analyzes gender-based disparities in various sectors.
 - ♦ **Energy Transition Index:** Evaluates countries' progress in transitioning to sustainable energy.
 - ♦ **Global Risk Report:** Identifies and assesses global risks.
 - ♦ **Global Travel and Tourism Report:** Examines trends and challenges in the global travel and tourism industry.

Types of Tourism offered in India:

- **Adventure Tourism:**
 - ♦ Adventure tourism in India has seen significant growth, offering opportunities to explore remote areas.
 - ♦ Popular destinations for trekking include Ladakh, Sikkim, and the Himalayas. Himachal Pradesh and Jammu & Kashmir are known for their skiing facilities, while white water rafting is gaining popularity in places like Uttarakhand, Assam, and Arunachal Pradesh.
 - ♦ India offers various adventure activities on land, water, and in the air, such as rock climbing, skiing, camel safaris, paragliding, mountaineering, and trekking.
- **Wildlife Tourism:**
 - ♦ India's rich forest cover is home to a variety of exotic and endangered wildlife species, which has bolstered wildlife tourism.
 - ♦ Key destinations include Sariska Wildlife Sanctuary, Keoladeo Ghana National Park, and Corbett National Park.
- **Medical Tourism:**
 - ♦ India has become a hub for medical tourism, attracting visitors from around the world seeking affordable yet high-quality healthcare, particularly for surgical procedures and general medical care.
 - ♦ Several medical institutions in the country cater specifically to foreign patients. Chennai, in particular, draws around 45% of these medical tourists.
- **Pilgrimage Tourism:**
 - ♦ Pilgrimage tourism is one of the fastest-growing segments in India, driven by the country's famous temples and religious sites.
 - ♦ Prominent pilgrimage destinations include Vaishno Devi, the Golden Temple, Char Dham, and Mathura-Vrindavan.
- **Eco-Tourism:**
 - ♦ Eco-tourism in India, a relatively new concept, involves visiting places known for their natural beauty and cultural heritage, with an emphasis on preserving the ecological balance.
 - ♦ It promotes responsible travel that supports the conservation of natural environments and local cultures.
- **Cultural Tourism:**
 - ♦ India's rich cultural heritage and mysticism attract tourists seeking to experience its unique traditions.
 - ♦ Cultural tourism has been a major factor in the rise of India's tourism sector. Key cultural events and fairs include the Pushkar Fair, Taj Mahotsav, and Surajkund Mela.

- **Business Tourism:** Business tourism refers to travel undertaken for business purposes, which can be categorized into three sections:
 - ♦ Trading goods on a wholesale basis.
 - ♦ Conducting business transactions such as client visits or contract negotiations.
 - ♦ Attending conferences, exhibitions, or events related to business.
- **Heritage Tourism:**
 - ♦ Heritage tourism in India has seen significant growth, supported by government initiatives aimed at promoting India as a heritage destination.
 - ♦ India's rich history and ancient culture make it a natural fit for this form of tourism.
- **Sports Tourism:**
 - ♦ Sports tourism is gaining popularity among people of all ages and economic backgrounds.
 - ♦ Individuals travel to nearby cities or abroad to participate in or watch sports activities, contributing to the tourism sector.
- **Educational Tourism:** Educational tourism involves students traveling abroad for higher studies and professionals seeking to enhance their skills, which indirectly boosts tourism.

Indian Tourism Sector:

- The Indian Tourism sector ranks among the **fastest-growing economic sectors** in the country.
- International Tourist arrival is expected to reach **30.5 million by 2028**.
- By 2028, India's tourism and hospitality industry is projected to generate revenue **of over \$59 Bn.**
 - ♦ Additionally, Foreign Tourist Arrivals (FTAs) are anticipated to reach 30.5 Mn by 2028.

Challenges:

- **Infrastructure Deficiencies:** Many tourist destinations in India suffer from inadequate infrastructure, including poor road conditions, insufficient public transportation, and inadequate facilities in popular tourist areas.
- **Environmental Degradation:** Increased tourism leads to environmental problems such as pollution, overuse of natural resources, and damage to wildlife and ecosystems. Sustainable tourism practices are often lacking.
- **Lack of Standardization:** There is a lack of standardized quality control across various services in the tourism sector, from hotels and restaurants to tour operators.
 - ♦ This inconsistency affects the overall tourist experience.
- **Seasonality:** Many tourist destinations face seasonal fluctuations, with high tourist numbers during peak seasons and low numbers during off-seasons.
- **Marketing and Promotion Challenges:** Effective marketing strategies are often lacking, and there is a need for better promotion of lesser-known destinations.
- **Cultural Sensitivity and Management:** Managing cultural heritage responsibly while balancing tourism needs is challenging.
 - ♦ There are issues related to respecting local traditions and practices while catering to tourist demands.

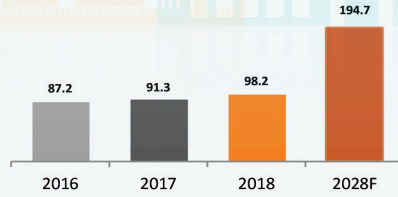
Government Initiatives:

- **Incredible India Campaign:** Launched in 2002, this ongoing campaign aims to position India as a premier tourist destination.
 - ♦ It focuses on highlighting India's diverse culture, heritage, and attractions through various media and promotional activities.
- **National Tourism Policy:** The National Tourism Policy aims to promote sustainable tourism, improve infrastructure, and increase tourist arrivals.
- **Swadesh Darshan Scheme:** This scheme was launched to develop theme-based tourist circuits across the country.
 - ♦ It focuses on creating world-class infrastructure, including roads, amenities, and signage, to improve the tourist experience.
- **PRASHAD Scheme:** The Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive (PRASHAD) aims to develop and beautify pilgrimage destinations across India, enhancing facilities and accessibility for spiritual tourism.
- **Atithi Devo Bhava Campaign:** This initiative promotes hospitality and the cultural ethos of treating guests with utmost respect and care.
 - ♦ It includes training programs for service providers in the tourism sector.
- **Visa Reforms:** The introduction of e-visa facilities for citizens of many countries has simplified the process for obtaining a visa to visit India. This move aims to attract more international tourists.
- **Tourism Infrastructure Development:** The government has invested in improving infrastructure, including the development of airports, roads, and railways, to make travel more convenient for tourists.
- **Support for Sustainable Tourism:** The government is promoting eco-friendly and sustainable tourism practices through various schemes and guidelines, including the promotion of responsible tourism.



MARKET SIZE

Direct Contribution of Tourism and Hospitality to GDP (US\$ billion)



Travel and Tourism's Total Contribution to GDP (US\$ billion)

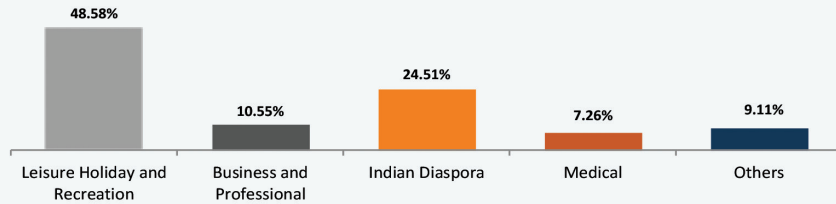


Note: F - Forecast



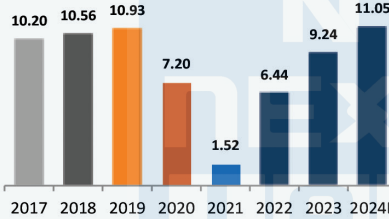
SECTOR COMPOSITION

Purpose-wise Foreign Tourist Arrivals in (Jan-Apr) 2024 (%)

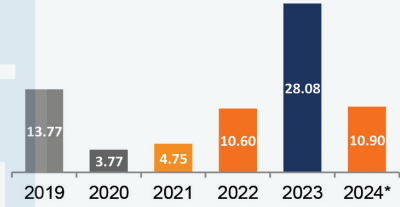


KEY TRENDS

Foreign Tourists Arriving in India (million)



Foreign Exchange Earnings from Tourism in India (US\$ billion)



Note: E- Estimated, *January to April 2024



GOVERNMENT INITIATIVES

Incredible India
 अविश्वसनीय हैरत कावा
Incredible India!

SWADESH DARSHAN
Swadesh Darshan

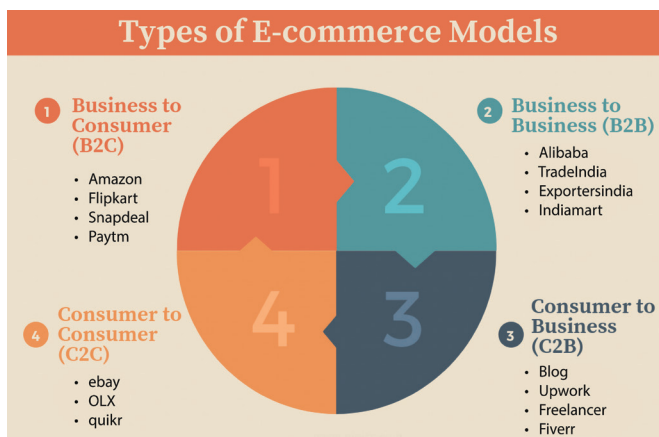
saathi
 System for Assessment, Awareness and Training for Hospitality Industry

E-COMMERCE SECTOR IN INDIA

Recently, the Union Trade Minister stirred up debate on India's e-commerce sector, instead of celebrating its exponential growth, he expressed concern.

Status of the E-Commerce sector in India:

- **Projected Economic Growth:** The e-commerce sector is projected to achieve a market size of \$325 billion by 2030.
- **Benefits for Businesses:**
 - ♦ **Broader Reach:** E-commerce enables businesses to access a wider consumer base, overcoming geographical limitations and expanding market reach.
 - ♦ **Cost-Effective Marketing:** Businesses can leverage cost-effective digital marketing channels to promote their products and services, reaching targeted audiences more efficiently.
 - ♦ **Expansion Opportunities:** E-commerce platforms provide opportunities for businesses to explore new product categories and enter various regional markets.
- **Advantages for Consumers:**
 - ♦ **Convenience:** E-commerce offers unparalleled convenience, allowing consumers to shop from the comfort of their homes with just a few clicks.
 - ♦ **Price Comparisons and Deals:** Online shopping enables easy price comparisons, access to discounts, and special deals, helping consumers save money.
 - ♦ **Personalized Experiences:** E-commerce platforms use data to provide personalized recommendations and tailored shopping experiences, enhancing customer satisfaction and loyalty.



• Growing Internet Penetration:

- ♦ **Subscriber Growth:**
 - ♦ As of September 2023, India has over 918 million internet subscribers.
 - ♦ The rural subscriber base is growing rapidly, with 375.66 million subscribers, reflecting the increasing accessibility of online services.

- ♦ **E-Commerce Adoption:** Nearly 100% of pin codes in India have adopted e-commerce, demonstrating widespread access to online shopping.
- **Shifts in Consumer Behavior:**
 - ♦ The study titled *E-Commerce Logistics: Unveiling Data Driven Shopping Patterns* highlights that Tier-2, Tier-3, and Tier-4 cities account for the largest volume of online orders.
 - ♦ This shift indicates increased online shopping in smaller cities and towns.

Challenges Associated with e-commerce Sector in India:

• Platform Neutrality and Fairness:

- ♦ Issues include a lack of platform neutrality and unfair contract terms between online marketplaces and sellers/service providers.
- ♦ Exclusive contracts and price parity restrictions also raise concerns, as do practices involving deep discounts that may distort competition.
- ♦ Exclusive agreements between platforms and sellers can limit market access for other vendors and impact competition.

• Inclusion of Small and Medium Enterprises (SMEs):

- ♦ **Challenges for SMEs:** Small and medium enterprises often struggle to participate in e-commerce due to the requirement for separate infrastructures for different platforms, varied terms and conditions, and associated costs.
- ♦ **Barriers to Entry:** SMEs may face difficulties due to the high costs and complexity of navigating multiple e-commerce platforms.

• Digital Infrastructure and Internet Penetration:

- ♦ **Infrastructure Robustness:** A strong digital infrastructure is essential for seamless online transactions. Disruptions can lead to transaction failures and affect consumer trust.
- ♦ **Internet Access:** Despite increasing internet penetration, a significant portion of the population, particularly in rural areas, still lacks internet access, limiting the reach and growth of e-commerce.

• Online Payment Anxiety:

- ♦ Many Indian customers are wary of making online payments due to security concerns.
- ♦ Although awareness about online transaction safety is increasing, a significant portion of consumers remains reluctant to disclose credit card and bank details.

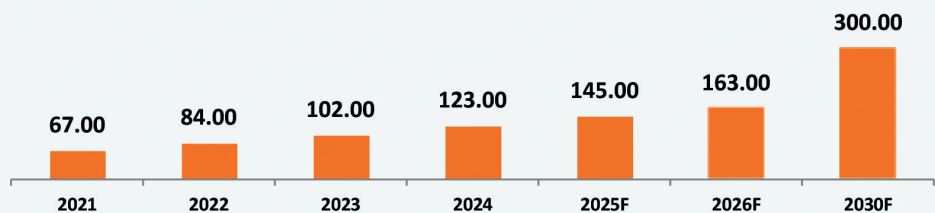
Related Initiatives to Overcome Challenges:

- **Relaxing Foreign Direct Investment (FDI) Norms:**
 - ♦ **B2B E-Commerce:**
 - ♦ India allows 100% FDI in business-to-business (B2B) e-commerce.
 - ♦ This policy supports foreign investment in platforms that facilitate transactions between businesses rather than directly with consumers.
- **Marketplace Model:**
 - ♦ 100% FDI is also permitted under the automatic route for the marketplace model of e-commerce.
 - ♦ This allows foreign investment in platforms that act as intermediaries between buyers and sellers.
- **Government Procurement:**
 - ♦ The Government e-Marketplace has significantly facilitated government procurement processes.
 - ♦ It has achieved a milestone by crossing INR 4 Lakh Crore in Gross Merchandise Value (GMV), streamlining and enhancing transparency in government purchases.
- **Open Network for Digital Commerce (ONDC):**
 - ♦ The ONDC initiative aims to create an open and inclusive digital commerce network.
 - ♦ Its goal is to provide equal opportunities for MSMEs and democratize the e-commerce landscape, allowing a broader range of businesses to participate in the digital economy.
- **Major Initiatives:**
 - ♦ **Digital India:** This initiative aims to transform India into a digitally empowered society and knowledge economy by improving digital infrastructure and services.
 - ♦ **Skill India:** Focuses on equipping individuals with various skills to enhance employability and productivity across sectors.
 - ♦ **Startup India:** Designed to foster a robust ecosystem for startups by providing support and incentives to encourage innovation and entrepreneurship.
 - ♦ **Make in India:** Encourages companies to manufacture their products within India, boosting domestic manufacturing and creating jobs.
 - ♦ **Innovation Fund:** Supports and promotes entrepreneurship and innovation by providing financial resources and backing to innovative projects and startups.
 - ♦ **BharatNet:** Aims to enhance rural broadband penetration and connectivity, bridging the digital divide between urban and rural areas.
- **Digital Payments & Technology**
 - ♦ The Indian government is actively promoting various digital payment technologies including Unified Payments Interface (UPI), RuPay, DigiLocker, and eKYC.
 - ♦ These technologies are aimed at enhancing the ease and security of digital transactions.
 - ♦ Efforts are being made to increase the adoption of these technologies in smaller cities and drive further innovation in the digital payments space.
 - ♦ According to the Budget 2023-24, digital payments witnessed a significant growth in 2022, with a 76% increase in the number of transactions and a 91% increase in transaction value.



MARKET SIZE

Indian E-commerce Market (US\$ billion)

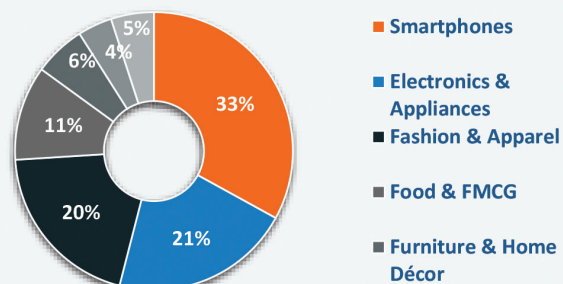


Note: F – Forecast



SECTOR COMPOSITION

Shares of Various Segments in e-commerce Retail (2022)



CONTRIBUTION OF SPACE SECTOR TO INDIA'S GDP

India's space sector has directly contributed about \$24 billion (₹20,000 crore) to India's Gross Domestic Product over the last decade.

Space Sector in India:

- **Investment and Growth:**
 - ♦ Over the past decade, India has invested \$13 billion into its space sector.
 - ♦ This sustained investment has been pivotal in advancing space technology, infrastructure, and capabilities.
 - ♦ The sector's growth is underpinned by this consistent financial support, enabling the development of advanced satellite technologies, launch vehicles, and ground systems.
- **Global Ranking:**
 - ♦ India stands as the **8th largest space economy** globally, reflecting its significant role in the international space arena.
 - ♦ This ranking is based on the scale of financial investments and the impact of the space sector on global markets.

Recent Developments:

- **Union Budget Allocation:**
 - ♦ In the Union Budget for 2024-25, the Indian government allocated ₹13,042.75 crore to space-related initiatives.
 - ♦ This substantial funding aims to bolster various aspects of space research, satellite development, and space exploration.
 - ♦ The budgetary support reflects the government's strategic focus on enhancing space capabilities and fostering innovation in the sector.
- **Employment Impact:**
 - ♦ The Indian space sector supports around 96,000 jobs across both public and private sectors.
 - ♦ This includes roles in research and development, manufacturing, satellite operations, and space missions.
 - ♦ The sector's employment generation is a critical aspect of its contribution to the economy, supporting a wide range of professionals and technical experts.
- **Economic Impact:**
 - ♦ **Multiplier Effect:**
 - ♦ For every dollar produced by the space industry, there is a multiplier effect of **\$2.54**, indicating significant economic ripple effects.
 - ♦ This multiplier effect includes ancillary benefits such as technological advancements, infrastructure development, and enhanced economic activity in related sectors.
 - ♦ **Productivity:**
 - ♦ India's space sector demonstrates exceptional productivity, being **2.5 times more productive** than the broader industrial workforce.
 - ♦ This high productivity is a result of efficient operations, advanced technology, and a skilled workforce.

Industry Diversification:

- ♦ The sector has seen substantial diversification, with the number of companies increasing to 700, including **200 start-ups**.
- ♦ This growth reflects the sector's expanding ecosystem and the emergence of new players in the space industry.
- ♦ Start-ups are playing a crucial role in innovation and technology development, contributing to the sector's dynamism and competitiveness.
- ♦ In 2023, the space sector's revenues reached **\$6.3 billion**, representing about **1.5% of the global space market**.
- ♦ This revenue growth highlights the sector's increasing share in the global space economy and its expanding market presence.

Sector Contributions:

- ♦ **Satellite Communications:**
 - ♦ Contributed 54% to the space economy, highlighting its dominance.
 - ♦ Satellite communications are critical for various applications, including telecommunications, broadcasting, and data transmission.
- ♦ **Navigation:** Accounted for 26% of the space economy, underscoring the importance of satellite-based navigation systems for global positioning and location-based services.
- ♦ **Launches:** Made up 11% of the space sector's contributions, reflecting the significance of satellite launches and space exploration missions.
- ♦ **Telecom:**
 - ♦ The telecom industry is the largest beneficiary of the space sector, accounting for 25% of its impact.
 - ♦ Space-based communication technologies support a wide range of telecom services.
- ♦ **Information Technology:** Contributed 10% to the space sector's impact, driven by advancements in satellite data processing, software development, and IT infrastructure.
- ♦ **Administrative Services:** Made up 7% of the space sector's contribution, including various government and administrative applications supported by satellite data and space technology.

FDI in Space Sector:

- Under the amended FDI policy, **100% FDI is allowed** in the space sector. The entry route for the various activities are as follows:
 - ♦ **Up to 74% under Automatic route:** Satellites-Manufacturing & Operation, Satellite Data Products and Ground Segment & User Segment.

- ◆ **Up to 49% under Automatic route:** Launch Vehicles and associated systems or subsystems, Creation of Spaceports for launching and receiving Spacecraft.
- ◆ **Up to 100% under Automatic route:** Manufacturing of components and systems/ sub-systems for satellites, ground segment and user segment.
- **Potential of Space Sector:**
 - ◆ **Export Potential and Investment:** Currently, India's export market share in space-related services stands at ₹2,400 crore (about \$0.3 billion). The goal is to boost this to ₹88,000 crore (\$11 billion).
 - ◆ **Rise of Space Tourism:** In 2023, the space tourism market was valued at \$848.28 million.
 - ◆ It is expected to grow to **\$27,861.99 million by 2032.**
- **Challenges in Developing Advanced Technologies:**
 - ◆ ISRO faces challenges in upgrading its technological capabilities, particularly in developing powerful launch vehicles with higher payload capacities.
 - ◆ For example, while India's Chandrayaan-3 mission took nearly six weeks to reach the Moon, the Russian Luna-25 mission, despite its failure, was designed to reach the Moon in just one week.
 - ◆ This comparison illustrates the need for India to enhance its launch vehicle technology to compete more effectively on the global stage.

Major Reforms In Space Sector of India:

- **Indian Space Policy 2023:** It laid down roles and responsibilities of organizations such as ISRO, New Space India Limited (NSIL) and private sector entities.
 - ◆ It aims to enhance the participation of research, academia, startups and industry.
 - ◆ NewSpace India Ltd. (NSIL), a key player in India's space sector, has taken on the responsibility of managing commercial activities such as the distribution of Indian Remote Sensing satellite data.
 - ◆ On May 1, 2024, NSIL signed a major launch deal with SpaceX for the GSAT-20/GSAT-N2 satellite, highlighting its role in facilitating international collaborations.
 - ◆ Additionally, NSIL has been proactive in seeking qualifications for the production of the Launch Vehicle Mark-3 (LVM-3) and has secured a launch agreement with an Australian company for the Small Satellite Launch Vehicle (SSLV), reflecting its expanding global footprint.
 - **Strategic Proposals by SIA:** The Space Industry Association – India (SIA-India) in its Pre-Budget Memorandum for the **FY 2024-25** has proposed a substantial increase in India's space budget.
 - ◆ It aims to support India's expanding space program, foster private sector involvement, drive technological advancements, and position the nation as a key player in the dynamic global space ecosystem.
 - **Advancements in Private Space Missions:** India's private space companies are making significant strides in their respective missions:
 - ◆ **Agnikul Cosmos:** Successfully launched its SoRTeD-01 vehicle, marking a milestone in the development of indigenous space technology.
 - ◆ **Skyroot Aerospace:** Continues to advance the development of its Vikram 1 rocket, which is expected to play a crucial role in India's small satellite launch market.
 - ◆ **Dhruva Space and Bellatrix Aerospace:** Both companies contributed to the PSLV-C58 mission, showcasing the growing capabilities of private players in supporting ISRO's missions.
- ### Challenges in India's Space Sector:
- **Modest Budget Allocation:**
 - ◆ India's space program operates on a significantly smaller budget compared to other leading space-faring nations.
 - ◆ The country allocates only 0.05% of its GDP to space activities, which is a relatively modest investment.
 - ◆ In contrast, the United States allocates approximately 0.25% of its GDP to its space endeavors, reflecting a much higher financial commitment to space exploration and technology development.
 - **Dependency on Foreign Technology:**
 - ◆ India still relies on Western countries for critical components used in launch vehicles, spacecraft, and satellites.
 - ◆ This dependency highlights the technological gaps that need to be addressed to achieve greater self-reliance in space technology.
 - **Limited Market Presence:**
 - ◆ Despite its achievements, India has a limited presence in key areas of the global space market, such as space manufacturing, human space transport, space tourism, and high-altitude platforms.
 - ◆ India's share of the global space economy is currently about 2.6%, which underscores the need for increased efforts to expand its market reach and commercial capabilities.
 - **Lack of Robust Dispute Resolution Mechanisms:**
 - ◆ The absence of a strong dispute resolution framework in India's space sector discourages private investment.
 - ◆ The challenges in this area were highlighted by the Antrix-Devas satellite deal cancellation, where the Government of India was ordered to pay nearly \$1.2 billion to Devas Multimedia by a tribunal of the International Chamber of Commerce.
 - ◆ Such legal disputes underline the need for clearer and more reliable mechanisms for resolving conflicts and protecting investments in the space sector.

INDIA-UKRAINE RELATION

This was the first visit by an Indian Prime Minister to Ukraine since the establishment of diplomatic relations between the two countries in 1992.

Key Highlights of the Visit:

- **Agreements and MoUs:** Signed four agreements and Memorandums of Understanding (MoUs) during the visit:
 - ♦ **Field Cooperation:** Established cooperation in the fields of Agriculture and Food Industry.
 - ♦ **Humanitarian Assistance:** Provided a grant for the implementation of High Impact Community Development Projects.
 - ♦ **Cultural and Health Agreements:** Strengthened cultural cooperation and signed an agreement on medicines and drugs, among other areas.
- **BHISHM Cubes:** Supplied four **BHISHM (Bharat Health Initiative for Sahyog Hita & Maitri) Cubes**, each containing medicines and equipment for initial care of various injuries and medical situations.

Significance of the Prime Minister's Ongoing Visit:

- **Shift in India's European Policy:**
 - ♦ **Historical Context:** For decades after Independence, India maintained a relatively low focus on Europe, primarily engaging with the continent's **big four—Russia, Germany, France, and Britain**.
 - ♦ This approach reflected a narrow focus in Indian foreign policy.
 - ♦ **Strategic Shift Under Current Indian Government:** Over the last decade, Prime Minister Modi's leadership has marked a significant shift in India's European engagement.
 - ♦ His ongoing visit to Ukraine and Poland is emblematic of India's broader push to deepen ties with Europe beyond the traditional powers.
- **India's Non-Alignment Policy Reinterpreted:**
 - ♦ **Evolution of Non-Alignment:** Historically, India's policy of Nonalignment involved maintaining equal distance from all countries.
 - ♦ However, PM Modi's recent statements reflect a **reorientation** of this policy towards forging closer ties with a broader range of countries.
 - ♦ **Balanced Engagement:** The new approach emphasizes maintaining close and strategic relations with diverse nations, reflecting India's growing global aspirations and its desire to play a more proactive role in international affairs.
- **Emphasis on Central and Eastern Europe:**
 - ♦ **Strategic Importance of Central and Eastern Europe:** The visit underscores India's recognition of the strategic importance of Central and Eastern Europe, regions that

have traditionally been overshadowed by India's relations with Russia.

- ♦ **Diversifying Relations:** By strengthening ties with Ukraine and Poland, India aims to diversify its European partnerships, reducing its historical reliance on Russia and engaging more dynamically with the broader European region.
- **Vision of "Vishwa Bandhu" (World's Friend):**
 - ♦ **Global Engagement:** The visit is part of India's broader vision of becoming a "Vishwabandhu" or World Friend, a concept that includes deepening and broadening India's global engagements.
 - ♦ **Opportunity Recognition:** The push to enhance ties in Central and Eastern Europe reflects India's recognition of the opportunities that lie in these regions, particularly in the context of changing geopolitical dynamics and the need for a diversified foreign policy strategy.

Broader Significance of Bilateral Relation:

- **Diplomatic Relations:**
 - ♦ **Establishment of Diplomatic Ties:** India was among the first nations to recognize Ukraine's sovereignty in December 1991. Diplomatic relations were formally established in January 1992, with the Indian Embassy in Kyiv opening in May 1992 and Ukraine establishing its first Asian diplomatic mission in Delhi in February 1993.
- ♦ **High-Level Diplomatic Engagements:** The bilateral relationship is strengthened through regular high-level exchanges.
 - ♦ External Affairs Minister Dr. S. Jaishankar engaged with Ukrainian leaders on the sidelines of the UNGA and ASEAN summit in 2022, reinforcing diplomatic ties.
 - ♦ India and Ukraine engage through institutional mechanisms such as Joint-Working Groups and Foreign Office Consultations.
- **Strategic Cooperation:**
 - ♦ **Bilateral Agreements:** A range of Memorandums of Understanding (MOUs) and agreements have been signed between India and Ukraine, covering critical areas like diplomatic relations, defense cooperation, trade, science and technology, and visa facilitation.
 - ♦ These agreements serve as the foundation for strategic cooperation.
 - ♦ **Defense Relation:** Since its independence, Ukraine has been a key supplier of military technology and equipment to India.

- ♦ **For example, R-27 air-to-air missiles** produced in Ukraine are used on the **Su-30MKI fighters** of the **Indian Air Force (IAF)**. Additionally, India has begun exporting defense equipment to Ukraine amid its conflict with Russia.
 - **Economic and Trade Relations:**
 - ♦ **Bilateral Trade Dynamics:** The bilateral trade between India and Ukraine has seen significant growth, reaching **USD 3.39 billion in 2021-22**.
 - ♦ Key exports from **Ukraine to India** include agricultural products, metallurgical goods, and polymers, while India's major exports to Ukraine consist of pharmaceuticals, machinery, and chemicals.
 - ♦ Bilateral relations took a hit after the Russia-Ukraine war began in February 2022 — the volume of India-Ukraine trade dropped from \$3.39 billion in 2021-22 to **\$0.78 billion and \$0.71 billion in 2022-23 and 2023-24** respectively,
 - ♦ **Investment and Business Cooperation:** Indian companies have established a strong presence in Ukraine, particularly in the pharmaceutical sector. The **Indian Pharmaceutical Manufacturers' Association** plays a vital role in representing Indian interests in Ukraine, fostering economic ties.
 - ♦ **Trade Statistics:** Over the past five years, trade between the two nations has steadily increased, with exports and imports reflecting a deepening economic relationship. The trade figures highlight the growing **economic interdependence** between India and Ukraine.
 - **Humanitarian Assistance and Crisis Response:**
 - ♦ **Humanitarian Aid:** In response to the **ongoing conflict in Ukraine**, India has provided substantial humanitarian assistance, including 12 consignments **totaling 99.3 tons of aid**.
 - ♦ The aid package includes medicines, blankets, medical equipment, and other essential supplies.
 - ♦ **Pharmaceutical and Medical Support:** Indian pharmaceutical companies have contributed over **USD 8 million in medical aid and financial assistance to Ukraine**. These efforts underscore India's commitment to humanitarian assistance and global health security.
 - **Diaspora and Cultural Diplomacy:**
 - ♦ **Indian Community in Ukraine:** The Indian diaspora in Ukraine, though small, is vibrant and active in sectors like business, manufacturing, and services.
 - ♦ The **"India Club"** association organizes cultural and sports events, fostering a sense of community and maintaining strong ties with Indian culture.
 - ♦ **Cultural Exchange and Soft Power:** India and Ukraine have a rich cultural exchange, with strong public interest in Indian culture, including **dance, yoga, and Ayurveda**.
 - ♦ Over 30 Ukrainian cultural associations actively promote Indian art forms, enhancing India's soft power.
 - ♦ The Embassy of India in Kyiv has organized various cultural events, including the nationwide 'Festival of India' in 2017.
 - ♦ **Cinematic and Artistic Collaboration:** Indian cinema has made its mark in Ukraine and Ukrainian expertise in visual effects has also contributed to Indian films like 'Baahubali 2: The Conclusion,' reflecting the creative collaboration between the two nations.
 - ♦ **Educational and Capacity Building:** India offers training and educational opportunities to Ukraine through programs like the **Indian Technical and Economic Cooperation (ITEC) and the Indian Council for Cultural Relations (ICCR)** scholarships.
 - ♦ These programs enhance bilateral cooperation in education and capacity building.
 - ♦ **Language and Cultural Studies:** The Kendriya Hindi Sansthan Scholarship program further strengthens educational ties by offering scholarships to Ukrainian students for advanced studies in the **Hindi language, promoting cultural and linguistic exchange**.
- Challenges:**
- **Declining Bilateral Trade:** The trade volume between India and Ukraine has decreased significantly, falling from \$3.39 billion in 2021-22 to \$0.71 billion in 2023-24, primarily due to the ongoing Russia-Ukraine crisis.
 - **Impact on India's Imports:** This trade decline has affected India's imports of agricultural, machine-building, and military goods from Ukraine.
 - ♦ For instance, disruptions in the sunflower oil supply chain have contributed to rising inflation in India.
 - **India's Relationship with Russia:** India's ongoing engagement with Russia and its choice to refrain from publicly criticizing Moscow have somewhat strained India-Ukraine geopolitical cooperation.
 - **Ukraine's Criticism of India's Policies:** Ukraine's past criticisms of India's nuclear tests and Kashmir policy have also been a source of tension, affecting the depth of India-Ukraine relations.
- Emerging Potential to Elevate Relationship:**
- **Enhanced Defense Cooperation:** Ukraine's pressing need for weapons opens avenues for India to replace outdated Soviet-era arms.
 - ♦ India could trade its Soviet hardware and ammunition for Western systems, aligning with NATO standards and modernizing its defense capabilities.
 - **Strategic Geo-Strategic Cooperation in the Indian Ocean:** Ukraine's advanced, cost-effective waterborne technologies, which have outperformed **Russia's Black Sea Fleet**, could benefit India's naval strategy in the Indian Ocean. Leveraging Ukraine's expertise could help India counterbalance China's influence in the region.

- **Relocation of Production Bases to India:** Strengthened ties between India and Ukraine could facilitate the relocation of Ukrainian manufacturing operations to India.
 - ♦ *For example*, gas turbine manufacturer **Zorya-Mashproekt** could potentially shift its production base to India, enhancing bilateral economic cooperation.
- **Increased Employment Opportunities:** The reconstruction efforts in Ukraine will create significant opportunities for India's labor market, offering potential job openings and boosting employment.
- **Advancements in the Digital Sector:** Deepened cooperation between India and Ukraine could lead to significant improvements in digital governance.
 - ♦ *For instance*, Indian electronic voting machines could aid Ukraine's wartime electoral processes, while Ukraine's innovative DIIA app, which consolidates government services and documents on smartphones, could transform governance practices in India.
- **Educational and Research Collaboration:** Increased collaboration in research and education could benefit both nations, with opportunities for joint projects, exchange programs, and shared expertise in various fields.
- **Economic Investments and Trade:** Post-war reconstruction in Ukraine may attract Indian investments in infrastructure, energy, and technology sectors, fostering economic growth and strengthening trade relations.
- **Cultural and People-to-People Ties:** Enhanced cultural exchanges and people-to-people interactions could further solidify bilateral relations, promoting mutual understanding and collaboration.
- **Humanitarian Diplomacy:** India could enhance its role in global humanitarian efforts related to the conflict, providing aid and support to affected populations, thereby strengthening its reputation as a responsible global actor.
- **Revising Non-Alignment:** India should redefine non-alignment in its foreign policy framework by deepening engagement with Ukraine while maintaining robust relations with Russia.
 - ♦ This modern approach to non-alignment involves fostering strong ties with multiple major powers rather than maintaining an equidistant stance.
- **Navigating Geopolitical Tensions:** The ongoing Russia-Ukraine conflict places India in a complex geopolitical environment, requiring it to adeptly manage its historical alliance with Russia while expanding its partnerships with Western nations.
 - ♦ India must strategically maneuver through these international relations to safeguard its interests.
- **Energy Security:** India should take steps to diversify its energy import sources by securing agreements with alternative suppliers, especially as the conflict in Ukraine impacts global energy markets. This will reduce dependency on any one country and ensure energy security amid global disruptions.
- **Multilateral Engagement:** India can play an active role in multilateral organizations like the United Nations, G20, and BRICS to advocate for peace and stability in Ukraine, promoting dialogue and diplomacy as pathways to conflict resolution.
- **Advocate for Global Governance Reforms:** India should leverage its position in global platforms to push for reforms in global governance that address the changing geopolitical realities, ensuring that emerging economies like India have a stronger voice in conflict resolution processes.

Way Forward:

- **Tightrope Diplomatic Balancing Act:** India must navigate a delicate balance in its foreign policy, managing its historical strategic partnership with Russia while engaging with Ukraine and balancing its relations with China and the US.
 - ♦ India should ensure that its involvement with Ukraine does not undermine its traditional ties with Russia, given that Russia's alignment with China does not necessarily impact its bilateral relationship with India.
- **Leading Role in Conflict Resolution:** India should position itself as a principled actor on the global stage by spearheading negotiations for a resolution to the Ukrainian conflict.
 - ♦ This leadership role could help in stabilizing global food supply chains and preventing a humanitarian crisis due to starvation.
- **Economic Diplomacy:** India should utilize economic statecraft to strengthen trade and investment ties with both Ukraine and Russia, mitigating any adverse effects of the conflict on its economic interests.

- **Strategic Autonomy:** India must continue to emphasize its policy of strategic autonomy, ensuring that it is not overly dependent on any one global power. This involves balancing its engagements with the West while maintaining its defense and energy partnerships with Russia.
- **Cultural Diplomacy and Soft Power:** India can use its rich cultural heritage and soft power to engage in cultural diplomacy with both Ukraine and Russia. Initiatives such as educational exchanges, cultural events, and dialogue through civil society organizations can enhance India's image as a peace-promoting nation.

Conclusion:

- India-Ukraine relations have evolved significantly in recent years, reflecting a strategic recalibration in India's foreign policy.
- Historically characterized by a policy of Non-Alignment, which maintained a balanced distance from global powers, India's recent engagement with Ukraine marks a shift towards a **more dynamic and nuanced approach** to international relations.

INDIA-JAPAN RELATION

India and Japan recently conducted their third 2+2 Foreign and Defence Ministerial Meeting in New Delhi.

Key Highlights of the India-Japan 2+2 Meet:

- **Free and Open Indo-Pacific:** Both nations reaffirmed their commitment to a free, open, and rules-based Indo-Pacific, addressing the strategic concerns posed by China's military expansion.
- **Support for ASEAN:** Endorsed the ASEAN Outlook on the Indo-Pacific (AOIP), emphasizing ASEAN's central role in regional stability and a rules-based order.
- **Quadrilateral Security Dialogue (QUAD):** Reaffirmed their commitment to strengthening cooperation within the QUAD, reflecting the outcomes of the July 2024 Quad Foreign Ministers' Meeting.
- **Defense and Security Cooperation:** Recognized defense cooperation as central to their Special Strategic and Global Partnership, highlighting progress in joint exercises and technology, and agreeing to update the 2008 Joint Declaration.
- **Terrorism and Extremism:** Condemned terrorism, particularly cross-border terrorism, and called for justice for the 26/11 Mumbai attacks. Supported actions against terrorist groups and financing.
- **Technology:** Discussed the transfer of Japan's Unified Complex Radio Antenna (UNICORN) technology, enhancing radar and missile detection, and explored future defense technology collaboration.
- **Women, Peace, and Security (WPS):** Emphasized the role of women in peacekeeping and supported the WPS agenda, focusing on enhancing women's participation in peace processes and addressing conflict impacts.
- In 2014, this partnership was elevated to a **"Special Strategic and Global Partnership,"** signifying a deeper strategic alignment.
- The **"Japan and India Vision 2025"** announced in 2015 outlined a cooperative framework, emphasizing the commitment to strengthening their strategic ties.
- **Defense and Security Cooperation:** The "Joint Declaration on Security Cooperation" issued in 2008 set the foundation for ongoing security dialogues, which were further advanced by the **Acquisition and Cross-Servicing Agreement (ACSA)** signed in 2020.
 - This agreement facilitates the reciprocal provision of supplies and services between the defense forces of both nations, underscoring their commitment to mutual security.
 - The India-Japan Defence and Security partnership has progressively developed, incorporating **bilateral and multilateral exercises** such as **Dharma Guardian and Malabar**. Notably, Japan participated for the first time in the MILAN exercise.
- **Economic Interdependence:** Japan has become a major economic partner for India, ranking as the 13th largest trading partner and 5th largest investor.
 - Key initiatives like the **"India-Japan Industrial Competitiveness Partnership"** and the **"Clean Energy Partnership"** reflect their growing economic ties.
 - In 2019, they established a **sister-city relationship between Ahmedabad and Kobe**, and in 2023, **Japan pledged 5 trillion yen (USD 42 billion) for investment in India over five years**.
 - India is the **largest recipient of Japanese Official Development Assistance (ODA)**, with significant projects including the Delhi Metro and High-Speed Railway. In FY 2022, Japan's aid included **567.5 billion yen in loans, grants, and technical cooperation**.

Broader Significance:

- **Historical and Cultural Foundations:** The relationship between Japan and India traces back to the **6th century when Buddhism was introduced to Japan**, bringing significant Indian cultural and philosophical influences. This early interaction laid the groundwork for future diplomatic and cultural exchanges.
- **Post-World War II Diplomatic Milestones:** In 1949, Indian Prime Minister Jawaharlal Nehru's donation of an elephant to Ueno Zoo in Tokyo symbolized the renewal of ties between the two nations following World War II.
 - The formal establishment of diplomatic relations was marked by the **signing of a peace treaty in 1952**, one of Japan's first post-war treaties.
- **Strategic and Diplomatic Partnerships:** The 2000s saw the relationship between Japan and India evolve into a **"Global Partnership,"** reflecting growing bilateral ties.
- **Cultural and Diplomatic Exchanges:** Cultural exchanges have been a key aspect of Japan-India relations. The year 2017 was designated as the **Year of Japan-India Friendly Exchanges**, reflecting the growing cultural engagement.
 - The **"Japan-Southwest Asia Exchange Year" in 2022** further emphasized Japan's commitment to strengthening cultural ties with India and other Southwest Asian countries. These initiatives underscore the mutual appreciation and ongoing efforts to enhance cultural and diplomatic relations.

Challenges:

- **Growing Chinese Aggressiveness in the Indo-Pacific:** China's expanding influence in the Indo-Pacific poses a strategic

challenge for both India and Japan. The region faces multiple issues, including the Ukraine war, food security, cyber threats, and maritime security. The future **balance of power** will be shaped by the policies of major global actors, including the **United States, China**, and key regional powers like India and Japan.

- **Trade Differences:** Economic relations between India and Japan remain underdeveloped compared to India's trade ties with China.
 - ♦ Diverging interests on economic matters, such as e-commerce regulations (**Osaka track**) and the **Regional Comprehensive Economic Partnership (RCEP)**, complicate trade relations. India struggles to access the Japanese market due to language barriers and high standards for quality and service.
- **China Factor:** Both nations face border issues with China, which influences their policies. India is more outspoken in criticizing China's actions, while Japan adopts a more cautious stance. This divergence impacts their strategic alignment and cooperation.
- **Russia Factor:** Differences in responses to Russia's invasion of Ukraine highlight a key challenge. Japan, aligned with the U.S. and part of the Western sanctions regime, contrasts with India's neutral stance.
 - ♦ Additionally, India's participation in the **Vostok military exercises**, conducted near the **South Kuril Islands**—disputed between Russia and Japan—further strains relations.
- **Balancing Between QUAD and BRICS:** India's non-alignment approach contrasts with Japan's pro-U.S. stance, complicating its balancing act between the **QUAD and BRICS**. While India refrains from joining **China's Belt and Road Initiative (BRI)**, it is a member of the **Asian Infrastructure Investment Bank (AIIB) and QUAD**. This positioning creates tensions with Japan's strategic alignment.
- **Asia-Africa Growth Corridor (AAGC) Project:** There is skepticism about the AAGC's feasibility and the nature of its projects. Concerns about the viability of this initiative, which aims to enhance connectivity between Asia and Africa, impact India-Japan cooperation.
- **Defense Exports:** India's ambitions to export defense equipment may compete with Japan's own defense export interests. Additionally, protracted negotiations over India's potential **acquisition of Japanese amphibious US-2 planes** have led to delays and challenges in defense cooperation.
- **Collaborative Digital Empowerment:** India and Japan have opportunities to enhance digital infrastructure through joint initiatives in areas such as 5G technology, Open RAN, telecom network security, submarine cable systems, and quantum communications.
 - ♦ This collaboration aims to foster digital transformation and secure communication networks.
- **Strengthening India's Act East Policy:** India's Act East Policy, central to its engagement with Southeast and East Asia, needs reinforcement to address contemporary regional challenges effectively.
 - ♦ Japan supports this by aligning its infrastructure investments with India's strategy to enhance strategic connectivity between South Asia and Southeast Asia.
- **Knowledge Exchange for Disaster Risk Reduction:** India can leverage Japan's advanced disaster management practices to develop and implement effective disaster risk reduction strategies, particularly in disaster-prone regions.
 - ♦ This exchange of expertise can improve resilience and preparedness.
- **Towards a Multipolar Asia:** By reshaping the strategic landscape of Asia, India and Japan can strengthen their positions as global powers and contribute to a more balanced and secure Indo-Pacific.
 - ♦ Their partnership has the potential to drive regional stability and promote a rules-based international order.
- **Enhancing Maritime Security:** India and Japan should intensify their cooperation in maritime security to ensure freedom of navigation and uphold the principles of the United Nations Convention on the Law of the Sea (UNCLOS).
 - ♦ Joint naval exercises and coordinated maritime patrols can bolster regional security.
- **Promoting Economic Integration:** Both countries should work together to facilitate economic integration in the Indo-Pacific through trade agreements, investment initiatives, and infrastructure development.
 - ♦ This economic collaboration will support regional stability and growth.
- **Strengthening Regional Alliances:** India and Japan should enhance their engagement with regional partners and alliances, such as the Quad and ASEAN, to collectively address security and economic challenges.
 - ♦ Strengthening these relationships will contribute to a more cohesive and resilient regional architecture.

Way Forward:

- **Curbing Hegemony in the Indo-Pacific:** India and Japan need to adapt their military strategies to counterbalance the rising influence of major powers like the US and China in the Indo-Pacific. Both nations should leverage their strategic partnership to prevent any single power from dominating the region.

Conclusion:

- The India-Japan relationship is a strategic partnership focused on regional stability, economic growth, and defense cooperation.
- Despite challenges like China's assertiveness and trade differences, both nations are committed to deepening ties and advancing shared goals in the Indo-Pacific.

AUKUS NEW DEAL

Australia had signed a deal to allow the exchange of nuclear secrets and material with the United States and Britain.

Major Highlights:

- **Duration and Termination:** The agreement is effective until December 31, 2075, with any party able to exit with one year's written notice.
- **Breach or Termination:** In the event of a breach or termination, the remaining parties can demand the return or destruction of exchanged information, material, or equipment.
- **Usage of Material:** The transferred material must be used solely for naval propulsion and provided in complete, welded power units.
- **Conditions for Cease of Cooperation:** The US and UK can halt cooperation and demand the return of materials if Australia breaches the Nuclear Non-Proliferation Treaty or detonates a nuclear device.
- **Liability and Safety:** Australia is responsible for nuclear safety risks and must indemnify the US and UK against liabilities related to the nuclear material and equipment.
- **Political Commitments:** The treaty includes a non-legally binding document outlining additional political commitments, but it does not obligate Australia to participate in US-led military actions.

AUKUS:

- **Nature:** AUKUS is a trilateral defense and security partnership
- **Establishment:** in 2021
- **Countries Involved:** Australia, the United Kingdom, and the United States
- **Mandate:** Enhancing deterrence and defense capabilities in the Indo-Pacific.

Key Pillars of AUKUS:

- **Pillar I:** Focuses on the acquisition and development of conventionally armed nuclear-powered submarines for the Royal Australian Navy.
- **Pillar II:** Centers on cooperation in advanced military capabilities, including artificial intelligence (AI), quantum technologies, innovation, information sharing, and cyber, undersea, hypersonic and counter-hypersonic, and electronic warfare domains.

Significance of AUKUS:

- **Strategic Realignment:** AUKUS represents a significant strategic realignment in the Indo-Pacific, aimed at counterbalancing China's growing influence and assertive behavior. It reinforces the concept of **balancing** in international relations, where alliances are formed to counter potential threats from a rising power.

- **Enhancement of Deterrence:** By focusing on advanced military capabilities, including nuclear-powered submarines, AUKUS enhances the deterrence posture of its member countries. This aligns with the **deterrence theory** in international relations, which suggests that powerful states can prevent aggression by demonstrating their capability and willingness to retaliate.
- **Security Cooperation:** The partnership deepens security cooperation between Australia, the United Kingdom, and the United States, reflecting a commitment to **collective security**. This is a principle where allied nations agree to mutual defense and support in the face of external threats.
- **Technological Innovation:** AUKUS aims to foster technological innovation in defense and security, emphasizing **technological superiority** as a key factor in maintaining strategic advantage. This includes cooperation in **artificial intelligence, quantum technologies**, and other advanced areas that are crucial for modern warfare.
- **Regional Stability:** The formation of AUKUS is seen as a proactive measure to ensure **regional stability** in the Indo-Pacific, where increasing tensions and territorial disputes have created an environment of uncertainty. The alliance seeks to uphold **freedom of navigation** and maintain a rules-based international order.
- **Alliance Dynamics:** AUKUS highlights the importance of **multilateral alliances** and partnerships in addressing complex security challenges. It reflects a broader trend of states forming strategic alliances to enhance their collective security and influence in a multipolar world.
- **Economic and Geopolitical Implications:** The alliance may also have significant economic and geopolitical implications, influencing trade routes, regional economic integration, and the balance of power in the Indo-Pacific, thereby shaping broader global strategic dynamics.

Challenges:

- **Geopolitical Tensions:** AUKUS may escalate **geopolitical tensions** in the Indo-Pacific by intensifying rivalries, especially with China. This heightened tension could lead to an arms race or increased military posturing, destabilizing the region further.
- **Nuclear Proliferation Risks:** The transfer of nuclear-powered submarine technology under AUKUS raises **nuclear proliferation risks**. The sharing of sensitive technology may complicate global non-proliferation efforts and increase the risk of sensitive materials falling into the wrong hands.
- **Strains in Regional Diplomacy:** The formation of AUKUS could strain **regional diplomacy**, creating friction with nations that

view the alliance as a direct threat to their strategic interests. This strain might hinder broader diplomatic efforts and cooperation in the Indo-Pacific.

- **Operational Coordination:** Achieving effective **operational coordination** among Australia, the UK, and the US presents challenges. Integrating different military doctrines, technologies, and operational procedures could complicate joint exercises and missions.
- **Public and Political Backlash:** AUKUS could face **public and political backlash** both domestically within the member countries and in the international community. Concerns about increased military presence and nuclear technology might lead to public protests or political opposition.
- **Economic Costs:** The development and maintenance of advanced military capabilities, including nuclear-powered submarines, involve significant **economic costs**.
 - ♦ This investment may strain national budgets and potentially divert resources from other critical areas such as healthcare or education.

- **Legal and Ethical Concerns:** The use of nuclear technology raises **legal and ethical concerns**, including environmental impacts and compliance with international treaties.
 - ♦ Ensuring safe and responsible handling of nuclear materials while adhering to global norms could complicate implementation and oversight.

Conclusion:

- **Strengthen Diplomatic Engagement:** Enhance **diplomatic engagement** with regional and global partners to mitigate geopolitical tensions. Open channels of communication with China and other concerned nations to address misunderstandings and reduce the risk of conflict.
- **Enhance Non-Proliferation Measures:** Implement rigorous **non-proliferation measures** to ensure the safe and secure transfer of nuclear technology.
 - ♦ Collaborate with international organizations to maintain stringent controls and prevent the spread of sensitive technologies.

COMPARISON OF QUAD AND AUKUS

Aspect	QUAD	AUKUS
Formation and Membership	<ul style="list-style-type: none"> • Established: 2007, renewed focus in 2017. • Members: United States, Japan, India, Australia. 	<ul style="list-style-type: none"> • Established: 2021. • Members: United States, United Kingdom, Australia.
Core Objectives	<ul style="list-style-type: none"> • Strategic Focus: Maritime security, counterterrorism, cybersecurity, regional stability. • Regional Stability: Maintain a free and open Indo-Pacific. 	<ul style="list-style-type: none"> • Strategic Focus: Defense capabilities, nuclear-powered submarines. • Technological Advancement: Collaboration in AI, quantum computing, cyber warfare.
Geopolitical Impact	<ul style="list-style-type: none"> • Regional Influence: Balances China's influence through diplomatic and economic means. • Diplomatic Approach: Promotes regional stability and rule of law. 	<ul style="list-style-type: none"> • Regional Influence: Enhances military capabilities of Australia, impacts military dynamics. • Defense Posture: Focuses on technological and military superiority.
Scope of Cooperation	<ul style="list-style-type: none"> • Broad Scope: Includes humanitarian aid, disaster relief, infrastructure, pandemic response. • Multilateral Collaboration: Diverse areas beyond military. 	<ul style="list-style-type: none"> • Narrow Scope: Focuses on military technology and nuclear-powered submarines. • Specific Initiatives: Defense and security domain.
Organizational Structure	<ul style="list-style-type: none"> • Informal Dialogue: Regular summits and meetings, no formal secretariat. • Collaborative Framework: Decisions made through consultations. 	<ul style="list-style-type: none"> • Formal Agreement: Structured framework with specific agreements. • Formal Mechanism: Includes clear terms on technology and defense cooperation.
Response to Regional Dynamics	<ul style="list-style-type: none"> • Strategic Alignment: Addresses broad regional challenges and creates a cooperative network. • Flexibility: Adapts to global challenges through diverse initiatives. 	<ul style="list-style-type: none"> • Direct Response: Focuses on enhancing naval capabilities in response to specific security concerns. • Focused Approach: Targets defense and technology challenges.
Public and Political Perception	<ul style="list-style-type: none"> • Positive Reception: Viewed as a cooperative effort to promote stability and address global issues. • Broader Support: Supported by various stakeholders. 	<ul style="list-style-type: none"> • Mixed Reactions: Concerns about escalating tensions and nuclear proliferation. • Controversial Impact: Responses vary among international and regional actors.

GLOBAL SOUTH SUMMIT

The Third Voice of the Global South Summit (VOGSS) was held virtually on August 17, 2024, under the theme "An Empowered Global South for a Sustainable Future."

About:

- Hosted by India, this summit aimed to unite developing nations in addressing common challenges such as climate change, global governance, health, and economic inequalities.
- The summit saw the participation of 123 countries, including 21 Heads of State and Government, and was organized around various ministerial sessions.
- Prime Minister Narendra Modi emphasized the need for unity among Global South nations to effectively advocate for their developmental priorities. He also proposed a "Global Development Compact" focusing on trade, sustainable growth, technology sharing, and concessional finance.
- This summit continues India's efforts to elevate the concerns of the Global South on the global stage, building on the outcomes of previous summits and its G20 presidency.

BACKGROUND

About:

- VOGSS is an initiative led by India, designed to bring together countries from the Global South to address common challenges and share perspectives on global issues.
- The idea behind the summit is rooted in India's long-standing philosophy of **Vasudhaiva Kutumbakam** ("One Earth, One Family, One Future") and the broader vision of inclusive development embodied in "Sabka Saath, Sabka Vikas, Sabka Vishwas, and Sabka Prayas" (Together with all, Development for all, the Trust of all, and the Efforts of all).

Origins and Purpose:

- The first VOGSS was held in January 2023, followed by the second in November 2023, both in a virtual format.
 - The initiative emerged in response to the increasing marginalization of developing countries in global decision-making processes, particularly considering recent global crises such as the COVID-19 pandemic, climate change, and economic inequalities exacerbated by conflicts like the Ukraine war.
- The idea for the summit emerged in response to the growing realization that the concerns of developing countries, especially those in Africa, Asia, Latin America, and Oceania, were often sidelined in major global discussions dominated by more powerful nations.
- The second summit took place in November 2023, continuing the virtual format. This iteration built on the discussions from the first summit and further emphasized the need for a united Global South to address issues related to global governance, trade, and sustainable development.

Global South:

- The term "**Global South**" refers to a grouping of countries primarily located in Africa, Asia, Latin America, and Oceania.
- These countries are often characterized by their developing economies, histories of colonialism, and a shared set of challenges, such as poverty, economic inequality, and political instability.
- The Global South contrasts with the "Global North," which typically includes the wealthier, more industrialized nations of North America, Europe, and parts of East Asia.

SIGNIFICANCE OF THE GLOBAL SOUTH

• Economic Potential and Growth:

- ♦ **Emerging Markets:** Many countries in the Global South, such as China, India, Brazil, and Indonesia, are among the fastest-growing economies in the world.
 - ♦ These emerging markets are driving global economic growth and attracting investment.

- ♦ **Resource Richness:** The Global South is home to a vast array of natural resources, including minerals, fossil fuels, and agricultural products, which are essential to the global economy.
 - ♦ This makes the region crucial for global supply chains.

- ♦ **Labor Force:** With a large and growing population, the Global South provides a substantial labor force, which is increasingly important for global manufacturing and service industries.

• Political Influence and Global Governance:

- ♦ **Rising Political Influence:** Countries in the Global South are increasingly asserting themselves in international institutions such as the United Nations, World Trade Organization, and G20.
 - ♦ They are advocating for more equitable global governance and reforms that address their needs and concerns.

- ♦ **South-South Cooperation:** The Global South is fostering greater cooperation among its countries, strengthening their collective voice in global affairs. Organizations like BRICS (Brazil, Russia, India, China, South Africa) and the African Union exemplify this trend.

• Social and Cultural Influence:

- ♦ **Cultural Diversity:** The Global South contributes significantly to global culture, offering rich traditions, languages, and perspectives that enrich global cultural exchanges.

- ◆ **Global Diaspora:** Migrants from the Global South contribute to the cultural and economic dynamism of host countries in the Global North, while also maintaining strong ties to their home countries, fostering transnational networks.
- **Environmental Impact and Sustainability:**
 - ◆ **Climate Change Leadership:** Global south countries are often at the forefront of advocating for stronger climate action and sustainable development practices.
 - ◆ **Biodiversity and Conservation:** The Global South is home to much of the world's biodiversity, including critical ecosystems like the Amazon rainforest, which are vital for global environmental health. Conservation efforts in these regions have global significance.
- **Human Development and Global Justice:**
 - ◆ **Poverty Alleviation and Development:** Addressing the development challenges of the Global South is crucial for achieving global poverty reduction and improving human development outcomes.
 - ◆ International development efforts often focus on these regions to uplift millions of people from poverty.
 - ◆ **Global Equity and Justice:** The Global South's push for a more equitable global order challenges the dominance of wealthier nations in setting the global agenda.
 - ◆ This is crucial for addressing historical injustices and promoting a more balanced global development model.

- **Strategic Importance:**
 - ◆ **Geopolitical Significance:** The Global South includes regions of strategic importance, such as the Middle East, Southeast Asia, and Sub-Saharan Africa, which are key to global security, trade routes, and political alliances.
 - ◆ **Innovation and Adaptation:** The Global South is increasingly seen as a source of innovation, particularly in areas like mobile technology, social entrepreneurship, and sustainable practices, where resource constraints have driven creative solutions.

Highlights from the 2024 Global South Summit:

- **Global Development Compact:**
 - ◆ The Indian Prime Minister proposed the creation of a "Global Development Compact" aimed at enhancing cooperation among Global South nations.
 - ◆ This compact would focus on areas like trade, technology sharing, sustainable development, and concessional finance to help these countries overcome common challenges.
- **Climate Change and Sustainable Development:**
 - ◆ Climate change and its disproportionate impact on developing nations were central to the discussions. Leaders emphasized the need for fair and equitable climate action, including financial support and technology transfer from developed countries.

GLOBAL NORTH 'RINGS' AND GLOBAL SOUTH 'GROUPINGS'

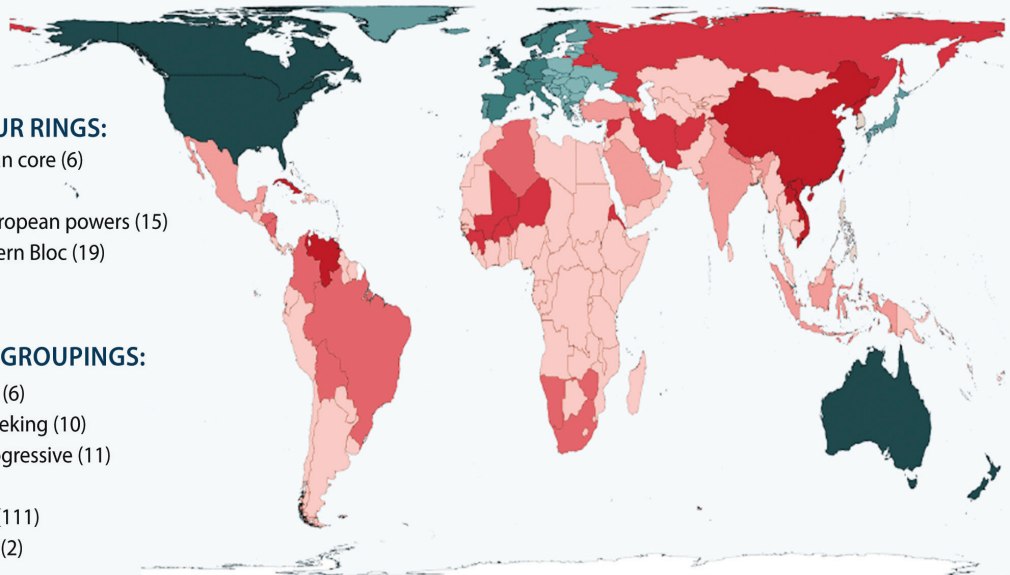
2023

GLOBAL NORTH IN FOUR RINGS:

- 1. US-led Anglo-American core (6)
- 2. European core (9)
- 3. Japan + secondary European powers (15)
- 4. European former Eastern Bloc (19)

GLOBAL SOUTH IN SIX GROUPINGS:

- 1. Socialist Independent (6)
- 2. Strongly Sovereign Seeking (10)
- 3. Current or Historic Progressive (11)
- 4. New Non-Aligned (5)
- 5. Diverse Global South (111)
- 6. Heavily US Militarised (2)



- **Health and Pandemic Preparedness:**
 - ♦ The summit highlighted the ongoing challenges posed by global health crises like the COVID-19 pandemic. Discussions centered on improving healthcare infrastructure, vaccine equity, and better preparedness for future pandemics.
- **Debt Relief and Economic Cooperation:**
 - ♦ Several leaders called for greater international cooperation on debt relief, especially for countries facing severe economic distress due to the COVID-19 pandemic and other global economic challenges.
- **Global Governance Reform:**
 - ♦ The summit reiterated the need for reforms in international institutions like the United Nations, International Monetary Fund (IMF), and World Bank to better reflect the interests and voices of the Global South.

Notable Outcomes:

- **Strengthened South-South Cooperation:** The summit concluded with a renewed commitment to enhancing South-South cooperation in areas like trade, technology, and sustainable development.
- **Exclusion of China and Pakistan:** Notably, China and Pakistan were not invited to the summit, highlighting geopolitical tensions and India's strategic considerations in the region.

Challenges Associated:

- **Economic Challenges:**
 - ♦ **Poverty and Inequality:** Many countries in the Global South struggle with high levels of poverty and income inequality. Despite some progress, significant portions of the population live below the poverty line, with limited access to basic needs such as food, clean water, and shelter.
 - ♦ **Underdeveloped Infrastructure:** Inadequate infrastructure, including roads, electricity, water supply, and telecommunications, hampers economic growth and development. This limits opportunities for business, education, and healthcare.
 - ♦ **Economic Dependence:** Economies in the Global South are often dependent on the export of raw materials and agricultural products, which makes them vulnerable to global market fluctuations and trade imbalances.
 - ♦ This dependency also hinders industrialization and economic diversification.
 - ♦ **Debt Burden:** Many Global South countries face significant external debt burdens, which constrain their ability to invest in development and social programs. Debt servicing often takes up a large portion of national budgets, leaving little room for growth-oriented spending.
 - **Political and Governance Challenges:**
 - ♦ **Political Instability:** Several countries in the Global South experience political instability, including conflicts, coups,
- and weak governance structures. This instability can undermine development efforts and lead to humanitarian crises.
- ♦ **Corruption:** Corruption remains a pervasive problem in many Global South countries, affecting public administration, the judiciary, and the economy.
 - ♦ Corruption erodes trust in institutions, diverts resources from essential services, and discourages foreign investment.
 - ♦ **Weak Institutions:** Weak or ineffective institutions, including the legal and judicial systems, hinder good governance and the enforcement of laws.
 - ♦ This can lead to issues such as poor service delivery, human rights abuses, and lack of accountability.
- **Environmental and Climate Challenges:**
 - ♦ **Vulnerability to Climate Change:** The Global South is disproportionately affected by the impacts of climate change, including extreme weather events, rising sea levels, and changing agricultural patterns.
 - ♦ These impacts threaten food security, livelihoods, and human settlements.
 - ♦ **Environmental Degradation:** Rapid industrialization, deforestation, and urbanization in the Global South have led to significant environmental degradation. Issues such as air and water pollution, loss of biodiversity, and desertification pose serious risks to sustainable development.
 - ♦ **Limited Resources for Adaptation:** While facing significant climate challenges, many Global South countries lack the financial and technological resources needed to adapt to these changes and mitigate their impacts.
 - **Global Trade and Market Challenges:**
 - ♦ **Trade Imbalances:** The Global South often faces trade imbalances, with many countries exporting low-value raw materials while importing high-value manufactured goods.
 - ♦ This trade structure limits the ability of these countries to climb the value chain and achieve economic development.
 - ♦ **Barriers to Market Access:** Global South countries frequently encounter barriers to accessing global markets, including tariffs, non-tariff barriers, and restrictive trade policies imposed by wealthier nations.
 - ♦ This limits their ability to compete globally and benefit from international trade.
 - **Security Challenges:**
 - ♦ **Conflict and Violence:** Many regions in the Global South are affected by ongoing conflicts, terrorism, and violence, which hinder development and destabilize societies.
 - ♦ These conflicts often have deep-rooted causes, including ethnic tensions, resource disputes, and political power struggles.

- ♦ **Transnational Threats:** Issues such as drug trafficking, human trafficking, and organized crime are significant security challenges in the Global South. These transnational threats undermine governance, fuel corruption, and exacerbate social problems.
- **External Influence and Geopolitical Pressure:**
 - ♦ **Neo-Colonialism and External Intervention:** Some Global South countries experience neo-colonial pressures, where external powers exert influence through economic means, such as loans, investments, and trade agreements, which can compromise sovereignty and lead to exploitative relationships.
 - ♦ **Geopolitical Tensions:** The Global South often finds itself at the center of geopolitical tensions, with various external powers vying for influence.
 - ♦ This can lead to interference in domestic affairs, destabilization, and alignment pressures that may not align with the interests of the local population.

Way Forward:

- **Strengthening South-South Cooperation:**
 - ♦ **Promote Regional Integration:** The summit should focus on enhancing regional integration initiatives, such as the African Continental Free Trade Area (AfCFTA), ASEAN, and MERCOSUR.
 - ♦ Strengthening these regional blocs can help improve intra-regional trade, infrastructure connectivity, and political cooperation.
 - ♦ **Knowledge and Technology Sharing:** Facilitate the exchange of technology, expertise, and best practices among Global South countries.
 - ♦ Establishing centers of excellence in areas like agriculture, renewable energy, digital innovation, and healthcare can accelerate development across the region.
- **Economic Diversification and Resilience:**
 - ♦ **Foster Industrialization:** Encourage policies that support industrialization and the development of value-added industries in the Global South. This can reduce dependency on raw material exports and create more resilient economies.
 - ♦ **Build Economic Resilience:** Develop strategies to mitigate the impact of global economic shocks, such as diversifying export markets, enhancing food security, and promoting sustainable development.
 - ♦ The summit should advocate for financial mechanisms that support economic stability, such as contingency funds and regional development banks.
- **Addressing Climate Change and Environmental Sustainability:**
 - ♦ **Promote Green Growth:** The summit should prioritize discussions on sustainable development pathways that align economic growth with environmental sustainability. This includes promoting investments in renewable energy, sustainable agriculture, and climate-resilient infrastructure.
- ♦ **Climate Financing:** Advocate for increased climate finance from developed countries to support adaptation and mitigation efforts in the Global South. This could include pushing for the fulfillment of the \$100 billion annual climate finance commitment and exploring innovative financing mechanisms like green bonds.
- **Enhancing Healthcare and Social Development:**
 - ♦ **Strengthen Public Health Systems:** The summit should emphasize the importance of building resilient healthcare systems in the Global South, capable of withstanding future pandemics and health crises. Collaboration on vaccine production, distribution, and public health research should be a priority.
 - ♦ **Address Social Inequalities:** Focus on strategies to reduce social inequalities, including gender inequality, by promoting inclusive education, healthcare, and employment opportunities.
 - ♦ Policies should be aimed at lifting marginalized communities and ensuring that development benefits all segments of society.
- **Enhancing Security and Stability:**
 - ♦ **Conflict Resolution and Peacebuilding:** Develop collective strategies for conflict prevention, resolution, and peacebuilding in the Global South.
 - ♦ This could involve establishing a Global South peacekeeping or conflict mediation initiative, supported by regional powers.
 - ♦ **Address Transnational Threats:** The summit should facilitate cooperation on transnational security threats like terrorism, human trafficking, and organized crime.
 - ♦ Collaborative frameworks and intelligence-sharing mechanisms could be established to address these challenges effectively.
- **Building Stronger Alliances and Networks:**
 - ♦ **Global South Solidarity:** Strengthen alliances among Global South countries to promote solidarity and mutual support in international forums.
 - ♦ This includes building networks among civil society organizations, academic institutions, and private sector players across the Global South.
 - ♦ **Engagement with Global North:** While focusing on South-South cooperation, the summit should also seek constructive engagement with the Global North.
 - ♦ This could involve partnerships on shared global challenges like climate change, pandemics, and global security, ensuring that such collaborations are based on mutual respect and benefit.

INDIA'S ROLE IN GLOBAL SOUTH

Promoting Multilateralism and Global Governance Reform:

- **United Nations Reform:** India has consistently called for reforms in the United Nations, particularly the expansion of the UN Security Council to include more representation from the Global South. India argues that global governance structures must reflect the realities of the 21st century, where developing countries play a much larger role in global affairs.
- **Voice for Developing Countries:** India uses its position in international organizations like the G20, World Trade Organization, and BRICS to articulate and defend the interests of the Global South. India advocates for policies that promote fair trade, equitable access to resources, and a greater say for developing countries in decision-making processes.

Economic Cooperation and Development Assistance:

- **South-South Cooperation:** India has actively promoted South-South cooperation, encouraging collaboration among developing countries to share knowledge, resources, and best practices. Initiatives such as the India-Africa Forum Summit and the India-Latin America and Caribbean Conclave reflect India's commitment to strengthening ties within the Global South.
- **Development Partnerships:** India provides development assistance to other Global South countries through programs like the Indian Technical and Economic Cooperation (ITEC) program and the Lines of Credit (LoC) extended to various African and Asian countries. This assistance includes capacity building, infrastructure development, and technical expertise, helping these countries achieve their development goals.

Climate Change and Environmental Advocacy:

- **International Solar Alliance (ISA):** India played a leading role in launching the International Solar Alliance, a coalition of over 120 countries, mostly from the Global South, aimed at promoting solar energy and addressing energy needs through sustainable means.
- **Climate Justice:** In global climate negotiations, India has been a strong advocate for climate justice, emphasizing that developed countries bear a greater responsibility for mitigating climate change due to their historical emissions. India argues for the principle of "common but differentiated responsibilities" (CBDR) and advocates for more financial and technological support for the Global South to adapt to climate impacts.

Support for Education and Capacity Building:

- **Scholarships and Training Programs:** India offers scholarships and educational opportunities to students from Global South countries, helping to build human capital and foster long-term relationships. Programs like ITEC and the ICCR (Indian

Council for Cultural Relations) scholarships are examples of India's efforts in this area.

- **Knowledge Sharing:** India actively shares its experiences in areas such as digital governance, rural development, and microfinance with other developing nations. This includes organizing training programs, workshops, and bilateral exchanges that help build capacity in partner countries.

Advocating for Fair Trade and Economic Justice:

- **Trade Negotiations:** India advocates for fair trade practices that benefit the Global South, particularly in the WTO. India has been a leading voice in demanding that trade rules take into account the needs and challenges of developing countries, such as food security, agricultural subsidies, and access to technology.
- **Debt Relief and Economic Justice:** India supports initiatives aimed at providing debt relief to Heavily Indebted Poor Countries (HIPC) in the Global South. India also advocates for more equitable access to global financial resources, calling for reforms in international financial institutions like the IMF and World Bank to better serve developing countries.

Peacekeeping and Conflict Resolution:

- India is one of the largest contributors to UN peacekeeping forces, many of which are deployed in conflict zones within the Global South. India's participation in peacekeeping missions underscores its commitment to global peace and stability, particularly in developing regions.
- **Conflict Resolution and Mediation:** India has played a role in mediating conflicts within the Global South, often using its diplomatic channels to encourage peaceful resolutions. India's approach to conflict resolution emphasizes dialogue, respect for sovereignty, and non-interference, principles that resonate with many developing countries.

Cultural Diplomacy and Soft Power:

- **Promoting Cultural Exchange:** India uses cultural diplomacy as a tool to strengthen ties with Global South countries. This includes promoting Indian culture through festivals, films, art, and yoga, which resonate widely across the Global South. The Indian diaspora also plays a significant role in fostering these cultural connections.
- **Strengthening People-to-People Ties:** India's engagement with the Global South is not limited to government-to-government relations but extends to fostering strong people-to-people ties. This includes educational exchanges, cultural programs, and initiatives that bring citizens of the Global South closer together.

INSTABILITY IN INDIA'S NEIGHBOURHOOD

The Chief of Defence Staff (CDS) highlighted the growing instability in India's neighborhood as a significant concern for national security.

About:

- He pointed out that this instability is particularly troubling given the ongoing security challenges India faces, including the proxy war in Jammu and Kashmir fueled by Pakistan and the prolonged border disputes with China.
 - ♦ The escalation of these conflicts, especially the recent tensions in regions like Pir Panjal, further exacerbates the security environment.
- CDS underscored the importance of India's drive towards self-reliance, or **Aatmanirbharta**, particularly in defense manufacturing.
 - ♦ He stressed that for India to maintain its strategic autonomy, it must reduce dependency on foreign imports for its defense needs.
 - ♦ This would not only enhance national security but also position India more robustly in global defense diplomacy.
- The instability in neighboring countries, such as the political situation in Bangladesh, is a pressing concern.
 - ♦ This instability can create vulnerabilities that adversaries might exploit, further complicating India's security landscape.

Recent Developments in Bangladesh:

- **Political Instability:**
 - ♦ Bangladesh is undergoing significant political instability following the dramatic resignation and flight of Prime Minister Sheikh Hasina amid widespread protests and unrest.
 - ♦ The situation has created a volatile environment in the country and the formation of an interim government with military oversight.
 - ♦ The instability in Bangladesh has significant implications for its relationship with India.
 - ♦ Historically, India has supported Hasina's Awami League, viewing it as a stabilizing force in the region and a key partner in maintaining security and economic ties.
 - ♦ With the current upheaval, there is concern in New Delhi about potential shifts in Bangladesh's foreign policy, especially if opposition parties or other factions gain power.
 - ♦ Overall, the situation in Bangladesh is a critical point of concern for India, given the intertwined economic, political, and security interests between the two nations.
 - ♦ The developments could also have broader implications for regional stability in South Asia.

• Rohingya Crisis:

- ♦ Bangladesh continues to host nearly a million Rohingya refugees from Myanmar, with little progress in repatriation efforts.
- ♦ The prolonged refugee situation is causing social and economic strain within Bangladesh.

• Economic Challenges:

- ♦ Bangladesh is facing economic challenges, including rising inflation, a trade deficit, and pressure on its currency.
- ♦ The global economic downturn and reduced demand for Bangladeshi exports have further exacerbated these issues.

• China's Influence:

- ♦ China's influence in Bangladesh is growing, particularly through infrastructure projects under the Belt and Road Initiative (BRI).
- ♦ China has been a major supplier of military equipment to Bangladesh and is involved in significant infrastructure investments, including the development of ports.

• Border and Security Issues:

- ♦ The India-Bangladesh border remains sensitive, with issues such as smuggling, human trafficking, and illegal migration continuing to be challenges.
- ♦ Recent developments have seen an increase in border incidents, which could strain bilateral relations.

Issues related to Other Neighboring Countries;

1. Pakistan:

- ♦ **Terrorism and Political Instability:** Pakistan's internal political dynamics, including frequent changes in government, military influence, and ongoing economic challenges, create a volatile environment.
 - ♦ The continued presence of terrorist groups targeting India, particularly in Jammu and Kashmir, remains a critical security concern.
 - ♦ The frequent ceasefire violations along the Line of Control (LoC) exacerbate tensions between the two nations.
- ♦ **Economic Crisis:** Pakistan's economy has been under severe strain, marked by high inflation, a depreciating currency, and mounting debt.
 - ♦ The country has also been negotiating with the International Monetary Fund (IMF) for bailouts, which has sparked domestic discontent.

2. Afghanistan:

- ♦ **Taliban Rule:** The return of the Taliban to power in August 2021 after the U. S. withdrawal has led to significant instability in Afghanistan.

- ♦ The Taliban government has faced international isolation, a humanitarian crisis, and internal challenges in controlling various factions within the country.
 - ♦ **Humanitarian Crisis:** Afghanistan is experiencing severe economic hardship, widespread poverty, and food insecurity.
 - ♦ The lack of international recognition and sanctions has further deepened the crisis.
 - ♦ **Security Concerns:** The presence of terrorist groups like ISIS-K and the potential for Afghanistan to become a haven for international terrorism remains a significant concern for India and other neighboring countries.
- 3. Sri Lanka:**
- ♦ **Economic Crisis:** Sri Lanka has been facing a severe economic crisis, leading to widespread protests, political instability, and a change in government. The economic turmoil has led to food and fuel shortages, causing significant social unrest.
 - ♦ **Geopolitical Shifts:** The crisis has opened the door for increased Chinese influence in Sri Lanka, particularly through debt diplomacy. India has responded by extending economic assistance, but the situation remains precarious.
 - ♦ **Impact on India:** The crisis has led to a significant number of Sri Lankan refugees fleeing to India, particularly Tamil Nadu, which has historical ties to the Tamil population in Sri Lanka.
- 4. Nepal:**
- ♦ **Political Instability:** Nepal has witnessed frequent changes in government, with a revolving door of prime ministers and coalition governments, leading to policy paralysis and instability.
 - ♦ **Economic Issues:** The country faces economic challenges, including a slow recovery from the COVID-19 pandemic, rising unemployment, and reliance on remittances.
 - ♦ **Geopolitical Balancing:** Nepal is strategically balancing its relations between India and China, leading to periodic tensions with both neighbors, particularly concerning border issues and trade.
- 5. Myanmar:**
- ♦ **Military Coup:** The military coup in February 2021 has plunged Myanmar into chaos, with widespread protests, a brutal military crackdown, and an ongoing civil war between the military junta and various ethnic armed groups.
 - ♦ **Humanitarian Crisis:** The conflict has led to a severe humanitarian crisis, with thousands displaced and human rights violations reported. The situation has also affected border regions with India, leading to an influx of refugees.
 - ♦ **Impact on Regional Security:** The instability in Myanmar has significant implications for regional security, particularly in India's northeastern states, which share a border with Myanmar.
- 6. China:**
- ♦ **Border Tensions:** The unresolved border disputes, particularly along the Line of Actual Control (LAC), have led to periodic standoffs between Indian and Chinese troops. The most notable recent incident was the Galwan Valley clash in 2020, which resulted in casualties on both sides.
 - ♦ **Regional Influence:** China's growing influence in South Asia, through investments and infrastructure projects under the Belt and Road Initiative (BRI), is a strategic concern for India.
 - ♦ Countries like Pakistan, Nepal, and Sri Lanka have increasingly aligned with China, potentially challenging India's influence in the region.
- 7. Bhutan:**
- ♦ **Stable but Vulnerable:** Bhutan remains relatively stable compared to its neighbors, but it is vulnerable to external pressures due to its small size and strategic location between India and China.
 - ♦ **Economic Challenges:** Bhutan's economy is heavily reliant on hydropower exports to India, and the country faces challenges such as unemployment and the impact of climate change on its environment.
- 8. Maldives:**
- ♦ **Political Uncertainty:** The Maldives has seen political instability with frequent changes in government, and tensions between pro-India and pro-China factions.
 - ♦ **Economic Dependence:** The Maldives' economy, heavily dependent on tourism, was severely impacted by the COVID-19 pandemic. Recovery has been slow, and the country is grappling with high levels of debt, particularly to China.
 - ♦ **Strategic Importance:** The Maldives' strategic location in the Indian Ocean makes it a significant player in regional geopolitics, with both India and China vying for influence.
- Challenges for India in its neighborhood:**
- **Balancing Relations with Pakistan:**
 - ♦ **Terrorism vs. Diplomacy:** India's relationship with Pakistan is marred by a history of conflict and terrorism, particularly concerning the Kashmir issue. While there is a need for diplomatic engagement to stabilize the region, frequent terrorist attacks emanating from Pakistan complicate efforts for dialogue. Balancing the need for security with the desire for peaceful relations is a persistent dilemma.
 - ♦ **Nuclear Rivalry:** Both India and Pakistan are nuclear-armed states, which raises the stakes of any military confrontation. India must carefully manage this rivalry to avoid escalation while maintaining a credible deterrence.
 - **Managing China's Influence:**
 - ♦ **Strategic Competition:** China's growing presence in South Asia, through initiatives like the Belt and Road Initiative



INDIA'S NEIGHBORHOOD FIRST POLICY

About:

- India's "**Neighborhood First**" policy is a central plank of its foreign policy, aimed at strengthening relations with its neighboring countries in South Asia.
- This policy emphasizes India's commitment to prioritizing and enhancing its diplomatic, economic, and security ties with its immediate neighbors, recognizing that the stability and prosperity of the region are closely tied to India's own growth and security.

Key Elements of the Neighborhood First Policy:

- **Economic Cooperation and Connectivity:**
 - ♦ India has sought to enhance economic ties with its neighbors through trade agreements, infrastructure projects, and connectivity initiatives.
 - ♦ For example, the development of the Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicles Agreement aims to improve road connectivity and trade across these countries.
 - ♦ India has also invested in energy cooperation, such as hydropower projects in Bhutan and the India-Nepal transmission lines, which help in mutual economic development.
 - **Security and Counterterrorism:**
 - ♦ India's Neighborhood First policy includes close cooperation on security issues, particularly in combating terrorism and insurgencies.
 - ♦ India has worked with countries like Bangladesh and Bhutan to address cross-border terrorism and insurgencies.
 - ♦ India's cooperation with Maldives, Sri Lanka, and Mauritius in maritime security is crucial for maintaining stability in the Indian Ocean Region.
 - **Developmental Assistance:**
 - ♦ India has provided significant developmental assistance to its neighbors in areas like infrastructure, education, healthcare, and capacity building.
 - ♦ For instance, India's contributions to Afghanistan's reconstruction and the construction of the Parliament building in Kabul are notable examples.
 - ♦ India also supports smaller neighbors like Bhutan through grants and technical assistance, ensuring their sustainable development.
 - **Diplomatic Engagement:**
 - ♦ Regular high-level visits, bilateral talks, and participation in regional forums such as the South Asian Association
- for Regional Cooperation (SAARC) are key components of the Neighborhood First policy.
- ♦ India has also engaged in "Vaccine Maitri" (Vaccine Friendship) during the COVID-19 pandemic, supplying vaccines to several neighboring countries as part of its humanitarian diplomacy.
- ### Challenges to the Neighborhood First Policy:
- **China's Growing Influence:**
 - ♦ One of the biggest challenges to India's Neighborhood First policy is the increasing influence of China in South Asia.
 - ♦ China's investments, especially under the Belt and Road Initiative (BRI), have made significant inroads in countries like Pakistan, Sri Lanka, and Nepal, challenging India's traditional influence in the region.
 - ♦ The presence of Chinese infrastructure projects, such as the Hambantota Port in Sri Lanka and the China-Pakistan Economic Corridor (CPEC), poses strategic concerns for India.
 - **Political Instability in Neighboring Countries:**
 - ♦ Political instability in countries like Nepal, Bangladesh, Sri Lanka, and Myanmar often complicates India's diplomatic efforts.
 - ♦ Changes in government or internal conflicts can lead to fluctuations in bilateral relations and impact regional stability.
 - ♦ For instance, the recent political upheaval in Bangladesh and the military coup in Myanmar have created diplomatic challenges for India.
 - **Bilateral Disputes:**
 - ♦ Despite the policy's focus on cooperation, India faces ongoing disputes with some neighbors, such as border issues with China and Pakistan, and water-sharing disputes with Bangladesh and Nepal. These disputes sometimes overshadow broader efforts at cooperation.
 - ♦ The unresolved boundary dispute with Nepal and the recent tensions over the Lipulekh Pass highlight the challenges in maintaining harmonious relations with all neighbors.
 - **Economic and Security Asymmetry:**
 - ♦ The economic and military asymmetry between India and its smaller neighbors can sometimes lead to perceptions of Indian dominance or interference, which can strain relations.
 - ♦ This is evident in the periodic anti-Indian sentiments in countries like Nepal and Sri Lanka.
 - ♦ India's challenge is to reassure its neighbors that its policies are aimed at mutual benefit rather than dominance.

(BRI) and its investments in Pakistan, Sri Lanka, and Nepal, poses a strategic challenge for India. India must counterbalance China's influence while maintaining its own strategic autonomy.

- ♦ **Border Disputes:** The unresolved border disputes with China, particularly in the Ladakh region, create ongoing tensions. The dilemma lies in how to assert India's territorial claims while avoiding large-scale military conflict with China.
- **Engagement with Smaller Neighbors:**
 - ♦ **Maintaining Influence:** India has traditionally been the dominant power in South Asia, but this influence is increasingly challenged by China's economic investments and political engagements with smaller countries like Nepal, Bhutan, and the Maldives. India must engage these countries diplomatically and economically without appearing overbearing.
 - ♦ **Internal Instabilities:** Political instability in neighboring countries, such as Nepal's frequent changes in government, Sri Lanka's economic crisis, and Bangladesh's recent political turmoil, can have spillover effects on India. India faces the dilemma of whether to intervene more actively in these situations or adopt a hands-off approach.
- **Handling the Afghanistan Situation:**
 - ♦ **Security Concerns:** The Taliban's return to power in Afghanistan has raised concerns about the potential resurgence of terrorism that could impact India, particularly in Kashmir. India faces the dilemma of how to engage with Afghanistan under Taliban rule, balancing humanitarian concerns with security imperatives.
 - ♦ **Diplomatic Isolation vs. Engagement:** India has to decide whether to engage with the Taliban regime diplomatically to safeguard its interests or to maintain a distance due to the regime's human rights record and connections with terrorist groups.
- **Bangladesh's Political Instability:**
 - ♦ **Impact on Border Security:** Political instability in Bangladesh, including the recent upheaval following Sheikh Hasina's resignation, poses challenges for India, especially concerning border security and the potential influx of refugees into India's northeastern states.
 - ♦ **Economic Ties vs. Internal Politics:** India has strong economic ties with Bangladesh, but the ongoing political crisis could disrupt these relations. India must navigate these challenges without appearing to interfere in Bangladesh's internal affairs.
- **Myanmar's Military Rule:**
 - ♦ **Ethnic Insurgency Impact:** The military coup in Myanmar and the resulting civil conflict have exacerbated ethnic insurgencies along the India-Myanmar border, affecting the security situation in India's northeastern states.
 - ♦ **Balancing Act:** India must balance its need for security cooperation with Myanmar's military government against international pressure to support democracy and human rights in Myanmar.
- **Maritime Security in the Indian Ocean:**
 - ♦ **Chinese Naval Presence:** The increasing presence of Chinese naval assets in the Indian Ocean, including bases in Djibouti and potential access to ports in Sri Lanka and the Maldives, poses a strategic dilemma for India. Ensuring maritime security while avoiding direct confrontation with China is a key concern.
 - ♦ **Regional Cooperation:** India has to enhance maritime cooperation with its neighbors and other key players like the United States, Japan, and Australia, while managing sensitivities in the region about becoming too closely aligned with any one power.
- **Cybersecurity Threats:**
 - ♦ **State-Sponsored Cyber Attacks:** India is increasingly vulnerable to cyberattacks, particularly from state-sponsored actors from China and Pakistan. These attacks target critical infrastructure, government databases, and financial institutions, posing significant threats to national security.
 - ♦ **Digital Espionage:** The rapid digitization of India's economy and the growing use of digital platforms for governance have also exposed the country to risks of cyber espionage, data breaches, and other forms of cybercrime.
- **Economic Challenges and Disparities:**
 - ♦ **Developmental Asymmetries:** India's economic rise contrasts sharply with the economic challenges in many of its neighbors. Poverty, unemployment, and lack of infrastructure in countries like Nepal, Bangladesh, and Myanmar contribute to instability, migration, and sometimes hostile attitudes toward India.
 - ♦ **Economic Sanctions and Aid Dependencies:** Economic instability in the region, often exacerbated by sanctions (as seen in Iran) or over-reliance on foreign aid, can lead to political instability and social unrest that spill over into neighboring countries.
- **Ethnic and Religious Tensions:**
 - ♦ Ethnic and religious tensions in countries like Sri Lanka (between Sinhalese and Tamils), Bangladesh (regarding religious minorities), and Pakistan (sectarian violence) can lead to cross-border implications, including refugee flows and militant activity that affect regional stability.
- **Weak Regional Cooperation Mechanisms:**
 - ♦ Regional organizations like SAARC have been largely ineffective in addressing collective security and economic challenges due to political differences, particularly between India and Pakistan. This lack of effective regional cooperation hinders efforts to reduce instability.
- **Refugee Influx and Migration:**
 - ♦ Political and economic instability in neighboring countries often leads to an influx of refugees into India, as seen

with Rohingya Muslims from Myanmar and refugees from Afghanistan. This creates socio-economic and security challenges for India.

GOLDEN CRESCENT

- The **Golden Crescent** is a region in South Asia that is one of the world's largest producers of illicit opium. It comprises three countries: **Afghanistan, Iran, and Pakistan**.
- This region has become a major hub for the cultivation of opium poppies and the production of heroin.
- The drug trade from the Golden Crescent fuels organized crime, insurgency, and terrorism in the region, contributing to instability and posing significant challenges to regional security, including in neighboring India.
- The profits from the drug trade also fund various militant groups, exacerbating violence and conflict.

Impact of Instability in Neighborhood on India:

- **Security Threats:** Political instability in neighboring countries like Pakistan, Afghanistan, and Myanmar can lead to cross-border terrorism, refugee influxes, and the spread of insurgent activities into India.
- **Economic Disruption:** Instability disrupts trade routes and economic partnerships, particularly with countries like Sri Lanka and Nepal, affecting India's economic interests and regional connectivity projects.
- **Strategic Challenges:** The growing influence of external powers like China in the region, especially in unstable countries, threatens India's strategic interests, leading to potential military and diplomatic confrontations.
- **Diplomatic Strain:** Continuous turmoil forces India to invest more diplomatic resources in crisis management, complicating its relations with these nations and diverting attention from broader global engagements.
- **Humanitarian Concerns:** Refugee flows from conflict zones, such as the Rohingya crisis from Myanmar, place additional humanitarian and resource burdens on India.

Way Forward:

Enhancing Diplomatic Engagement:

- **Bilateral and Multilateral Dialogues:** India should engage in consistent and proactive bilateral dialogues with its neighbors to address mutual concerns, ranging from border disputes to economic cooperation. Reviving and strengthening regional forums like SAARC or BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) could also help foster collaboration on shared challenges.

Promoting Economic Integration and Development:

- **Regional Trade and Connectivity:** Enhancing regional trade and connectivity through initiatives like the Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicles Agreement and

the South Asia Subregional Economic Cooperation (SASEC) program can promote economic interdependence, reducing the incentives for conflict.

- **Infrastructure Development:** Investing in cross-border infrastructure projects, such as energy grids, transport links, and digital connectivity, can stimulate economic growth and stability in neighboring countries, reducing poverty and inequality, which are often sources of instability.

Strengthening Security Cooperation:

- **Counter-Terrorism Collaboration:** India should strengthen intelligence-sharing and counter-terrorism cooperation with its neighbors. Joint training exercises, coordinated border management, and addressing the root causes of terrorism can help reduce the threat of cross-border militancy.
- **Border Management:** Improving border infrastructure, surveillance, and patrols, while also ensuring humane treatment of cross-border migrants and refugees, can enhance security while minimizing tensions with neighboring countries.

Engaging in Strategic Balancing:

- **Balancing China's Influence:** To counter China's growing influence in the region, India should offer viable alternatives to its neighbors in terms of investment, infrastructure development, and trade partnerships. Engaging with like-minded countries through initiatives like the Quad (India, the U. S., Japan, Australia) can also strengthen India's strategic position.
- **Defense Diplomacy:** India can enhance defense diplomacy by providing military training, joint exercises, and defense equipment to neighboring countries, thus building stronger military-to-military ties and contributing to regional security.

Leveraging Soft Power and Cultural Diplomacy:

- **People-to-People Ties:** Enhancing cultural exchanges, academic scholarships, and tourism between India and its neighbors can build goodwill and reduce mistrust. Promoting Indian culture, media, and education through initiatives like the Indian Council for Cultural Relations (ICCR) can strengthen ties.
- **Humanitarian Assistance:** India should continue to offer humanitarian assistance to neighbors in times of natural disasters, health crises (as seen during the COVID-19 pandemic), and other emergencies, reinforcing its role as a responsible regional power.

Engaging with Non-State Actors and Civil Society:

- **Track-II Diplomacy:** Encouraging dialogue between think tanks, civil society organizations, and non-governmental organizations across borders can help address sensitive issues and build trust at the grassroots level.
- **Diaspora Engagement:** Leveraging the Indian diaspora in neighboring countries to foster closer ties and act as informal ambassadors of goodwill can strengthen India's soft power.

FTA TALK WITH BIMSTEC

Recently, the business summit of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) was organized by the Confederation of Indian Industries (CII) and the Ministry of External Affairs.

About:

- BIMSTEC has been negotiating a proposed **Free Trade Agreement (FTA)** since **2004**, with 22 rounds of talks held so far including the last round that was held in 2018.
- In 2004, Bimstec concluded the **Framework Agreement on the Bimstec Free Trade Area**. The Framework Agreement encouraged the establishment of effective trade and investment facilitation measures, including simplification of customs procedures and development of mutual recognition arrangements.

BIMSTEC

- BIMSTEC is a regional organization that was **established in 1997** with the signing of the **Bangkok Declaration**.
- **Permanent Secretariat:** Dhaka, Bangladesh.
- **Members:** Bangladesh, Bhutan, Sri Lanka, Nepal, Thailand, Myanmar and India.
- The BIMSTEC countries are home to **22 percent** of the total world population and have a combined Gross Domestic Product (GDP) of about **\$3.6 trillion**.

Meaning of Free Trade Agreement (FTA):

- A free trade agreement is a pact between two or more nations to reduce barriers to imports and exports among them.
- Under a free trade policy, goods and services can be bought and sold across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.
- **For instance**, India has signed **13 Regional Trade Agreements (RTAs)/Free Trade Agreements (FTAs)** with various countries/regions namely, Japan, South Korea, countries of ASEAN region and countries of South Asian Association for Regional Cooperation (SAARC), Mauritius, United Arab Emirates and Australia.

Benefits:

- **Enhanced Trade and Investment:** An FTA would reduce tariffs and trade barriers, boosting intra-regional trade and attracting investments across member countries.
- **Economic Integration:** The FTA would promote economic integration within the BIMSTEC region, fostering collaboration in key sectors like agriculture, manufacturing, and services.
- **Diversification of Markets:** Member countries would gain access to new markets, reducing dependency on traditional trading partners and enhancing economic resilience.

- **Increased Competitiveness:** By encouraging competition and innovation, an FTA would help member countries enhance their global competitiveness.
- **Job Creation:** The expansion of trade and investment could lead to job creation and skill development, improving livelihoods across the region.
- **Supply Chain Resilience:** The FTA could strengthen regional supply chains, ensuring more stable and reliable access to essential goods and services.
- **Geopolitical Stability:** Closer economic ties through an FTA would foster regional cooperation and stability, contributing to peace and security in the BIMSTEC region.

INDIA'S TRADE WITH BIMSTEC

- **India's total trade** with BIMSTEC countries amounted to **\$44.32 billion** in **2023-24**.
- **Thailand** was India's largest trading partner within the bloc, with exports worth **\$5.04 billion** and imports at **\$9.91 billion**, resulting in a trade gap of **\$4.87 billion**.
- **Bangladesh** followed, with exports of **\$11.06 billion** and imports of **\$1.84 billion**, creating a trade balance of **\$9.22 billion** in India's favor.

Significance of BIMSTEC:

- **Enhanced Economic Cooperation:** BIMSTEC promotes economic integration among member countries through initiatives such as trade agreements, investment promotion, and infrastructure development.
- **Connectivity and Transport Networks:** BIMSTEC focuses on enhancing connectivity through improved transport networks. For example, the BIMSTEC Transport Infrastructure and Logistics Study (BTILS) aims to enhance connectivity through road, rail, maritime, and air links.
- **Climate Change and Environmental Cooperation:** BIMSTEC countries collaborate on environmental conservation and climate change adaptation. For instance, they have jointly addressed issues like marine pollution and biodiversity conservation.
- **Cultural and People-to-People Exchanges:** BIMSTEC encourages cultural exchanges and tourism promotion among member states. For example, the BIMSTEC Cultural Festival in Thailand showcased diverse cultural heritage from member countries.
- **Security and Counter-Terrorism:** BIMSTEC facilitates cooperation in combating terrorism and transnational crime. The BIMSTEC Convention on Cooperation in Combating International Terrorism, Transnational Organized Crime, and Illicit Drug Trafficking is an example of collective efforts in this area.

- **Science, Technology, and Innovation:** BIMSTEC promotes collaboration in science, technology, and innovation. Initiatives like joint research projects and technology transfer agreements contribute to regional development. For instance, the BIMSTEC Centre for Weather and Climate in India focuses on weather forecasting and disaster preparedness.
- **Healthcare and Public Health Initiatives:** BIMSTEC countries collaborate on healthcare and public health initiatives. For example, during the COVID-19 pandemic, member states coordinated efforts to share resources and expertise in vaccine distribution and healthcare infrastructure development.

BIMSTEC IMPORTANCE FOR INDIA

- **Alignment with Act East Policy:** BIMSTEC supports India's Act East Policy by enhancing trade and security influence in the Indian Ocean region and Indo-Pacific.
- **Alternative to SAARC:** BIMSTEC has emerged as a preferred regional cooperation platform for India, especially following efforts to isolate Pakistan at the 2016 SAARC summit.
- **Counter to China's Influence:** India views BIMSTEC as a counterbalance to China's expanding Belt and Road Initiative in South and Southeast Asia, asserting regional leadership.
- **Promotion of Intangible Culture:** Initiatives like India's Centre for Bay of Bengal Studies at Nalanda University facilitate research on art, culture, and the intangible heritage of the Bay of Bengal region.
- **Platform for Regional Cooperation:** BIMSTEC serves as a platform for cooperation between South Asian and Southeast Asian countries, fostering deeper collaboration in security, disaster management, and humanitarian assistance.

Broader Challenges:

- **Efficiency and Progress Delays:** BIMSTEC encounters challenges due to inconsistent policy-making, infrequent operational meetings, and inadequate financial and human resources for its Secretariat.
- **Limited Intra-Regional Trade and Connectivity:** The BBIN connectivity project involving Bangladesh, Bhutan, India, and Nepal remains unresolved.

Despite signing a FTA in 2004, BIMSTEC has only implemented two of the seven required constituent agreements, falling short of its economic cooperation goals. In 2020, India's trade with BIMSTEC countries constituted merely 4% of its total foreign trade. The India-Myanmar border is known as "Asia's least open," and BIMSTEC members trade more with non-members than among themselves.

- **Maritime Trade and Fisheries Challenges:** The Bay of Bengal, renowned for its rich fishing grounds and extensive coral reefs, yields an annual fish catch of 6 million tonnes (7% of the world's total).

However, it is also identified by the FAO as a hotspot for Illegal, Unreported, and Unregulated (IUU) fishing in the Asia-Pacific region.

- **Other Member State Issues:** BIMSTEC faces several member-state-specific challenges, including the Rohingya refugee crisis between Bangladesh and Myanmar, border disputes between India and Nepal, and Myanmar's internal political instability following a military coup.

Way Forward:

- **BIMSTEC Master Plan for Transport Connectivity:** Developing and implementing a comprehensive 10-year strategy for transport infrastructure (roads, railways, ports, etc.) will enhance connectivity, boost trade, generate employment, and facilitate smoother movement of goods and people.
- **BIMSTEC Convention on Mutual Legal Assistance in Criminal Matters:** Enacting this convention enhances regional security by promoting cooperation in combating transnational crime through information sharing and evidence gathering.
- **Combating Illegal, unreported and unregulated (IUU) fishing :** Implementing projects like the Bay of Bengal Large Marine Ecosystem (BOBLME) initiative by FAO and GEF is crucial to curbing IUU fishing, preserving marine resources, and promoting sustainable fishing practices.
- **BIMSTEC Technology Transfer Facility (TTF):** Establishing a TTF in Sri Lanka will bridge technological gaps among member states by facilitating knowledge and expertise sharing in key areas, thereby fostering regional development.
- **Cooperation Among Diplomatic Institutions:** Collaborating between diplomatic academies and training institutions promotes stronger diplomatic ties and a unified approach to addressing regional challenges and opportunities, fostering regional cohesion and a sense of community.
- **Institutional Framework Development:** Creating dedicated organizational structures akin to the South Asian University (SAU) under SAARC can promote peace, prosperity, and effective regional cooperation within BIMSTEC.
- **Promoting Citizen Engagement:** Initiatives such as the BIMSTEC Parliamentarians Forum, student exchange programs, and a business visa scheme can enhance mutual understanding and foster closer regional ties among member states.

Conclusion:

- BIMSTEC, through its new Charter and structured approach, aims to bolster regional cooperation among Bay of Bengal nations.
- With focused sectoral leadership and international recognition, it strives to enhance economic development, address shared challenges, and foster closer diplomatic ties, marking a significant step towards regional integration and prosperity.

NEW RAMSAR SITES

Recently, the Nanjarayan Bird Sanctuary and Kazhuveli Bird Sanctuary in Tamil Nadu, along with the Tawa Reservoir in Madhya Pradesh, have been recognized under the Ramsar Convention, bringing the total number to 85.

About:

- **Wetlands** are areas where water is the dominant factor influencing the environment and the types of plants and animals that live there.
 - ♦ **Natural vs. Artificial Wetlands:**
 - ♦ **Natural Wetlands** form naturally through ecological processes, such as the flooding of rivers or the accumulation of rainwater.
 - ♦ **Artificial Wetlands** are created by human activities, like constructed ponds or water treatment facilities designed to mimic natural wetlands.
 - ♦ **Permanent vs. Temporary Wetlands:**
 - ♦ **Permanent Wetlands** are always covered with water, such as large lakes or swamps.
 - ♦ **Temporary Wetlands** appear seasonally, such as floodplains that may be submerged during rainy seasons and dry out at other times.
 - ♦ **Static vs. Flowing Water:**
 - ♦ **Static Water Wetlands** have still or slow-moving water, such as ponds and marshes.
 - ♦ **Flowing Water Wetlands** include areas with continuously moving water, such as river floodplains.
 - ♦ **Fresh, Brackish, or Salty Water:**
 - ♦ **Freshwater Wetlands** have low salinity, like rivers and lakes.
 - ♦ **Brackish Wetlands** have a mix of freshwater and saltwater, often found in estuaries.
 - ♦ **Saline Wetlands** are influenced by seawater, such as salt marshes.
- **Economic and Cultural Value:** Wetlands support livelihoods through fishing, agriculture, and tourism. They also hold cultural significance for many communities, providing traditional resources and serving as sites for cultural practices.

Wetlands in India:

In India, wetlands cover approximately 1,52,600 square kilometers, which is about 4.63% of the total geographical area.

- **They are classified into:**
 - ♦ **Inland-Natural Wetlands (43.4%):** Include natural lakes, rivers, and floodplains located within the land area of the country.
 - ♦ **Coastal-Natural Wetlands (24.3%):** Include estuaries, salt marshes, and mangrove forests along the coastlines.
- **Conservation Efforts in India:**
 - ♦ **National Wetland Conservation Programme (1986):** Focuses on protecting and managing wetlands across the country.
 - ♦ **National Plan for Conservation of Aquatic Wetlands (2015):** A strategic approach to wetland conservation, emphasizing the need for coordinated efforts and stakeholder involvement.
 - ♦ **Identification of Wetlands:** The Ministry of Environment, Forest and Climate Change has identified over 2,200 wetlands for conservation schemes, highlighting their importance for biodiversity and ecosystem services.

Nanjarayan Bird Sanctuary:

- **Location and Size:** Nestled in northeastern Uthukuli Taluk, within the Tiruppur District of Tamil Nadu.
- **Historical Context:** The sanctuary's origins trace back to efforts by King Nanjarayan, who played a pivotal role in restoring and maintaining the wetland centuries ago.
- **Hydrological Features:**
 - ♦ **Water Source:** The lake relies on rainfall sourced from the Nallar drainage system.
 - ♦ **Functions:** Besides supporting local biodiversity, the lake's water helps in groundwater recharge and aids in agricultural activities by providing a crucial water source.
- **Biodiversity and Ecological Significance:**
 - ♦ **Bird Species:** The sanctuary is home to approximately 191 bird species. Noteworthy examples include:
 - ♦ **Bar-headed Goose:** Known for its migratory patterns and high-altitude flight.
 - ♦ **Northern Shoveler:** Recognizable by its distinctive spatula-shaped bill.
 - ♦ **Spot-billed Pelican:** Known for its large size and fishing habits.

Significance of Wetlands:

- **Climate Regulation:** Wetlands act as carbon sinks, trapping carbon dioxide from the atmosphere in plant material and peat. This helps mitigate climate change by reducing greenhouse gas levels.
- **Productivity:** They are among the world's most productive ecosystems, supporting a wide range of plant and animal species. Their productivity is comparable to rainforests and coral reefs.
- **Biodiversity:** Wetlands support a diverse array of life, including migratory birds, fish, amphibians, and plants. They provide essential habitats for breeding, feeding, and shelter.
- **Water Regulation:** Wetlands play a key role in filtering water by trapping sediments and pollutants from runoff. They also regulate water flow, which helps prevent flooding by storing excess rainwater.

- **Heronry:** A colony of herons nesting in the sanctuary.
 - ♦ **Amphibians:** Seven species of amphibians contribute to the wetland's biodiversity.
 - ♦ **Reptiles:** Includes 21 species, enriching the sanctuary's ecological complexity.
 - ♦ **Small Mammals:** Supports 11 species, contributing to the food web.
 - ♦ **Plants:** Features 77 plant species, which help in stabilizing the wetland ecosystem and providing habitat and food for various wildlife.
- **Ecological Role:**
 - ♦ **Habitat Functions:** Serves as a critical habitat for both resident and migratory birds, supporting their nesting and feeding needs.
 - ♦ **Migratory Importance:** Acts as a crucial stopover for migratory birds, offering essential resources during their journeys.
- **Management and Protection:**
 - ♦ **Designation:** Recognized as Tamil Nadu's 17th bird sanctuary, reflecting its importance in bird conservation.
 - ♦ **Management:** Actively protected by the local community in collaboration with the forest department, ensuring its preservation and sustainable use.

Kazhuveli Bird Sanctuary:

- **Location and Size:**
 - ♦ **Geographical Location:** Positioned on the Coromandel Coast in Villupuram District, north of Pondicherry.
 - ♦ **Area:** Covers an extensive 5151.6 hectares.
- **Ecological Features:**
 - ♦ **Water Types:** The sanctuary comprises diverse water features including:
 - ♦ **Estuarine Systems:** Areas where freshwater meets saltwater, creating unique brackish environments.
 - ♦ **Creek-Fed Brackish Water:** Water bodies influenced by tidal actions.
 - ♦ **Freshwater Basins:** Areas of non-saline water supporting various aquatic species.
 - ♦ **Connectivity:** Linked to the Bay of Bengal through the Uppukalli Creek and Edayanthittu Estuary, facilitating ecological exchanges.
- **Habitat Characteristics:**
 - ♦ **Mangrove Patches:** Contains degraded mangrove areas with *Avicennia* species, which are critical for coastal protection and biodiversity.
 - ♦ **Reed Beds:** Features extensive areas of reed (*Typha angustata*), which provide habitat for numerous species and contribute to the wetland's ecological functions.
- **Biodiversity and Ecological Importance:** Supports a range of species adapted to brackish and freshwater conditions, playing a role in local and migratory ecosystems.

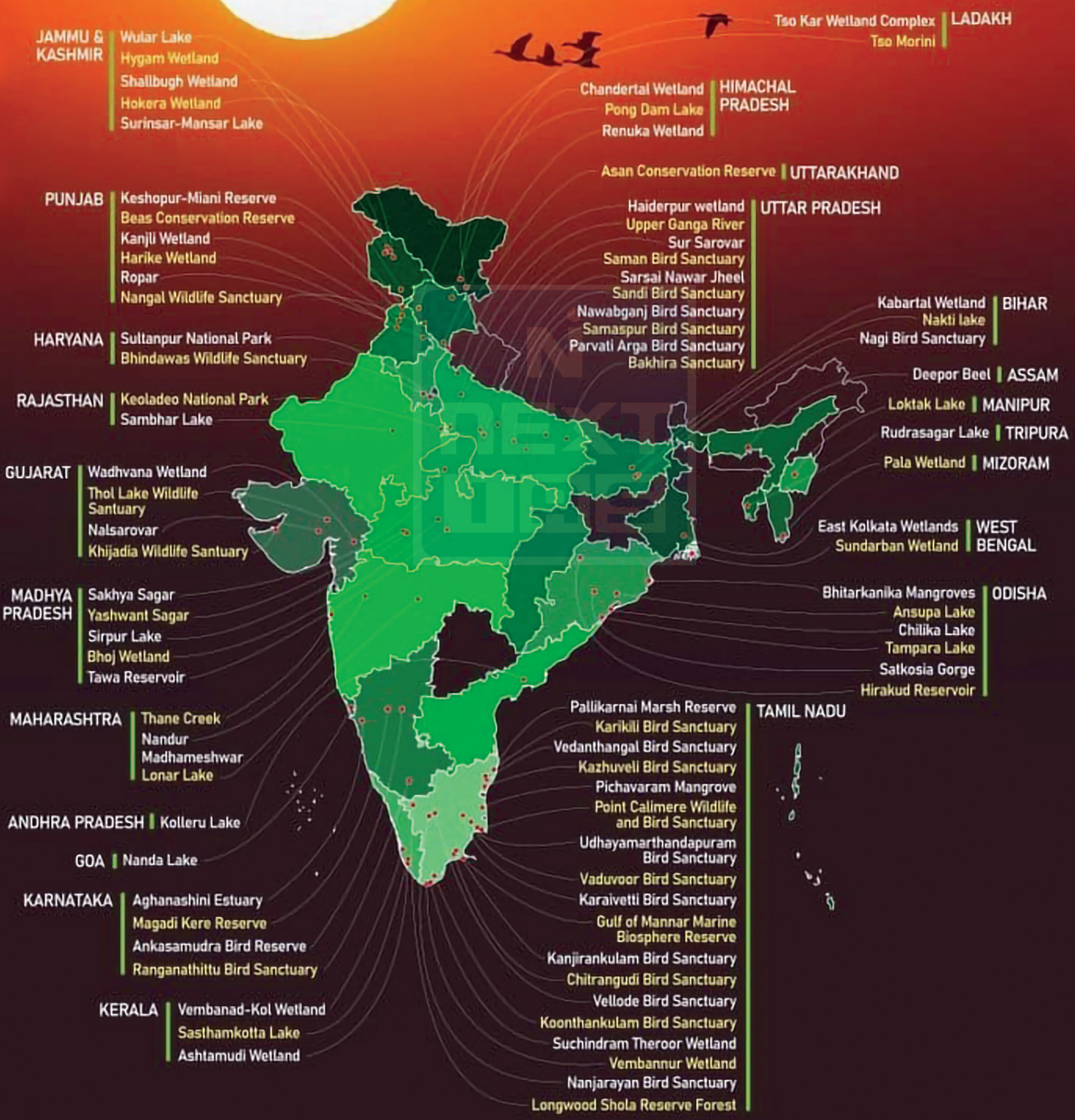
Tawa Reservoir:

- **Location and Size:**
 - ♦ **Geographical Location:** Located at the confluence of the Tawa and Denwa Rivers near Itarsi Town, Madhya Pradesh.
 - ♦ **Area and Surroundings:** Lies within the Satpura Tiger Reserve, adjacent to Satpura National Park and Bori Wildlife Sanctuary.
- **Hydrological and Functional Aspects:**
 - ♦ **Initial Purpose:** Originally constructed for irrigation purposes to support local agriculture.
 - ♦ **Current Functions:** Now also supports power generation and aquaculture, contributing to regional economic activities.
- **Geographical Features:**
 - ♦ **Tributaries:** Major tributaries include the River Malani, Sonbhadra, and Nagdwari, which feed into the reservoir.
 - ♦ **River Origin:** The Tawa River originates in the Mahadeo Hills of Chhindwara District, flows through Betul District, and joins the Narmada River in Narmadapuram District. It is noted as the longest tributary of the Narmada River.
- **Biodiversity:** The reservoir provides habitat for species such as Spotted Deer and Painted Stork, contributing to the biodiversity of the Satpura region.

Ramsar Convention:

- **Established in 1971 in Ramsar, Iran:** The Ramsar Convention is an international treaty aimed at conserving wetlands of international importance.
 - ♦ It focuses on the sustainable use and maintenance of the ecological character of wetlands.
- **Objectives:** The primary goals are to conserve wetlands, promote their sustainable use, and ensure that their ecological character is maintained.
- **Criteria for Ramsar Sites:**
 - ♦ **Ecological Importance:** Wetlands are designated as Ramsar sites if they support significant plant and animal species, provide critical habitats, or have substantial ecological functions.
 - ♦ **Examples:** Sites may include wetlands that support migratory birds, serve as breeding grounds for species, or provide important ecological services.
- **Signatory Countries:** The convention has 172 member countries, each responsible for protecting and managing Ramsar sites within their borders.
- **Supporting Organizations:** International Union for Conservation of Nature (IUCN), World-Wide Fund for Nature (WWF), and other environmental agencies support the treaty's goals.

RAMSAR SITES IN INDIA



INCREASE IN GLOBAL FLOODING INCIDENCE

A new study predicts that global flooding incidents could rise by 49% between 2020 and 2100 if greenhouse gas emissions continue unabated.

Key Findings of the Study:

- **Geographical Variations:**
 - ♦ Flood risk will not be uniform across the globe. Certain areas may experience a reduction in flood risk due to changing environmental conditions or effective flood management strategies.
 - ♦ Conversely, other regions are likely to face heightened risks that significantly exceed global averages.
 - ♦ This variability necessitates localized risk assessments to tailor mitigation strategies effectively.
- **Regions with the Greatest Increases:**
 - ♦ **Tropical Africa and Asia:**
 - ♦ Coastal regions in tropical Africa and Asia are projected to see some of the most substantial increases in flood risk.
 - ♦ These areas are particularly vulnerable due to their exposure to both rising sea levels and intense rainfall events.
 - ♦ **Arid North Africa:**
 - ♦ Although arid, North Africa's coastal regions are also expected to face increased flood risks.
 - ♦ This can be attributed to the dual impact of rising sea levels and potential changes in precipitation patterns.
 - ♦ **North Atlantic and Indian Ocean Coasts:** Coastal areas along the North Atlantic and Indian Ocean are expected to experience pronounced effects from rising sea levels and increased storm activity, which will exacerbate flooding risks.
 - ♦ **Southeastern Asia and Pacific Islands:** These regions are highly susceptible to the impacts of climate change, including increased sea levels and more frequent and severe tropical storms, leading to heightened flood risks.
- **Projected Risk Levels:**
 - ♦ By 2050, the flood risk is anticipated to increase by 7% under a low-emissions scenario and by 15% under a high-emissions scenario.
 - ♦ These projections underscore the importance of reducing greenhouse gas emissions to mitigate future flood risks.
- **Long-Term Projections:**
 - ♦ Coastal flood hazards are projected to almost double, with an increase of 99% by 2100, even in a low emissions scenario.
 - ♦ This dramatic increase is primarily due to the ongoing rise in mean ocean temperatures, which causes thermal expansion of seawater, and the continued rise in sea levels.
- **Implications:** This significant increase in coastal flood hazard will likely result in more frequent and severe coastal flooding events, impacting infrastructure, ecosystems, and communities.
- **Vulnerable Regions:**
 - ♦ There is a projected increase in river-triggered flooding risk for sub-Saharan Africa, parts of Asia, and South America.
 - ♦ Changes in precipitation patterns, combined with potential deforestation and land use changes, will exacerbate this risk.
 - ♦ **Impact:** Increased river-triggered flooding can lead to significant damage to agricultural lands, infrastructure, and communities, affecting livelihoods and economic stability in these regions.
- **Rainfall-Induced Flooding:**
 - ♦ **Impact of Emissions:**
 - ♦ Rainfall-induced flooding is expected to rise by 6% under a low emissions scenario and by 44% under a high emissions scenario by 2100.
 - ♦ This increase reflects the heightened intensity and frequency of rainfall events driven by climate change.
 - ♦ **Consequences:**
 - ♦ More intense rainfall can lead to rapid runoff, overwhelming drainage systems, and increasing the likelihood of flash floods.
 - ♦ This has severe implications for urban and rural areas, particularly those lacking adequate flood defenses.
- **Future Flood Risk Management:**
 - ♦ The projections highlight the urgent need for comprehensive and region-specific flood risk management strategies.
 - ♦ As climate change continues to influence weather patterns and sea levels, tailored approaches will be essential to address the varying impacts across different regions.
 - ♦ Effective flood management will require a combination of emission reduction efforts, improved infrastructure, and adaptive strategies to mitigate the increased risks and protect vulnerable communities.

Causes of Global Flooding:

- **Climate Change:**
 - ♦ **Rising Sea Levels:**
 - ♦ Melting glaciers and warmer ocean temperatures contribute to rising sea levels.
 - ♦ This increase in sea levels can inundate coastal areas, leading to more frequent and severe flooding.
 - ♦ **Warmer Temperatures and Heavier Rainfall:**
 - ♦ Higher temperatures can lead to increased evaporation, which in turn can result in more intense and frequent rainfall.
 - ♦ This can overwhelm drainage systems and cause flash flooding, particularly in low-lying areas.

- **Deforestation:**
 - ♦ **Role of Trees:**
 - ♦ Trees and vegetation play a crucial role in absorbing rainwater and stabilizing soil.
 - ♦ When forests are cleared, there is less absorption of water and more runoff during heavy rainfall.
 - ♦ **Impact:**
 - ♦ Increased runoff can lead to higher volumes of water flowing into rivers and streams, raising the risk of flooding downstream.
 - ♦ The lack of vegetation also reduces soil stability, increasing the risk of erosion.
- **Heavy Rainfall:**
 - ♦ **Excess Water:**
 - ♦ Heavy rainfall can overwhelm natural and man-made watercourses, such as rivers, streams, and drainage systems.
 - ♦ When these systems cannot manage the excess water, it leads to flooding.
 - ♦ **Consequences:** Flooding from heavy rainfall can damage property, disrupt transportation, and lead to significant economic losses.
- **Dam Failure:**
 - ♦ **Risks of Dams:**
 - ♦ Dams are designed to manage water flow and prevent flooding.
 - ♦ However, during heavy rains or due to structural issues, dams can fail, releasing large volumes of water downstream and causing severe flooding.
 - ♦ **Impact:** The failure of a dam can result in catastrophic flooding, destroying homes, and infrastructure, and potentially leading to loss of life.
- **Snowmelt:**
 - ♦ **Melting Snow:**
 - ♦ Snowmelt from mountainous regions can contribute to flooding, particularly in spring when temperatures rise and snow begins to melt rapidly.
 - ♦ The runoff from melted snow can increase river flows and cause flooding in lower-lying areas.
 - ♦ **Timing:** Rapid snowmelt can lead to sudden and intense flooding, particularly if it coincides with heavy rainfall.
- **Seasonal Shifts:**
 - ♦ **Unpredictable Patterns:** Changes in seasonal weather patterns, such as delayed monsoons or unexpected rain events, can disrupt normal water flow and drainage systems.
 - ♦ **Impact:** Unpredictable shifts in rainfall can lead to flooding, as systems that are not prepared for sudden changes may become overwhelmed.

Impacts of Global Flooding:

- **Displacement:**
 - ♦ **Community Displacement:**
 - ♦ Severe flooding can force communities to evacuate their homes, leading to displacement.
 - ♦ Families may lose their homes, forcing them to seek temporary shelter or relocate permanently.
 - ♦ The destruction of homes and properties leaves individuals and families without shelter, leading to a significant humanitarian crisis. Rebuilding and recovery can be prolonged and challenging.
- **Health:**
 - ♦ **Health Risks:**
 - ♦ Flooding increases the risk of waterborne diseases such as cholera, dysentery, and hepatitis due to contamination of drinking water sources.
 - ♦ Stagnant water can also breed mosquitoes, leading to outbreaks of vector-borne diseases like malaria and dengue fever.
 - ♦ **Injuries and Fatalities:**
 - ♦ Floods can cause injuries and fatalities from drowning, debris, and structural collapses.
 - ♦ The chaos and destruction can impede timely medical response and emergency care.
 - ♦ **Challenges for Displaced Populations:**
 - ♦ Displaced individuals often struggle to access medical care and clean water, exacerbating health issues.
 - ♦ Temporary shelters may lack proper sanitation and medical facilities, increasing the risk of health crises.
- **Economic Losses:**
 - ♦ **Property and Infrastructure Damage:**
 - ♦ Floods can cause extensive damage to homes, businesses, and infrastructure such as roads and bridges.
 - ♦ Repair and rebuilding costs can be substantial and burden both individuals and governments.
 - ♦ **Agricultural Impact:**
 - ♦ Flooding can devastate crops, livestock, and agricultural land, leading to food shortages and loss of income for farmers.
 - ♦ The disruption of farming activities impacts local and regional economies.
 - ♦ **Economic Disruption:**
 - ♦ The overall economic disruption includes loss of business, reduced productivity, and interruption of economic activities.
 - ♦ Recovery and rebuilding efforts can strain financial resources and economic stability.
- **Environmental Damage:**
 - ♦ **Ecosystem Disruption:**
 - ♦ Flooding can lead to soil erosion, destruction of natural habitats, and degradation of ecosystems.

- ◆ The loss of vegetation and wildlife can have long-term impacts on biodiversity and ecosystem health.
- ◆ **Pollution:**
 - ◆ Floodwaters can carry pollutants from industrial sites, sewage systems, and agricultural runoff into waterways.
 - ◆ This contamination degrades water quality and harms aquatic life.
- ◆ **Habitat Destruction:**
 - ◆ The destruction of wetlands, forests, and other critical habitats during floods can disrupt local ecosystems and wildlife.
 - ◆ Restoration of these habitats is essential for maintaining environmental balance.

Mitigation and Adaptation Strategies:

- **Infrastructure Improvement:**
 - ◆ **Flood Defenses:**
 - ◆ Constructing and reinforcing flood defenses such as levees, dykes, and seawalls help to prevent floodwaters from inundating vulnerable areas.
 - ◆ Regular maintenance and upgrades are essential to ensure their effectiveness.
 - ◆ **Stormwater Management:**
 - ◆ Developing systems to manage stormwater, such as retention basins, detention ponds, and improved drainage networks, can reduce surface runoff and mitigate flooding.
 - ◆ These systems capture and slowly release rainwater to prevent overwhelming sewer systems.
 - ◆ **Building Regulations:**
 - ◆ Implementing building codes that require flood-resistant designs and materials can minimize damage.
 - ◆ This includes elevating buildings above the floodplain, using flood-resistant materials, and designing structures to withstand flood impacts.
- **Urban Planning and Land Use:**
 - ◆ **Zoning Laws:**
 - ◆ Effective zoning regulations can limit construction in flood-prone areas and promote land use that reduces flood risk.
 - ◆ This includes creating buffer zones around waterways and regulating developments to minimize impervious surfaces.
 - ◆ **Green Spaces:**
 - ◆ Increasing green spaces such as parks, gardens, and green roofs can enhance natural water absorption and reduce runoff.
 - ◆ These areas help to manage rainwater and improve urban resilience.
 - ◆ **River Basin Management:**
 - ◆ Adopting integrated river basin management practices ensures sustainable land use and proper management of water resources.
- This includes maintaining natural floodplains, managing land to prevent erosion, and restoring river ecosystems.
- **Early Warning Systems:**
 - ◆ **Flood Forecasting:**
 - ◆ Investing in advanced meteorological and hydrological systems can improve flood forecasting accuracy.
 - ◆ Techniques include monitoring weather patterns, river levels, and rainfall data to predict potential flooding events.
 - ◆ **Alert Systems:**
 - ◆ Establishing reliable flood warning systems that provide timely alerts to communities helps to facilitate early evacuation and reduce casualties.
 - ◆ These systems can include sirens, mobile alerts, and community notification networks.
- **Community Preparedness:**
 - ◆ **Public Awareness:**
 - ◆ Educating the public about flood risks, safety measures, and emergency protocols increases community resilience.
 - ◆ Public awareness campaigns and educational programs can teach people how to prepare for floods and what actions to take during an emergency.
 - ◆ **Emergency Plans:** Developing comprehensive flood emergency response plans that outline evacuation routes, emergency shelters, and communication strategies ensures that communities are prepared to respond effectively to flooding events.
 - ◆ **Ecosystem Restoration:**
 - ◆ **Wetland Conservation:**
 - ◆ Protecting and restoring wetlands can enhance their natural ability to absorb and store floodwaters.
 - ◆ Wetlands act as natural buffers, reducing the impact of floods and improving water quality.
 - ◆ **Reforestation:**
 - ◆ Planting trees and restoring forests in watershed areas can help to reduce soil erosion, improve water retention, and enhance overall ecosystem health.
 - ◆ Healthy forests contribute to natural flood management by stabilizing soil and regulating water flow.
- **Climate Change Adaptation:**
 - ◆ **Resilient Design:**
 - ◆ Adapting infrastructure to account for climate change impacts involves designing systems and buildings that can withstand more extreme weather conditions.
 - ◆ This includes considering future scenarios of increased rainfall and sea level rise in planning and construction.
 - ◆ **Risk Assessment:**
 - ◆ Regularly updating flood risk assessments in light of climate change projections helps to identify new vulnerabilities and adjust strategies accordingly.
 - ◆ This proactive approach ensures that flood management practices remain effective in a changing climate.

DISASTER MANAGEMENT (AMENDMENT) BILL, 2024

Recently, the Minister of State for Home Affairs introduced the Disaster Management (Amendment) Bill, 2024 in the Lok Sabha.

Key Features of the Bill:

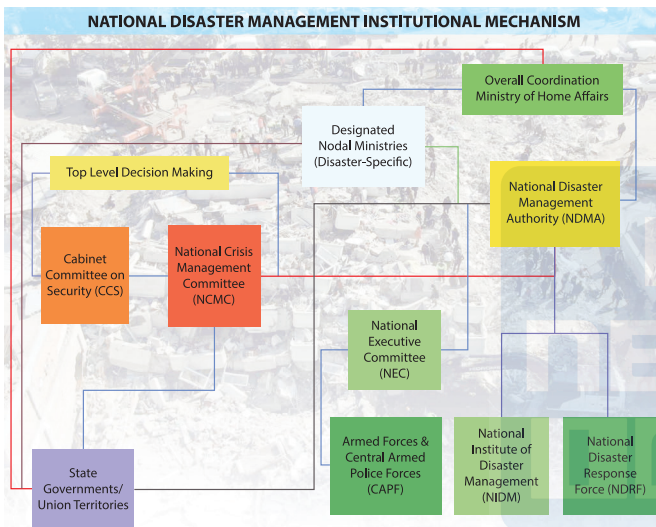
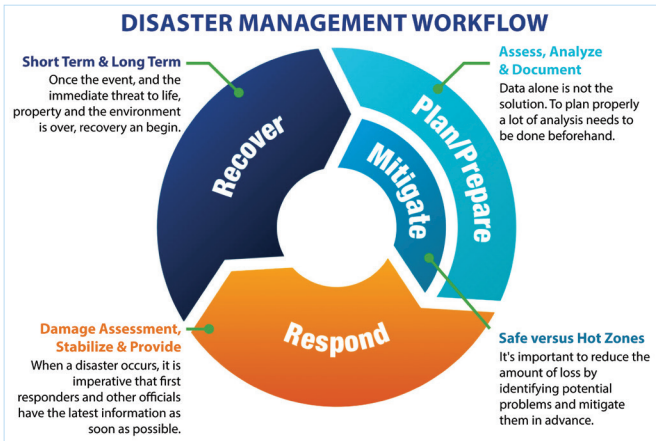
- **Objective:** The Disaster Management (Amendment) Bill, 2024, seeks to amend the Disaster Management Act, 2005, enhancing the framework for effective disaster management across India.
- **Urban Disaster Management Authority:** The Bill proposes the establishment of an "Urban Disaster Management Authority" for state capitals and large cities with municipal corporations, except for the union territories of Delhi and Chandigarh.
 - ♦ This authority is aimed at strengthening local disaster management capabilities.
- **Empowerment of NDMA and SDMA:** The Bill empowers the National Disaster Management Authority (NDMA) and State Disaster Management Authorities (SDMAs) to prepare disaster management plans at the national and state levels, respectively.
 - ♦ This change replaces the previous role of the National Executive Committee and State Executive Committees in disaster planning.
- **Creation of a Disaster Database:** A comprehensive disaster database will be established at both the national and state levels.
 - ♦ This database will include disaster assessments, fund allocation details, expenditures, preparedness and mitigation plans, and a risk register based on the type and severity of risks.
 - ♦ The NDMA will periodically assess disaster risks, including emerging risks from extreme climate events.
- **Periodic Risk Assessment:** The NDMA is responsible for regularly evaluating the full spectrum of disaster risks across the country, including new threats arising from extreme climate events.
- **Statutory Recognition for Pre-Act Organizations:** The Bill grants statutory recognition to existing bodies like the National Crisis Management Committee and the High-Level Committee, formalizing their roles within the disaster management framework.
- **State Disaster Response Force:** The Bill mandates the creation of a "State Disaster Response Force" by state governments to enhance response capabilities during disasters.
- **Penalties for Non-Compliance:** A new Section 60A is introduced, empowering both the Central and State Governments to direct individuals to take necessary actions or refrain from them to mitigate disaster impacts.
 - ♦ Penalties for non-compliance may be imposed, with fines not exceeding ₹10,000.

Issues with the Bill:

- **Constitutional Ambiguity:** The Bill is introduced under Entry 23 of the Concurrent List, which pertains to social security and employment, raising concerns as disaster management is not explicitly mentioned in the Seventh Schedule.
- **Overlapping Jurisdictions:** Creating additional authorities could lead to overlapping responsibilities, causing operational inefficiencies and conflicts between state and central bodies.
- **Centralization of Power:** The Bill grants significant rulemaking power to the Central government, potentially undermining State autonomy and encroaching on areas traditionally managed by States.
- **Bureaucratic Complexity:** The introduction of new authorities may increase bureaucratic layers, slowing down decision-making and hindering timely disaster response.
 - ♦ **Example:** The **Wayanad tragedy** highlighted a conflict between the Kerala Chief Minister and the Home Minister regarding early warnings, illustrating the potential issues arising from a multiplicity of authorities.
- **Federalism Concerns:** The Bill may strain Centre-State relations by reducing State control over disaster management, challenging the principles of federalism.

ADDITIONAL INFORMATION

- **Disaster:** Disaster" means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.
- **Disaster Management:** Disaster management means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for;
 - ♦ prevention of danger or threat of any disaster;
 - ♦ mitigation or reduction of risk of any disaster or its severity or consequences;
 - ♦ capacity-building;
 - ♦ preparedness to deal with any disaster;
 - ♦ prompt response to any threatening disaster situation or disaster;
 - ♦ assessing the severity or magnitude of effects of any disaster.



Response Forces by providing them with adequate resources, training, and infrastructure to effectively handle disasters at the local level.

- **Public Awareness and Preparedness:** Promote community-based disaster preparedness programs, enhancing public awareness and participation in disaster risk reduction, ensuring a proactive approach to disaster management.
- **Integration of Climate Change Adaptation:** Incorporate climate change adaptation strategies into disaster management plans, focusing on building resilience against emerging risks due to extreme climate events.
- **Periodic Review and Updates:** Establish a mechanism for regular review and updates of disaster management policies, incorporating lessons learned from past disasters and adapting to new challenges and technologies.
- **Collaboration and Best Practices:** Encourage collaboration between States and the Central government, as well as with international organizations, to share best practices, resources, and expertise in disaster management.

DISASTER MANAGEMENT ACT, 2005

- It is a national law that empowers the Central government to declare the entire country or part of it as affected by a disaster and to make plans for mitigation to reduce “risks, impacts and affects” of the disaster.
- **Four important entities have been placed at the national level:**
 - ♦ **National Disaster Management Authority (NDMA):** It is tasked with laying down disaster management policies and ensuring a timely and effective response mechanism.
 - ♦ **National Executive Committee (NEC):** It is composed of secretary level officers of the Government of India assigned to assist the NDMA.
 - ♦ **National Institute of Disaster Management (NIDM):** It is an institute for training and capacity development programs for managing natural disasters.
 - ♦ **National Disaster Response Force (NDRF):** It refers to trained professional units that are called upon for specialized response to disasters.

Way Forward:

- **Constitutional Clarity:** The **Second Administrative Reforms Commission** recommended adding “Management of Disasters and Emergencies” to the Concurrent List for a clear constitutional mandate. It will also avoid potential legal challenges.
- **Streamlining Authorities:** Simplify the disaster management framework by clearly defining the roles and responsibilities of various authorities to prevent overlaps and conflicts, ensuring efficient and coordinated disaster response.
- **Balanced Power Distribution:** Ensure a balanced distribution of powers between the Central and State governments, allowing States to maintain autonomy in managing local disasters while the Centre provides support and coordination.
- **Enhancing Local Capacity:** Strengthen the capabilities of Urban Disaster Management Authorities and State Disaster

Conclusion:

- The Disaster Management (Amendment) Bill, 2024, is significant as it seeks to modernize and enhance India's disaster management framework.
- By empowering authorities, streamlining processes, and introducing new structures, the Bill aims to improve disaster preparedness, response, and resilience across the nation.

INS ARIGHAAT

INS Arighaat has recently been inducted into active service in the Indian Navy.

INS Arighaat is the second nuclear-powered ballistic missile submarine (SSBN) of the Indian Navy.

About:

- It is a part of India's Advanced Technology Vessel (ATV) project, which aims to develop a fleet of nuclear-powered submarines to enhance the country's strategic capabilities.
- INS Arighaat is a significant addition to India's strategic naval capabilities, specifically in strengthening the sea-based leg of the country's nuclear triad.
- INS Arighaat strengthens India's nuclear deterrence by ensuring a credible and survivable second-strike capability. It complements its sister ship, INS Arihant, and is part of a broader effort by India to develop a fleet of such submarines to enhance its strategic security posture in the region.

OVERVIEW OF INS ARIGHAAT

- **Type:** Nuclear-powered ballistic missile submarine (SSBN)
- **Class:** Arihant-class
- **Builder:** Shipbuilding Centre, Visakhapatnam, under the Advanced Technology Vessel (ATV) project.
- **Displacement:** Approximately 6,000 tons.
- **Length:** Around 112 meters.
- **Nuclear Reactor:** Powered by a pressurized water reactor (PWR) developed in India.
- **Stealth Features:** Designed with advanced stealth capabilities to avoid detection by enemy forces.
- **Operational Role:** Part of India's nuclear triad, providing a second-strike capability in case of a nuclear attack.

Key Features:

- **Nuclear Propulsion:** Like its predecessor, INS Arihant, INS Arighaat is powered by a nuclear reactor, which allows it to remain submerged for extended periods, providing a significant strategic advantage in terms of stealth and endurance.
- **Ballistic Missile Capability:** INS Arighaat is equipped to carry nuclear-tipped ballistic missiles. It can deploy a mix of the K-15 Sagarika missiles, with a range of approximately 750 km, and potentially K-4 missiles, which have a longer range of around 3,500 km. These missiles enable India to target a wide range of strategic assets of potential adversaries.
- **Improved Design:** Compared to INS Arihant, INS Arighaat is reported to have improvements in design and capabilities, including better sensors, quieter propulsion systems, and enhanced operational range.

SSBN

- **SSBN** (Ship, Submersible, Ballistic, Nuclear) is a type of submarine that is specifically designed to carry and launch ballistic missiles.
- SSBNs are a key component of a nation's nuclear triad, providing a second-strike capability in the event of a nuclear attack. They are considered a crucial element in maintaining a credible and survivable nuclear deterrent. The strategic importance of SSBNs lies in their ability to remain hidden underwater for long durations, making them difficult to detect and destroy.

Summary of the Current Fleet:

- **Total Nuclear-Powered Submarines (SSBNs and SSNs):**
 - ◆ **Operational:** 2 (INS Arihant, INS Arighaat)
 - ◆ **In Transition/Planned:** INS Chakra III, Indigenous SSNs
- **Total Diesel-Electric Submarines (SSKs):**
 - ◆ **Sindhughosh Class:** 7 units
 - ◆ **Shishumar Class:** 4 units
 - ◆ **Kalvari Class:** 6 units

Significance:

- **Strategic Strengthening:** INS Arighaat's operational deployment is a key milestone in India's efforts to bolster its nuclear triad, which consists of land-based missiles, air-delivered nuclear weapons, and sea-based platforms like nuclear submarines. The submarine adds a survivable second-strike capability, crucial for credible deterrence.
- **Continuous At-Sea Deterrence:** The induction of INS Arighaat allows the Indian Navy to maintain a continuous at-sea deterrence posture. This means that at least one SSBN is always on patrol, ready to respond to any nuclear threat, thereby deterring potential adversaries from considering a first-strike option.
- **Strategic Autonomy:** INS Arighaat represents a significant achievement in India's quest for strategic autonomy in defense technologies. Developed and built indigenously, the submarine is a testament to India's growing capabilities in advanced naval warfare and nuclear deterrence.
- **Geopolitical Impact:** The deployment of INS Arighaat has implications for the security dynamics in the Indian Ocean region and beyond, as it enhances India's ability to project power and maintain strategic stability in the region.
- **National Security:** Given the growing security challenges in the region, including tensions with neighboring countries, the induction of INS Arighaat is seen as a major boost to India's national security infrastructure.

e-MOBILITY IN INDIA

The “e-mobility R&D Roadmap for India” report was launched by the Principal Scientific Adviser.

“e-Mobility R&D Roadmap for India:

- Electromobility is the use of electric cars, as well as e-bikes or pedelecs, electric motorbikes, e-buses and e-trucks. The common feature of all of them is that they are fully or partly driven electrically, have a means of storing energy on board, and obtain their energy mainly from the power grid.
- The R&D roadmap has been prepared after detailed horizon scanning of the global automotive sector and identifying future cutting-edge technological requirements.
- **It categorizes research projects into four important areas:** Energy Storage Cells, EV Aggregates, Materials and Recycling, Charging and Refueling, and provides clear pathways to attain global leadership by being Atmanirbhar in the next five years.

Approved Missions:

- ◆ Deep Ocean Exploration Mission
- ◆ AI (Artificial Intelligence) Mission
- ◆ National Quantum Mission
- ◆ Waste to Wealth Mission
- ◆ National One Health Mission
- ◆ Electric Vehicle Mission
- ◆ AGNli Mission
- ◆ Natural Language Translation Mission
- ◆ National Biodiversity Mission
- ◆ Bio-Science for Human Health Mission
- ◆ **Mission:** Science & Technology (S&T) for Sustainable Livelihood System

POST OF PRINCIPAL SCIENTIFIC ADVISER (PSA)

About:

- **Establishment:** in November 1999.
- **Aim:** to provide pragmatic and objective advice to the Prime Minister and the cabinet in matters of Science and Technology.
- **Placed under:** Cabinet Secretariat in August, 2018.
- **Prof. Ajay Kumar Sood** is currently serving as the Principal Scientific Adviser to the Government of India.

Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC):

- **Established:** August 2018
- **Aim and Objectives:**
 - ◆ Assess the status of science and technology matters
 - ◆ Comprehend challenges
 - ◆ Formulate interventions
 - ◆ Develop a futuristic roadmap
 - ◆ Advise the Prime Minister
- **Key Functions:**
 - ◆ Oversee implementation by S&T departments, agencies, and ministries
 - ◆ Formulate, converge, collaborate, coordinate, and implement multi-stakeholder policy initiatives
 - ◆ Synergize collaborative science and technology
 - ◆ Enable future preparedness
 - ◆ Formulate and coordinate S&T missions
 - ◆ Provide an enabling ecosystem for techno-entrepreneurship
 - ◆ Drive innovation and technology
 - ◆ Develop innovation clusters
 - ◆ Foster effective public-private linkages

India's Target:

- India aims to achieve a **45% reduction** in emission intensity by **2030** and **energy independence by 2047** to reach **net-zero commitment by 2070**.
- A significant part of this vision will require the **wider adoption of electric vehicles, manufacturing of indigenous energy storage systems, and generation of renewable energy** to feed charging infrastructures.
- **Target:**
 - ◆ Support 1 million electric two-wheelers.
 - ◆ Support 500, 000 electric three-wheelers.
 - ◆ Support 55, 000 electric four-wheelers.
 - ◆ Support 7, 000 electric buses.
 - ◆ Establish a robust network of charging stations across the country.
 - ◆ **By 2025:** Set up at least one charging station in a grid of 3 km x 3 km in major cities.
 - ◆ **Highways:** Establish charging stations every 25 km on both sides of national highways.

R&D and Investment is Required in E-mobility:

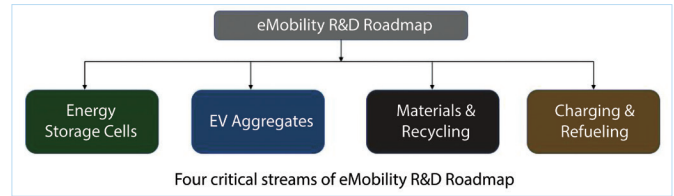
- **Battery Technology:**
 - ◆ **Advanced Battery Materials:** Research into new materials, such as solid-state batteries, to improve energy density, safety, and lifespan.
 - ◆ **Battery Management Systems (BMS):** Development of sophisticated BMS for better efficiency, safety, and thermal management.
- **Charging Infrastructure:**
 - ◆ **Fast Charging Solutions:** Development of fast and ultra-fast charging technologies to reduce charging time and increase convenience for users.

- ♦ **Wireless Charging:** Research into wireless charging technologies for both stationary and dynamic (in-motion) charging.
- **Standardization:** Creating standardized protocols and interfaces for charging to ensure compatibility across different makes and models of EVs.
- **Electric Powertrains:**
 - ♦ **Efficiency Improvements:** Enhancing the efficiency and performance of electric motors and power electronics.
 - ♦ **Lightweight Materials:** Use of advanced lightweight materials to improve vehicle efficiency and range.
 - ♦ **Integrated Systems:** Development of integrated powertrain systems that combine motor, inverter, and transmission into a single, compact unit.
 - ♦ Materials development, research and productization of **new storage chemistries** as well as **EV PowerTrain componentry.**
 - ♦ These too hold higher risks of failure but offer very high benefits in case of success.
- **Manufacturing and Supply Chain:**
 - ♦ **Local Manufacturing:** Investment in local manufacturing facilities for EV components, including batteries, motors, and electronics, to reduce costs and reliance on imports.
 - ♦ **Supply Chain Optimization:** Development of efficient and resilient supply chains for raw materials and components.
 - ♦ The **fundamental science** behind the manufacturing of certain **highly promising materials such as Graphene.**
 - ♦ These require significant investments while holding higher risks of failure as well. **But the benefits of success are immeasurable.**
 - ♦ **Production Engineering of Level 3 and Level 4 items** in the Bill of Materials in eMobility- for items such as **Wide Band Gap devices, Fuel Cell membranes, Cell Separators, etc.**
 - ♦ Here, while the failure risks are minimal, the investments and technical management required are very high.
 - ♦ Unlike the above two, this activity has seen remarkable success internationally in Taiwan, China, USA and, to some extent, Europe.

Critical Streams in E-Mobility:

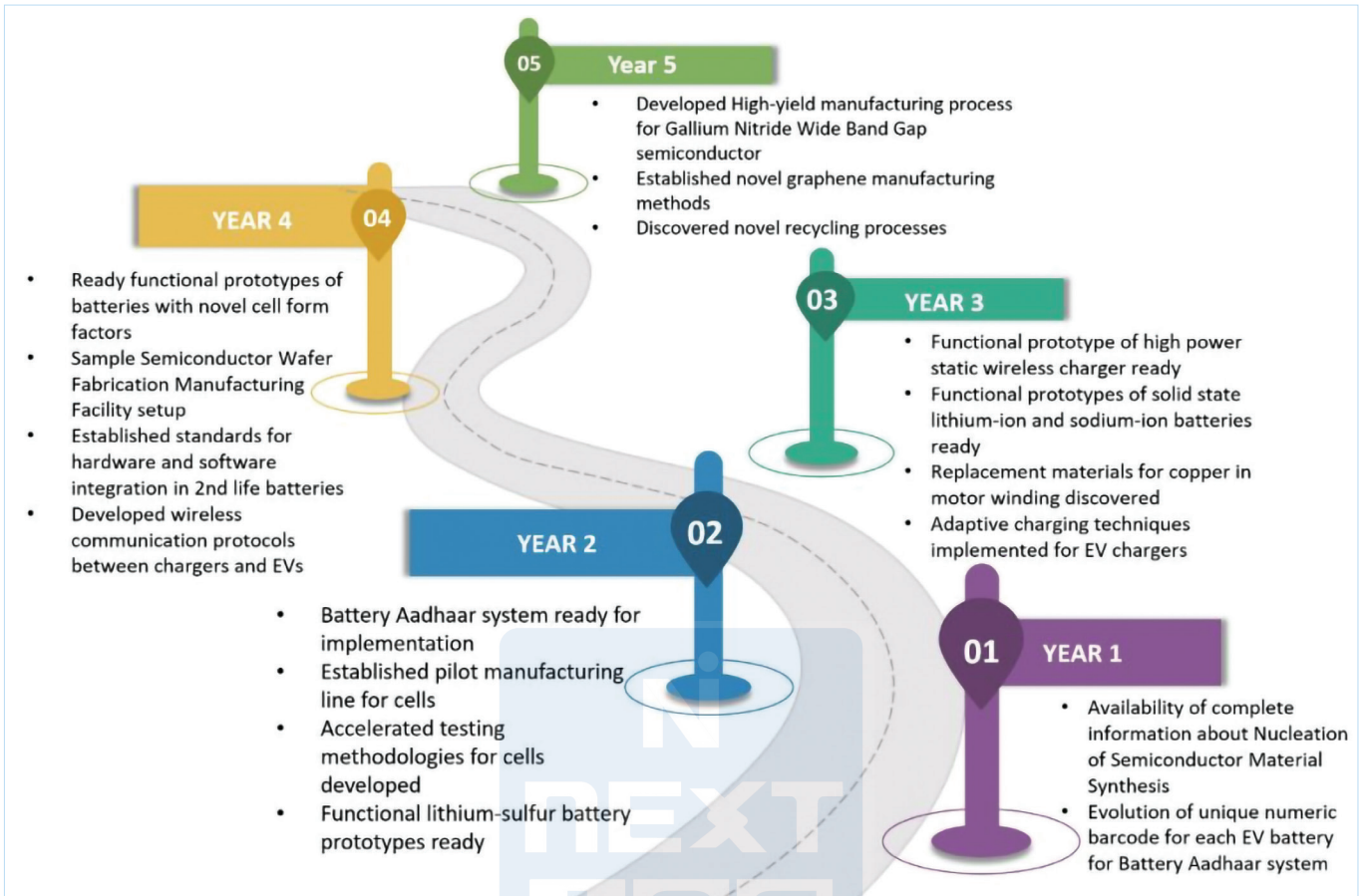
The four streams are:

- **Energy Storage Cells-** addressing new areas in the Chemistry and Physics behind Cells and their Manufacture.
- **EV Aggregates-** capturing actions in the entire value chain of all items that are specific to e-Mobility other than Cells.
- **Materials & Recycling-** focusing on Material Science and different tools that can further augment Materials Research.
- **Charging & Refuelling-** enumerating the opportunities that will help with improved speeds and safety in charging/ refuelling.



Steps taken by Government:

- **India's Electric Vehicle Policy:**
 - ♦ **Aim:** To facilitate smooth growth in the sector and achieve the ambitious target of having EV sales penetration of 30% of private cars, 70% of commercial cars, 40% of buses and 80% of two and three-wheelers by **2030.**
- **National Electric Mobility Mission Plan (NEMMP) 2020:**
 - ♦ **Objective:** Achieve national fuel security, provide affordable and environmentally friendly transportation, and enhance domestic manufacturing capabilities.
 - ♦ **Target:** Deployment of 6-7 million hybrid and electric vehicles by 2020.
- **FAME Scheme (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles):**
 - ♦ **FAME I (2015-2019):** Focused on demand creation, technology platform, pilot projects, and charging infrastructure. It aimed to provide incentives for the purchase of EVs and support pilot projects.
 - ♦ **FAME II (2019-2024):**
 - ♦ **Budget:** ₹10, 000 crore.
 - ♦ **Incentives:** Subsidies for electric two-wheelers, three-wheelers, four-wheelers, and buses.
 - ♦ **Infrastructure:** Support for the development of charging infrastructure, including establishing charging stations across the country.
 - ♦ **Focus:** Emphasis on electrifying public transport and shared mobility.
- **GST Reduction:** The Indian government has reduced the Goods and Services Tax (GST) on electric vehicles from 12% to 5%, making EVs more affordable for consumers.
- **Charging Infrastructure:** The government is working on expanding the charging infrastructure across the country to address range anxiety and encourage EV adoption.
- **Battery Swapping Policy:** To address concerns about battery charging infrastructure and range limitations, the government is exploring the possibility of implementing battery swapping stations where EV owners can quickly exchange depleted batteries for fully charged ones.
- **PLI Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage:** It was launched in 2021 to enhance India's manufacturing capabilities for the manufacture of ACC in India.
- **Renewable Energy Integration:**
 - ♦ **Solar-Powered Charging Stations:** Promotion of renewable energy-powered charging infrastructure to reduce the carbon footprint of EV charging.



- ♦ **Vehicle-to-Grid (V2G):** Encouragement of V2G technologies to enable EVs to supply power back to the grid, enhancing grid stability and efficiency.

Challenges in Adoption:

- **High Initial Costs:**
 - ♦ **Upfront Costs:** EVs generally have higher upfront costs compared to internal combustion engine (ICE) vehicles due to expensive battery technology.
 - ♦ **Limited Affordability:** The higher purchase price makes EVs less affordable for many consumers, particularly in price-sensitive markets like India.
- **Charging Infrastructure:**
 - ♦ **Insufficient Charging Stations:** Lack of widespread and accessible charging infrastructure is a significant barrier to EV adoption.
 - ♦ **Range Anxiety:** Concerns about the limited range of EVs and the availability of charging stations contribute to consumer hesitation.
- **Battery Technology:**
 - ♦ **Limited Range and Performance:** Current battery technologies often offer limited range and performance compared to ICE vehicles.

- ♦ **Long Charging Times:** Longer charging times compared to refueling an ICE vehicle can be inconvenient for users.
- ♦ **Dependence on Imports:** Heavy reliance on imported battery cells and raw materials increases costs and supply chain vulnerabilities.
- **Consumer Awareness and Acceptance:**
 - ♦ **Lack of Awareness:** Many consumers are not fully aware of the benefits and capabilities of EVs.
 - ♦ **Perception Issues:** Concerns about the reliability, performance, and maintenance of EVs persist among potential buyers.
- **Supply Chain and Manufacturing:**
 - ♦ **Limited Domestic Manufacturing:** The lack of a robust domestic manufacturing ecosystem for EV components, including batteries, motors, and electronics, hinders cost reduction and scalability.
 - ♦ **Supply Chain Constraints:** Disruptions in the global supply chain can impact the availability and cost of critical EV components.
- **Socioeconomic Factors:** Socioeconomic factors such as income levels, consumer preferences, and infrastructure disparities across different regions of India influence the adoption of electric vehicles.

TYPES OF E-VEHICLES

- **Battery Electric Vehicles (BEVs):**
 - ♦ **Description:** BEVs are fully electric vehicles that rely solely on batteries for power. They do not have an internal combustion engine (ICE).
 - ♦ **Charging:** Plugged into electric vehicle supply equipment (EVSE) or charging stations.
- **Plug-in Hybrid Electric Vehicles (PHEVs):**
 - ♦ **Description:** PHEVs have both an electric motor and an ICE. They can be plugged in to charge the battery and can operate on electric power alone for shorter distances, with the ICE providing additional range.
 - ♦ **Charging:** Plugged into EVSE but can also use ICE when the battery is depleted.
- **Hybrid Electric Vehicles (HEVs):**
 - ♦ **Description:** HEVs combine an ICE with an electric motor. The battery is charged through regenerative braking and by the ICE, rather than by plugging in. They cannot be externally charged.
 - ♦ **Charging:** Battery charged internally through regenerative braking and ICE.
- **Fuel Cell Electric Vehicles (FCEVs):**
 - ♦ **Description:** FCEVs use a fuel cell to convert hydrogen into electricity, which powers the electric motor. They emit only water vapor and heat.
 - ♦ **Charging:** Refueled with hydrogen at special hydrogen refueling stations.
- **Electric Two-Wheelers:**
 - ♦ **Description:** These include electric scooters and motorcycles, which are powered entirely by electric batteries.
 - ♦ **Charging:** Plugged into EVSE or standard electrical outlets.
- **Electric Three-Wheelers:**
 - ♦ **Description:** These include electric auto-rickshaws and e-rickshaws, commonly used for short-distance public transportation.
 - ♦ **Charging:** Plugged into EVSE or standard electrical outlets.
- **Electric Buses:**
 - ♦ **Description:** Buses powered entirely by electric batteries, used for public transportation.
 - ♦ **Charging:** Plugged into high-capacity charging stations, often with fast-charging capabilities.
- **Electric Commercial Vehicles:**
 - ♦ **Description:** Electric trucks, vans, and other commercial vehicles used for goods transportation and logistics.
 - ♦ **Charging:** Plugged into high-capacity EVSE or charging stations.
- **Electric Bicycles (E-bikes):**
 - ♦ **Description:** Bicycles equipped with an electric motor to assist with pedaling.
 - ♦ **Charging:** Plugged into standard electrical outlets.

Way Forward:

- **Strengthening Charging Infrastructure:**
 - ♦ **Expanding Network:** Increase the number of public and private charging stations, focusing on urban centers, highways, and rural areas.
 - ♦ **Fast Charging Solutions:** Invest in fast-charging stations to reduce waiting times and improve convenience for EV users.
 - ♦ **Standardization:** Develop standardized charging protocols to ensure interoperability and compatibility across different EV models and manufacturers.
- **Enhancing Battery Technology:**
 - ♦ **Advanced Research:** Support R&D in next-generation battery technologies, such as solid-state batteries, to improve energy density, safety, and lifecycle.
 - ♦ **Local Manufacturing:** Encourage domestic production of batteries and other key components to reduce reliance on imports and lower costs.
 - ♦ **Recycling and Reuse:** Establish efficient battery recycling and repurposing processes to minimize environmental impact and promote sustainability.
- **Policy and Regulatory Support:**
 - ♦ **Incentives and Subsidies:** Continue and enhance financial incentives for EV purchases, including subsidies, tax rebates, and reduced GST rates.
 - ♦ **Regulations and Standards:** Implement and enforce safety, performance, and environmental standards for EVs and charging infrastructure.
 - ♦ **Urban Planning:** Integrate EV infrastructure into urban planning, including dedicated parking and charging facilities in new developments.
- **Supporting Public Transport Electrification:**
 - ♦ **Electric Buses and Fleets:** Promote the adoption of electric buses and commercial fleets for public transportation and logistics.
 - ♦ **Incentives for Fleet Operators:** Offer financial incentives and support for fleet operators to transition to electric vehicles.
 - ♦ **Infrastructure for Public Transport:** Develop dedicated charging infrastructure for public transportation systems to ensure efficient operation.
- **Encouraging Innovation and Entrepreneurship:**
 - ♦ **Startup Ecosystem:** Support startups and small businesses working on innovative solutions in the EV space through grants, incubators, and accelerator programs.
 - ♦ **Collaboration and Partnerships:** Foster collaboration between industry, academia, and government to drive innovation and address technical challenges.
- **Data and Analytics:**
 - ♦ **Smart Mobility Solutions:** Utilize data analytics and IoT technologies to optimize charging infrastructure, manage traffic, and improve overall efficiency.
 - ♦ **Real-Time Monitoring:** Implement systems for real-time monitoring and management of EV performance, battery health, and charging stations.

BioE3 POLICY

The Union Cabinet cleared a proposal to bolster biotechnology-based manufacturing, called BioE3 (Biotechnology for Economy, Environment and Employment) Policy.

About:

- **High performance biomanufacturing** is the ability to produce products from medicine to materials, address farming and food challenges, and promote manufacturing of bio-based products through integration of advanced biotechnological processes.
- **BioE3 Policy:**
 - ♦ To address the national priorities, the BioE3 Policy would broadly focus on the following strategic/thematic sectors:
 - ♦ high value bio-based chemicals, biopolymers & enzymes;
 - ♦ smart proteins & functional foods;
 - ♦ precision biotherapeutics;
 - ♦ climate resilient agriculture;
 - ♦ carbon capture & its utilisation;
 - ♦ marine and space research.
 - ♦ The policy includes **innovation-driven support** to R&D and entrepreneurship across thematic sectors.

India's Bio-Economy:

- India is among the **Top 12 destinations for biotechnology** worldwide and **3rd largest destination** for biotechnology in Asia Pacific.
- India's BioEconomy has crossed an estimated **\$130 Bn** in the year 2024 with projections to reach **\$300 billion by 2030**.
- India's Biotechnology sector is categorised into Biopharmaceuticals, Bio agriculture, Bio IT and Bio Services.
 - ♦ **Biopharmaceuticals:** India is one of the biggest suppliers of low cost drugs and vaccines in the world. India also leads in biosimilars, with the most number of biosimilars approved in the domestic market.
 - ♦ **Bio Agriculture:** With nearly 55% of Indian terrain under agriculture and allied activities, India is one of largest producers of Bt-Cotton and has the 5th Largest Area of Organic Agriculture Land globally.
 - ♦ BioAgri, consisting of Bt Cotton, pesticides, marine biotech, and animal biotech has the potential to nearly double its BioEconomy contribution from \$10.5 Bn to \$20 Bn in 2025.
 - ♦ **Bioindustrial:** The application of biotechnology to industrial processes is transforming manufacturing and waste disposal across the country.
 - ♦ **Bio IT & Services:** India offers a strong capability in contract manufacturing, research and clinical trials, and is home to the most USFDA approved plants globally outside of the US.

Significance of the BioE3 Policy

- **Accelerating Technological Development & Commercialization:** The BioE3 Policy aims to expedite the development and commercialization of advanced biotechnological solutions by

establishing specialized Biomanufacturing & Bio-AI hubs and Biofoundries.

- ♦ These facilities will drive innovation and enhance the efficiency of biotechnology processes, leading to the creation of new products and technologies.
- **Promoting Regenerative Bioeconomy Models:** By prioritizing regenerative bioeconomy models, the policy supports green growth initiatives and encourages the adoption of sustainable practices.
 - ♦ This focus on a circular bioeconomy will help reduce environmental impact and foster the development of eco-friendly technologies.
- **Expanding the Skilled Workforce and Job Creation:** The policy is designed to expand India's skilled workforce by creating job opportunities across various biotechnology sectors.
 - ♦ It aims to generate significant employment through the growth of biotechnology industries, providing a boost to the economy and addressing skills gaps in the sector.
- **Supporting Government Initiatives:** The BioE3 Policy aligns with and strengthens existing government initiatives such as the 'Net Zero' carbon economy and 'Lifestyle for Environment' programs.
 - ♦ By advancing these goals, the policy will contribute to India's efforts in achieving sustainable development and combating climate change.
- **Advancing Sustainable and Innovative Solutions:** The policy will foster a more sustainable and innovative future by encouraging the development of biotechnological solutions that address global challenges.
 - ♦ This includes advancements in climate resilience, carbon capture, and precision therapeutics, positioning India as a leader in addressing critical issues.
- **Laying Down the Bio-Vision for Viksit Bharat:** The policy will contribute to the vision of Viksit Bharat (Developed India) by promoting biotechnology as a key driver of economic and environmental progress.
 - ♦ It will support India's transition towards a more advanced, resilient, and globally competitive bioeconomy.

Need for the BioE3 Policy:

- **Addressing Multidisciplinary Challenges:** The biotechnology sector offers solutions across multiple disciplines, including health, agriculture, environment, energy, and industrial processes. The BioE3 Policy recognizes the sector's potential to address complex societal challenges by leveraging its multidisciplinary approach.

- **Leveraging India's Skilled Workforce:** India's young population and growing pool of affordable, high-quality skilled professionals make it well-positioned to meet the increasing global demand for biotechnology solutions.
 - ♦ The policy seeks to harness this potential and build a competitive workforce for the biotechnology sector.
- **Capitalizing on Global Growth Trends:** With the global biotechnology industry growing at a rate of 7.4 percent, there is significant demand for biotechnological products and services.
 - ♦ India's established IT infrastructure and potential growth in Bio-IT can further drive the sector's expansion and innovation.
- **Strategic Importance of Biofuels:** Biofuels are becoming increasingly important in meeting global energy needs.
 - ♦ The policy's focus on developing biofuels aligns with strategic energy goals and supports the transition to renewable energy sources, addressing both energy security and environmental concerns.
- **Meeting the Demand for Drugs and Devices:** The rise in population and changing lifestyle patterns are expected to increase the demand for medical drugs and devices.
 - ♦ The policy aims to support this growing demand by fostering advancements in biotechnology that can address emerging health challenges and improve patient outcomes.

Broader Challenges in Biotechnology Sector:

- **Educational Curriculum Misalignment:** The current educational curriculum often fails to align with the demands of the biotechnology industry.
 - ♦ Students may not receive the necessary practical skills and industry-relevant knowledge, which can hinder their ability to meet the sector's evolving needs.
- **Insufficient Research Facilities:** There is a critical need for state-of-the-art research facilities across the country to enhance research and development (R&D) capabilities.
 - ♦ Advanced laboratories and infrastructure are essential for fostering innovation and conducting cutting-edge research in biotechnology.
- **Lack of Venture Capital Funding:** The biotechnology sector faces challenges in securing venture capital funding, primarily due to information asymmetry.
 - ♦ Investors may lack comprehensive knowledge about the biotech industry, making them hesitant to invest in promising biotech ventures.
- **Low Clinical Trial Activity:** India conducts a relatively low percentage of clinical trials compared to other countries.
 - ♦ This limited engagement in clinical research impacts the country's ability to develop and validate new medical treatments and technologies effectively.
- **Limited Investment in Research:** Investment in research and development is crucial for technological advancement. For instance, Israel invests approximately 4.2 percent of its GDP

in research, ranking second globally after South Korea, which invests 4.3 percent.

- ♦ In contrast, India's investment in research is less than 1 percent of its GDP, indicating a significant gap.
- **Lack of Private Sector Funding:** In India, the government covers more than 60 percent of the total research and development expenditure. This contrasts sharply with countries like Israel, the United States, China, Japan, South Korea, and Australia, where over 70 percent of R&D spending is borne by the private sector on average.
 - ♦ This disparity highlights the need for increased private sector involvement and investment in research.

GOVERNMENT INITIATIVES TO PROMOTE BIOTECHNOLOGY

- **Biotech Parks and Bio-Incubators:**
 - ♦ There are currently 9 biotechnology parks supported by the Department of Biotechnology (DBT) and 60 bio-incubators backed by the Biotechnology Industry Research Assistance Council (BIRAC) across India.
 - ♦ These facilities provide crucial infrastructure and support for biotech startups and established companies, fostering innovation and growth in the sector.
- **National Biopharma Mission:** The National Biopharma Mission is currently supporting 101 projects involving more than 150 organizations and 30 Micro, Small, and Medium Enterprises (MSMEs).
 - ♦ This mission focuses on enhancing the biopharmaceutical sector's capabilities and accelerating the development of new biotech products.
- **National Biotechnology Development Strategy 2020-25:** The National Biotechnology Development Strategy 2020-25 provides a comprehensive framework for advancing the biotechnology sector.
 - ♦ It emphasizes strengthening skill development, resource allocation, and innovation to build a robust ecosystem for knowledge sharing and industry growth.
- **Biotechnology Industry Research Assistance Council (BIRAC) Programs:** BIRAC runs several programs to support biotech innovation, including the Biotechnology Ignition Grant (BIG) scheme, which provides funding to early-stage biotech startups, and the Small Business Innovation Research Initiative (SBIRI), which supports innovative projects from small and medium-sized enterprises.
- **Biotech KISAN Program:** The Biotech KISAN (Krishi Innovation Science Application Network) program aims to promote the application of biotechnology in agriculture.
 - ♦ It supports research and development efforts to improve crop yield, pest resistance, and overall agricultural productivity.

Way Forward:

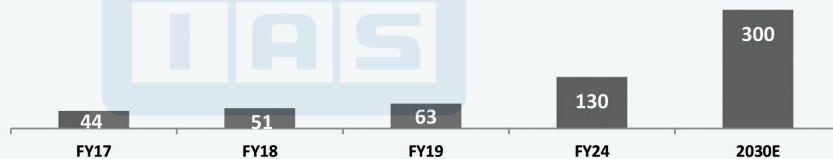
- **Strengthening Industry-Education Linkages:** To bridge the gap between academic training and industry demands, it is essential to enhance the educational curriculum with industry-relevant skills and knowledge.
 - ♦ Collaborations between educational institutions and biotech companies can ensure that students acquire practical experience and technical expertise aligned with current industry needs.
- **Expanding Research Infrastructure:** Investing in state-of-the-art research facilities across the country is crucial for advancing biotechnology R&D. Developing cutting-edge laboratories and research centers will foster innovation and enable scientists to work on advanced projects, ultimately accelerating the development of new biotech solutions.
- **Enhancing Venture Capital Availability:** Addressing the information asymmetry in the biotech sector can attract more venture capital funding. Creating platforms to improve transparency and provide detailed industry insights can help investors make informed decisions, thereby increasing investment in promising biotech ventures.

- **Boosting Clinical Trial Activity:** Increasing the number of clinical trials conducted in India can enhance the country's role in global medical research.
 - ♦ Streamlining regulatory processes and providing incentives for conducting clinical trials can attract international and domestic organizations to conduct research in India.
- **Promoting Private Sector Involvement:** Enhancing the role of the private sector in funding and conducting research can drive innovation and efficiency.
 - ♦ Developing public-private partnerships and providing tax benefits or subsidies for private investment in biotech R&D can stimulate greater involvement from the private sector.
- **Supporting Biotech Startups and Innovations:** Continuing to support biotech startups through funding, mentorship, and infrastructure is vital for nurturing innovation.
 - ♦ Programs like the BIG and Startup India should be expanded to provide more comprehensive support to early-stage companies.



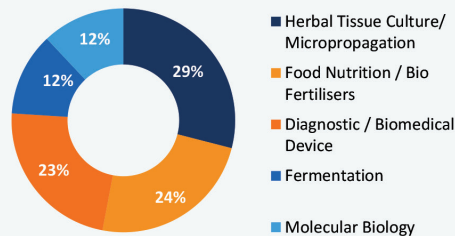
MARKET SIZE

India Biotechnology industry valuation (US\$ billion)



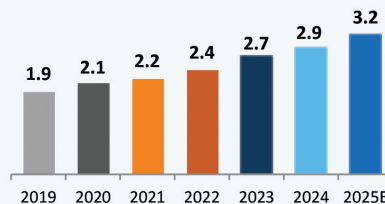
SECTOR COMPOSITION

Vertical-wise distribution of start-ups, FY21 (%)

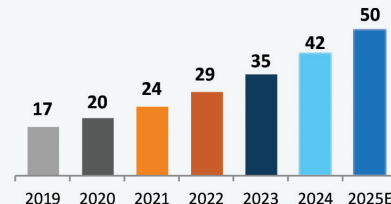


KEY TRENDS

Clinical trials market in India (US\$ billion)



Medical device market in India (US\$ billion)



UNIFIED PENSION SCHEME (UPS)

Recently, the Indian government announced the Unified Pension Scheme (UPS), a new policy aimed at providing greater financial security to government employees.

Key Features and Benefits:

- Set to be implemented on April 1, 2025, the UPS will replace the existing pension schemes and offer several key benefits.
- **Assured Pension:** Employees who complete at least 25 years of service will receive a pension equivalent to 50% of their average basic pay drawn over the last 12 months.
 - ♦ For those with less than 25 years of service, the pension will be proportionate to the length of service, with a minimum of 10 years required for eligibility.
- **Family Pension:** In the event of an employee's death, their family will receive 60% of the employee's last drawn pension.
- **Minimum Pension:** The scheme guarantees a minimum pension of ₹10,000 per month for those with at least 10 years of service.
- **Inflation Indexation:** The pensions will be indexed to inflation, with adjustments based on the All-India Consumer Price Index for Industrial Workers (AICPI-IW).
- **Lump-Sum Payment:** Employees will also receive a lump-sum payment at the time of retirement, calculated as 1/10th of their last drawn monthly pay (including DA) for every six months of service completed.
- **Past Retirees:** Those who retired under the National Pension System (NPS) will have the option to switch to UPS and receive arrears with interest.
 - ♦ The government has increased its contribution to the pension fund from 14% to 18.5% under this new scheme.
 - ♦ This move is expected to benefit approximately 23 lakh central government employees and could potentially be adopted by state governments, extending its reach to over 90 lakh employees.

Impact and Implications:

- **Enhanced Financial Security:** The UPS represents a move towards ensuring that government employees have a more stable and predictable income post-retirement.
 - ♦ This could potentially lead to better retirement planning and financial security for millions of employees.
- **Broader Coverage:** By offering a proportionate pension for those with fewer than 25 years of service and a guaranteed minimum pension, the scheme is more inclusive.
 - ♦ It ensures that even those who have served for a shorter period are not left without adequate support.
- **Potential Fiscal Impact:** The increase in the government's contribution from 14% to 18.5% under the UPS reflects a significant financial commitment.
 - ♦ While this enhances the scheme's benefits, it also raises

questions about the long-term fiscal sustainability, especially if state governments also adopt the scheme.

- **Choice and Flexibility:** The option for employees to choose between continuing with the NPS or switching to UPS introduces flexibility.
 - ♦ However, the finality of this choice once made could pressure employees to carefully assess their options, potentially leading to complexities in decision-making.

Way Forward:

- **Ensuring Financial Sustainability:**
 - ♦ **Fiscal Responsibility:** The government needs to carefully manage the increased financial obligations arising from the higher contribution rates (18.5%).
 - ♦ This could involve reassessing other expenditures or finding new revenue sources to support the scheme without compromising fiscal health.
 - ♦ **Periodic Review:** Instituting regular reviews of the pension fund's performance and the economic conditions can help ensure that the scheme remains sustainable.
 - ♦ Adjustments to contribution rates or benefits could be made based on these reviews to maintain balance.
- **Strengthening Inflation Protection:**
 - ♦ **Real-Time Adjustments:** The scheme's inflation indexation mechanism should be robust enough to respond in real-time to inflationary pressures.
 - ♦ If necessary, the government could explore alternative or supplementary indices that more accurately reflect the cost of living for retirees.
 - ♦ **Additional Support Measures:** In times of high inflation, the government could consider additional support measures for pensioners, such as one-time bonuses or supplementary payments, to ensure their purchasing power remains intact.
- **Employee Feedback Mechanism:**
 - ♦ Establishing a feedback mechanism where employees can voice their concerns and suggestions can help the government make iterative improvements to the scheme.
 - ♦ This approach ensures that the scheme remains responsive to the needs of the workforce.
- **Encouraging State Government Adoption:**
 - ♦ The central government could offer incentives or support to state governments to adopt the UPS. This could include sharing best practices, providing financial assistance, or offering technical support to ensure a smooth transition at the state level.

COMPARISON BETWEEN OPS, NPS & UPS			
	OPS	NPS	UPS
Type	Defined Benefit Scheme	Defined Contribution Scheme	Hybrid Model
Contribution	No employee contribution; fully funded by the government.	<ul style="list-style-type: none"> • Employee: 10% of basic pay+DA. • Government: 14% of basic pay+DA. 	<ul style="list-style-type: none"> • Employee: 10% of basic pay + DA (like NPS). • Government: 18.5% of basic pay + DA (higher than NPS).
Pension Calculation	Pension is calculated as 50% of the last drawn basic pay.	<ul style="list-style-type: none"> • Pension depends on the accumulated corpus, which is invested in the market. • At retirement, a portion of the corpus must be used to purchase an annuity, which provides a monthly pension. 	<ul style="list-style-type: none"> • For employees with at least 25 years of service, pension is 50% of the average basic pay of the last 12 months. • Proportionate pension for those with 10-25 years of service.
Inflation Adjustment	Fully indexed to inflation through Dearness Allowance (DA) linked to the Consumer Price Index (CPI).	No direct linkage to inflation; the pension is dependent on market performance and annuity rates.	Indexed to inflation, with adjustments based on the All-India Consumer Price Index for Industrial Workers (AICPI-IW).
Benefits	<ul style="list-style-type: none"> • Guaranteed pension for life, with DA adjustments ensuring protection against inflation. • Provides a family pension for dependents. 	<ul style="list-style-type: none"> • Portable across jobs. • Employees have control over the investment choice (equity, debt, etc.). 	<ul style="list-style-type: none"> • Combines elements of both OPS and NPS, offering a guaranteed pension with inflation protection while also retaining some contribution-based elements. • Provides a minimum pension of ₹10,000 per month and a lump-sum payment at retirement. • Offers the option for retirees under NPS to switch to UPS.
Criticisms	<ul style="list-style-type: none"> • Puts a significant financial burden on the government. • Unsustainable in the long run due to the increasing life expectancy and a growing number of retirees. 	<ul style="list-style-type: none"> • Market-linked, so returns and pension amounts are uncertain. • Does not provide guaranteed pension amounts or inflation protection, leading to insecurity among retirees. 	<ul style="list-style-type: none"> • Potentially high fiscal burden due to the increased government contribution. • Complexity in transitioning from NPS and the finality of the choice between NPS and UPS might lead to decision-making challenges for employees.

Summary of Key Differences

- **Risk:** OPS is government-funded with no risk to employees, NPS shifts investment risk to employees, while UPS offers a mix, providing some security with a government-backed guarantee alongside market-linked contributions.
- **Inflation Protection:** OPS offers full inflation protection, NPS offers none, and UPS provides partial protection through indexation.
- **Sustainability:** OPS is considered financially unsustainable, NPS is more sustainable due to its market-linked nature, and UPS attempts to balance sustainability with improved benefits.

INDIA'S PERFORMANCE IN PARIS OLYMPICS

Recently, India secured a total of six medals: one silver and five bronze.

About:

- The Paris 2024 Summer Olympics took place in Paris, France, from July 26 to August 11, 2024.
- For the Paris 2024 Olympics, India's flag bearers at the opening ceremony were badminton star PV Sindhu and table tennis veteran Sharath Kamal.

Achievements and Disappointments for India at Paris Olympics 2024:

- **Achievements:**
 - ♦ **Neeraj Chopra's Silver:** Securing a silver in men's javelin, Neeraj continued his Olympic success.
 - ♦ **Manu Bhaker's Double Bronze:** The young shooter excelled in multiple events, bringing home two bronze medals.
 - ♦ **Aman Sehrawat's Wrestling Bronze:** His bronze in the 57kg freestyle category highlighted India's growing strength in wrestling.
 - ♦ **Men's Hockey Bronze:** The team upheld India's legacy with a strong finish.
- **Disappointments:**
 - ♦ **Athletics Disappointment:** The 4x400m relay teams were eliminated early.
 - ♦ **Golf Struggles:** Aditi Ashok and Diksha Dagar couldn't maintain top positions.
 - ♦ **Wrestling:** Vinesh Phogat was disqualified for being overweight ahead of what would have been a historic final in the women's 50kg event at the Paris 2024 Olympics.

OPENING OF NCA FACILITIES FOR ALL SPORTSPERSONS

- Recently, BCCI Secretary Jay Shah announced that the National Cricket Academy (NCA) in Bengaluru will soon open its facilities to athletes from other sports, not just cricketers.
- This initiative is part of the BCCI's broader effort to support Indian athletes competing in the Olympics and other international events. The new NCA, which is expected to become operational soon, will feature world-class amenities, including three international standard playing grounds, 100 pitches, and 45 indoor turfs.
- The move is seen as a significant step toward enhancing the training infrastructure available to Indian athletes.
- This decision comes in the wake of India's performance at the Paris 2024 Olympics, where the country secured only one silver and five bronze medals, raising concerns about the need for better training and support for athletes.

Reasons behind India's Sub-par Paris Olympics 2024 Performance:

- **Injury and Form Issues:** Key athletes were hampered by injuries and form, affecting medal prospects.
 - ♦ For e.g. Lakshya Sen, who was competing for a bronze medal in men's singles badminton, played with a bruised right elbow.
- **High Expectations:** Some top contenders, including in athletics and shooting, fell short of expectations despite strong performances in previous events.
 - ♦ For e.g. **PV Sindhu** (Badminton), **Amit Panghal** (Boxing) and **Atanu Das** (Archery).
- **Tough Competition:** The level of global competition increased, particularly in sports like badminton, where India's top players faced early exits. For e.g. Lakshya Sen (Badminton).
- **Limited Success in Team Events:** India's teams, especially in relay races and field events, struggled to advance past preliminary rounds.

Factors causing India's Struggles to Secure Olympic Medals:

- **Limited Sports Infrastructure:** Many sports still lack world-class facilities, especially in rural areas.
- **Inadequate Funding:** Generally Financial support often falls short, particularly for non-cricket sports. However, for the paris olympics 2024, funding of over 470 crore was granted by the government.
- **Talent Identification and Development:** Early identification and nurturing of talent are inconsistent.
- **Pressure and Expectations:** High expectations can lead to performance anxiety among athletes.
- **Shortcomings in Coaching and Support:** Access to top tier coaching and sports science support remains limited.

Govt. Initiatives to promote Sports Development:

- **Khelo India Program:** Aimed at promoting sports at the grassroots level, providing infrastructure, and nurturing young talent.
- **Target Olympic Podium Scheme (TOPS):** Provides financial assistance and training to elite athletes with the potential to win Olympic medals.
- **National Sports Development Fund (NSDF):** The NSDF supplements the TOPS by providing additional financial support for the specialized training and competition needs of elite athletes. This ensures that athletes receive comprehensive support tailored to their specific requirements.

- **International Competitions and Exposure:** The government has facilitated extensive international exposure for athletes across various sports. This includes participation in international competitions and training camps abroad, which are critical for gaining competitive experience and improving performance.
- **Sports Authority of India (SAI):** Manages sports facilities and training centers, supporting athletes across various disciplines.
- **Fit India Movement:** Encourages physical fitness and sports participation across the country.
- **Mission Olympic Cell (MOC):** Monitors the training and preparation of athletes selected under TOPS.

Initiatives by State Governments:

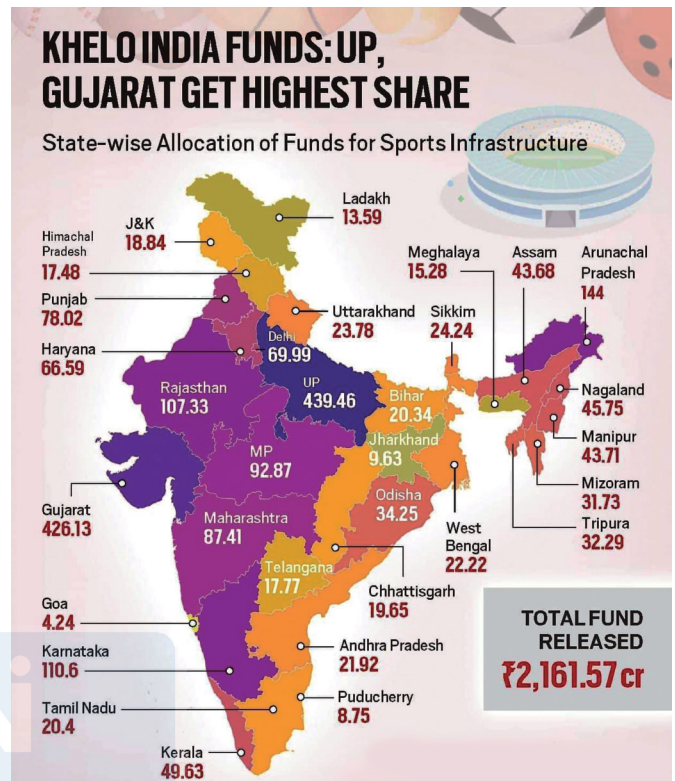
- **Odisha:** Established the Odisha Sports Development and Promotion Company, focusing on hockey and athletics, and hosted international events like the Hockey World Cup.
- **Haryana:** Launched the "Play4India" campaign and offers significant incentives for athletes, including cash rewards and government jobs.
- **Karnataka:** Implemented the "Kreeda Jyothi" scheme to identify and support young talent in rural areas.

Initiatives by Private Organizations:

- **JSW Sports:** Provides financial support and training facilities through the Inspire Institute of Sport, nurturing Olympic-level athletes.
- **Tata Group:** Through the Tata Trusts and Tata Steel, supports sports like archery, football, and athletics by setting up academies and training centers.
- **Reliance Foundation:** Focuses on grassroots sports development, especially in football, through the Reliance Foundation Youth Sports program.

Challenges Associated with Sports:

- **Infrastructure and Facilities:**
 - ♦ **Inadequate Infrastructure:** Many regions lack the necessary infrastructure, such as stadiums, training centers, and sports academies. This limits athletes' ability to train and compete at high levels.
 - ♦ **Maintenance of Facilities:** Existing sports facilities are often poorly maintained, reducing their usability and longevity.
- **Funding and Sponsorship:**
 - ♦ **Limited Financial Support:** Many sports, other than cricket, struggle to attract sponsorship and funding. This affects the development programs, coaching, and participation rates. For instance, before the 2020 Tokyo Olympics, several Indian athletes had to rely on crowdfunding to cover their training and travel expenses.
 - ♦ **Unequal Distribution of Resources:** The focus on popular sports like cricket leads to an unequal distribution of resources, leaving other sports underfunded.



- **Talent Identification and Development:**
 - ♦ **Lack of Grassroots Programs:** There are few grassroots programs to identify and nurture young talent, especially in rural areas.
 - ♦ **Coaching and Training:** There is a shortage of qualified coaches and a lack of structured training programs, which hinders the development of athletes.
- **Cultural and Social Barriers:**
 - ♦ **Lack of Sports Culture:** In many parts of India, there is a greater emphasis on academics over sports, which can deter participation.
 - ♦ **Gender Inequality:** Female athletes often face discrimination and lack of support, which limits their opportunities in sports.
- **Health and Nutrition:**
 - ♦ **Poor Access to Sports Medicine:** Athletes often lack access to sports medicine, physiotherapy, and other health services, which can affect their performance and career longevity.
 - ♦ **Nutritional Challenges:** Inadequate focus on sports nutrition can hinder the physical development of athletes.
- **Government Policies and Support:**
 - ♦ **Inconsistent Policy Implementation:** While there are various sports policies, their implementation is often inconsistent across states.
 - ♦ **Limited Support for Elite Athletes:** The support system for elite athletes, including financial incentives and access to international competitions, is often insufficient.

Way Forward:

- **Strengthening Grassroots Development:**
 - ♦ **Talent Identification Programs:** Establish comprehensive talent identification programs at the school and district levels to scout young athletes with potential. These programs should focus on a wide range of sports, not just the traditional ones.
 - ♦ **Sports Academies:** Set up more specialized sports academies across the country, focusing on different disciplines. These academies should provide access to quality coaching, facilities, and sports science support.
 - ♦ **School Sports Programs:** Integrate sports into the school curriculum, ensuring that every child participates in at least one sport. This can help identify and nurture talent from a young age.
- **Improving Infrastructure:**
 - ♦ **Upgrading Facilities:** Invest in world-class sports infrastructure, including training centers, stadiums, and sports science facilities, particularly in regions with a high concentration of talent.
 - ♦ **Access to Facilities:** Ensure that athletes, especially those from rural and underprivileged backgrounds, have access to high-quality training facilities.
- **Enhancing Coaching Standards:**
 - ♦ **Coach Education:** Develop and implement advanced coach education programs to improve the quality of coaching across all levels. Encourage former athletes to take up coaching roles.
 - ♦ **International Exposure:** Facilitate exposure to international coaching techniques by bringing in foreign coaches and sending Indian coaches abroad for training and certification.
- **Focusing on High-Potential Sports:**
 - ♦ **Targeted Investment:** Identify sports where India has historically performed well or where there is untapped potential (e. g., archery, wrestling, badminton, shooting, boxing). Focus resources and efforts on these sports.
 - ♦ **Customized Training:** Develop sport-specific training programs that are tailored to the strengths and weaknesses of Indian athletes, ensuring they are competitive on the world stage.
- **Sports Science and Medicine:**
 - ♦ **Integrating Sports Science:** Leverage sports science to optimize athletes' performance through better training methodologies, injury prevention, and recovery techniques.
 - ♦ **Nutritional Support:** Provide athletes with personalized nutritional plans to ensure they are in peak physical condition.
- **Mental Health Support:** Offer psychological support and mental conditioning to help athletes handle the pressures of international competition.
- **Financial Support and Incentives:**
 - ♦ **Increased Funding:** Allocate more funds to Olympic sports through both government and private sponsorship. Ensure that funds are used efficiently for athlete development.
 - ♦ **Athlete Welfare:** Provide financial security to athletes, including stipends, scholarships, and post-retirement benefits, to allow them to focus fully on their training.
 - ♦ **Performance-Based Incentives:** Introduce more performance-based incentives to motivate athletes to excel at the international level.
- **International Exposure and Competition:**
 - ♦ **Regular International Competitions:** Increase participation in international competitions to give athletes more exposure to top-level competition and help them gain experience.
 - ♦ **Training Abroad:** Facilitate training camps abroad where athletes can train with and compete against the best in the world.
- **Strengthening Sports Governance:**
 - ♦ **Transparent Administration:** Reform sports bodies to ensure transparent and accountable governance. Eliminate corruption and ensure that the best interests of athletes are prioritized.
 - ♦ **Long-term Planning:** Develop and implement long-term strategies for each sport with clear goals, timelines, and accountability.
- **Engaging the Private Sector:**
 - ♦ **Corporate Sponsorship:** Encourage private companies to sponsor athletes and sports teams, offering them incentives such as tax benefits.
 - ♦ **Public-Private Partnerships:** Foster partnerships between the government and private sector to build and maintain sports infrastructure and support athlete development.
- **Raising Public Awareness and Support:**
 - ♦ **Media Campaigns:** Launch campaigns to build public support for Olympic sports, highlighting the stories and achievements of athletes.
 - ♦ **Fan Engagement:** Create fan engagement initiatives to generate excitement and support for Olympic sports, like what cricket enjoys in India.
- **Women in Sports:**
 - ♦ **Support for Female Athletes:** Increase support for female athletes through dedicated programs, ensuring they have equal access to facilities, coaching, and competition opportunities.
 - ♦ **Promoting Gender Equality:** Address cultural and social barriers to female participation in sports through education and awareness campaigns.

BAIL IS RULE AND JAIL IS EXCEPTION': SC

The Supreme Court emphasized the principle that "bail is the rule and jail is the exception," even for offenses under special statutes like the Unlawful Activities (Prevention) Act (UAPA).

Key Observations:

- Once a case for bail is made, courts should grant bail if the legal conditions are met. Serious allegations do not automatically justify the denial of bail.
 - ♦ Denying bail in deserving cases would violate the constitutional right to life and personal liberty under Article 21.

About the Bail:

- Bail is a fundamental aspect of the criminal justice system in India, designed to ensure that an accused person is not deprived of their liberty unnecessarily while awaiting trial.
- **Article 21 of the Indian Constitution** guarantees the right to life and personal liberty, which includes the right to seek bail.

Types of Bail:

- **Regular Bail:** Granted under **Section 480 and Section 483 of BNSS**, regular bail is available to an accused who is already in custody.
 - ♦ When deciding whether to grant regular bail, the court typically considers several factors, including: (a) the likelihood of the accused fleeing or evading justice, (b) the risk of the accused tampering with evidence, and (c) the potential for the accused to influence or intimidate witnesses. The seriousness of the offence may also play a critical role in the court's determination.
- **Interim Bail:** Interim bail is a temporary relief granted to the accused while the court considers the application for regular or anticipatory bail. This type of bail is typically granted for a short period and is subject to extension until the final decision on the bail application is made.
- **Anticipatory Bail:** Provided under **Section 482 of BNSS**, anticipatory bail allows an individual to seek protection from arrest in anticipation of being charged with a non-bailable offence.
 - ♦ This type of bail can be sought from a Sessions Court or a High Court before the arrest takes place. It is particularly relevant in cases where the accused fears arrest and seeks to avoid the possibility of pre-trial detention.

Presumption of Innocence:

- The foundational principle in Indian criminal jurisprudence is that an accused is presumed innocent until proven guilty, leading to bail being a common practice during investigation and trial.
- **Exceptions for Certain Offences:** Strict bail conditions apply to offences under special statutes such as the Unlawful Activities Prevention Act, Narcotic and Psychotropic Substances Act, and the Prevention of Money Laundering Act.
- **Section 173(3) BNSS and Section 174(2) of BNSS** deals with the bailable and non bailable offences respectively.

Judicial Pronouncements:

- The Supreme Court of India has emphasized that bail is the rule and jail is the exception. In the landmark case of **State of Rajasthan v. Balchand**, the Court held that the basic principle is that an accused should not be detained unless absolutely necessary.
- The Supreme Court reiterated that prolonged pre-trial detention violates the right to personal liberty. The Court highlighted the need for speedy trials and cautioned against the misuse of bail provisions.

Challenges:

- **Overcrowded Prisons:** A significant number of undertrial prisoners contribute to the overcrowding of prisons, exacerbating poor living conditions and straining resources.
- **Judicial Discretion and Inconsistencies:** The discretionary power of judges in granting bail can lead to inconsistencies in decisions. Despite numerous Supreme Court rulings aiming to standardize bail procedures, inconsistencies and arbitrary decisions still occur, undermining the right to personal liberty under Article 21 of the Indian Constitution.
- **Lack of Legal Representation:** Many accused individuals lack access to legal representation, which severely affects their ability to secure bail. This gap often leaves vulnerable populations at the mercy of a complex legal system, further prolonging their time in custody.
- **Socioeconomic Disparities:** Socioeconomic disparities play a significant role in the bail process. Individuals from marginalized communities are often unable to meet bail conditions or secure effective legal counsel, leading to prolonged detention compared to those with greater financial means.

- **Impact on Mental Health:** Prolonged pre-trial detention due to delayed bail can have severe consequences on the mental health of the accused. Overcrowded and harsh prison conditions exacerbate stress, anxiety, and depression, further violating the individual's right to dignity and humane treatment.
- **Strain on Judicial Resources:** The high number of bail applications and the inconsistencies in their adjudication contribute to the backlog of cases in courts, straining judicial resources and delaying justice for other cases.

Way Forward:

- **Standardized Bail Guidelines:** Establishing and strictly implementing standardized bail guidelines across all courts can help reduce inconsistencies in judicial decisions. Clear criteria for granting bail, including specific considerations for the nature of the offense and the background of the accused, can ensure a more uniform application of bail laws.
- **Improving Legal Aid Services:** Enhancing access to legal aid services for underprivileged and marginalized individuals is crucial. Strengthening the legal aid infrastructure, including better funding, training, and outreach, can ensure that more accused persons have the necessary legal representation to secure bail.
- **Promoting Non-Custodial Alternatives:** Encouraging the use of non-custodial alternatives to pre-trial detention, such as personal recognizance bonds, community service, or electronic monitoring, can help reduce the number of undertrial prisoners and alleviate overcrowding in prisons.
- **Judicial Training and Sensitization:** Regular training programs for judges on the importance of upholding constitutional rights, particularly the right to personal liberty under Article 21, can promote more balanced and fair bail decisions. Sensitization to the socio-economic challenges faced by accused individuals can further ensure that bail is not unjustly denied.

CENTRAL LAW ON HEALTH CARE PROFESSIONS

The Supreme Court of India expressed its concern regarding the non-implementation of the National Commission for Allied and Healthcare Professions (NCAHP) Act, 2021.

Background:

- A PIL was filed in the Supreme court in 2023, over non-implementation of the **National Commission for Allied and Healthcare Professions (NCAHP) Act, 2021**.
- It was observed that even after three years, the Union and the states have failed to discharge their responsibility.
- Out of all states and UTs, **only 14 states have constituted the state councils** under the Act. It has been urged that the above state councils are not functional either.

- The Court asked the Centre, states and the UTs to ensure compliance of the Act by October 12.

About the NCAHP Act:

- The Act is aimed at "**regulation and maintenance of standards of education and services by allied and healthcare professionals,**" including those in fields such as medical laboratory sciences, physiotherapy, trauma care, and more.
- **Allied health professional:** It defines 'allied health professional' as an associate, technician, or technologist trained to support the diagnosis and treatment of any illness, disease, injury, or impairment.
 - ♦ Such a professional should have obtained a diploma or degree under this Bill.
 - ♦ The duration of the degree /diploma should be at least 2,000 hours (over a period of two to four years).
- **Healthcare professional:** A 'healthcare professional' includes a scientist, therapist, or any other professional who studies, advises, researches, supervises, or provides preventive, curative, rehabilitative, therapeutic, or promotional health services.
 - ♦ Such a professional should have obtained a degree under this Bill.
 - ♦ The duration of the degree should be at least 3,600 hours (over a period of three to six years).
- **National Commission for Allied and Healthcare Professions:** The Commission will perform the following functions;
 - ♦ framing policies and standards for regulating education and practice,
 - ♦ creating and maintaining an online Central Register of all registered professionals, providing basic standards of education, courses, curriculum, staff qualifications, examination, training, maximum fee payable for various categories, and
 - ♦ providing for a uniform entrance and exit examination, among others.
- **Professional Councils:** The Commission will constitute a Professional Council for every recognised category of allied and healthcare professions.
- **State Councils:** state governments will constitute State Allied and Healthcare Councils. It will;
 - ♦ Enforce professional conduct and code of ethics to be observed by allied healthcare professionals,
 - ♦ Maintain respective State Registers,
 - ♦ Inspect allied and healthcare institutions, and
 - ♦ Ensure uniform entry and exit examinations.

SENIOR ADVOCATES OF SC

The Supreme Court has designated 39 lawyers, including 10 women as senior advocates recently.

About:

- **Classification of Advocates:** Section 16 of the Advocates Act, 1961, categorizes advocates into two distinct classes: senior advocates and other advocates.
- **Senior Advocate Designation:** The designation of a senior advocate is a recognition of excellence, awarded to advocates who have distinguished themselves through significant contributions to the legal profession.
 - ♦ This designation signifies that the advocate has attained a level of standing and achievement that ensures they can offer exceptional services in the best interest of the administration of justice.
- **Additional Restrictions for Senior Advocates:** Section 16 also imposes certain additional restrictions on senior advocates. They are prohibited from filing a vakalatnama, appearing before a court without a junior advocate or an advocate-on-record, engaging in drafting work, or directly accepting briefs from clients.
- **Recommendation Process for Senior Advocate Designation:** The Chief Justice of India, in conjunction with any other Supreme Court judge, can recommend the name of an advocate in writing for the designation of senior advocate.
- **Age Criteria and Relaxation:** The new guidelines set a minimum age requirement of 45 years for an advocate to apply for the designation of senior advocate.
 - ♦ However, this age limit may be relaxed by the Committee for Designation of Senior Advocates, the Chief Justice of India, or a Supreme Court judge who has recommended the advocate's name.
- **Grading System for Designation:** Applicants seeking the senior advocate designation are evaluated and graded on a scale of 100 marks.

PRIVILEGE MOTION

Recently, a Congress MP moved a notice to bring a privilege motion against Prime Minister Narendra Modi in the Lok Sabha.

About:

- If a member believes that **parliamentary privileges by an MP** have been **breached or misused**, a motion or complaint can be raised to the house chairman or speaker.
- **Two conditions exist** – the question shall be restricted to a specific matter of recent occurrence and the matter requires the intervention of the Council.
- **Process:** The Speaker/Chair upon initial examination can either admit or reject such motion.
 - ♦ When admitted, the motion is then referred to a **privileges committee** consisting of members nominated by him from time to time.
 - ♦ The committee on examination of a privilege motion can make recommendations that it deems to be fit.
 - ♦ A report shall be presented within a maximum time limit of one month or at an early date suggested by the Chair/Speaker. Penal action against members is recommended only in extreme cases.

Parliamentary Privileges:

- Parliamentary privileges are special rights, immunities, and exemptions afforded to Members of Parliament (MPs) and their committees.
- These privileges are outlined in **Article 105** of the Indian Constitution, with **Article 194** extending similar rights to Members of State Legislative Assemblies.

Key Points:

- **Immunity from Civil Liability:** MPs are protected from civil liability (but not criminal liability) for statements made or actions taken in the course of their parliamentary duties.
- **Codification of Privileges:** There is no single law codifying all parliamentary privileges. Instead, these privileges are derived from:
 - ♦ Constitutional provisions
 - ♦ Laws enacted by Parliament
 - ♦ Rules of both Houses
 - ♦ Parliamentary conventions
 - ♦ Judicial interpretations
- **Privileges of Individual Members:**
 - ♦ **Freedom of Speech in Parliament (Article 105(1)):** MPs have the right to free speech within Parliament without facing legal repercussions.
 - ♦ **Immunity from Court Proceedings (Article 105(2)):** MPs are protected from legal action in courts for any statements made or votes cast in Parliament or its committees.
 - ♦ **Protection of Publications (Article 105(2)):** Publications authorized by either House of Parliament, including reports, papers, and proceedings, are immune from legal action.
 - ♦ **Exemption from Judicial Inquiry (Article 122(1)):** Courts cannot challenge the validity of parliamentary proceedings due to alleged procedural irregularities.
 - ♦ **Freedom from Civil Arrest (Section 135A of the Code of Civil Procedure, 1908):** MPs are shielded from arrest in civil cases during Parliament sessions and for 40 days before and after.
- **Collective Privileges of the House:**
 - ♦ **Notification of Member's Status:** The House must be promptly informed of the arrest, detention, conviction, imprisonment, and release of a Member.

- ♦ **Immunity from Arrest and Legal Process:** MPs are protected from arrest and legal processes within the House precincts unless permitted by the Speaker or Chairman.
 - ♦ **Confidentiality of Secret Sitings:** Proceedings of secret sittings are protected from publication.
 - ♦ **Protection of Committee Evidence:** Evidence and reports of Parliamentary Committees cannot be disclosed or published until officially presented to the House.
 - ♦ **Restriction on Evidence Production:** Members and officers cannot produce documents or give evidence in courts related to House proceedings without House's permission.
- The report is part of the **Scheme for Action Research and Studies on Judicial Reforms** under the Department of Justice, Ministry of Law and Justice.
 - ♦ **Scheme for Action Research and Studies on Judicial Reforms:** It offers financial support for research, evaluation, monitoring, capacity building, and innovation in justice delivery, legal research, and judicial reforms.

PRIVILEGES COMMITTEE

Lok Sabha:

- **Composition and Appointment:** The Speaker appoints a Privileges Committee consisting of 15 members, reflecting the strengths of the respective parties.
- **Report and Debate:** The committee presents its report to the House. The Speaker may allow a half-hour debate on the report.
- **Final Orders:** Following the debate, the Speaker may issue final orders or direct that the report be tabled for further consideration. A resolution concerning the breach of privilege must be unanimously passed by the House.

Rajya Sabha:

- **Composition and Appointment:** The Privileges Committee in the Rajya Sabha is chaired by the Deputy Chairperson and includes 10 members.
- **Report and Debate:** The committee presents its report to the House. The Chairperson may allow a half-hour debate on the report.
- **Final Orders:** Following the debate, the chairperson may issue final orders or direct that the report be tabled for further consideration. A resolution concerning the breach of privilege must be unanimously passed by the House.

LAW MINISTRY REPORT ON JUDICIAL INFRASTRUCTURE

A recent report published by the Ministry of Law and Justice on the state of infrastructure in district courts across the country has revealed significant deficiencies that are hindering the efficient delivery of justice.

About:

- The study, conducted across **20 district courts from 10 States** — covering two districts each from the North, South, West, Central, and East regions, including the northeastern zones of India — focused on the **infrastructure issues faced by district judges, advocates, and supporting administrative staff.**

Major Findings:

- **Overcrowding in Courtrooms:** Courtrooms are severely overcrowded, burdened with case files and archived documents, leaving insufficient space for individuals. Advocates, litigators, and parties often have to stand due to limited seating.
- **IT Infrastructure Shortfalls:** Survey data shows only 45% of judicial officers have access to electronic display facilities, with 20% still awaiting installation.
- **Limited Video Conferencing Facilities in Jails:** Approximately 32.7% of judicial officers report a lack of video conferencing facilities in their district court complexes, impacting communication and court proceedings.
- **Fire Safety Concerns:** Around 39% of judicial officers indicate their courtrooms lack fire safety equipment, posing significant safety risks.
- **Insufficient Furniture:** Comfort and functionality in courtrooms are compromised by inadequate furniture. About 36.3% of judicial officers acknowledge a shortage of adequate seating and essential furnishings.
- **Lack of Basic Amenities:** Staff members often lack basic amenities such as common rooms and attached toilets. Only 14.6% of male support staff and 10.7% of female support staff have access to common rooms, while 73.7% of all support staff do not have attached toilets.

STEPS TAKEN TO SIMPLIFY THE LEGAL PROCESS

- **National Judicial Data Grid:** A web-based platform that provides real-time information on case status, pendency, and disposal in district and subordinate courts nationwide.
- **e-Courts Mission Mode Project:** An initiative by the Department of Justice and the Supreme Court aimed at enhancing e-filing, digital case management, and citizen-centric services.
- **FASTER 2.0:** The Fast and Secure Transmission of Electronic Records program, launched by the Supreme Court e-Committee, aims to digitize judicial records and facilitate their online transmission between courts, tribunals, and other stakeholders.

Way Ahead:

- **Enhance Infrastructure and Resources:** Invest in improving courtroom infrastructure and IT facilities. Prioritize the

installation of electronic display systems, video conferencing facilities, and multifunctional printers to modernize operations.

- **Strengthen Fire Safety Measures:** Implement comprehensive fire safety protocols and equip courtrooms with necessary safety equipment to address existing hazards and ensure the safety of all personnel.
- **Improve Furniture and Amenities:** Upgrade courtroom furniture to ensure adequate seating and essential furnishings. Provide basic amenities such as common rooms and attached toilets for staff to improve working conditions.
- **Expand Research and Capacity Building:** Leverage the Scheme for Action Research and Studies on Judicial Reforms to support ongoing research, evaluation, and capacity building efforts. Focus on innovative approaches to enhance justice delivery and legal reforms.
- **Increase Training and Development:** Offer regular training programs for judicial officers and support staff to improve their skills and adapt to new technologies and practices in the legal system.
- **Address Overcrowding:** Explore solutions to reduce courtroom overcrowding, such as increasing the number of courtrooms, streamlining case management processes, and leveraging technology for virtual hearings.

NO-CONFIDENCE MOTION AGAINST VICE-PRESIDENT

50 Opposition MPs have reportedly signed a resolution for a no-confidence motion against Vice-President Jagdeep Dhankhar.

About:

- The Opposition accuses the Chairman of making personal remarks against members, violating **Rule 238(2) of the Rajya Sabha**, which prohibits personal charges against members.
- **"Rule 238(2)"** of the Rajya Sabha clearly states that a member while speaking shall not make a personal charge against a member.
 - ♦ This is a rule that the Chairman must also abide by, another Opposition member pointed out.
- **Constitutional Basis:** The resolution is being pursued under **Article 67(B) of the Indian Constitution**.
 - ♦ **Article 67(B)** of the Indian Constitution allows the removal of the Vice-President by a Rajya Sabha resolution passed by an effective majority, and agreed upon by the Lok Sabha with a simple majority.
 - ♦ **Article 67(B)** requires at least fourteen days' notice before moving the resolution.

No-Confidence Motion:

- **Overview:** A no-confidence motion is a parliamentary motion that indicates the elected government no longer holds the

confidence of the majority of the members of the Lok Sabha, the lower house of India's Parliament.

- **Purpose:** The primary purpose of a no-confidence motion is to assess the strength and stability of the ruling government. If the motion is passed, it signifies that the government has lost the majority's support and must resign.
- **Procedure:**
 - ♦ **Introduction:** Any member of the Lok Sabha can introduce a no-confidence motion.
 - ♦ **Support Requirement:** The motion requires the backing of at least 50 members to be admitted for discussion.

GOVERNANCE

JAN POSHAN KENDRAS

The Union Minister of Consumer Affairs, Food and Public Distribution launched a pilot project to transform 60 ration shops in 4 States as "Jan Poshan Kendras" On the occasion, he also launched Fair Price Shop (FPS) Sahay application, and Mera Ration app 2.0.

About:

- **Jan Poshan Kendra** provides solutions to the demand of **FPS** dealers across India to raise their income level.
- The Kendras will **offer a diverse range of nutrition-rich food items** to consumers as well as provide an additional source of income to the FPS dealers.
- The Jan Poshan Kendra will have provision for storing **50% products under the category of nutrition** while the rest for keeping other household items.

FPS-Sahay and Mera Ration App 2.0:

- **FPS-Sahay**, is an on-demand Invoice Based Financing (IBF) application designed to offer completely paperless, presence-less, collateral-free, cash flow-based financing to FPS dealers.
- **Mera Ration App 2.0** mobile app is launched with more value added features for the beneficiaries across the nation.

DEEN DAYAL SPARSH YOJANA

The Department of Posts has launched a philately scholarship scheme under Deen Dayal SPARSH Yojana, the scholarship is aimed at promotion of aptitude and research in stamps as a hobby.

About:

- The scheme proposed to **grant a scholarship of ₹ 6,000/- per annum** to those meritorious students whose academic records are good as well as who have adopted Philately as a hobby.

- Scholarships will be provided at all India levels and each Postal circle will provide a maximum of 40 scholarships to 10 students of class 6, 7, 8, and 9 each.

PHILATELY

- The collection and study of postage stamps, postal history, and related materials.
- Enthusiasts analyze stamp designs, origins, and historical significance.
- It is both a hobby and a field of study, offering insights into a nation's culture, history, and art.

Eligibility:

- The selection for scholarship will be done on the basis of performance in a **Philately written Quiz**.
- One should be a student of a recognized school in India. The concerned school should have a **Philately club** and the **candidate should be a member of the club**.
- In case the school does not have a Philately Club, the name of a student of that school who has his/her own **Philately Deposit account** can also be considered.
 - ♦ A Philately Deposit account can be opened in Post offices.
- The candidate must have **secured at least 60 percent marks** or equivalent grade/grade points in the last final examination.
 - ♦ There will be a relaxation of 5% for SC/ST candidates.

PRADHAN MANTRI JI-VAN YOJANA

Recently, the Union Cabinet approved the extended Pradhan Mantri JI-VAN Yojana to boost advanced biofuel projects.

About:

- **Overview:**
 - ♦ Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran) Yojana is a scheme designed to provide financial support for Integrated Bioethanol Projects utilizing lignocellulosic biomass and other renewable feedstocks.
 - ♦ The scheme is implemented by the **Centre for High Technology (CHT)**, a technical body under the Ministry of Petroleum and Natural Gas (MoP&NG).
- **Objectives:**
 - ♦ **Setting Up Bioethanol Projects:** Establish 12 commercial-scale and 10 demonstration-scale Second Generation (2G) Bioethanol projects using non-food biomass feedstocks and other renewable feedstocks.
 - ♦ **Farmer Income:** Provide remunerative income opportunities for farmers through the utilization of agricultural residues.
 - ♦ **Environmental Impact:** Mitigate environmental pollution by reducing the burning of agricultural waste and promoting clean energy.

- ♦ **Local Employment:** Create local employment opportunities through the development of bioethanol production facilities.
- ♦ **Energy Security:** Enhance energy security and self-reliance by reducing dependence on fossil fuels and promoting renewable energy sources.
- ♦ **Net-Zero Emissions:** Contribute to India's goal of achieving net-zero greenhouse gas (GHG) emissions by 2070.
- ♦ **Ethanol Blending Program (EBP):** Support the Ethanol Blending Program by establishing commercially viable projects for 2G ethanol production.
- **Viability Gap Funding (VGF):** The scheme provides Viability Gap Funding (VGF) support in two phases:
 - ♦ **Phase-I (2018-19 to 2022-23):** Financial support will be provided for six commercial projects and five demonstration projects.
 - ♦ **Phase-II (2020-21 to 2023-24):** Financial support will be provided for the remaining six commercial projects and five demonstration projects.

Recent Changes:

- **Implementation Extension:** The modified scheme now extends its implementation period by five years, running through 2028-29.
- **Scope Expansion:** The revamped JI-VAN Yojana broadens its scope to include advanced biofuels produced from lignocellulosic feedstocks, encompassing a variety of materials, such as agricultural and forestry residues, industrial waste, synthesis gas (syngas), and even algae.
- **Eligibility for Existing Plants:** Under the modified scheme, both 'bolt-on' plants (which enhance existing facilities) and 'brownfield projects' (revamping existing facilities) are now eligible to participate.
 - ♦ It encourages existing players to leverage their experience and improve the viability of their operations.

FLOODWATCH INDIA 2.0

Union Minister for Jal Shakti, launched the Version 2.0 of the 'FloodWatch India' mobile application developed by the Central Water Commission (CWC).

About:

- **'FloodWatch India'**, aims to use mobile phones to disseminate information related to flood situations in the country and **flood forecasts up to 7 days on a real-time** basis to the public.
- The app utilizes advanced technologies such as **satellite data analysis, mathematical modeling and real-time monitoring** to deliver accurate and timely flood forecasts.
- Version 2.0 of the app provides information on flood forecasts at additional **392** flood monitoring stations, taking up the total number of stations to **592**.

- ◆ The earlier version provided information at 200 level forecast stations.

CENTRAL WATER COMMISSION (CWC)

- **Overview:** This organization is a premier technical entity in India, specializing in water resources.
 - ◆ It operates as an attached office under the **Ministry of Jal Shakti**, specifically within the **Department of Water Resources, River Development, and Ganga Rejuvenation**, Government of India.
- **Functions:** The Commission is responsible for:
 - ◆ **Initiation and Coordination:** Collaborating with State Governments to initiate, coordinate, and advance schemes aimed at the control, conservation, and utilization of water resources across the country.
 - ◆ **Focus Areas:** The Commission's work encompasses various areas, including:
 - Flood Control, Irrigation, Navigation, Drinking Water Supply, Water Power Development.
 - ◆ **Execution of Schemes:** The Commission also undertakes investigations, construction, and execution of schemes as required.
- **Organizational Structure:**
 - ◆ **Leadership:** The Commission is headed by a Chairman, who holds the status of Ex-Officio Secretary to the Government of India.
 - ◆ **Operational Wings:** The Commission's work is divided among three specialized wings:
 - ◆ Designs and Research (D&R) Wing
 - ◆ River Management (RM) Wing
 - ◆ Water Planning and Projects (WP&P) Wing
- Each wing is overseen by a full-time Member, who has the status of Ex-Officio Additional Secretary to the Government of India.

- ◆ A total **financial outlay of ₹800 crore** has been allocated for this component, providing Rs1 crore per selected Model Solar Village.
- ◆ A **Model Solar Village** must be a **revenue village** with a population size above 5,000 (or 2,000 for special category states).
- In these model villages, households will install solar panels on their rooftops. These panels convert sunlight into electricity, which can be used for lighting, appliances, and other energy needs.

Benefits:

- **Energy Independence:** By generating their own electricity, households reduce dependence on conventional power sources. This not only saves money but also contributes to national energy security.
- **Environmental Impact:** Solar energy is clean and green. By adopting it, villages reduce their carbon footprint and combat climate change.
- **Economic Empowerment:** Lower electricity bills mean more disposable income for families. Additionally, surplus energy sales can provide an additional revenue stream.
- It is estimated that the scheme will create around 17 lakh direct jobs in manufacturing, logistics, supply chain, sales, installation and other services.
- **Community Development:** Solar energy projects often foster a sense of community ownership and participation. By involving local populations in the planning, installation, and maintenance processes, villages can develop stronger social ties and collective responsibility.
- **Energy Access in Remote Areas:** Solar energy systems can bring reliable electricity to rural or off-grid locations, improving the quality of life by enabling access to lighting, communication, education, and healthcare services.

PM Surya Ghar Muft Bijli Yojana:

- **Overview:** This initiative aims to provide up to 300 units of free electricity every month to 1 crore households, marking a significant advancement towards sustainable development and enhancing people's wellbeing.
- **Solar Rooftop Capacity:** The scheme aims to increase the share of solar rooftop capacity by empowering residential households to generate their own electricity.
- **Subsidy Details:** Subsidy Coverage: The government will provide a subsidy covering up to 40% of the cost of the solar panels. The remaining costs are to be borne by the consumer.
- **Central Funding:** The Centre will fund 60% of the cost for installing 2 kW (kilowatt) systems. For systems with a capacity of 2-3 kW, the Centre will cover 40% of the cost.

MODEL SOLAR VILLAGE'

Recently, the Scheme Guidelines for implementation of 'Model Solar Village' under PM-Surya Ghar: Muft Bijli Yojana have been notified by the Union Ministry of New and Renewable Energy.

About:

- A **Model Solar Village**, a scheme component, aims to be developed in each district of the country to act as a role model for adoption of rooftop solar in rural areas, with the goal of promoting solar energy adoption and enabling village communities to become self-reliant in meeting their energy needs.

INDIA-SRI LANKA FISHERMEN ISSUE

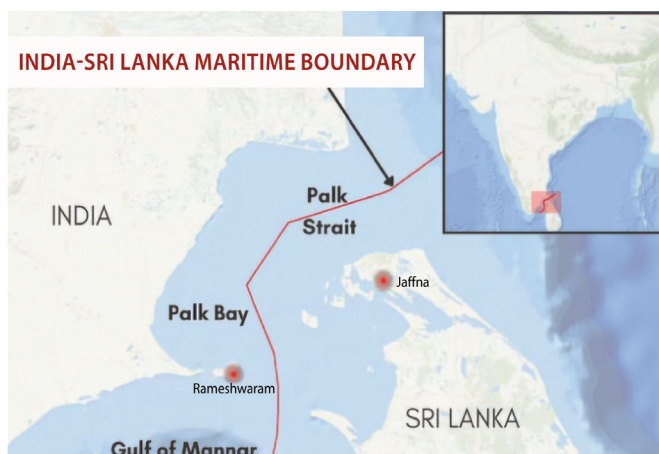
32 fishermen from Pamban in Ramanathapuram district of Tamil Nadu were arrested by the Sri Lankan Navy on charges of poaching.

Background:

- The prolonged dispute over fishing rights around **Kachchatheevu Island in Palk Bay** has been a source of tension between India and Sri Lanka for many years.
- According to the **1974 Indo-Lanka Maritime Agreement**, the Indian Government ceded Kachchatheevu Island to Sri Lanka, without consulting the Tamil Nadu government.
- The agreement allowed Indian fishermen “**access to Kachchatheevu for rest, for drying of nests and for the annual St Anthony’s festival**” but it did not ensure the traditional fishing rights.

Issue:

- The **International Maritime Boundary Line (IMBL)** was born out of a bilateral agreement signed back in 1974 and 1976 under the **United Nations Convention on Law of the Sea (UNCLOS)**.
- However, **Indian fishermen have been crossing the IMBL** unintentionally and have sometimes been apprehended or faced unfortunate consequences from the Sri Lankan authorities.



Reasons:

- **Historical Rights and Ancestral Claims:** Tamil Nadu fishermen argue that their fishing practices in these waters predate modern boundary agreements. For centuries, their ancestors have relied on these waters, viewing them as a shared resource rather than restricted territories.

- **Economic Necessity:** The declining fish populations within Indian waters due to overfishing, pollution, and changing oceanic conditions have forced these fishermen to seek resources beyond the IMBL. The economic pressure to sustain their families often outweighs the risks associated with crossing the maritime boundary.
- **Livelihood Dependence:** Fishing is the primary source of livelihood for many coastal communities in Tamil Nadu. With limited alternative employment opportunities, the need to access abundant fishing grounds becomes critical for their survival.
- **Conservation Concerns:** Overfishing on both sides of the IMBL has led to the depletion of marine resources, raising concerns about the long-term sustainability of fishing in the region. This depletion forces fishermen to take greater risks by venturing into contested waters.
- **Socio-cultural Factors:** Fishing is not just an economic activity but also a cultural practice deeply embedded in the identity of Tamil Nadu’s coastal communities. The loss of access to traditional fishing grounds threatens their way of life and cultural heritage.
- **Environmental Degradation:** Pollution and environmental degradation, particularly in Indian coastal waters, have contributed to the depletion of fish stocks, compelling fishermen to cross the IMBL in search of better catches. This highlights the need for environmental conservation and sustainable fishing practices to restore marine ecosystems.

Concerns Regarding Detainment by Sri Lanka:

- **Humanitarian Issues:** The detainment of Indian fishermen often leads to significant hardships for individuals and their families. Many detainees come from economically vulnerable backgrounds, facing prolonged legal processes and financial strain.
- **Diplomatic Tensions:** Frequent detentions strain diplomatic relations between India and Sri Lanka, complicating efforts to resolve the issue through dialogue and potentially affecting broader bilateral cooperation.
- **Legal and Procedural Concerns:** The legal processes and conditions under which fishermen are detained may raise concerns about fairness and due process, potentially impacting the international reputation of Sri Lanka.
- **Economic Impact:** The detainment of fishermen disrupts their livelihoods, affecting not only the individuals but also their communities, which rely heavily on fishing as a primary source of income.

- **Increased Risk of Escalation:** Prolonged and frequent detentions could escalate tensions, leading to potential confrontations or retaliation that could destabilize regional relations and security.
- **Impact on Regional Cooperation:** Ongoing detentions hinder the potential for collaborative efforts and agreements between India and Sri Lanka on managing shared marine resources and addressing cross-border issues.

Way Forward:

- **Strengthen Diplomatic Dialogue:** Both countries should engage in continuous and constructive dialogue to address and resolve the underlying issues. High-level meetings and diplomatic channels can be used to negotiate agreements and ensure mutual understanding.
- **Develop Joint Fisheries Management Agreements:** Establish agreements that outline clear guidelines for fishing activities and resource management in contested waters. Collaborative management can help balance the needs and rights of both nations' fishing communities.
- **Implement Humanitarian Measures:** Ensure humane treatment of detained fishermen and provide legal assistance to address procedural concerns. Consider creating mechanisms for prompt resolution of cases and release of detainees.
- **Enhance Maritime Boundary Enforcement:** Improve monitoring and enforcement mechanisms along the maritime boundary to prevent encroachments and misunderstandings. Joint patrols and technology could be utilized to manage and secure the boundary effectively.
- **Promote Regional Cooperation Initiatives:** Foster regional cooperation through forums and agreements that address broader issues of maritime security, environmental sustainability, and economic development, integrating the needs and concerns of both nations.
- **Encourage Community Engagement:** Engage local fishing communities in both countries to understand their needs and perspectives. Community-based approaches can facilitate dialogue and cooperation, reducing tensions and fostering mutual respect.

SUPPLY CHAIN COUNCIL

India has been elected as IPEF's Vice-Chair of the Supply Chain Council.

About:

- In line with the Indo-Pacific Economic Framework (IPEF) Supply Chain Agreement, India, along with 13 other IPEF partners, has established three key supply chain bodies:
 - ♦ **Supply Chain Council:** This body focuses on undertaking targeted, action-oriented efforts to fortify supply chains,

particularly in sectors and for goods that are vital to national security, public health, and other critical areas.

- ♦ **Crisis Response Network:** This forum is designed to facilitate a coordinated emergency response to urgent or potential supply chain disruptions.
- ♦ **Labor Rights Advisory Board:** This board unites workers, employers, and governments to collaboratively enhance labor rights and workforce development across regional supply chains.

INDO-PACIFIC ECONOMIC FRAMEWORK FOR PROSPERITY (IPEF)

- IPEF was launched in 2022, in Tokyo.
- **Members:** Australia, Brunei, Fiji, India, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and the U.S.
- **Objectives:** The IPEF seeks to strengthen economic engagement and cooperation among partner countries with the goal of advancing growth, economic stability and prosperity in the region.
- **IPEF Structure:** The framework is organized around four key pillars: Trade (Pillar I), Supply Chain Resilience (Pillar II), Clean Economy (Pillar III) and Fair Economy (Pillar IV).
- **India has joined Pillars II to IV of IPEF** while it has maintained an observer status in Pillar-I.

UKRAINE VOTES TO JOIN ICC

Ukraine's parliament has voted to join the International Criminal Court (ICC) in a bid to hold Russia accountable for alleged war crimes.

About:

- **Role and Purpose of the ICC:**
 - ♦ The International Criminal Court (ICC) investigates and prosecutes individuals accused of committing the most serious crimes of concern to the global community, including genocide, war crimes, crimes against humanity, and the crime of aggression.
 - ♦ As a court of last resort, the ICC functions to complement, rather than replace, national judicial systems.
- **Historical Background:**
 - ♦ The impetus for creating the ICC came from the ad hoc international tribunals established in the 1990s to address the atrocity crimes in the former Yugoslavia and Rwanda. These tribunals laid the groundwork for a permanent court to address such crimes globally.
- **Establishment of the ICC:**
 - ♦ The Rome Statute, adopted by the United Nations in 1998, established the legal framework for the ICC, which was officially created in 2002.

- ◆ The statute provides the court with the authority to investigate and prosecute crimes committed within the territories of its member states or by their nationals, particularly when national authorities are "unwilling or unable" to act.
- **The Rome Statute:**
 - ◆ The Rome Statute serves as the foundational legal document of the ICC. It empowers the court to investigate alleged crimes within member states or by their citizens, only when domestic authorities are unable or unwilling to address such cases.
- **ICC Membership:**
 - ◆ Currently, 124 countries are State Parties to the Rome Statute and thus members of the ICC.
 - ◆ However, several significant nations, including China, Ethiopia, India, Indonesia, Iraq, North Korea, Saudi Arabia, and Turkey, have never signed the treaty.
 - ◆ Countries like Egypt, Iran, Israel, Russia, Sudan, Syria, and the United States have signed the statute but have not ratified it. Armenia became the latest country to join the ICC in February 2024, following its ratification of the Rome Statute in 2023.

RAIL FORCE ONE

India's Prime Minister Narendra Modi boarded 'Train Force One' from Poland to travel to the Ukrainian capital Kyiv.

About:

- Foreign dignitaries visiting Kyiv have been taking the train ever since Ukraine's airspace was closed following the Russian invasion in February 2022.
- **Rail Force One:**
 - ◆ **Train Characteristics:** The train, operated by Ukrainian Railways (Ukrzaliznytsia), is painted blue and yellow and features luxury amenities such as wooden panels, cream and blue curtains, leather sofas, king-size beds, and wall-mounted flatscreen TVs.
 - ◆ **Journey Details:** The train travels approximately 700 km from **Przemyśl Główny** station in Poland to Kyiv, taking around 10 hours.
 - ◆ **Historical Use:** The train was initially used for wealthy tourists visiting Crimea before Russia's annexation in 2014.
 - ◆ **Symbol of Diplomacy:** The train has become a symbol of "Iron Diplomacy," a term used by Ukraine's Strategic Industries Minister Alexander Kamyshin.
 - ◆ **Importance to Ukraine:** The train network is crucial for Ukraine, aiding in war efforts and transporting both aid and evacuees. It has also served as a morale booster and public relations asset during the conflict.

PRIME MINISTER'S STATE VISIT TO POLAND

Prime Minister Narendra Modi paid a State visit to Poland, it is the first Indian prime minister visit to Poland in 45 years.

About:

- The visit coincides with the **70th anniversary of diplomatic relations** between Poland and India, marking a milestone in the long-standing relationship.
- The talks between the two nations are set to cover a wide array of sectors including **agriculture, information technology, security, and eco-friendly technologies**, with a particular focus on **India's advancements in the space industry**.
- The visit signifies a **deepening of political and economic ties** and holds international significance.

Overview of India-Poland Relations:

- **Establishment of Diplomatic Relations:**
 - ◆ India and Poland established diplomatic relations in 1954, grounded in shared ideological values such as opposition to colonialism, imperialism, and racism.
- **Historical Ties:** India and Poland share significant historical connections:
 - ◆ During World War II, the **Maharaja of Jamnagar** provided refuge to several hundred Polish women and children fleeing the war, a gesture commemorated with a street and junior high school named after him in Warsaw.
 - ◆ In 1944, Polish and Indian forces collaborated to retake Monte Cassino, a pivotal battle that helped the Allies advance toward Rome.
- **Economic and Commercial Relations:**
 - ◆ Poland remains India's largest trading and investment partner in Central and Eastern Europe. **From 2013 to 2023**, bilateral trade surged by 192%, growing from **\$1.95 billion to \$5.72 billion**, with India maintaining a favorable balance of trade.
 - ◆ Indian companies are heavily investing in Poland, particularly in IT, biotechnology, electronics, and packaging, employing approximately 10,000 Polish workers and contributing over \$3 billion in 2023.
- **Strategic and Geopolitical Significance:**
 - ◆ As India emerges as the fifth-largest and soon-to-be third-largest economy globally, Poland ranks as the sixth-largest in the European Union and 21st worldwide.
 - ◆ India's growing influence in the Indo-Pacific, amidst systemic rivalry between China and the U.S., parallels Poland's strategic role as NATO's eastern flank leader and a hub for Western operations in Ukraine.
 - ◆ Both nations are intensifying efforts to deepen their political and economic partnership in light of these geopolitical shifts.

J&K LITHIUM BLOCK GETS NO BIDS

The Ministry of Mines scrapped the auction for the lithium block in Jammu and Kashmir's (J&K's) Reasi district for the second time, following weak investor response.

About:

- The government in 2023 found its first lithium deposits in **Jammu and Kashmir** with estimated reserves of **5.9 million metric tons**.
- In India, there is also potential to recover lithium from brines of **Sambhar and Pachpadra areas in Rajasthan, and Rann of Kutch, Gujarat**.
- The **difficulties around extracting and processing** lithium from hard rock pegmatite deposits combined with **underdeveloped mineral reporting standards** used in tender documents played a significant role in deterring investors.
- India's current resource classification rules largely based on the **United Nations Framework Classification for Resources (UNFC)** do not provide sufficient information to determine the economic viability of mining a mineral block.

UNITED NATIONS FRAMEWORK CLASSIFICATION FOR RESOURCES (UNFC)

- **Universal System:** The United Nations Framework Classification (UNFC) serves as a global system for classifying and reporting various resources, including minerals, energy, and others, ensuring a uniform approach worldwide.
- **Standardized Approach:** UNFC provides a standardized method for classifying resources, promoting consistency and transparency in how resources are managed and reported across different sectors and regions.
- **Sustainability Integration:** The framework integrates environmental, social, and economic factors into resource management, ensuring that these critical aspects are considered in decision-making processes.
- **Alignment with Global Goals:** UNFC is aligned with major global sustainability initiatives, including the 2030 Agenda for Sustainable Development and the Paris Agreement, supporting efforts to achieve these goals.
- **Comprehensive Coverage:** The framework covers a wide range of resources, such as minerals, petroleum, renewable energy, anthropogenic resources, injection projects, nuclear fuels, and groundwater, making it applicable across various industries.

- **Support for Decision-Making:** UNFC's comprehensive nature aids governments, industries, and stakeholders in making informed decisions regarding resource use, fostering responsible and efficient management practices globally.
- **Essential for Stakeholders:** The framework is crucial for those committed to sustainable resource management, providing the necessary tools and guidelines to ensure that resources are managed in a way that meets current needs without compromising future generations.

Suggestions to Attract Investors:

- **Global Adoption of CRIRSCO Standards:**
 - ♦ Most mining companies, stock exchanges, and regulatory bodies worldwide follow the **Committee for Mineral Reserves International Reporting Standards (CRIRSCO)** template.
 - ♦ This template mandates the reporting of economically viable mineral reserves that have been confirmed with high geological confidence through studies at least up to the pre-feasibility level.
- **Recommendation for India:**
 - ♦ To attract private investment in the mining sector, it is recommended that India adopt CRIRSCO-aligned, internationally-compliant mineral reporting standards.
 - ♦ This would ensure transparency and credibility in the reporting of mineral reserves, making the sector more appealing to investors.
- **Indian Mineral Industry Code (IMIC):**
 - ♦ The National Committee for Reporting Mineral Resources and Reserves in India (NACRI) has been responsible for developing and maintaining the Indian Mineral Industry Code (IMIC) since 2019.
 - ♦ This code is recognized by CRIRSCO as a compliant reporting standard, aligning India with global practices in mineral resource reporting.

LITHIUM

- Lithium is a chemical element with the symbol **Li** and **atomic number 3**. It is a soft, silvery-white alkali metal.
- **Properties:** Like all alkali metals, lithium is highly reactive and flammable, and must be stored in vacuum, inert atmosphere, or inert liquid such as purified kerosene or mineral oil.

Global Reserves:

- **Chile, Australia, Argentina, Bolivia and China** contain most of the reserves discovered so far globally.

- Argentina, Bolivia and Chile, also known as the '**Lithium Triangle**' contain **54%** of the world's Lithium reserves.
 - ♦ In Argentina the lithium is present in salt pans in the **Atacama desert** and neighboring arid zones in the region.

Importance of Lithium in Modern Technology and Energy Transition:

- **Crucial Role in Battery Technology:**
 - ♦ Lithium is a vital component in rechargeable batteries that power a wide range of devices, from smartphones and laptops to electric vehicles (EVs) and storage systems for renewable energy.
 - ♦ Its unique properties, such as **lightness and high energy density**, make it ideal for these applications, allowing for efficient energy storage without adding excessive weight.
- **Key to the Clean Energy Shift:**
 - ♦ As nations pursue their Paris Agreement climate goals, the transition to clean energy technologies, including EVs, is essential.
 - ♦ Since vehicular emissions significantly contribute to carbon pollution, switching to EVs is a priority.
 - ♦ Countries like the U.S. aim to have 50% of new vehicles electric by 2030, while the EU has approved a ban on new petrol and diesel car sales from 2035.
 - ♦ India also targets substantial EV adoption by 2030, with 30% in private cars and 80% in two- and three-wheelers.
- **Dominance in EV Batteries:**
 - ♦ Lithium's ability to store large amounts of energy while remaining lightweight is crucial for electric vehicle batteries.
 - ♦ It facilitates the smooth flow of electrons between the electrodes in a battery, which is essential for efficient energy use.
 - ♦ Although alternative technologies like sodium-ion batteries are emerging, lithium-ion batteries are expected to remain dominant as the EV industry expands to meet climate goals.
- **Broader Applications and Rising Demand:**
 - ♦ Beyond its use in batteries, lithium is also employed in ceramics, industrial lubricants, and pharmaceuticals.
 - ♦ However, the growing demand for batteries is driving a significant increase in lithium consumption. **By 2030**, it is projected that batteries will account for **95% of global lithium demand**, a sharp rise from just 30% in 2015.
 - ♦ This surge in demand is reflected in the record high prices of lithium, which reached **\$75,000 per tonne** in **2022**.

India's Lithium Dependency and Strategic Initiatives:

- **Heavy Reliance on Imports:**
 - ♦ India largely depends on imports to meet its lithium requirements, making it the **world's largest importer of processed lithium**.
 - ♦ The majority of these imports come from Hong Kong and China. During the 2020-2021 fiscal year, India imported lithium worth over \$722.5 million.
 - ♦ Additionally, India is a major importer of lithium-ion batteries, sourcing them primarily from China, Japan, and South Korea, with 617 million units imported in 2022 alone, valued at \$1.8 billion.
- **Strategic Shift to Reduce Import Dependency:**
 - ♦ Recognizing the strategic importance of reducing reliance on imports, India has initiated efforts to secure a more stable supply of lithium and other critical minerals.
 - ♦ The Ministry of Mines established **Khanji Bidesh India Limited (KABIL)** to identify, acquire, and develop strategic minerals from international locations for supply to India.
- **International Lithium Exploration and Agreements:**
 - ♦ In **January 2024**, KABIL signed a **\$24 million agreement for lithium exploration** in **five blocks in Argentina's Catamarca province**.
 - ♦ This pact grants KABIL exclusive rights to **evaluate, prospect, and explore** these blocks, with the potential for commercial exploitation if lithium reserves are found.
- **Collaborations for Critical Mineral Supply Chains:**
 - ♦ India is also working with **Australia** through a **Critical Mineral Investment Partnership** to establish new supply chains for critical minerals, including cobalt and lithium.
 - ♦ This partnership is integral to India's goal of becoming a manufacturing hub, leveraging critical minerals processed in Australia.
- **Global Strategic Partnerships:**
 - ♦ In **June 2023**, India joined the **US-led Minerals Security Partnership**, further expanding its international collaborations to secure critical mineral resources.
 - ♦ Additionally, India is exploring opportunities to acquire lithium assets in Chile and Bolivia, reinforcing its commitment to diversifying and securing its supply of essential minerals.

LATEST REVELATION BY HINDENBURG ON THE SEBI CHIEF

Hindenburg Research has accused the SEBI Chairman, Madhabi Puri Buch, of a conflict of interest and alleged bias in the ongoing investigation into the Adani Group.

About:

- **Allegations of Hidden Offshore Stakes:**
 - ♦ Central to the accusations are claims that SEBI Chairperson Madhabi Buch and her husband allegedly held undisclosed stakes in offshore funds located in Bermuda and Mauritius, both recognized as tax havens.
 - ♦ These allegations relate to their professional activities before and during Ms. Buch's tenure at SEBI.
- **Conflict of Interest and Collusion Concerns:**
 - ♦ The Hindenburg report raises concerns on two primary issues: a potential conflict of interest and possible collusion.
 - ♦ It alleges that both Ms. Buch and her husband had investments in offshore firms owned by Vinod Adani, brother of Gautam Adani, which could have compromised her impartiality as SEBI chief.
- **Timeline of Investments and SEBI Appointment:**
 - ♦ According to the report, these offshore investments existed before Ms. Buch's appointment to SEBI in 2017 and later as chairperson in 2022.
 - ♦ It is further alleged that, just weeks before her SEBI appointment, her husband took sole control of their investments to avoid regulatory scrutiny.
- **Denial of Allegations:** In response to these accusations, Madhabi Buch and her husband issued a joint statement firmly denying all the claims made against them.

BACKGROUND

- **Hindenburg Report on Adani Group (January 2023):**
 - ♦ Alleged that the Adani Group engaged in "***brazen stock manipulation and accounting fraud***" over several decades.
 - ♦ The Adani Group categorically denied the allegations, and most of its shares have since recovered their value.
- **Supreme Court Intervention (March 2023):**
 - ♦ The Supreme Court of India constituted a **six-member expert committee** to investigate potential regulatory failures in addressing the alleged infractions by the Adani Group.
 - ♦ The Court also directed SEBI to specifically examine possible violations related to minimum public shareholding norms, undisclosed related-party transactions, and any manipulation of stock prices.
 - ♦ The committee reported that SEBI had not uncovered substantial evidence of violations concerning the flow of funds from offshore entities into Adani companies.
- **Judicial Endorsement of SEBI's Probe:**
 - ♦ The Supreme Court affirmed the integrity of SEBI's investigation and rejected requests to transfer the case to a Special Investigation Team (SIT) or the Central Bureau of Investigation (CBI).

- ♦ The Court acknowledged that SEBI had completed its investigation in 20 out of 22 identified matters and instructed the regulator to finalize the remaining probes within three months.

Hindenburg Research:

- **Overview:** Hindenburg Research is a U.S.-based investment research firm established by Nathan Anderson in 2017.
- **Specialization:** Hindenburg Research focuses on forensic financial analysis, investigating and evaluating accounting irregularities, unethical business practices, and undisclosed financial issues or transactions.

SEBI's 'Code on Conflict of Interests for Members of Board':

- **Definition of Conflict of Interest:** Refers to any personal interest or association that could influence a board member's decisions, as perceived by an independent third party.
- **Holdings Disclosure:** Members must disclose their and their family's holdings within 15 days of assuming office and annually update this disclosure.
- **Substantial Transactions:** Transactions over 5,000 shares or worth more than Rs 1 lakh must be disclosed within 15 days.
- **Members cannot hold other profitable** positions or engage in activities that bring financial gain or professional fees.
- **Members cannot accept gifts** from regulated entities exceeding Rs 1,000; such gifts must be handed over to SEBI's General Services Department.
- **Members must disclose any past** or current posts, employment, fiduciary positions, significant relationships with regulated entities, and honorary positions.

SECURITIES AND EXCHANGE BOARD OF INDIA (SEBI)

- **Formation:** The SEBI was initially established as a non-statutory entity on April 12, 1988, through a Government of India resolution.
 - ♦ It became a statutory body in 1992 with the enactment of the Securities and Exchange Board of India Act, 1992 (Act No. 15 of 1992), which came into effect on January 30, 1992.
- **Headquarters:** SEBI's headquarters are located in Mumbai, with additional regional offices in New Delhi, Ahmedabad, Kolkata, and Chennai.

Objectives of SEBI:

- **Regulation of Capital Markets:** SEBI's primary role is to regulate the Indian capital markets, ensuring their orderly functioning and protecting the interests of investors.
- **Investor Protection:** The board is tasked with creating a secure investment environment by enforcing rules, regulations, and guidelines related to investments, thereby fostering trust and transparency in the market.

US HAS BECOME SECOND LARGEST SUPPLIER OF LNG IN INDIA

The US displaced the UAE to emerge as India's second largest supplier of liquefied natural gas (LNG) in 2023, accounting for 3.09 million tonnes (MT).

About:

- **Natural gas** is an odorless, gaseous mixture primarily composed of hydrocarbons, with methane (CH₄) being the predominant component.
- **LNG as a Green Energy Substitute:**
 - ♦ Liquefied Natural Gas (LNG) is increasingly being recognized as a substitute fuel in the global transition towards green energy.
 - ♦ Its role is becoming more prominent as countries seek cleaner energy alternatives.
- **US as the Largest LNG Exporter:**
 - ♦ In 2023, the United States emerged as the world's largest exporter of LNG, surpassing Qatar and Australia.
 - ♦ This growth was driven by a significant increase in liquefaction capacity, a result of investments made several years ago.
- **Impact of US LNG Supply:**
 - ♦ The increased supply of LNG from the US has contributed to a decline in LNG prices in international markets.
 - ♦ Additionally, India's geographical proximity to US LNG cargoes, particularly via the Cape of Good Hope, makes it more accessible compared to North Asia, further influencing market dynamics.

Evolving Trade Dynamics:

- **India's LNG Import Trends:** India, the fourth-largest LNG importer globally, reduced its LNG imports in 2022 due to rising prices, with shipments from the US declining to 2.16 million tonnes (MT).
- **UAE's Fluctuating Share in India's LNG Imports:**
 - ♦ The UAE's share in India's LNG imports saw fluctuations over recent years.
 - ♦ It increased from 2.6 MT in 2019 to 3.32 MT in 2020, then declined to 2.59 MT in 2022, before rising again to 2.85 MT in 2023.
- **Qatar as India's Largest LNG Supplier:** Qatar remained India's largest LNG supplier for five consecutive years (2019-2023), with annual shipments exceeding 10 MT, except in 2019 when they totaled 9.7 MT.
- **Decline in African Nations' Share:** During this period, there was also a notable decline in the share of African nations in India's LNG imports, indicating a shift in sourcing patterns.

LIQUEFIED NATURAL GAS (LNG)

About:

- **Definition:** LNG stands for Liquefied Natural Gas, which is natural gas that has been cooled to approximately -260°F (-162°C) to convert it into a liquid form.
- **Volume Reduction for Transport and Storage:** The liquefaction process reduces the volume of natural gas by about 600 times, making LNG easier and more economical to transport and store, particularly over long distances where pipelines are not feasible.
- **Composition of LNG:** LNG is primarily composed of methane (CH₄), but it may also contain small amounts of other hydrocarbons.
- **Usage After Regasification:** Once LNG reaches its destination, it is regasified and used in the same way as conventional natural gas, serving purposes such as heating, electricity generation, and fuel for vehicles.

Benefits of LNG:

- **Role in Energy Transition:** LNG and natural gas are crucial in the shift from more polluting energy sources, such as coal or heavy fuels, to cleaner alternatives.
- **Power Generation:** When used for power generation, natural gas produces 45% to 55% fewer greenhouse gas emissions compared to coal.
- **Industrial Applications:** LNG and natural gas offer a cleaner energy solution for industrial sectors that require high-calorific fuels and are challenging to electrify.
- **Benefits in Developing Economies:** LNG is set to replace traditional biomass for heating and cooking in developing regions, reducing the health impacts associated with localized emissions from other fuels.

Compressed Natural Gas (CNG) vs. Liquefied Natural Gas (LNG):

- **Nature of the Substances:** CNG and LNG are both forms of natural gas. CNG is stored as a gas in a vehicle's tank, while LNG is natural gas that has been compressed and cooled to very low temperatures, turning it into a liquid for easier transport and storage.
- **Density and Range:** Liquefied Natural Gas is significantly more energy-dense than Compressed Natural Gas, being approximately 600 times more energy-dense.
- **Handling:** LNG is more hazardous than CNG. LNG tanks need to vent fumes as they heat up and vaporize, which can create excessive pressure.
- **Health and Safety:** LNG's extreme cold can cause freeze burns. Contact with LNG, its vapors, or uninsulated components creates a risk of cold burns if it is in contact with skin which is not the case with CNG.

MIDDLE-INCOME TRAP

According to the World Bank, more than 100 countries — including China, India, Brazil, and South Africa — face serious obstacles that could hinder their efforts to become high-income countries in the next few decades.

About:

- **Definition of Middle-Income Trap:**
 - ♦ The Middle-Income Trap describes a situation where countries, having reached a certain level of economic development and income, struggle to progress to high-income status.
 - ♦ They become stuck at a middle-income level, unable to advance further.
- **Growth Stall at Critical Income Level:**
 - ♦ This trap occurs when a nation's economic growth stalls after reaching a specific income level, hindering its ability to transition to high-income status.
 - ♦ Countries often face this challenge when their annual GDP per capita reaches about 10% of the U.S. GDP per capita, which is roughly \$8,000 today.
- **Characteristics of Middle-Income Trap:**
 - ♦ Nations caught in the middle-income trap face difficulties in sustaining rapid growth and innovation.
 - ♦ This stagnation prevents them from advancing to higher income levels and leads to economic stagnation.
- **India's Classification (2023):**
 - ♦ As of 2023, India was classified as a middle-income country, with an annual GDP per capita ranging from \$1,136 to \$13,845.
 - ♦ The critical threshold for most countries is around 10% of the annual U.S. GDP per person, approximately \$8,000.
- **Successful Transitions Since 1990:**
 - ♦ Since 1990, only 34 middle-income economies have successfully transitioned to high-income status.
 - ♦ This achievement is often linked to factors such as EU integration or the discovery of new oil reserves.

Global Economic Prosperity:

- **Trends in Middle-Income Countries:**
 - ♦ The competition for global economic prosperity primarily occurs in middle-income countries.
 - ♦ These nations, which house 75% of the world's population, are responsible for generating over 40% of global GDP.
- **Need for Adaptation and Innovation:**
 - ♦ Simply relying on outdated strategies will not be sufficient for these countries.
 - ♦ To overcome the middle-income trap, nations must adapt, innovate, and address the challenges that hinder their progress.

- **India's 2047 Vision:**
 - ♦ India aims to become a developed economy by 2047, marking the centennial of its independence.
 - ♦ However, the World Bank warns that achieving this goal would be exceptionally challenging, given historical trends and patterns.
- **Comparison to South Korea's Trajectory:**
 - ♦ The World Bank report compares India's progress to that of South Korea, which successfully transitioned from a middle-income to a high-income economy in just 25 years.
 - ♦ This comparison underscores the necessity for innovative strategies to achieve similar success.
- **Future Projections for India:**
 - ♦ According to the World Bank study, if current trends continue, India might take 75 years to reach a per capita income equivalent to a quarter of that in the United States.
 - ♦ This highlights the urgency for substantial reforms and strategic advancements.

Obstacles Faced by Middle-Income Countries:

- **Ageing Populations:**
 - ♦ Many middle-income countries grapple with rapidly aging populations.
 - ♦ This demographic shift poses significant challenges for sustaining economic growth and maintaining social welfare systems.
- **Rising Protectionism:** In advanced economies, protectionist policies are on the rise. These barriers to trade can hinder middle-income countries' access to global markets and technological advancements.
- **Energy Transition:** As the world confronts climate change, transitioning to cleaner energy sources becomes imperative. Middle-income countries must balance economic growth with environmental sustainability.
- At the end of 2023, a staggering 108 countries were classified as middle-income. These nations are home to approximately six billion people—constituting 75% of the global population.
- Shockingly, two out of every three people living in extreme poverty reside in these middle-income countries.
- Moreover, they generate over 40% of global GDP and contribute more than 60% of carbon emissions.

Way Forward: 3i Strategy

- To escape the middle-income trap, the World Bank proposes a pragmatic '**3i Strategy**':
- **Investment (1i):** Low-income countries should focus primarily on policies that encourage investment. Building infrastructure, improving education, and attracting foreign direct investment are crucial steps.
- **Infusion (2i):** As countries attain lower-middle-income status, they need to diversify their strategies. This phase involves adopting technologies from abroad and spreading them across the economy. Innovation becomes essential.

- **Innovation (3i):** At the upper-middle-income level, countries must embrace innovation.
 - ♦ This means fostering research and development, promoting entrepreneurship, and creating an ecosystem that encourages creativity.

STATES CAN DIRECTLY BUY RICE FROM FCI

The Union government has announced that the States can directly purchase rice from the Food Corporation of India (FCI) under the Open Market Sale Scheme (Domestic) without participating in e-auction.

About:

- **Procurement Under PMGKAY:** States wishing to procure additional rice beyond the allotted five kilograms of free grain per individual under the **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)** can do so at a rate of ₹2,800 per quintal, excluding transportation costs.
- **Open Market Sale Scheme (OMSS):**
 - ♦ The Food Corporation of India (FCI) periodically sells surplus food grains from the central pool, such as wheat and rice, through the Open Market Sale Scheme.
 - ♦ These sales are conducted in the open market to traders, bulk consumers, and retail chains at predetermined prices.
- **E-Auctions for Food Grain Sales:**
 - ♦ FCI manages these sales through e-auctions, where open market bidders can purchase specified quantities of food grains at the prices established at the start of each auction cycle.
 - ♦ These prices are reviewed and revised regularly.
- **State Procurement Through OMSS:**
 - ♦ States are generally permitted to procure additional food grains through the OMSS without participating in the auctions.
 - ♦ This allows them to meet their needs beyond the allocations from the central pool for distribution to beneficiaries under the National Food Security Act, 2013.

FOOD CORPORATION OF INDIA (FCI)

- **Establishment:**
 - ♦ The Food Corporation of India (FCI) is a **statutory body** established in 1965 under the **Food Corporations Act, 1964**.
 - ♦ It was created in response to a major shortage of grains, particularly wheat, at that time.
- **Key Objectives:**
 - ♦ **Remunerative Prices for Farmers:** FCI aims to provide remunerative prices to farmers for their produce, ensuring fair compensation for their efforts.

- ♦ **Stable Food Security System:** The organization seeks to transform food security from a crisis management approach to a stable system, ensuring the availability, accessibility, and affordability of food grains for everyone, at all times, so that no one goes hungry.
- ♦ **National Food Security:** FCI is responsible for maintaining satisfactory levels of operational buffer stocks of food grains to ensure national food security.
- ♦ **Distribution for Public Distribution System:** The FCI oversees the distribution of food grains throughout the country as part of the Public Distribution System (PDS), aimed at providing essential commodities to the public.
- ♦ **Price Support Operations:** FCI conducts effective price support operations to safeguard the interests of farmers, stabilizing market prices and supporting agricultural sustainability.

POLICY CHANGE FOR AIRCRAFT MAINTENANCE, REPAIR AND OVERHAUL

The Government has announced a uniform rate of 5% Integrated Goods and Services Tax (IGST) for imports of Parts components, testing equipment, tools and tool-kits of aircraft.

About:

- **Role of DGCA:** The Directorate General of Civil Aviation (DGCA) is the regulatory authority in India responsible for overseeing Aircraft Maintenance, Repair, and Overhaul (MRO) activities.
- **Government Initiatives for MRO Services:** The Indian government has implemented several measures to promote the establishment of aircraft MRO services in the country, including:
 - ♦ **Extended Export and Re-import Periods:**
 - ♦ The period for exporting goods imported for repairs has been extended from six months to one year.
 - ♦ Additionally, the time limit for re-importing goods for repairs under warranty has been increased from three to five years.
- **New MRO Guidelines (2021):** The 2021 MRO Guidelines abolished royalties and introduced greater transparency and certainty in land allotments for MROs operating at Airports Authority of India (AAI) airports.
- **Reduced GST on MRO Services:** The Goods and Services Tax (GST) on MRO services has been reduced from 18% to 5%, with full Input Tax Credit available from April 1, 2020.
- **Zero-Rated GST for Sub-Contracted Transactions:** Transactions subcontracted by foreign original equipment manufacturers (OEMs) or MROs to domestic MROs are classified as 'exports' and are subject to zero-rated GST from April 1, 2020.

- **Customs Duty Exemption:** Customs Duty has been exempted on tools and tool kits used in MRO services.
- **100% Foreign Direct Investment (FDI):** The government permits 100% Foreign Direct Investment (FDI) in MRO services through the automatic route, facilitating greater foreign participation in the sector.

HORTICULTURE CLUSTERS

Recently, the Union Agriculture Minister announced 18,000 crore expenditure on setting up 100 export-oriented horticulture clusters in the next five years to boost farm income.

About:

- Horticulture clusters are geographical areas where specific crops are cultivated, processed, and marketed.
- By concentrating resources and expertise, these clusters can achieve economies of scale, improve quality, and enhance competitiveness.
- The goal is to create globally competitive hubs for horticultural produce.
- **Key Highlights:**
 - ♦ **Investment:** The ₹18,000 crore investment will be used to set up these clusters, focusing on crops like apples, mangoes, bananas, grapes, pineapples, pomegranates, and turmeric. Each cluster will receive targeted support to boost productivity and quality.
 - ♦ **Export-Oriented Approach:** These clusters are designed with an export-oriented mindset. By aligning production practices with international standards, India aims to increase its share in global horticulture trade.

Impact and Vision:

- **Farmers' Income:** The horticulture clusters are expected to benefit around 10 lakh farmers and related stakeholders.
 - ♦ By improving crop quality, streamlining logistics, and creating cluster-specific brands, the program aims to enhance farmers' income.
- **Exports:** The government targets a 20% increase in exports of the targeted crops through this initiative.
 - ♦ By leveraging geographical specialisation and market-led development, India aims to become a significant player in global horticulture trade.
- **Digital Agriculture Mission:** Under the Digital Agriculture Mission, farmers aim to receive a digital identity linked to land records, crop details, and damage assessment. It aims to prevent record manipulation and enhance transparency.
- **Climate-Resilient Crops:** The government envisions developing 1,500 new varieties of climate-resilient crops that can withstand higher temperatures. Diversification into flowers, fruits, and medicinal plants is also on the agenda.

EXPLORATION OF GEOTHERMAL ENERGY

Geological Survey of India (GSI) has carried out exploration of geothermal energy in various recognized geothermal fields which includes collection of data on temperature, discharge, and quality/chemistry of water in different geothermal fields.

Major Highlights:

- **Geothermal Research and Report:**
 - ♦ The Geological Survey of India (GSI) has studied **381 thermally anomalous areas** across the country and published the '**Geothermal Atlas of India, 2022**'.
 - ♦ This report provides valuable insights into geothermal potential.
- **Geothermal Power Potential:** India has an estimated geothermal power potential of about **10,600 MW**.
- **Current Projects:** The Singareni Collieries Company Limited (SCCL) has commissioned a 20 kW pilot geothermal power plant in Manuguru, Bhadradri Kothagudem district, Telangana.
- **Government Initiatives:** The Ministry of New and Renewable Energy (MNRE) is running the "**Renewable Energy Research and Technology Development Programme (RE-RTD)**" to foster the development of indigenous technologies and manufacturing for renewable energy, including geothermal power.
- **Financial Support:** MNRE provides up to 100% financial support for government and non-profit research organizations and up to 70% for industry, start-ups, private institutes, entrepreneurs, and manufacturing units involved in renewable energy R&D projects, including geothermal energy.
- **International Collaborations:**
 - ♦ **India-Iceland MoU (2007):** Geothermal energy was identified as a cooperation area under the Memorandum of Understanding (MoU) signed between India and Iceland.
 - ♦ **India-Saudi Arabia MoU (2019):** An MoU with the Kingdom of Saudi Arabia has been signed, recognizing geothermal energy as a key area of collaboration.
 - ♦ **India-USA RETAP (2023):** The Renewable Energy Technology Action Platform (RETAP), launched in 2023 between India and the USA, has identified geothermal energy as a focus area for cooperation.

Geothermal Energy:

- Geothermal energy is a **type of renewable energy** that comes from the **heat stored within the Earth**.
- This heat is produced by the **natural decay of radioactive materials and by the heat that's left over from the planet's formation**.
- **Geothermal Power Plants:** These use steam from heated water reservoirs beneath the Earth's surface to drive turbines connected to electricity generators. There are three main types:

- ♦ **Dry Steam Plants:** Directly use steam from a geothermal reservoir to turn the turbines.
- ♦ **Flash Steam Plants:** Pull high-pressure hot water into lower-pressure tanks to create steam.
- ♦ **Binary Cycle Plants:** Transfer heat from geothermal hot water to another liquid with a lower boiling point, which vaporizes and drives the turbine.
- **Geothermal Heat Pumps:** These systems use the Earth's constant temperature to heat and cool buildings. In winter, they bring heat from the ground into buildings, and in summer, they transfer heat from buildings back into the ground.
- **Direct Use Applications:** Geothermal energy can also be used directly for heating buildings, growing plants in greenhouses, drying crops, and even in some industrial processes.
- **Geothermal District Heating:** In some areas, geothermal energy is used to provide heating for entire communities or districts through a network of pipes.
- **Drawbacks:** It can have some environmental impacts, such as land subsidence and the potential for induced seismicity (earthquakes triggered by human activity).
 - ♦ Geothermal resources are often location-specific, which means they are most effective in regions with significant geothermal activity, such as Iceland, parts of the United States (like California and Nevada), and the Pacific Ring of Fire.
- ♦ Unlike fossil fuels, which are finite, geothermal energy can provide a consistent and reliable source of power and heating.
- **Low Greenhouse Gas Emissions:** Geothermal energy systems produce very low levels of greenhouse gases compared to fossil fuels.
 - ♦ This makes it a cleaner alternative that helps mitigate climate change and reduce air pollution.
- **Diverse Applications:** Beyond electricity generation, geothermal energy can be used for direct heating applications, cooling, and in various industrial processes. This versatility enhances its value as a multipurpose energy source.
- **Low Operating Costs:** Once a geothermal power plant or heat pump system is installed, the operational and maintenance costs are relatively low compared to other energy sources. This can result in lower long-term energy costs.
- **Reduced Water Usage:** Geothermal power plants generally use less water than conventional power plants, which is particularly advantageous in water-scarce regions.

YEN CARRY TRADE

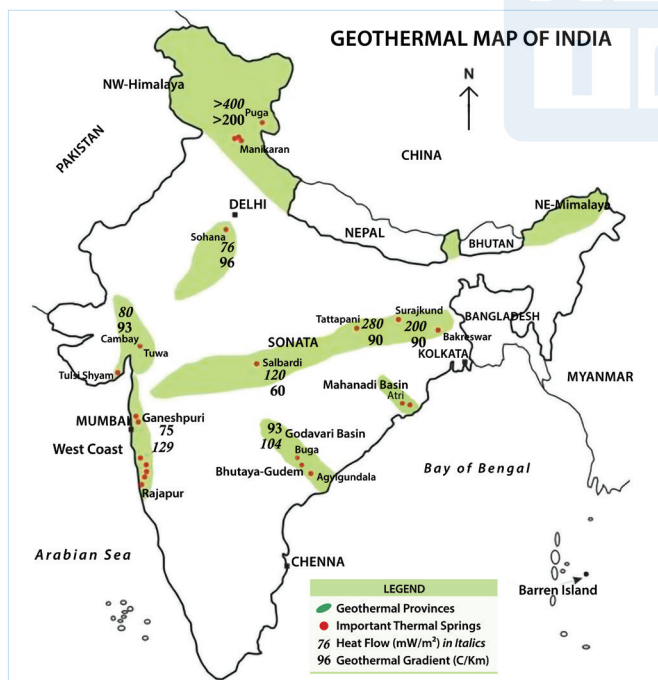
Low rates incentivized global investors to borrow yen cheaply and invest in other countries for better returns.

About:

- Investors borrow money in a country with low interest rates and invest it in countries with higher interest rates.
 - ♦ **Example:** Borrowing yen (from Japan) with low rates and investing in countries like Brazil, Mexico, or India where rates are higher.
- **Bank of Japan's Policy:** Between 2011 and 2016, Japan's interest rates were at zero, and since 2016, they have been even lower (-0.10%) to stimulate economic activity in Japan.
 - ♦ From mid-March to July, the Bank of Japan raised rates from -0.10% to 0.25%.
 - ♦ The increase in Japanese interest rates led to a stronger yen.
- **Impact:** Investors who had borrowed yen and invested in other currencies started selling their international assets.
 - ♦ The yen strengthened against other currencies like the US dollar, Brazilian real, Indian rupee, and Mexican peso.

RBI ENHANCES UPI TRANSACTION LIMIT FOR TAX PAYMENTS

Recently, the Reserve Bank of India (RBI) has taken a significant step to facilitate digital payments by increasing the transaction limit for tax payments through the Unified Payments Interface (UPI).



Significance:

- **Renewable and Sustainable:** Geothermal energy is a renewable resource because the heat from the Earth is continually replenished.

Key Points:

- **Increased Limit:** The UPI transaction limit for tax payments has been raised from Rs 1 lakh to Rs 5 lakh per transaction. This move aims to make it easier for taxpayers to settle their dues using UPI.
- **Delegated Payments Feature:** In addition to the increased limit, the RBI has proposed a new feature called “**Delegated Payments**” for UPI users.
 - ♦ It allows a primary user (say, an account holder) to authorise another individual (a secondary user) to make UPI transactions from the primary user’s bank account, up to a specified limit.
 - ♦ Essentially, this means that parents can grant their children limited access to their accounts for daily expenses, even if the children don’t have their own bank accounts or smartphones.
- **Previous Changes:** It’s worth noting that in December of last year, the RBI had already increased the UPI transaction limit to Rs 5 lakh (from Rs 1 lakh) specifically for payments related to hospitals and educational institutions.

UNIFIED PAYMENTS INTERFACE (UPI)

- It is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
- It was developed by **National Payments Corporation of India (NPCI)** in 2016.
- **Participants in UPI:** Payer Payment Service Provider (PSP), Payee PSP, Remitter Bank, Beneficiary Bank, NPCI, Bank Account holders, and Merchants.

1955, and the Banking Companies (Acquisition and Transfer of Undertakings) Acts of 1970 and 1980.

- Its **primary goal** is to enhance governance, strengthen investor protection, and improve overall banking practices.

Proposed Amendments:

- **Nominees per Bank Account:** Currently, each bank account can have only one nominee. However, the proposed amendment aims to increase this limit to four nominees per account.
 - ♦ It offers greater flexibility and choice to account holders.
- **Redefining ‘Substantial Interest’:** The bill seeks to redefine the concept of ‘substantial interest’ for bank directorships. The existing threshold of Rs 5 lakh will be raised significantly to Rs 2 crore.
 - ♦ It reflects a long-overdue adjustment to a limit that has been in place for nearly six decades.
- **Flexibility in Statutory Auditor Pay (Autonomy for Banks):** The bill intends to give banks greater flexibility in determining the pay for statutory auditors.
 - ♦ It recognises the importance of robust auditing practices in maintaining financial stability and transparency within the banking sector.
- **Tenure of directors of co-operative banks:** The **Banking Regulation Act, 1949** prohibits the director of a bank (except its chairman or whole-time director) to hold office for more than eight years consecutively.
 - ♦ The Bill of 2024 seeks to increase this period to 10 years for co-operative banks.
- **Broader Reforms:** These changes are part of a broader effort to improve bank governance and investor protection.
 - ♦ The amendments also impact the Banking Companies (Acquisition and Transfer of Undertakings) Acts of 1970 and 1980.

BANKING LAWS (AMENDMENT) BILL, 2024

Recently, the Banking Laws (Amendment) Bill, 2024 was introduced in Lok Sabha seeking to increase the option for nominees per bank account to four, from existing one, among others.

About:

- The introduction of **Banking Laws (Amendment) Bill, 2024** follows the announcement during the **2023-24 Budget speech**, emphasising the **need for reforms in the banking sector** to strengthen governance and **safeguard investor interests**.
- The proposed amendments align with the government’s larger vision of facilitating banking sector reforms, including the privatisation of public sector banks.
- The Banking Laws (Amendment) Bill, 2024, **seeks to amend several laws**, including the Reserve Bank of India Act, 1934, the Banking Regulation Act, 1949, the State Bank of India Act,

GLOBAL EMPLOYMENT TRENDS FOR YOUTH 2024

The International Labour Organization (ILO) has released its report titled “Global Employment Trends for Youth 2024 (GET for Youth).”

About:

- This report represents the **20th anniversary publication** of the ILO’s GET for Youth.
- This report looks back on what has been achieved since the dawn of the twenty-first century while also looking ahead to what may lay in store for youth employment in an era characterized by crises and uncertainties.
- According to the ILO, unemployment is defined as the state of being without a job, being available to work, and actively seeking employment.

- ◆ An individual who is jobless but not actively looking for work is not classified as unemployed.

INTERNATIONAL LABOUR ORGANIZATION

- It is an United Nations Agency established in **1919** as part of the Treaty of Versailles that ended World War I, and it became the **first specialized agency of the UN in 1946**.
- It has 187 Member states.
- It sets labour standards, develops policies and devises programmes promoting decent work for all women and men.
- It is the only tripartite U.N. agency that brings together governments, employers and workers.
- It is headquartered in **Geneva, Switzerland**.
- **Major Reports:** World Employment and Social Outlook (WESO), Global Wage Report, World Social Protection Report, World Employment and Social Outlook for Youth, World of Work Report.

Key Highlights from the Report:

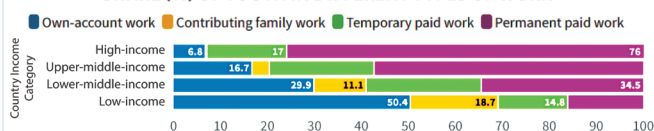
- **Resilient economic growth** post Covid 19, has **improved the global labour market outlook** for young people belonging to the **15-24 age group**.
- **The 2023 youth unemployment rate at 13 percent**, represents a **15-year low** and a fall from the pre-pandemic rate of 13.8 per cent in 2019. It is expected to fall further to **12.8 per cent this year** and the next year.
- **Higher Unemployment Rates:** In the Arab countries, East Asia, Southeast Asia, and the Pacific, youth unemployment rates were higher in 2023 than in 2019.
- **NEET Youth:** The report also cautions that the number of young people who are not in **employment, education or training (NEET)** is 'concerning', as it stood at 20.4 percent with **two in three young NEETs globally being women**.
- **Concerns of Employed Youth:** Lack of progress in gaining decent jobs, more than half of young workers are in informal employment globally.
 - ◆ The share of young adults working in a secure paid job is **significantly higher in high-income countries** (at 76% in 2023) but the the incidence of temporary work has risen in those countries too.
 - ◆ **The supply of high-skill jobs** to match the supply of educated youth, especially in middle-income countries, has not been enough.
 - ◆ **In low-income countries**, only one in five young adults aged 25 to 29 manage to find a secure paid job.

- **Services Sector:** From 2008, **services** took over as the **largest employer** of young people worldwide. The share of youth employment by services rose to **45.9 percent**.
 - ◆ Within services, **three aggregated subsectors** have been responsible for two thirds of the increase in the sector's share: wholesale and retail trade; accommodation and food services; and other business services.
- **Agriculture Sector:** The share of youth employment accounted for by agriculture **declined to 30.5 percent by 2021**.
- **Industry Sector:** Within the industry sector, manufacturing accounted for a diminishing share of youth jobs between 2001 and 2021, while **construction** has come to play a more dominant role, for young men in particular.
- **In Asia and the Pacific region**, youth unemployment rate was at **13.9%** in 2023 and it reflected a full recovery from the crisis years and fell below the rate of the pre-crisis years.
 - ◆ By 2025, the youth unemployment rate in the region is expected to **continue its decline to 13.7%**.
 - ◆ **The gender gap in youth** not in employment, education or training rates in South Asia was **higher than in any other subregion of the world**.
 - ◆ **The region's youth NEET rate** is expected to grow very slightly to 20.5% (from 20.4% in 2023).
 - ◆ The share of young adults in Asia and the Pacific **working in temporary jobs has increased** from one in five to one in four since the start of the millennium.
 - ◆ By 2021, only the subregion of **South Asia still had the agricultural sector as the largest employer of young people (at 35%)**.

MEASURING UNEMPLOYMENT IN INDIA

- **Usual Principal and Subsidiary Status (UPSS):**
 - ◆ Classifies an individual's principal status based on the activity they spent the most time on during the previous year.
 - ◆ Individuals engaged in any economic activity for at least 30 days in a subsidiary role are considered employed under the UPSS.
 - ◆ **Example:**
 - ◆ An individual unemployed for five months but working for seven months in the past year would be classified as employed.
 - ◆ Conversely, someone unemployed for nine months but working for three months would also be classified as employed under UPSS.
- **Current Weekly Status (CWS):**
 - ◆ Measures employment based on a one-week period.
 - ◆ An individual is considered employed if they worked for at least one hour on at least one day in the seven days preceding the survey.

SHARE (%) OF YOUTH IN DIFFERENT TYPES OF WORK



HOUSING FINANCE COMPANIES (HFCS)

The RBI issued revised guidelines as part of the phased transition towards tighter regulations for housing finance companies (HFCS) to harmonize them with NBFCs.

About:

- **HFCS are corporate entities** that operate under the Companies Act of 1956.
- Their primary focus is **providing housing loans** or finance through various direct or indirect means.
- Initially they were regulated by the **National Housing Bank (NHB)**, but in 2019 the responsibility of handling HFCS was transferred to the **Reserve Bank of India (RBI)**.
 - ♦ However, certain regulatory powers remain with the NHB.

NON-BANKING FINANCIAL CORPORATION (NBFCs)

- It is a company registered under the **Companies Act, 1956** engaged in the business of loans and advances, acquisition of shares/stocks/bonds/ debentures/securities issued by Government or local authority or other marketable securities.
- It does not include any institution whose **principal business is that of agriculture activity, industrial activity, purchase or sale of any goods** (other than securities) or providing any services and sale/purchase/construction of immovable property.
- A non-banking institution which is a company and has the **principal business of receiving deposits** under any scheme or arrangement in one lump sum or in installments by way of contributions or in any other manner, is also a non-banking financial company (Residuary non-banking company).
- The functions of the NBFCs are managed by both the **Ministry of Corporate Affairs and the Reserve Bank of India.**

SPACE-DRIVEN SOLUTIONS FOR AGRICULTURAL TRANSFORMATION IN INDIA

The Department of Agriculture & Farmers' Welfare organized a conference on the pivotal role of space technology in the growth and development of India's agricultural sector.

Space Technology Application in Agriculture:

- **Weather Predictions:** Satellites provide data for accurate weather forecasting, helping farmers plan their activities, such as sowing, irrigation, and harvesting, to avoid losses due to adverse weather conditions.
- **Water Resource Management:** Satellite data is used to monitor water bodies and manage water resources more effectively, ensuring that irrigation is optimized and water is conserved.

- **Mobile Apps and Digital Platforms:** Several government and private initiatives use satellite data to provide real-time advisory services to farmers through mobile apps.
 - ♦ **Example: Kisan Suvidha mobile application** to facilitate dissemination of information to farmers on the critical parameters viz., Weather; Market Prices; Plant Protection; Agro-advisory; Extreme Weather Alerts etc.
- **Crop Yield Forecasting:** Satellite data is used to forecast crop yields, helping in market planning and pricing strategies.
 - ♦ **KISAN [C(K)rop Insurance using Space technology And geoinformatics]** project launched in 2015 envisaged use of high-resolution remote sensing data for optimum crop cutting experiment planning and improving yield estimation.

KRISHI-DECISION SUPPORT SYSTEM

- Krishi-DSS is a first-of-its-kind **geospatial platform** designed for Indian agriculture. It is part of the **Digital Public Infrastructure for Agriculture** announced in the recent Budget.
- The platform provides seamless access to comprehensive data including **satellite images, weather information, reservoir storage, groundwater levels and soil health information**, which can be easily accessed from anywhere at any time.

Advantages:

- **Accurate Crop Production Estimates:**
 - ♦ Satellite data and advanced analytics provide precise, region-specific estimates of expected crop yields.
 - ♦ This helps in quantifying food demand gaps, predicting crop prices, and aligning logistics to harvest areas efficiently.
- **Yield Optimization:**
 - ♦ Satellite imagery enables advanced analytics to detect crop defects within fields.
 - ♦ This information allows farmers to take targeted actions, optimizing production per acre by using resources more effectively and addressing specific crop issues.
- **Bolstering Sustainable Practices:** Satellite insights support the adoption of sustainable agricultural practices by helping to reduce greenhouse gas emissions, conserve water, and promote regenerative farming techniques that enhance soil health and biodiversity.
- **Damage Prediction and Mitigation:**
 - ♦ Satellites offer unique capabilities to monitor environmental conditions before and after natural disasters such as droughts, fires, and floods.
 - ♦ This allows for accurate prediction, verification, and mitigation of damage, aiding in disaster response and recovery efforts.

- **Autonomous Monitoring:**
 - ♦ Satellite-based connectivity facilitates continuous monitoring and autonomous operations in remote areas with limited mobile broadband coverage.
 - ♦ This ensures reliable data collection and operational efficiency in regions that lack traditional communication infrastructure.

Key Programs Utilizing Space Technology:

- **FASAL Project (Forecasting Agricultural Output using Space, Agro-meteorology, and Land-based Observations):** This project uses space technology to forecast agricultural outputs and assess agro-meteorological conditions.
- **CHAMAN Project (Coordinated Program on Horticulture Assessment and Management using Geo-informatics):** Focuses on the assessment and management of horticultural crops using geo-informatics tools.
- **NADAMS (National Agricultural Drought Assessment and Monitoring System):** Monitors and assesses drought conditions to help in drought management and response.
- **Rice-Fallow Area Mapping and Intensification:** Uses satellite data to map rice-fallow areas and develop strategies for crop intensification.
- **Bhuvan:** The platform provides satellite imagery and services to support agriculture, including crop insurance and land use planning.
- **Pradhan Mantri Fasal Bima Yojana (PMFBY):** This crop insurance scheme leverages satellite data to assess crop damage and process claims faster and more accurately.

AGRICULTURE SECTOR IN INDIA

- India is a significant global player in the agriculture sector, providing the primary livelihood for approximately **55%** of its population.
- It boasts the **largest** cattle herd (buffaloes) globally, the greatest area dedicated to wheat, rice, and cotton cultivation, and leads the world in the production of milk, pulses, and spices.
- Additionally, India is the **second-largest** producer of *fruits, vegetables, tea, farmed fish, cotton, sugarcane, wheat, and rice*.
- The country's agriculture sector, which features the **second-largest agricultural land area** worldwide, employs around **half of the nation's workforce**.

ANDHRA PRADESH COMMUNITY-MANAGED NATURAL FARMING (APCMNF)

Recently, the Andhra Pradesh Community Managed Natural Farming (APCNF) has won the Portugal-based Gulbenkian Prize for Humanity (2024).

About:

- **Program Focus:**
 - ♦ **Objective:** The APCNF program supports smallholder farmers in transitioning from chemically intensive agriculture to 'natural farming.'
 - ♦ **Practices:** The initiative promotes using organic residues, minimizing tillage to improve soil health, reintroducing indigenous seeds, and diversifying crops, including trees.
 - ♦ **Initiation:** Launched in 2016 by the Government of Andhra Pradesh.
 - ♦ **Purpose:** To address farmer distress caused by economic crises and climate change in agriculture through sustainable farming practices.
- **Goals and Reach:** The program aims to reach all **eight million farmer households** in Andhra Pradesh over the next decade. The initiative seeks to inspire similar efforts in other regions.
- **National and International Support:**
 - ♦ **National Support:** Andhra Pradesh is aiding 12 other states in India to adopt natural farming practices.
 - ♦ **International Outreach:** In the 2024-25 period, Andhra Pradesh plans to send farmers to five different countries to promote natural farming methods abroad.
- **Regenerative Agriculture:** APCNF is more than just a farming technique; it's a regenerative approach.
 - ♦ It addresses the core challenges faced by farmers, including high-cost chemical farming, soil degradation, biodiversity loss, and water scarcity.

NATURAL FARMING

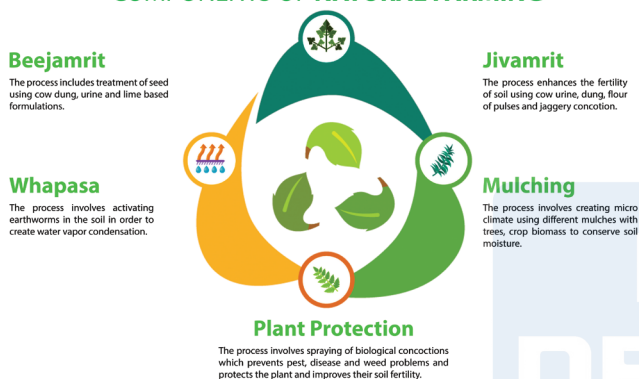
- **Concept:** Natural Farming is a chemical-free farming system that combines traditional Indian agricultural practices with modern ecological understanding. It focuses on resource recycling and on-farm resource optimization.
- **Approach:**
 - ♦ It is a form of agroecology that integrates crops, trees, and livestock, promoting functional biodiversity.
 - ♦ The system emphasizes on-farm biomass recycling, including biomass mulching, the use of cow dung-urine formulations, maintaining soil aeration, and completely excluding synthetic chemical inputs.
- **Objectives:** The aim is to reduce dependency on purchased inputs and promote a cost-effective farming practice with potential benefits for employment and rural development.

Universal Principles of Natural Farming:

- **Soil Coverage:** Soil should be covered with crops 365 days a year, maintaining living roots.
- **Diverse Planting:** Cultivate a diverse range of 15-20 crops and trees.
- **Organic Residues:** Increase the amount of organic residues on the soil to enhance fertility.

- **Biostimulants:** Use biostimulants as necessary catalysts to boost plant health and growth.
- **Minimal Soil Disturbance:** Minimize disturbance to the soil to preserve its natural structure and health.
- **Integration of Animals:** Integrate animals into farming practices to create a balanced ecosystem.
- **Indigenous Seeds:** Use indigenous seed varieties that are adapted to local conditions.
- **Pest Management:** Employ botanical extracts for pest management instead of synthetic pesticides.
- **No Synthetic Inputs:** Natural farming strictly avoids the use of synthetic fertilizers, pesticides, and herbicides.

COMPONENTS OF NATURAL FARMING



GULBENKIAN PRIZE FOR HUMANITY

- **Established By:** Calouste Gulbenkian Foundation.
- **Purpose:** Awarded to initiatives that significantly contribute to addressing global challenges related to the environment, sustainable development, and human well-being.
- **Criteria:** Recognizes innovative and impactful projects that make a meaningful difference in improving human life and the planet.

Positive Impact:

- **Livelihoods:** APCNF positively impacts farmers' livelihoods by reducing input costs and enhancing yields.
- **Climate Resilience:** It's climate-resilient, which is crucial in an era of changing weather patterns.
- **Food Security:** Citizens benefit from improved food and nutrition security.
- **Environment:** APCNF contributes to environmental restoration and mitigates climate change.

PERFORMANCE REVIEW OF REGIONAL RURAL BANKS (RRBS)

The Union Minister for Finance and Corporate Affairs chaired a meeting to review performance of nine Regional Rural Banks (RRBs) of 5 states.

About:

- **Establishment and Purpose:**
 - ♦ **Historical Context:**
 - ♦ The RRBs were established to address the need for better banking services in rural areas of India.
 - ♦ This initiative was part of a broader strategy to enhance financial inclusion and provide credit to agriculture and rural sectors, which were underserved by traditional banks.
 - ♦ **Legislative Framework:**
 - ♦ The establishment of RRBs was authorized under an Ordinance dated September 26, 1975, followed by the Regional Rural Banks Act of 1987.
 - ♦ These legislative measures aimed to ensure that rural communities had access to financial services, thereby promoting economic development in rural areas.
 - ♦ The first RRB, Prathama Grameen Bank, was inaugurated on October 2, 1975.
 - ♦ Syndicate Bank sponsored this pioneering RRB, marking the beginning of a network aimed at improving rural banking infrastructure.
- **Financial Performance:**
 - ♦ **Capital Adequacy:**
 - ♦ The Consolidated Capital to Risk (Weighted) Assets Ratio (CRAR) is a key indicator of a bank's financial health.
 - ♦ For RRBs, this ratio has significantly improved from 7.8% in FY 2021 to 13.7% in FY 2024, reflecting stronger financial stability and resilience.
 - ♦ **Profitability:**
 - ♦ The financial performance of RRBs has seen a notable turnaround.
 - ♦ From reporting losses of Rs. 41 crore in FY 2021, RRBs have achieved a net profit of Rs. 2,018 crore in FY 2024.
 - ♦ This shift underscores improved operational efficiency and profitability.
 - ♦ **Asset Quality:**
 - ♦ The Gross Non-Performing Assets (GNPA) ratio, which indicates the proportion of bad loans, is relatively low at 3.9%.
 - ♦ This low GNPA ratio reflects effective credit management and risk control practices within RRBs.
- **Functions and Services:**
 - ♦ **Banking Facilities:**
 - ♦ RRBs focus on providing basic banking services to rural and semi-urban areas.
 - ♦ This includes accepting deposits, offering loans, and facilitating various financial transactions that cater to the needs of rural populations.

- ◆ **Government Operations:**
 - ◆ RRBs play a crucial role in implementing government schemes.
 - ◆ They handle disbursements related to MGNREGA wages, pensions, and other government benefits, ensuring that financial aid reaches the intended recipients efficiently.
- ◆ **Para-Banking Services:**
 - ◆ In addition to traditional banking services, RRBs offer a range of para-banking services.
 - ◆ These include locker facilities for safekeeping valuables, debit and credit cards for convenient transactions, mobile and internet banking for accessibility, and UPI (Unified Payments Interface) for seamless digital payments.
- **Ownership Structure:**
 - ◆ **Central Government (50%):** The central government holds a 50% stake in RRBs, providing substantial financial backing and oversight.
 - ◆ **Sponsor Bank (35%):** Sponsor banks, which are usually major commercial banks, hold a 35% stake. These banks play a pivotal role in supporting and managing the RRBs.
 - ◆ **State Government (15%):** State governments own a 15% share, contributing to the localized management and operational aspects of RRBs.

Significance of Regional Rural Banks (RRBs):

- **Extending Banking Services:**
 - ◆ RRBs play a vital role in expanding banking services to rural and remote areas where commercial banks have limited reach.
 - ◆ By providing access to banking facilities in underserved regions, RRBs help integrate the unbanked population into the formal financial system, thereby promoting financial inclusion.
- **Financial Support for SMEs and SHGs:**
 - ◆ RRBs foster rural entrepreneurship by offering financial services and credit to small and medium enterprises (SMEs), self-help groups (SHGs), and individual entrepreneurs.
 - ◆ This support helps in the development of local businesses and stimulates economic growth in rural areas.
- **Microfinance and Small Loans for Poverty Alleviation:**
 - ◆ Through targeted lending programs and collaboration with government schemes, RRBs contribute significantly to poverty alleviation.
 - ◆ They provide microfinance and small loans to the economically disadvantaged segments of society, aiding in their economic upliftment and improving their standard of living.
- **Facilitating Government Programs:**
 - ◆ RRBs are key players in the execution of various government-sponsored schemes such as Pradhan Mantri

Jan Dhan Yojana (PMJDY) and Pradhan Mantri Jan Arogya Yojana (PMJAY).

- ◆ Their involvement ensures that these programs effectively reach rural populations and deliver intended benefits.
- **Stabilization of Rural Credit Markets:**
 - ◆ By providing a consistent and regulated source of credit, RRBs help stabilize rural credit markets.
 - ◆ This reduces the reliance on informal moneylenders who often charge high-interest rates, thereby ensuring more affordable and accessible credit for rural communities.

Issues with Regional Rural Banks (RRBs):

- **Inadequate Finance:**
 - ◆ RRBs often face financial constraints and rely heavily on the National Bank for Agriculture and Rural Development (NABARD) for funding.
 - ◆ The limited savings ability of rural populations, due to poverty and low per capita income, exacerbates this issue.
 - ◆ The low level of deposits from rural customers creates obstacles for RRBs in gathering sufficient funds for their operations.
- **High Overdues and Poor Loan Recovery:**
 - ◆ **Challenges in Loan Recovery:** One of the major issues affecting RRBs is the high level of overdues and poor loan recovery. Contributing factors include:
 - ◆ **Poor Access to Loans:** Limited access and poorly managed loan distribution.
 - ◆ **Insufficient Training:** Untrained staff leading to ineffective loan management.
 - ◆ **Unproductive Use of Credit:** Loans are sometimes used for unproductive purposes.
 - ◆ **Inadequate Marketing:** Poor marketing facilities hinder effective loan utilization and recovery.
 - ◆ **Inefficient Recovery Channels:** Inadequate systems for loan recovery.
- **Uneven Distribution of Branches:**
 - ◆ RRBs often exhibit a regional imbalance in banking facilities.
 - ◆ This imbalance arises from the concentration of branches in specific states and districts, which leads to the neglect of other potential customer groups in different areas.
- **Heavy Loan Burden:**
 - ◆ **Low Repayment Capacity:** Borrowers often have limited ability to repay loans.
 - ◆ **Untrained Staff:** Staff members lack the necessary training to assess and manage loans effectively.
 - ◆ **Inadequate Deposit Levels:** Low deposit levels strain financial stability.
 - ◆ **Poor Credit Assessment:** Loans are sometimes sanctioned without proper creditworthiness checks.

DRAFT NOTIFICATION TO DECLARE WESTERN GHATS AS ECO-SENSITIVE

The Central government issued the sixth iteration of a draft notification, declaring 56,825.7 sq km of the Western Ghats an Ecologically Sensitive Area (ESA).

About:

- **Definition of Eco-Sensitive Zones:**
 - ♦ The National Environment Policy (2006) defines Eco-Sensitive Zones (ESZs) as areas with unique environmental resources of exceptional value that require special attention for their conservation.
 - ♦ These zones are distinguished by their landscape, wildlife, biodiversity, and historical or natural significance.
- **Purpose of Eco-Sensitive Zones:**
 - ♦ **Environmental Protection:** Aimed at protecting the environment and preserving the biological integrity of regions outside protected areas.
 - ♦ **Special Protection:** These zones are recognized for their rich environmental resources and the need for enhanced protection measures.
- The ESAs are proposed across six states i.e. **Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu, and Kerala.**
- The notification has been reissued after the previous draft, notified in **2022**, lapsed; the Centre and these six states have not arrived at a consensus on the extent of ESA to be demarcated in the ecological hotspot.

Key Features of the Draft:

- **Complete Ban on Mining and Quarrying:**
 - ♦ The draft notification recommends a comprehensive ban on all forms of mining, quarrying, and sand mining.
 - ♦ It also suggests that existing mining operations should be phased out within a five-year period, starting from the date of issuance of the final notification or upon the expiration of the current mining lease, whichever comes first.
- **Prohibition on New and Expansion Projects:**
 - ♦ The notification proposes stringent restrictions on new construction and expansion projects.
 - ♦ Specifically, any building or construction project with a built-up area of 20,000 square meters or more, as well as new and expanded townships and area development projects covering 50 hectares or more, or with built-up areas of 1,50,000 square meters or more, will be prohibited.

Exemption for Residential Renovations:

- ♦ However, the notification clarifies that there will be no restrictions on the repair, extension, or renovation of existing residential houses within the Eco-sensitive Area, provided that such activities comply with the prevailing laws and regulations.

WESTERN GHAT

- The Western Ghats are a **1,600-km** long mountain chain along the west coast of India running from the river Tapi in the north to Kanyakumari in the south.
- **It covers six states** — Gujarat, Maharashtra, Goa, Tamil Nadu, Karnataka and Kerala. About 60 percent of the mountain range is in Karnataka.
- **Significance:** These Ghats are home to high mountain forests, which moderate the tropical climate of the region. They are home to 325 globally threatened flora, fauna, bird, amphibian, reptile and fish species.
- Western Ghats were accorded the **World Heritage Status by UNESCO in 2012.**

MADHAV GADGIL COMMITTEE REPORT

- **Ecologically Sensitive Zones:** The report recommended classifying 64 percent of the Western Ghats into Ecologically Sensitive Zones called ESZ 1, ESZ 2 and ESZ 3.
 - ♦ It also recommended designating the entire region as an Ecologically Sensitive Area (ESA).
- Almost all developmental activities like mining, construction of thermal power plants, and dams were to stop along with the decommissioning of similar projects that have completed their shelf life in ESZ 1.
- **Western Ghats Ecology Authority:** Under the **Environment (Protection) Act, 1986**, a professional body to manage the ecology of the region and to ensure its sustainable development was recommended by the committee.
- **Ban on growing single commercial crops:** Crops like tea, coffee, cardamom, rubber, banana and pineapple, which have led to “fragmentation of forest, soil erosion, degradation of river ecosystems and toxic contamination of the environment” should be curtailed.
- **Community participation:** The panel had urged the Ministry of Environment and Forests to take critical steps to involve citizens, including proactive and sympathetic implementation of the provisions of the Community Forest Resources of the **Forest Rights Act.**

KASTURIRANGAN COMMITTEE REPORT

- In 2012, the government constituted a High-Level Working Group on Western Ghats under **K Kasturirangan**.
- The Kasturirangan report notified only **37 percent** of the area as an ecologically sensitive area.
- It also split the Western Ghats into cultural (human settlements) and natural (non-human settlements) regions. It was suggested that cultural lands be designated as an ecologically sensitive area (ESA).
- **It also consisted of red, orange and green categories.** The **red list** entailed a ban on mining, stone quarrying, thermal plants and certain construction and township projects.
- **The orange category** had activities that would be regulated and taken up with appropriate permissions, while the **green category** allowed all agricultural and horticultural activities and commercial activities.

GROUND-LEVEL OZONE POLLUTION

A new study by the Delhi-based think tank Centre for Science and Environment (CSE) reveals a rise in ground-level ozone pollution in major Indian cities.

Major Findings:

- **Research Period and Data Source:**
 - ♦ The study tracked trends in ground-level ozone pollution from April 1 to July 18, spanning the years 2020 to 2024.
 - ♦ The analysis utilized granular, real-time data, captured in 15-minute intervals, provided by the Central Pollution Control Board (CPCB). This detailed data allows for a comprehensive understanding of pollution patterns and trends across multiple cities.
- **Global Trade-off in Pollution Control:** According to global experiences highlighted in the report, there is often a trade-off in pollution control: as efforts to reduce particulate matter pollution intensify, issues related to nitrogen oxides (NOx) and ground-level ozone may increase.
- **City-wise Exceedances of Ozone Standards:**
 - ♦ The researchers analyzed data from **10 major metropolitan areas:** Bengaluru (Karnataka), Chennai (Tamil Nadu), Kolkata (West Bengal), Mumbai and Pune (Maharashtra), Delhi-National Capital Region (NCR), Greater Ahmedabad (Gujarat), Greater Hyderabad (Telangana), Greater Jaipur (Rajasthan), and Greater Lucknow (Uttar Pradesh).
 - ♦ All these areas recorded exceedances of the national ozone standard, indicating widespread pollution across the country. Delhi was the most affected, with the highest number of days where ozone levels exceeded the permissible limits.
 - ♦ Notably, smaller cities like Ahmedabad and Pune are

seeing a particularly rapid increase in ozone pollution, suggesting that the problem is expanding beyond the largest metropolitan areas.

- **Night-Time Ozone Levels:**

- ♦ Unexpectedly, the study found that ozone levels were elevated even during the night, contrary to common expectations.
- ♦ Mumbai recorded the most instances of night-time exceedances, indicating a persistent problem.
- ♦ The duration of ozone exposure was concerning, with most cities experiencing an average of 12-15 hours of high ozone levels daily.
- ♦ This extended exposure heightens the health risks associated with ozone pollution.

- **Health Consequences of Ozone Exposure:**

- ♦ Ground-level ozone, a highly reactive gas, poses serious health risks, particularly to individuals with pre-existing respiratory conditions such as asthma, chronic obstructive pulmonary disease (COPD), as well as children with underdeveloped lungs and older adults.
- ♦ Prolonged or repeated exposure to ozone can inflame and damage airways, increase the risk of lung infections, aggravate conditions like asthma and chronic bronchitis, and lead to more frequent and severe asthma attacks, resulting in increased hospitalizations.

Ground-Level Ozone (O₃) Pollution:

There are two kinds of ozone:

- **High-altitude ozone or the “good ozone”** that is high up in the atmosphere and forms a protective barrier around the Earth from the Sun’s harmful ultraviolet rays.
- **Ground-level ozone or the “bad” ozone** that forms closer to the Earth in the air we breathe.
 - ♦ This ozone is not usually emitted directly, but rather forms from chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOCs) in sunlight.
 - ♦ The term “ozone” is not to be confused with “smog,” another type of pollution that consists of ground-level ozone and other gaseous and particulate pollution.

Impact of Ozone:

- **Impact on human health:** Breathing ground-level ozone can cause chest pain, coughing, throat irritation, and congestion. It can worsen **bronchitis, emphysema, and asthma**. Ozone also can reduce lung function and inflame the lining of the lungs.
- **Impact on environment:** Ozone damages vegetation and ecosystems by inhibiting the ability of plants to open the microscopic pores on their leaves to breathe.
 - ♦ **It interferes with the photosynthesis process** by reducing the amount of carbon dioxide the plants can process and release as oxygen.

- **Impact on crops:** The increase in ozone levels impacted agriculture globally, with ozone-induced crop losses averaging 4.4 percent–12.4 percent for staples.
 - ♦ Losses for wheat and soybean were as high as **15 percent-30 percent** in key agricultural areas of India and China.

Air Pollution:

- When harmful substances (pollutants) – particles, gases, or matter – are released into the air and reduce its quality, the air is polluted.
- **Common air pollutants include:** Particulate Matter (PM), Nitrogen Dioxide (NO2), Sulfur Dioxide (SO2), Ozone (O3), Carbon Monoxide (CO), Volatile Organic Compounds (VOCs), Lead etc.
- **Source:** These pollutants can originate from natural sources such as volcanic eruptions and wildfires, but human activities such as industrial production, transportation, agriculture, and residential heating are significant contributors to air pollution.

Steps Taken by Government of India to Combat Air Pollution:

- **National Clean Air Programme (NCAP):** Launched in 2019, NCAP is a comprehensive initiative with the goal of reducing air pollution in identified cities and regions across India.
 - ♦ The program focuses on improving air quality monitoring, implementing stricter emission standards, and promoting public awareness.
- **Bharat Stage VI (BS-VI) Emission Standards:** The government implemented BS-VI emission standards for vehicles nationwide in 2020.
 - ♦ These standards aim to reduce vehicular emissions by mandating the use of cleaner fuel and more advanced emission control technologies.
- **Pradhan Mantri Ujjwala Yojana (PMUY):** The PMUY scheme aims to provide clean cooking fuel to households by promoting the use of liquefied petroleum gas (LPG) as an alternative to traditional biomass-based cooking methods.
- **FAME (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) Scheme:** The FAME scheme promotes the adoption of electric and hybrid vehicles to reduce air pollution caused by vehicular emissions.
 - ♦ Incentives are provided to both manufacturers and consumers to encourage the use of electric vehicles.
- **Green Initiatives for Sustainable Habitat (GRIHA):** GRIHA is an initiative to promote sustainable and environmentally friendly practices in the construction and operation of buildings.
 - ♦ It encourages the use of energy-efficient technologies and materials to reduce pollution.
- **Waste Management Programs:** Proper waste management is crucial to prevent the burning of waste, which contributes to air pollution.

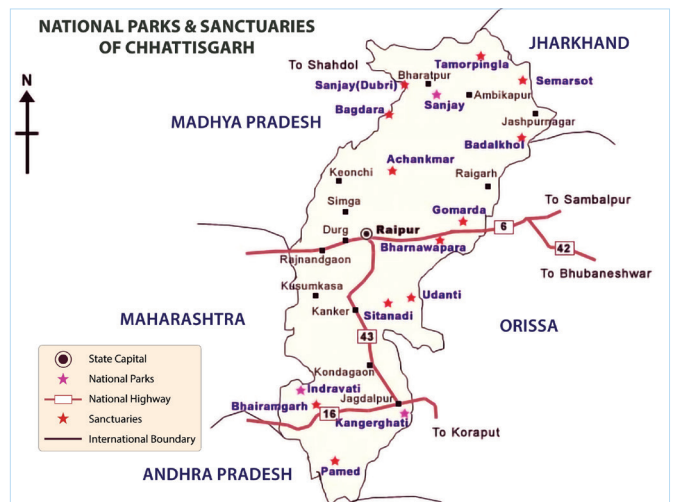
- ♦ Various waste management initiatives, including the Swachh Bharat Abhiyan, aim to address solid waste issues and promote cleaner disposal methods.
- **Commission for Air Quality Management:** The Commission has been set up for Air Quality Management in the National Capital Region and Adjoining Areas for better coordination, research, identification, and resolution of problems surrounding the air quality index.

GURU GHASIDAS-TAMOR PINGLA TIGER RESERVE

The National Tiger Conservation Authority (NTCA) has recently designated the combined regions of Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary as a Tiger Reserve.

About:

- **Fourth Tiger Reserve in the State:** The Guru Ghasidas-Tamor Pingla forest area is set to become the fourth tiger reserve in the state, joining the ranks of the Indravati, Udanti-Sitanadi, and Achanakmar tiger reserves.
- **Third Largest Tiger Reserve in India:**
 - ♦ Once established, Guru Ghasidas-Tamor Pingla will be the third-largest tiger reserve in the country.
 - ♦ It will rank behind Andhra Pradesh's Nagarjunasagar Srisailem tiger reserve, the largest in India, and Assam's Manas tiger reserve, which is the second-largest.
- **Strategic Location and Wildlife Corridor:**
 - ♦ Located in the northern part of the state, the forests of Guru Ghasidas-Tamor Pingla serve as a crucial wildlife corridor.
 - ♦ This area connects the Bandhavgarh tiger reserve in Madhya Pradesh with the Palamu tiger reserve in Jharkhand, facilitating the movement and genetic exchange of tiger populations between these regions.



NATIONAL TIGER CONSERVATION AUTHORITY

- **Establishment and Background:**
 - ♦ The National Tiger Conservation Authority (NTCA) is a **statutory body** functioning under the Ministry of Environment, Forests, and Climate Change.
 - ♦ It was established in 2005 following the recommendations of the Tiger Task Force to enhance and strengthen tiger conservation efforts in India.
- **Legal Foundation:**
 - ♦ The NTCA was constituted under the Wildlife (Protection) Act, 1972, which was amended in 2006 to include provisions for the authority.
 - ♦ These amendments provided the NTCA with specific powers and functions aimed at improving the protection and conservation of tigers in India.
- **Structure and Leadership:**
 - ♦ The authority operates under the leadership of the Minister in charge of the Ministry of Environment, Forests, and Climate Change, who serves as the Chairperson.
 - ♦ The Minister of State in the Ministry of Environment, Forests, and Climate Change serves as the Vice-Chairperson.
 - ♦ The NTCA also includes three members of Parliament, the Secretary of the Ministry of Environment, Forests, and other designated members who contribute to the functioning and decision-making of the authority.

- ♦ It also adds necessary weight, enabling the ship to pass safely under bridges and other structures.
- **Emerging Issues:**
 - ♦ Despite its importance for safe and efficient shipping, ballast water can introduce serious ecological, economic, and health risks.
 - ♦ The water often carries a variety of marine species, including bacteria, microbes, small invertebrates, eggs, cysts, and larvae.
 - ♦ These transferred species may survive in the new environment, establish a reproductive population, and become invasive, potentially outcompeting native species and growing into pest proportions.
 - ♦ In India, around 30 invasive species have been recorded, with the charru mussel being particularly harmful.

Global Regulations:

- The **Ballast Water Management (BWM) Convention**, effective from September 8, 2017, requires ships to manage ballast water to prevent the spread of harmful organisms.
 - ♦ Under the Convention, all ships engaged in international traffic must manage their ballast water and sediments according to a ship-specific ballast water management plan.
 - ♦ Ships are required to carry a ballast water record book and an international ballast water management certificate.
 - ♦ The ballast water management standards will be phased in over time, with an intermediate solution requiring ships to exchange ballast water mid-ocean to minimize the risk of introducing invasive species.
 - ♦ Ships must treat ballast water or exchange it with oceanic water before discharge.
 - ♦ Countries like Australia and New Zealand rigorously enforce ballast water regulations to protect their ecosystems, such as the Great Barrier Reef.
- The **UN Convention on the Law of the Sea (Article 196)** provides a global framework, mandating that States work together to prevent, reduce, and control pollution of the marine environment.
 - ♦ This includes the intentional or accidental introduction of alien or new species to specific marine areas, which may cause significant and harmful changes.

MANAGEMENT OF BALLAST WATER

Tamil Nadu Water Resources Department observed that Kamarajar Port is the main reason for the spread of the invasive species by not regulating the ballast water from ships.

About:

- Tamil Nadu's Water Resources Department (WRD) has sought ₹160 crore from Kamarajar Port to combat the issue of the invasive charru mussel (*Mytella strigata*).
- The presence of this mussel disrupts marine ecosystems and hinders the movement of fishing boats.
- **Ballast Water and Its Utility:**
 - ♦ Ballast water, which is seawater taken on board ships, is used to maintain stability and proper immersion during voyages.
 - ♦ It is typically pumped into the ship when cargo is unloaded and pumped out when cargo is loaded.
- **Functions and Importance:**
 - ♦ Ballast water is crucial for ensuring the stability and maneuverability of ships, especially during voyages when the ship is empty, lightly loaded, or navigating rough seas.

India's Position:

- India has not signed the BWM Convention, meaning there are no specific regulations or checks for ballast water discharge at Indian ports.
- Indian ports are not responsible for regulating ballast water.
- Under current Indian law, ports are not liable for invasive species caused by ballast water. Ship owners may be held responsible if regulations were in place.

GYMNEMA SYLVESTRE (GURMAR)

*Recently, researchers have identified *Gymnema Sylvestre*, commonly known as Gurmar, among several medicinal plants on Brahmayoni Hill in Gaya, Bihar.*

About:

- **Unique Properties of Gurmar:**
 - ♦ Gurmar is renowned for its unique ability to reduce blood sugar levels.
 - ♦ This effect is primarily due to the presence of Gymnemic acid, which works by blocking the absorption of sugar in the intestines.
- **Role in Lipid Metabolism and Flavonoids:**
 - ♦ Gurmar also plays a significant role in lipid metabolism, contributing to better overall health.
 - ♦ Additionally, its flavonoid content further enhances its medicinal properties, making it a valuable ally in managing diabetes.
- **Synergy with Metformin:**
 - ♦ Gurmar can be effectively combined with Metformin, the first-line drug for diabetes treatment.
 - ♦ This combination enhances the overall efficacy in controlling blood sugar levels.
- **Contribution to Anti-Diabetic Drugs**
 - ♦ Gurmar has already been utilized in the development of the anti-diabetic drug BGR-34.
 - ♦ BGR-34 combines Gurmar with other potent phyto-ingredients such as Daruharidra, Giloy, Vijaysar, Manjishtha, and Fenugreek, forming a powerful combination against diabetes.

MALABAR TREE TOAD (MTT)

Recently, a study indicates that climate change could reduce the distribution range of the Malabar Tree Toad (MTT) by up to 68.7% of its current estimated range within India's protected areas (PAs).

About:

- The Malabar Tree Toad (*Pedostibes tuberculosus*) is a rare and endangered amphibian species endemic to the Western Ghats of India, a biodiversity hotspot.
- Known for its elusive nature, this small toad is an important indicator of the health of its rainforest ecosystem.
- **Discovery and Historical Significance:**
 - ♦ It was first discovered in 1876 by scientists studying the rich biodiversity of the Western Ghats.
 - ♦ However, following its initial identification, the species seemingly vanished, with no recorded sightings for over a century.

- ♦ This long period of absence led to concerns that the species might have become extinct.
- ♦ In 1980, it was rediscovered in the Silent Valley National Park in Kerala.
- **Habitat Characteristics:**
 - ♦ **Rainforest Canopy Dweller:**
 - ♦ It is primarily arboreal, meaning it spends most of its life in trees.
 - ♦ It thrives in the dense, humid canopies of tropical rainforests, particularly those found in the Western Ghats.
 - ♦ **Microhabitat:**
 - ♦ During the day, the toad remains hidden in the leaf litter, tree crevices, or under loose bark, avoiding predators and preventing desiccation.
 - ♦ At night, it becomes active, climbing through the canopy in search of food.
 - ♦ **Feeding Habits:**
 - ♦ The Malabar Tree Toad is nocturnal, feeding on a diet of insects and other small invertebrates.
 - ♦ Its diet helps control insect populations, making it a crucial component of the ecosystem's food web.
 - ♦ **Adaptations:** The toad's nocturnal lifestyle and arboreal adaptations, such as its sticky pads on toes, enable it to navigate the slippery, wet surfaces of the rainforest canopy.
- **Physical Characteristics**
 - ♦ **Small Stature:**
 - ♦ It is relatively small, measuring between 3 to 4 centimeters in length.
 - ♦ Despite its small size, it has distinct markings that help in its identification.
 - ♦ **Coloration and Texture:**
 - ♦ Its skin is dark, often brown or black, with prominent white or yellowish spots on its back.
 - ♦ This coloration helps in camouflage within its natural habitat. The skin is also rough, covered with small tubercles, which give it a warty appearance.
 - ♦ **Limbs and Toes:**
 - ♦ The toad's limbs are slender and equipped with specialized pads on its fingers and toes.
 - ♦ These pads are crucial for gripping wet, smooth surfaces, allowing the toad to climb trees and navigate the complex structures of the rainforest canopy.
- **Conservation Status:** Classified as "Endangered" on the IUCN Red List.
- **Threats to Survival:**
 - ♦ **Deforestation:**
 - ♦ The Western Ghats are under severe threat from deforestation driven by agricultural expansion, urbanization, and logging.
 - ♦ As the rainforest canopy is destroyed, the Malabar Tree Toad loses its primary habitat.

- ◆ **Pollution:** Chemical pollution from pesticides and industrial runoff contaminates the water bodies in these forests, posing a direct threat to the species, especially during its breeding season when water quality is critical.
- ◆ **Climate Change:** Altered weather patterns and changes in temperature and humidity levels due to climate change also impact the delicate balance of the toad's habitat, affecting its ability to survive and reproduce.
- **Conservation Efforts:**
 - ◆ **Preservation of Forests:** Conservation efforts focus on preserving the remaining tracts of tropical rainforests in the Western Ghats. Protecting these areas from deforestation and fragmentation is essential for the survival of the Malabar Tree Toad and other endemic species.
 - ◆ **Waterbody Conservation:** Since the Malabar Tree Toad relies on clean, unpolluted water bodies for breeding, conservation projects also aim to protect and restore these aquatic environments.

- **Project Objectives:**
 - ◆ **Development and Validation of Detection Methods:**
 - ◆ This involves creating standardized protocols that can reliably identify and quantify plastic contaminants in different food matrices, such as seafood, packaged foods, and agricultural products.
 - ◆ The methods will be tested for accuracy, sensitivity, and reproducibility to ensure they can be widely adopted in food safety testing.
 - ◆ **Assessment of Prevalence and Exposure Levels:**
 - ◆ This includes analyzing a range of food items from different regions and sources to determine how widespread microplastic contamination is.
 - ◆ The project will also explore the potential health risks associated with chronic exposure to these contaminants through the diet.

About Microplastics:

- Microplastics are small plastic fragments that measure **less than five millimeters** in length, roughly the size of a sesame seed.
- These particles can originate from larger plastic debris that degrades into smaller pieces over time or be manufactured as microbeads used in products like cosmetics and cleaning agents.
- Microplastic consumption has been identified as a potential health hazard, particularly due to their ability to carry or absorb toxic chemicals.
- ◆ **Bisphenol A (BPA):** A chemical commonly used in the production of plastics, BPA is known for its endocrine-disrupting properties. When microplastics carrying BPA are ingested, they can leach this chemical into the body, potentially disrupting hormonal balance.
- ◆ **Phthalates:** These chemicals, often used to make plastics more flexible, can also be absorbed by microplastics. Phthalates are linked to a variety of health issues, including reproductive problems and developmental disorders.
- ◆ **Heavy Metals:** Microplastics can also attract and absorb heavy metals like lead and mercury from their surrounding environment. These metals are highly toxic and can cause severe health issues, including neurological damage and kidney disease.

Concerns:

- **Environmental Impact:**
 - ◆ **Marine Pollution:** Microplastics are pervasive in oceans, affecting marine life through ingestion, which can lead to physical harm, impaired feeding, and potentially lethal blockages in marine organisms.
 - ◆ **Ecosystem Disruption:** Microplastics can alter habitats and disrupt ecosystems by affecting the natural behavior and physiology of organisms, leading to changes in food chains and biodiversity loss.

SILENT VALLEY NATIONAL PARK

- **Location:** Situated in the Nilgiri Hills, spanning the Malappuram district of Kerala and the Nilgiris district of Tamil Nadu. The park is part of the Nilgiri Biosphere Reserve.
- **Rivers:** The park is the source of the Bhavani River (a tributary of the Kaveri River), Kunthipuzha River (a tributary of the Bharathappuzha River), and the Kadalundi River.
- **Vegetation:** The park features rainforests, tropical moist evergreen forests, and shola forests.
- **Major Fauna:** It houses the largest population of the endangered lion-tailed macaque. Other notable species include the Malabar giant squirrel, Nilgiri tahr, and Travancore flying squirrel.
- **Major Avifauna:** The park is home to species such as the Nilgiri wood-pigeon, Malabar grey hornbill, and Nilgiri flycatcher.

MICROPLASTIC CONTAMINATION IN FOOD

The Food Safety and Standards Authority of India (FSSAI) has launched a project to address microplastic contamination in food.

About:

- **Project Title:** "Micro-and Nano-Plastics as Emerging Food Contaminants: Establishing Validated Methodologies and Understanding the Prevalence in Different Food Matrices."
- **Collaborating Institutions:**
 - ◆ CSIR-Indian Institute of Toxicology Research (Lucknow)
 - ◆ ICAR-Central Institute of Fisheries Technology (Kochi)
 - ◆ Birla Institute of Technology and Science (Pilani)

- **Impact on Human Health:**
 - ♦ **Endocrine Disruption:**
 - ♦ The toxic chemicals carried by microplastics can interfere with the body's endocrine system, which regulates hormones.
 - ♦ This disruption can lead to a range of health issues, including reproductive problems, obesity, diabetes, and other metabolic disorders.
 - ♦ **Digestive System Inflammation:**
 - ♦ When ingested, microplastics can trigger an inflammatory response in the digestive system.
 - ♦ Chronic inflammation is a precursor to various gastrointestinal diseases, including inflammatory bowel disease (IBD) and other chronic digestive disorders.
 - ♦ **Potential Long-Term Health Effects:** Continuous exposure to microplastics and the toxins they carry could have cumulative effects, increasing the risk of long-term health problems, including cancer, cardiovascular diseases, and autoimmune disorders.
- **Agricultural Impact:**
 - ♦ **Soil Contamination:** Microplastics are increasingly found in agricultural soils, often through the application of sewage sludge as fertilizer. This can affect soil health and potentially enter the food chain.
 - ♦ **Plant Growth:** Preliminary studies suggest that microplastics may impact plant growth and soil structure, potentially affecting crop yields and food security.
- **Economic Costs:**
 - ♦ **Fisheries and Tourism:** The contamination of marine environments with microplastics can lead to economic losses in fisheries and tourism industries, as polluted waters and beaches deter tourists, and marine life health is compromised.
 - ♦ **Waste Management:** The pervasive nature of microplastics presents challenges in waste management, as traditional filtration and waste treatment methods are often inadequate to remove these small particles from the environment.
- **Swachh Bharat Mission (Clean India Mission):**
 - ♦ Launched in 2014, the **Swachh Bharat Mission** is a nationwide campaign focused on improving cleanliness, sanitation, and waste management across India.
 - ♦ A key component of this mission is the reduction of plastic waste, both in urban and rural areas.
 - ♦ The initiative encourages the segregation of waste at the source, promotes recycling, and aims to create awareness about the environmental hazards of plastic pollution.
- **National Policy on Solid Waste Management:**
 - ♦ It is a comprehensive framework that addresses the management of all types of waste, including plastic.
 - ♦ This policy emphasizes the need for effective plastic waste management through the promotion of recycling, safe disposal practices, and the reduction of plastic usage.
 - ♦ The policy encourages the adoption of sustainable practices, such as using biodegradable alternatives to plastics and promoting the circular economy, where materials are reused and recycled, minimizing waste.
- **Ganga Action Plan and Namami Gange Programme:**
 - ♦ These initiatives aimed at cleaning the Ganga River, one of India's most important and sacred rivers.
 - ♦ These programs also target the reduction of plastic pollution in waterways, which is a significant contributor to the degradation of river ecosystems.
 - ♦ Measures under these initiatives include the control of plastic waste in river basins, preventing it from entering the water, and ensuring proper waste management along the banks of the Ganga and its tributaries.
- **Research and Development:**
 - ♦ Recognizing the emerging threat of microplastics, the Indian government is funding research to better understand their impact on health and the environment.
 - ♦ Institutions like the **Food Safety and Standards Authority of India (FSSAI)** are conducting studies on the prevalence of microplastic contamination in food and water.
 - ♦ These research efforts aim to establish the extent of microplastic pollution, assess its potential health risks, and develop strategies to mitigate its effects.
- **Extended Producer Responsibility (EPR):**
 - ♦ The government has introduced **Extended Producer Responsibility (EPR)** policies to hold manufacturers accountable for the entire lifecycle of their plastic products, from production to disposal.
 - ♦ Under EPR, producers are required to take back their products after consumer use for recycling or safe disposal.
 - ♦ This policy incentivizes manufacturers to design more sustainable products and reduce the environmental impact of plastics.
 - ♦ EPR is a crucial tool in promoting corporate responsibility and encouraging the development of eco-friendly alternatives to conventional plastics.

Initiatives to Combat Microplastics and Address Plastic Pollution:

- **Plastic Waste Management Amendment Rules, 2021:**
 - ♦ It was introduced with the objective of curbing the widespread use of single-use plastic items in India.
 - ♦ These rules mandate the phasing out of single-use plastics by the end of 2022, a significant step towards reducing plastic waste.
 - ♦ Additionally, the amendment increases the permissible thickness of plastic carry bags, making them more durable and thus less likely to be discarded after a single use.
 - ♦ By increasing the thickness requirement, the government aims to discourage the use of thin, single-use plastic bags, promoting a shift towards reusable alternatives.

INDIA'S ETHANOL BLENDED PETROL (EBP) PROGRAMME

Recently, India is on its way to achieve its target of blending 20% of petrol with ethanol by 2025-26.

About:

- The **Ethanol Blending Programme (EBP)** was initiated by the **Ministry of Petroleum and Natural Gas** in **2003** with the primary goal of promoting the use of alternative and environmentally friendly fuels.
- The program specifically encourages the blending of ethanol with petrol, which helps to reduce the carbon footprint associated with fossil fuels and supports India's broader goals of energy security and sustainability.
- The program was initially rolled out in select regions but was extended to cover the entire country (excluding the Union Territories of Andaman and Nicobar Islands and Lakshadweep) effective from **April 1, 2019**.
 - ♦ Under this initiative, **Oil Marketing Companies (OMCs)** are mandated to sell petrol blended with up to **10% ethanol**.
 - ♦ This blending not only reduces dependence on imported crude oil but also provides a boost to the agricultural sector by utilizing excess sugarcane and maize for ethanol production.
- **Progress and Targets:**
 - ♦ The Ethanol Blending Programme has shown significant progress since its inception. The all-India average blending of ethanol with petrol has increased from **1.6% in 2013-14 to 11.8% in 2022-23**.
 - ♦ This substantial rise reflects the country's growing commitment to reducing greenhouse gas emissions and fostering a sustainable energy landscape.
 - ♦ India initially set a target of achieving **20% ethanol blending by 2030**.
 - ♦ However, with the release of the **Ethanol Roadmap** by **NITI Aayog** in **2021**, the deadline for achieving this target was advanced to **2025**.
 - ♦ This ambitious goal will require the production of approximately **1,000 crore litres of ethanol** annually for blending with petrol by the **2025-26** timeframe.

Ethanol:

- Ethanol, an anhydrous ethyl alcohol having chemical formula of C_2H_5OH , can be produced from **sugarcane, maize, wheat, etc** which are having high starch content.
- In India, ethanol is mainly produced from sugarcane molasses by fermentation process.
- Ethanol blending refers to the **practice of mixing ethanol with gasoline** to create a fuel mixture that can be used in internal combustion engines.

There are a few common blends:

- ♦ **E10:** This is a mixture of 10% ethanol and 90% gasoline. It is the most common blend and is used widely in many countries.
- ♦ **E15:** This blend contains 15% ethanol and 85% gasoline.
- ♦ **E85:** This is a high-ethanol blend, consisting of 85% ethanol and 15% gasoline. It's used in flex-fuel vehicles designed to run on higher ethanol content.

Significance of the Ethanol Blending Programme:

Increasing India's Energy Security

- ♦ India's energy needs are heavily reliant on imported fuel, with more than 80% of consumed fuel being imported.
- ♦ This high dependency on imports exposes India's energy security to risks from global events, such as the Russia-Ukraine war or decisions made by OPEC countries to cut oil production.
- ♦ The Ethanol Blending Programme reduces India's reliance on imported oil, thereby enhancing the nation's energy security and making it less vulnerable to such global disruptions.

Balancing Import Bill:

- ♦ The Ethanol Blending Programme plays a strategic role in decreasing India's dependence on imported fossil fuels, which helps conserve the country's foreign exchange reserves.
- ♦ According to estimates by NITI Aayog, achieving the E20 target (20% ethanol blending in petrol) could reduce India's crude oil import bill by approximately \$4 billion annually.
- ♦ This reduction not only saves money but also strengthens India's economic resilience against fluctuations in global oil prices.

Emission Reduction:

- ♦ Ethanol-blended petrol significantly lowers the emission of harmful pollutants.
- ♦ The use of E20 (20% ethanol-blended petrol) is expected to reduce carbon monoxide emissions by 50% in two-wheelers and by 30% in four-wheelers, according to NITI Aayog.
- ♦ This reduction in emissions contributes to cleaner air and a healthier environment, aligning with India's broader goals of mitigating climate change and improving public health.

Job Creation:

- ♦ The Ethanol Blending Programme is also a significant driver of job creation in rural areas.
- ♦ The Asian Development Bank (ADB) estimates that the programme could generate about 18 million rural jobs in India.

- ◆ This job creation potential is critical for addressing unemployment and underemployment in rural regions, contributing to poverty alleviation and promoting inclusive economic growth.
- **Resource Optimization:**
 - ◆ By using damaged foodgrains and vegetable waste, ethanol production maximizes the utility of available resources that might otherwise go to waste.
 - ◆ This helps in reducing the environmental impact associated with the disposal of such waste materials.

METTUKURINJI (STROBILANTHES SESSILIS)

The Mettukurinji plants of the Western Ghats require conservation efforts due to their declining population.

About:

- Mettukurinji, also known as **Topli Karvy**, is an endemic plant species belonging to the Acanthaceae family.
 - ◆ This family includes around **450 species** that are native to the wet tropical biomes of Asia and Madagascar.
- Mettukurinji is particularly significant due to its restricted geographical distribution and unique flowering pattern.
- The plant is found exclusively in the northern periphery of the Western Ghats, one of India's most biodiverse regions.



- **Flowering Cycle:**
 - ◆ The plant flowers every **seven years**, creating a striking visual spectacle in the Western Ghats.
 - ◆ The flowers bear a close resemblance to the **Neelakurinji**, another famous plant of the Western Ghats that blooms once every **14 years**.
 - ◆ These flowers, with their captivating shades of **purple, lavender, and blue**, not only add to the region's natural beauty but also attract tourists from far and wide.

COMPARISON WITH NEELAKURINJI

While both species appear almost identical to the naked eye, there are key differences that distinguish them:

- **Leaf Stalks:** Mettukurinji lacks leaf stalks, unlike Neelakurinji.
 - **Flower Arrangement:** Mettukurinji features flowers arranged in spikes, with long hairs between the leaf base and stem.
 - **Petal Positioning:** The petals of Mettukurinji are flaring, differentiating it from Neelakurinji
-
- **Biodiversity Significance**
 - ◆ India is a global hotspot for the diversity of **Strobilanthes**, a genus to which Mettukurinji belongs.
 - ◆ The country hosts over **160 species** of Strobilanthes, with **72 species** endemic to the Sahyadris (Western Ghats).
 - ◆ This rich diversity underscores the ecological importance of the region and highlights the need for conservation efforts to protect these unique species.
 - **Pharmacological Potential:**
 - ◆ Although the leaves of this species are toxic and unfit for human consumption, they have been used by local **Adivasi communities** for treating inflammatory disorders.
 - ◆ Scientific studies have explored the extraction of anti-inflammatory oils from the roots and flowering tips, which possess antifungal properties.
 - ◆ Additionally, a biologically significant flavoring agent known as **endo fenchyl acetate** has been extracted, which is expected to become a valuable product in the cosmetics industry.
 - **Threats to Mettukurinji:**
 - ◆ **Monocarpic:**
 - ◆ Mettukurinji is a monocarpic plant, meaning it flowers once in its lifetime and then dies.
 - ◆ This trait, combined with the plant's sensitivity to changes in rainfall and temperature, makes it vulnerable to environmental fluctuations.
 - ◆ **Landslides and Floods:**
 - ◆ The Western Ghats are prone to frequent landslides and floods, which threaten the grasslands where Mettukurinji grows.
 - ◆ These natural disasters can lead to the depletion of Mettukurinji populations.
 - ◆ **Human Interference:**
 - ◆ The practice of plucking flower bunches by visitors has also contributed to the decline in Mettukurinji numbers.
 - ◆ This human interference disrupts the plant's natural life cycle and reduces its chances of successful reproduction.
 - **Conservation Status:** Classified as a **'threatened'** species by the International Union for Conservation of Nature (IUCN).

DEATH DUE TO LIGHTENING

In July, the Odisha government approved a proposal to plant 19 lakh palm trees to ward against the problem of deaths due to lightning strikes.

About:

• Nature of Lightning:

- ♦ Lightning is a sudden electrostatic discharge that occurs during a thunderstorm. This discharge helps balance charged regions in the atmosphere when it strikes an object on the ground.
- ♦ A lightning strike releases approximately 100 million volts of electricity in a fraction of a second, discharging between 1 to 10 billion joules of energy and producing a current of 30,000 to 50,000 amperes.

• Types of Lightning:

- ♦ **Intra-cloud Lightning (IC):** Occurs between electrically charged regions within a single cloud.
- ♦ **Cloud-to-Cloud Lightning (CC):** Occurs between two separate thunderclouds.
- ♦ **Cloud-to-Ground Lightning (CG):** Originates in the thundercloud and terminates on the Earth's surface, although it can also occur in reverse.
 - ♦ CG lightning is the most well-known type, as it often strikes physical objects on the ground, making it easier to measure with instruments.

LIGHTNING INCIDENTS IN ODISHA

- A total of 3,790 people have lost their lives to lightning strikes in the last 11 years, due to the increased frequency of lightning strikes.
- Lightning was declared a **state-specific disaster in Odisha in 2015**.
- Odisha is an eastern coastal state situated in the tropical zone, with its hot, dry climate presenting the perfect blend of conditions for lightning strikes.

Trends:

- Long-term (1998–2014) Tropical Rainfall Measuring Mission (TRMM) satellite-based lightning observations depict the most frequent lightning occurrences along the **Himalayan foothills, the Indo-Gangetic plains and coastal regions**, while the intensity of these lightning strikes is found to be strongest along the **coastal regions and in the Bay of Bengal**.

- The highest number of cloud-to-lightning (CG) strikes occur in **eastern and central India** according to the Annual Lightning Report 2023-2024.

Factors Responsible for Increased Incidents of Lightning in India:

- **Geographic and Climatic Conditions:** Regions with high humidity, such as the eastern states and coastal areas, are more prone to thunderstorms and lightning.
 - ♦ The topography, including the Himalayas and the Western Ghats, also influences the frequency of lightning.
- **Monsoon Dynamics:** The monsoon season, with its intense rainfall and convective activity, is a major driver of lightning in India.
 - ♦ The convergence of moist air masses and the rising of warm, moist air during the monsoon season often lead to the formation of thunderstorms and lightning.
- **Urbanization and Industrialization:** Rapid urbanization and industrialization increase the number of artificial heat sources and aerosols in the atmosphere.
 - ♦ These enhance convection and contribute to more frequent thunderstorms, thus increasing lightning incidents.
- **Impact of Climate Change on Lightning Frequency:**
 - ♦ **Increased Lightning Frequency:**
 - ♦ The rise in lightning strikes during the summer and pre-monsoon periods has prompted scientists to investigate the link between climate change and lightning activity.
 - ♦ Recent research indicates that for every one degree Celsius of long-term global warming, there is a nearly 10 percent increase in lightning activity.
 - ♦ Scientists use various models to confirm that warmer conditions associated with climate change lead to higher water evaporation from bodies of water, which enhances cloud formation at lower altitudes and increases the likelihood of lightning strikes.
 - ♦ **Role of Water Vapor:**
 - ♦ Water vapor, a major natural greenhouse gas, significantly affects Earth's climate.
 - ♦ It absorbs infrared radiation emitted from the Earth's surface, and higher water vapor levels in a warmer climate contribute to further warming.
 - ♦ **Surface Temperature and Lightning:** Studies have shown a strong positive correlation between surface temperature and lightning activity. Higher surface temperatures contribute to increased lightning strikes.

What Causes LIGHTNING?

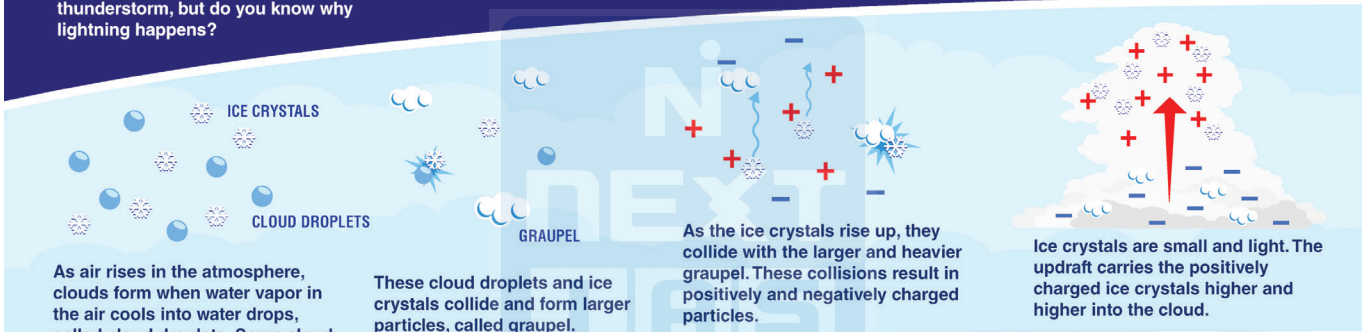


Lightning can be a beautiful—and scary—part of Earth's weather. You probably have seen lightning in a thunderstorm, but do you know why lightning happens?



Lightning comes from electrical charges that build up within a storm cloud.

Thunderstorms form when warm, moist air rises high into the atmosphere. This rising air is called an updraft.



As air rises in the atmosphere, clouds form when water vapor in the air cools into water drops, called cloud droplets. Some cloud droplets freeze into ice crystals.

These cloud droplets and ice crystals collide and form larger particles, called graupel.

As the ice crystals rise up, they collide with the larger and heavier graupel. These collisions result in positively and negatively charged particles.

Ice crystals are small and light. The updraft carries the positively charged ice crystals higher and higher into the cloud.

THUNDERSTORM CLOUD



CLOUD TO GROUND LIGHTNING



The thunderstorm cloud is mostly negatively charged, which causes a mostly positive charge to form on the ground.

When these opposite charges become strong enough, there is an electrical discharge—an energy release—in the form of lightning.

Lightning often connects the negative charges in the cloud to positive charges on the ground. This is called cloud-to-ground lightning.

Trees and telephone poles are often the tallest objects on the ground. So, they are closest to the storm cloud and the first thing in the path of lightning.

- **Agricultural Practices:** The burning of agricultural residues and deforestation can contribute to the accumulation of particulates in the atmosphere. These particulates affect cloud formation and increase the likelihood of thunderstorms and lightning.

Conclusion:

- While Odisha has adopted an early warning system to forecast lightning strikes and disseminates the message through media and social media, critics have pointed out that exact predictions of lightning strikes cannot be done.
- Widespread public awareness of the do's and don'ts around a lightning strike is needed to educate residents in rural areas.

'NATIONAL DISASTER' TAG FOR LANDSLIDE

Recently, Kerala has requested the Union government to declare Wayanad landslide a 'National Disaster' underscoring the urgency of addressing natural calamities and their impact on vulnerable populations.

About:

- There is **no official or defined category** of 'national disasters', however, these are significant events that can cause **widespread damage, loss of life, and disruption to communities**.
- In India, the management of such disasters is overseen by the **National Disaster Management Authority (NDMA)**, a government body responsible for disaster **preparedness, mitigation, response, and recovery**.

NATIONAL DISASTER MANAGEMENT AUTHORITY

- **Nature:** It is an apex body in India for disaster management. It is a statutory body headed by the Prime Minister of India.
- **Mandate:**
 - ♦ Formulates policies, plans, and guidelines related to disaster risk reduction and management.
 - ♦ Publishes annual reports on disaster management efforts across the country.
- Established in 2005 under the Disaster Management Act.

State Disaster Management Authority:

- **Mandate:** Each State Government is required to establish a State Disaster Management Authority (SDMA) following the issuance of a notification under Section 3(1) of the Act.
- **Composition:**
 - ♦ **Members:** The SDMA will be composed of a Chairperson and up to nine other members as prescribed by the State Government. The standard composition includes:
 - ♦ **Chairperson:** The Chief Minister of the State, serving ex officio.
 - ♦ **Additional Members:** Up to eight members nominated by the Chairperson of the SDMA.
 - ♦ **State Executive Committee Chairperson:** Serving ex officio as a member.
- **Vice-Chairperson:** The Chairperson of the SDMA may appoint one of the nominated members as the Vice-Chairperson.
- **Chief Executive Officer:** The Chairperson of the State Executive Committee will also serve as the Chief Executive Officer of the SDMA.

TYPES OF HAZARDS

Natural Hazards:

- **Cyclone:**
 - ♦ Cyclones are atmospheric disturbances characterized by intense and often destructive air circulation around a low-pressure area.

- ♦ They usually bring violent storms and adverse weather conditions. In the Northern Hemisphere, cyclones circulate counterclockwise, while in the Southern Hemisphere, they circulate clockwise.
- ♦ The term "cyclone" is derived from the Greek word **cyclos**, meaning coils of a snake, a reference to the coiled appearance of tropical storms in the Bay of Bengal and the Arabian Sea.

- **Tsunami:**

- ♦ Tsunamis are large ocean waves caused by the displacement of water, often due to seismic activity such as earthquakes.
- ♦ The Earth's lithosphere is divided into tectonic plates, and their movement can lead to vertical displacements of the sea floor, creating tsunamis.
- ♦ The motion of these plates, driven by mantle rock flow and boundary forces, results in stress and friction that can cause sudden vertical shifts, triggering tsunamis.

- **Heat Wave:**

- ♦ A heat wave is a prolonged period of excessively high temperatures, significantly above the normal maximum for the region, typically occurring between March and June in northwestern India, occasionally extending into July.
- ♦ Heat waves cause physiological stress and can lead to health issues or fatalities.

- ♦ **Criteria by IMD:**

- ♦ **Plains:** Heat wave conditions are declared when the maximum temperature reaches 40°C or more with a departure from normal of 5-6°C for heat wave, and 7°C or more for severe heat wave.
- ♦ **Hilly Regions:** Heat wave conditions apply when the maximum temperature reaches 30°C or more with similar departures from normal.
- ♦ **Threshold:** Heat waves are declared when the actual maximum temperature exceeds 45°C, regardless of the normal temperature.

- **Urban Floods:**

- ♦ Urban flooding differs from rural flooding due to increased flood peaks and volumes caused by developed catchments.
- ♦ Urbanization leads to faster runoff and higher flood peaks, often resulting in severe flooding in densely populated areas.

- **Floods:**

- ♦ Floods are a recurring phenomenon in India, impacting over 40 million hectares of land annually.
- ♦ The average annual flood damage has increased over the years due to population growth, rapid urbanization, and climate change.

- ◆ In the last decade, floods have affected approximately 75 lakh hectares of land, causing around 1600 deaths and substantial economic losses.
- **Earthquake:**
 - ◆ Earthquakes are caused by the sudden release of accumulated stress from moving tectonic plates.
 - ◆ These violent ground shakes result from the friction and stress at plate boundaries.
 - ◆ The Earth's crust, consisting of several major and minor plates, moves slowly and continuously, causing seismic activity and potential damage in populated areas.

Man Made Hazard:

- **Chemical Disaster:**
 - ◆ Chemical disasters involve the accidental release of hazardous chemicals, leading to severe health, environmental, and property damage.
 - ◆ India's worst chemical disaster, the Bhopal Gas Tragedy in 1984, resulted in thousands of deaths due to the release of methyl isocyanate gas.
- **Nuclear and Radiological Emergency:**
 - ◆ These emergencies involve incidents at nuclear facilities or during the use of radioactive materials, potentially leading to significant harm to people and the environment.
 - ◆ Such emergencies can arise from plant accidents, improper handling of radioactive materials, or malicious activities.
- **Biological Disaster:**
 - ◆ Biological disasters are caused by exposure to pathogens, toxins, or bioactive substances, leading to health impacts, property damage, and social disruption.
 - ◆ Examples include epidemics (e.g., cholera, plague) and pandemics (e.g., influenza H1N1). These disasters can cause widespread illness, disrupt services, and impact economies.

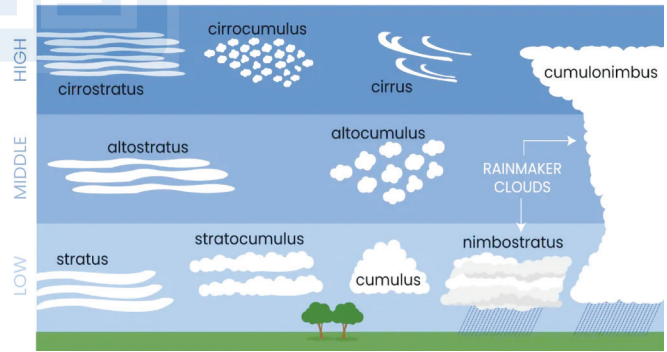
- The **Disaster Management Division** of the **Ministry of Home Affairs** will provide support and monitor the utilisation of funds.
 - ◆ A **Calamity Relief Fund (CRF)** is set up, with the corpus shared **3: 1 between Centre and State**.
 - ◆ When resources in the CRF are inadequate, additional assistance is considered from the **National Calamity Contingency Fund (NCCF)**, funded **100% by the Centre**.
- The annual Central contribution is released in two equal installments as per the recommendation of the Finance Commission.

PYROCUMULONIMBUS CLOUDS

Wildfires in the U.S. and Canada have become so intense that they are generating 'pyrocumulonimbus' clouds, which can produce thunderstorms and ignite additional fires.

About:

- They are formed from extremely hot wildfires or volcanic eruptions.
 - ◆ Rising global temperatures may lead to more intense and frequent wildfires, which could increase the occurrence of pyrocumulonimbus clouds.
- **Process:** Intense heat from the fire warms surrounding air, which then rises, expands, and cools. Water vapour condenses on ash to form a pyrocumulonimbus cloud.



Role of State and Centre:

- One of NDMA's **annual reports highlights 'the state government is primarily responsible for undertaking rescue, relief and rehabilitation measures in the event of a disaster'**. But these can be supplemented with Central Assistance.
- In the event of a **calamity of a severe nature**, where the requirement of funds for relief operations is beyond the funds available in the **State's Disaster Response Fund (SDRF)** account, additional Central assistance is provided from the National Disaster Response Fund, after following the laid down procedure.

- ◆ With enough water vapor and intense upward movement, these clouds can develop into pyrocumulonimbus clouds, reaching up to 50,000 feet and creating their own thunderstorms.
- **Impact:** They can produce lightning, they do not generate much rain.
 - ◆ They can spark new wildfires far from the main blaze and trigger strong winds that spread fires quickly.
- **Data:** Before 2023, about 102 pyrocumulonimbus clouds were recorded globally per year, with 50 in Canada.
 - ◆ In 2023, 140 pyrocumulonimbus clouds were recorded in Canada alone.

TYPE OF CLOUDS

- Clouds are visible collections of tiny water droplets or ice crystals suspended in the Earth's atmosphere. They develop when air becomes saturated with water vapor.
- Since warm air can hold more water vapor than cold air, cooling an air mass is akin to squeezing out moisture from a sponge. Clouds form as this cooler, moist air condenses.

High Altitude:

- **Cirrocumulus:** Puffy, patchy clouds with small spaces between them, often forming wave-like patterns.
- **Cirrostratus:** Light gray or white clouds that are thin and often cover much of the sky, allowing the Sun or Moon to be seen through them.
- **Cirrus:** Thin, wispy, and feathery clouds composed of ice crystals.

Middle Altitude:

- **Alto cumulus:** Puffy, patchy clouds with spaces between them.
- **Altostratus:** Light gray clouds that are generally uniform and cover most of the sky.

Low Altitude:

- **Nimbostratus:** Dark gray clouds that cover low and middle altitudes, with precipitation falling from them. The bases are diffuse and hard to determine due to falling precipitation.
- **Cumulus:** Puffy clouds that look like cotton balls, popcorn, or cauliflower.
- **Stratus:** Light or dark gray clouds that are generally uniform and cover most of the sky. Fog is considered a stratus cloud.
- **Stratocumulus:** Irregular masses of clouds that can appear rolling or puffy, sometimes with spaces between them.
- **Cumulonimbus:** Large clouds with dark bases and tall, billowing towers, often with well-defined edges or an anvil shape at the top. These clouds can obscure precipitation and are associated with thunder.

- It also shares a short border with Zambia to the north.
- The country is largely covered by the Kalahari Desert, which dominates much of its landscape.
- **Major Rivers:** Significant rivers include the **Limpopo**, **Okavango**, and **Shashe** with the Molopo River creating a geographical border between South Africa and Botswana.



Capital and Major Cities:

- The capital city is Gaborone, located in the southeastern part of the country.
- Other major cities include Francistown, Maun, and Lobatse.

Economy:

- Botswana's economy is one of the most stable in Africa and is heavily dependent on diamond mining.
- It is one of the world's largest producers of diamonds by value.
- **Jwaneng Mine:** The world's richest diamond mine by value, Jwaneng, is an open-pit mine situated about 160 miles southwest of Gaborone, Botswana's capital.
- The name "Jwaneng" means "a place of small stones."

Location and Production:

- Located on the edge of the Kalahari Desert, the mine focuses on three primary kimberlite pipes and a smaller satellite deposit.
- In 2019, Jwaneng produced 12.5 million carats, underscoring its significance in the global diamond market.

BOTSWANA DISCOVERED THE WORLD'S SECOND LARGEST DIAMOND

Recently, the world's second-largest diamond, weighing 2,492 carats, was discovered in Botswana at a mine owned by the Canadian company Lucara Diamond.

About:

- **Geography:**
 - Botswana is bordered by South Africa to the south and southeast, Namibia to the west and north, and Zimbabwe to the northeast.

MASS WASTING OF SEDONGPU GULLY OF TIBETAN PLATEAU

Environmental scientists have raised concerns in a recent study regarding the high frequency of mass wasting events occurring in the Sedongpu Gully of the Tibetan Plateau since 2017.

About:

- **Definition:**
 - It refers to the downward and outward movement of slope-forming material under the influence of gravity.

- ◆ This process involves a range of rates and mechanisms, affecting materials from fine clay to massive rock beds.
- ◆ It can lead to outcomes ranging from minor events to large-scale disasters and contributes to the formation of various landforms.
- **Causes of Mass Wasting**
 - ◆ **Passive Causes:**
 - ◆ **Lithogenic:** Involves unconsolidated, weak, or slippery materials.
 - ◆ **Stratigraphic:** Related to thin-bedded formations and alternating layers of weak and strong rocks.
 - ◆ **Structural:** Involves features like dense joints, faults, or steeply dipping beds.
 - ◆ **Topographic:** Pertains to vertical or steep slopes.
 - ◆ **Climatic:** Includes factors such as large annual and diurnal temperature ranges, freeze-thaw cycles, and heavy rainfall.
 - ◆ **Organic:** Associated with the scarcity of vegetation.
 - ◆ **Active Causes:**
 - ◆ **Removal of Support:** Caused by human activity or erosion at the base of the slope.
 - ◆ **Oversteepening of Slope:** Results from activities like redistribution of soil by surface runoff.
 - ◆ **Overloading of Regolith:** Involves the addition of snow, ice, water, or man-made structures on slopes.
- **Types of Mass Wasting:**
 - ◆ **Solifluction:**
 - ◆ Also known as 'soil flow,' this is a subtype of flow movement.
 - ◆ It occurs when the surface is covered with water-saturated regolith.
 - ◆ Increased water content turns the soil into a soggy mass, reducing its cohesive strength and friction, allowing gravity to move the weathered layer down the slope.
 - ◆ **Conditions:** Requires an impervious sub-surface layer and sufficient soil moisture. It can occur in both warm and cold climates:
 - ◆ **Warm Regions:** Moisture is provided by precipitation or surface runoff, with an impervious layer possibly being a bed of slate, schist, or other hard rock.
 - ◆ **Cold Regions:** Moisture comes from meltwater during spring when surface snow and ice melt. The impervious sub-surface layer is usually permafrost, which remains frozen.
- **Soil Creep:**
 - ◆ This type of mass wasting is widespread and occurs on almost all surfaces.
 - ◆ It requires minimal slope steepness and can involve any type of debris. It does not need moisture and can happen in all climates.

- **Mud Flow and Earth Flow:**

- ◆ **Mud Flow:**

- ◆ Involves large-scale, channelized movement of water and debris.
- ◆ Typically occurs in valleys and is rapid. Arid regions are particularly prone to mud flows due to seasonal streams and infrequent but intense rainfall.
- ◆ The absence of vegetation supports this process.

- ◆ **Earth Flow:**

- ◆ Similar to mud flow but happens on any surface in a more localized manner.
- ◆ It is less channelized compared to mud flows and can occur in various climatic conditions.

Sedongpu Gully

- **Location:** Sedongpu Gully is situated in the catchment area of the Sedongpu Glacier in Tibet.
- ◆ **Gully Definition:** A landform created by erosion from running water, mass movement, or both.
- **Drainage and Geography:**
 - ◆ **Drainage:** The gully drains into the Yarlung Zangbo (Tsangpo) River, which takes a sharp turn known as the Great Bend.
 - ◆ **Great Bend:** Located near Tibet's border with Arunachal Pradesh, where the Tsangpo River becomes the Siang River.
 - ◆ **Further Flow:** The Siang River merges with the Dibang and Lohit rivers in Assam to form the Brahmaputra, which flows as the Jamuna in Bangladesh.
- **Geological Features:**
 - ◆ **Gorge:** The Great Bend creates a gorge that is 505 km long and 6,009 meters deep, making it one of the deepest gorges on Earth.
 - ◆ **Sedongpu Basin:**
 - ◆ Composed mainly of Proterozoic marble (2.5 billion to 541 million years old).
 - ◆ The land surface temperature in this area has ranged from -5° to -15° C, rarely exceeding 0° C before 2012.

PLACES IN NEWS

MOUNT KILIMANJARO

An expedition team from the Ministry of Defence, led by 'Divyang' Uday Kumar, made history by hoisting the largest Indian flag atop Mount Kilimanjaro.

About:

- It is a dormant volcano situated in Tanzania, East Africa.
- It holds the title of the highest peak (5,895 meters) in Africa.

- The mountain is also the **world's tallest freestanding mountain**, meaning it is not part of a mountain range.
- Kilimanjaro is composed of three distinct volcanic cones: **Shira, Kibo, and Mawenzi**.
 - ♦ Kibo is the highest and houses the summit, Uhuru Peak.
- It is a part of UNESCO's World Heritage Site '**Kilimanjaro National Park**'.

ST MARTIN'S ISLAND

Recently, St Martin's Island of Bangladesh was in controversy after the resignation of Former Bangladesh Prime Minister Sheikh Hasina.

About:

- **Location and Geography:** The island is located in the northeastern region of the Bay of Bengal, close to the border between Bangladesh and Myanmar.
 - ♦ It is about nine kilometres away from the **southern tip of Bangladesh's Cox's Bazar-Teknaf peninsula**.
- The 7.3 km long island is **mostly flat** and sits at an **elevation of 3.6 metres** above the mean sea level.
- It is **Bangladesh's only coral island** — there are reefs from 10-15 km to the west-northwest — and is also a **breeding ground for sea turtles**.



Historical Background:

- The island was once part of the **Teknaf peninsula (around 5,000 years ago)** but gradually got submerged into the sea.
- Around 450 years ago, the southern suburbs of present-day St Martin's Island resurfaced.
- The **Arab merchants** were among the **first ones to settle on the island** in the 18th Century.
 - ♦ The merchants initially named the island '**Jazira**' (meaning '**the island**' or '**the peninsula**') and later **changed it to 'Narikel Jinjira**' or '**Coconut Island**'.

- **In 1900**, British India annexed the island **during a land survey**. By then, the island came to be known as **St Martin's Island**, named after then Deputy Commissioner of Chittagong Martin.

Strategic Importance of St. Martin's Island:

- **Location and Maritime Control:** St. Martin's Island's position is crucial for controlling maritime traffic and monitoring activities in the Bay of Bengal.
- **Critical Factors:**
 - ♦ **Vital Sea Lanes:** The island is situated near important sea lanes vital for global trade.
 - ♦ **Natural Resources:** The region is rich in natural resources.
 - ♦ **Gateway to the Indian Ocean:** It serves as a gateway to the Indian Ocean, enhancing its strategic value for naval operations and dominance.
- **Geopolitical Context:**
 - ♦ **Strategic Hotspot:** The Bay of Bengal is becoming increasingly strategic due to China's growing influence in the region.
 - ♦ **Global Interest:** As China expands its naval presence, other nations, including the United States and India, are focused on monitoring and balancing this influence.
 - ♦ **Surveillance and Advantage:** Control over St. Martin's Island offers significant advantages in maintaining surveillance over the Bay of Bengal and the Indian Ocean.

GUAM ISLAND

INS Shivalik recently arrived at Guam for an Operational Turnaround after successfully completing the world's largest Multinational Maritime Exercise, RIMPAC 2024.

About:

- **Location:**
 - ♦ **Geographic Position:**
 - ♦ Guam is an island territory located in the North Pacific Ocean.
 - ♦ It is one of the territories of the United States of America, making it a strategic point in the Pacific region.
 - ♦ **Largest and Southernmost Island:**
 - ♦ Guam is the largest and southernmost island in the Mariana Islands archipelago.
 - ♦ It is also the most populous island in the group, serving as a significant hub for both military and civilian activities in the Pacific.
- **Capital:** Hagatna
 - ♦ The capital city of Guam is Hagatna, also known as Agaña.
 - ♦ This city serves as the administrative and cultural center of the island, housing the government institutions and historical landmarks of Guam.

- **History:**
 - ♦ **Spanish Possession and American Acquisition:**
 - ♦ Guam was under Spanish rule until 1898.
 - ♦ During the Spanish-American War, the island was ceded to the United States, marking a significant change in its political status and aligning it closely with American governance and military strategy in the Pacific.
 - ♦ **Native Population: Chamorros**
 - ♦ The native inhabitants of Guam are known as Chamorros.
 - ♦ They are of Malayo-Indonesian descent, and over centuries, their population has seen a considerable mix of ethnicities, including Spanish, Filipino, Mexican, and other European and Asian ancestries.

- **Theme:**
 - ♦ The exercise operates under the theme "**Partners: Integrated and Prepared**" and runs until August 1, 2024.
 - ♦ This theme underscores the importance of unity and preparedness in addressing maritime challenges.

GUMTI RIVER

The government has dismissed recent claims that the floods in Bangladesh's eastern districts were triggered by the release of water from the Dumbur dam on Gumti River in Tripura.



About:

- **Geographical Location:** The Gumti basin is situated in the lower middle part of Tripura, a state in northeastern India.
- **Boundaries:** The Gumti basin is flanked by Bangladesh on both its eastern and western sides, making it a crucial geographical feature with international significance.
- **Catchment Area:**
 - ♦ **Size:** The Gumti river's catchment area within the Indian Union spans approximately 2,492 km², making it the largest river basin in Tripura.
 - ♦ **Distribution:**
 - ♦ Out of the total catchment area, 1,921 km² is located in hilly regions, while the remaining 571 km² (about 22.9% of the total area) lies in the plains.
 - ♦ This distribution highlights the river's role in both the hilly terrains and the more fertile plains of Tripura.
- **Course of the River:**
 - ♦ After descending from the hills into the plains, the Gumti river flows generally in a west and south-west direction.
 - ♦ It eventually crosses into Bangladesh at Sonamura, located on the Indo-Bangladesh border.
 - ♦ The total length of the Gumti river from its origin to the Indo-Bangladesh border is approximately 167.4 km.
 - ♦ Beyond this point, the river continues to flow through the plains of Bangladesh, eventually merging with the Meghna river system near Daudkandi.

Exercise Rim of the Pacific (RIMPAC) 2024:

- **Overview:**
 - ♦ **Location:** The exercise is recognized as the world's largest international maritime exercise and was being held in Hawaii.
 - ♦ **Objective:**
 - ♦ RIMPAC (Rim of the Pacific Exercise) is designed to enhance interoperability and build trust among the navies of friendly foreign countries.
 - ♦ The exercise focuses on fostering collaboration and improving coordination in multi-dimensional naval operations.

- **Dumbur Dam:**
 - ♦ The Dumbur dam, a low-height structure standing about 30 meters tall, is located more than 120 km upstream from the Bangladesh border.
 - ♦ It plays a crucial role in power generation, contributing electricity to a grid that supplies both Tripura and Bangladesh.
 - ♦ Specifically, Bangladesh draws 40 MW of power from this grid, underscoring the dam's importance in regional energy cooperation.

GAURAV LRGB

The Defence Research and Development Organisation (DRDO) conducted the maiden flight test of the Long Range Glide Bomb (LRGB), named GAURAV.

About:

- The test was carried out from a Su-30 MK-I aircraft of the Indian Air Force (IAF) off the coast of Odisha.
- GAURAV is a 1,000 kg class air-launched glide bomb. It is designed for long-distance targeting. It uses a hybrid navigation system combining Inertial Navigation System (INS) and GPS for accurate targeting.
- It is a significant milestone in developing indigenous defence technologies.

Significance of LRGB:

- **Extended Range Capability:** LRGBs enable aircraft to engage targets at significant distances without entering heavily defended airspace, thereby reducing the risk to pilots and aircraft.
- **Precision Targeting:** Equipped with advanced guidance systems, LRGBs offer high accuracy in striking designated targets, minimizing collateral damage and enhancing mission success.
- **Versatility in Payloads:** LRGBs can carry various types of warheads, making them adaptable for different mission requirements, including anti-infrastructure, anti-personnel, and anti-armor operations.
- **Strategic Strike Option:** LRGBs provide a critical capability for conducting strategic strikes against high-value targets, such as enemy command centers, airfields, and supply depots, contributing to the overall deterrence posture.
- **Cost-Effective Solution:** Compared to other long-range strike options like cruise missiles, LRGBs offer a more cost-effective solution for delivering precision-guided munitions over extended ranges, making them a valuable asset in a military's arsenal.

54TH FOUNDATION DAY OF BPR&D

Recently, the Union Home Minister attended the 54th Foundation Day celebration of the Bureau of Police Research and Development (BPR&D) in New Delhi.

Bureau of Police Research and Development (BPR&D):

• About:

- ♦ It was established **formally in 1970** and replaced the **Police Research Advisory Council** which was formed in 1966. It operates under the **Ministry of Home Affairs**.
- ♦ It envisions **transforming Indian police forces into SMART (Strategic, Modern, Agile, Responsive, and Technologically equipped)** forces capable of meeting the challenges of policing and internal security effectively.

• Mission and Vision:

- ♦ To promote systematic and rapid research on police and prison-related issues in a dynamic and evolving society.
- ♦ To apply scientific and technological advancements to enhance policing methods and techniques across the country.

• Key Functions and Divisions:

- ♦ **Training and Modernization Division:** This division formulates quality standards for police training and focuses on capacity building.
 - ♦ It ensures that law enforcement personnel receive the necessary intellectual, material, and organisational resources to excel in their roles.
 - ♦ The **Gore-Committee (1971)** studied the training aspects of police and gave several recommendations.
 - ♦ The Government created a **Training Division (1973)** in addition to the two divisions already existing to function under the Bureau.
 - ♦ It actively engages with training initiatives, including **iGOT (Integrated Government Online Training)**, which provides online training to government employees.
- ♦ **Special Project Division:** It specialises in critical areas such as internet security, human trafficking, gender issues, and problems faced by senior citizens. It also publishes valuable research in policing and administration.
- ♦ **Research and Correctional Administration Division:** Responsible for conducting research in key policing areas, this division contributes to evidence-based policy formulation and correctional practices.

Significance:

- **Advancing Police Effectiveness:** BPR&D enhances police effectiveness by conducting research and applying technological advancements, ensuring law enforcement is equipped to tackle evolving challenges.

- **Promoting SMART Policing:** BPR&D's vision of SMART (Strategic, Modern, Agile, Responsive, technologically equipped) policing modernizes Indian forces, aligning them with global best practices.
- **Building Capacity and Training:** The Bureau's Training Division ensures continuous capacity building through quality standards and initiatives like iGOT, preparing officers to excel in their roles.
- **Addressing Emerging Security Issues:** The Special Project Division tackles critical issues like internet security, human trafficking, and gender concerns, adapting policing to societal changes.
- **Supporting Evidence-Based Policies:** BPR&D's research contributes to data-driven policy-making, improving policing and correctional practices across India.

BILATERAL EXERCISES

The joint military exercises with friendly countries results in constructive engagements in operational terms and enhances the skills of our armed forces in a number of diverse areas of war-fighting by operating with armed forces of various nations. In this process the current tactical and technological practices / techniques etc., are exchanged during such exercises.

Exercise	Exercise Udara Shakti	Exercise Mitra Shakti	Exercise Tarang Shakti
Context	IAF contingent returned to India after successful participation in 2024.	The 10th edition commenced at Army Training School, Maduru Oya, Sri Lanka.	The first phase commenced on August 6, and continued till August 14.
Collaborating Nations	India and Malaysia	India and Sri Lanka	Multiple nations including France, Germany, Spain, UK, Australia, Bangladesh, Greece, Singapore, UAE, and USA.
Conducting Forces	Indian Air Force (IAF) and Royal Malaysian Air Force (RMAF)	Indian Army and Sri Lankan Army	Indian Air Force (IAF) with participation from various international air forces.
Location	Kuantan, Malaysia	Army Training School, Maduru Oya, Sri Lanka	Phase 1: Suler, Tamil Nadu; Phase 2: Jodhpur, Rajasthan.
Primary Focus	Bolstering operational efficiency and enhancing technical expertise.	Enhancing joint military capability for counter-insurgency operations under Chapter VII of the UN Mandate.	Showcasing India's defense capabilities and enhancing cooperation among participating militaries.

Significance of Bilateral Exercises:

- **Enhancing Interoperability:** Bilateral exercises allow armed forces from different countries to train together, improving their ability to operate jointly in various scenarios, which is crucial for coalition operations and peacekeeping missions.
- **Strengthening Diplomatic Relations:** These exercises foster closer ties between participating nations, enhancing mutual trust and understanding, and reinforcing diplomatic relations through defense cooperation.
- **Capacity Building:** Participating countries benefit from the exchange of knowledge, tactics, and best practices, leading to improved capabilities and modernization of their military forces.
- **Deterrence:** Regular bilateral exercises send a strong message of solidarity and readiness, serving as a deterrent against potential threats by demonstrating a united front and enhanced military capabilities.
- **Crisis Management:** By simulating real-world scenarios, bilateral exercises prepare military forces to respond effectively to crises, natural disasters, or conflicts, enhancing overall readiness and responsiveness.

WHO DECLARES Mpox AS PUBLIC HEALTH EMERGENCY

The World Health Organization (WHO) declared mpox a "Public Health Emergency of International Concern" (PHEIC). This is the second PHEIC for mpox in two years.

About:

- Mpox is caused by the monkeypox virus (MPXV), an enveloped double-stranded DNA virus belonging to the Orthopoxvirus genus. There are two genetic clades of MPXV: clade I and clade II.
- **Origin and History**
 - ♦ **Discovery:** The monkeypox virus was first identified in monkeys in Denmark in 1958.
 - ♦ **First Human Case:** The initial human case was reported in 1970 in a nine-month-old boy from the Democratic Republic of the Congo.
 - ♦ **Geographical Emergence:** Mpox initially emerged in central, east, and west Africa. A global outbreak occurred between 2022 and 2023.
- **Transmission:** Mpox spreads through:
 - ♦ **Physical Contact:** Direct contact with an infected person.
 - ♦ **Contaminated Materials:** Contact with materials contaminated by the virus.
 - ♦ **Infected Animals:** Exposure to animals that carry the virus.
- **Vaccination and Funding:**
 - ♦ **Vaccines:** There are two vaccines available for mpox, which are recommended by the WHO's Strategic Advisory Group of Experts on Immunization and approved by various national health authorities.
 - ♦ **Funding Needs:** An initial funding requirement of \$15 million is needed for surveillance, preparedness, and response.
 - ♦ **WHO Funding:** The WHO has allocated \$1.45 million from its Contingency Fund for Emergencies, with the possibility of additional funds as needed.

PHEIC

- A PHEIC is an extraordinary event posing a public health risk through international disease spread and requiring coordinated international response.
- It is serious, sudden, unusual, unexpected, and has implications beyond the affected state's borders.

EXTREMOPHILE

Recently scientists found bacterial communities, known as Extremophiles, living in microwave ovens that survive repeated rounds of radiation.

About:

- Microbes that **live in extreme natural conditions** are called extremophiles.
- Microbes **adapt to extreme environments** by incorporating unique biological and biochemical processes.

Survival Mechanism:

- Researchers believe that life began on the earth in an extreme environmental niche, in the form of an extremophile, before spreading and adapting to more temperate ecosystems.
- Extremophile microbes have **multiple sets of proteins**, each customized for life in a specific environmental niche.
- They activate each set depending on the conditions around them and what they need to survive.

VIGYAN DHARA

The Union Cabinet approved continuation of the three umbrella schemes, merged into a unified central sector scheme namely 'Vigyan Dhara' of Department of Science and Technology (DST).

Objectives and Implementation of the Vigyan Dhara Scheme:

- **Focus Areas for Sustainable Growth:** The primary objective of the Vigyan Dhara scheme is to direct scientific efforts towards critical areas essential for India's sustainable growth and development in the coming decades. The scheme aims to address key sectors that are pivotal to the nation's advancement.
- **Strengthening Science and Technology Infrastructure:** The scheme is designed to enhance the country's science and technology infrastructure by establishing well-equipped research and development laboratories within academic institutions.
 - ♦ This will support the creation of robust research environments that foster innovation and scientific progress.
- **Promoting Diverse Research Areas:** Vigyan Dhara seeks to advance research across several critical domains, including:

- ◆ Basic research with access to international mega facilities.
- ◆ Translational research in areas such as sustainable energy and water.
- ◆ Collaborative research through international bilateral and multilateral partnerships.
- **Alignment with National Goals:** All programs under the Vigyan Dhara scheme are aligned with the **Department of Science & Technology's (DST)** five-year goals and contribute towards achieving the **vision of Viksit Bharat 2047**. This alignment ensures that the research initiatives are in line with national development objectives.
- **Integration with ANRF:** The research and development efforts supported by the scheme will be coordinated with the Anusandhan National Research Foundation (ANRF), ensuring consistency and synergy in advancing national research priorities.
- **Educational and Research Opportunities:** The scheme will facilitate internships for students in grades 11 and 12, providing early exposure to scientific research. Additionally, it will offer fellowships for graduate and postgraduate research, fostering the next generation of researchers and scientists.
- **Supporting Industry and Startups:** Targeted efforts will be made to support industries and startups through the scheme. This includes facilitating access to advanced research facilities, funding for innovation projects, and collaboration opportunities.
 - ◆ The goal is to stimulate industrial growth and support entrepreneurial ventures, contributing to a dynamic and competitive technology ecosystem.
- **Expanding Research and Development Opportunities:** The scheme will enhance opportunities for research and development by providing better infrastructure, resources, and funding.
 - ◆ This expansion will enable researchers to undertake more ambitious projects and drive breakthroughs in various scientific and technological fields.
- **Facilitating International Collaboration:** The unified scheme will promote greater international collaboration in research and technology development.
 - ◆ By fostering partnerships with global research institutions and participating in international research initiatives, it will enhance the quality and impact of India's scientific research on the global stage.

Significance:

- **Enhanced Efficiency and Synchronization:** Merging the existing schemes into a unified program aims to improve efficiency in fund utilization and ensure better coordination among various sub-schemes and programs.
 - ◆ This consolidation will streamline administrative processes and reduce redundancy, allowing for more effective implementation and management of resources.
- **Strengthening Human Resources in Science and Technology:** The unified scheme is expected to contribute significantly to building a robust human resource pool, crucial for advancing the country's science and technology sector.
 - ◆ By expanding the research and development base, the scheme will work towards increasing the Full-Time Equivalent (FTE) researcher count, thereby enhancing the overall R&D capacity of the nation.
- **Promoting Gender Parity in Science and Technology:** Focused initiatives will be implemented to boost the participation of women in science and technology fields.
 - ◆ The scheme aims to address gender disparities and work towards achieving gender parity in Science, Technology, and Innovation (STI), fostering a more inclusive and equitable research environment.
- **Encouraging Innovation Across Education Levels:** The scheme will support innovations across various educational stages, from primary and secondary school levels to higher education institutions.
 - ◆ By providing targeted interventions, it will encourage creative and scientific thinking from an early age, fostering a culture of innovation throughout the educational system.

TANAGER-1 SATELLITE

NASA has recently launched the Tanager-1 satellite to track methane emissions.

About:

- The satellite will use **imaging spectrometer technology** to track methane and carbon dioxide emissions.
- It will do so by measuring hundreds of **wavelengths of light** that are reflected by Earth's surface.
 - ◆ Different compounds in the planet's atmosphere — including methane and carbon dioxide — absorb different wavelengths of light, leaving spectral **"fingerprints"** that the imaging spectrometer can identify.
 - ◆ These infrared fingerprints can enable researchers to pinpoint and quantify strong greenhouse gas emissions.

About Methane:

- Methane is one of the **strong greenhouse gases**, and the **second largest contributor to global warming after carbon dioxide**, responsible for 30 percent of global heating since the Industrial Revolution.
- According to the **United Nations Environment Programme**, over a period of 20 years, methane is 80 times more potent at warming than carbon dioxide.
- It also contributes to the **formation of ground-level ozone** that causes around one million premature deaths annually.

VACCINE-DERIVED POLIOVIRUS (VDPV)

Senior Union Health Ministry officials said that the Polio case in Meghalaya is vaccine-derived.

About:

- Vaccine-Derived Poliovirus (VDPV) is a strain related to the weakened live poliovirus in the Oral Polio Vaccine (OPV).
 - ♦ If VDPV circulates in under- or unimmunized populations or replicates in an immunodeficient person, it can revert to a form that causes illness and paralysis.
 - ♦ VDPVs arise in under-immunized populations where the weakened virus from OPV can spread and mutate.

Polio:

- It is a highly infectious disease mainly affecting children under five, causing permanent paralysis in about 1 in 200 infections or death in 5-10% of those paralyzed.
- **Transmission:** The virus spreads from person-to-person primarily through the fecal-oral route or occasionally via contaminated water or food.
- **Symptoms:** Initial symptoms include fever, fatigue, headache, vomiting, neck stiffness, and limb pain. Paralysis occurs in a small percentage of cases and is often permanent.
- **Vaccine and Prevention:** There is no cure for polio, but it is preventable through immunization.

QUANTUM NONLOCALITY

New study demonstrated that a universal standard for measuring quantum nonlocality is impossible.

About:

- **Definition:** Quantum nonlocality refers to a unique connection between distant physical objects, where entangled particles can instantaneously influence each other, irrespective of the distance between them. This phenomenon defies the classical notion that information or influence cannot travel faster than the speed of light.
- **Implications for Classical Theories:** Quantum nonlocality challenges the classical principle that no information or influence can propagate faster than the speed of light. It highlights a fundamental difference in how quantum mechanics describes the behavior of entangled particles compared to classical physics.
- **New Discoveries and Potential:** Recent research expands the understanding of quantum nonlocal correlations, revealing new potential applications and deepening the insight into quantum mechanics. This discovery emphasizes the complex and multifaceted nature of quantum nonlocality, showcasing its value as a versatile and significant resource in advancing quantum technologies.

Applications of Quantum Nonlocality

- **Secure Communication:** Quantum nonlocality is pivotal in the development of quantum communication systems. Quantum key distribution (QKD) protocols, such as BB84 and E91, utilize quantum entanglement to ensure that communication is secure from eavesdropping.
 - ♦ The principles of quantum nonlocality guarantee that any attempt to intercept or measure the quantum states alters them, thereby revealing the presence of an eavesdropper and ensuring the integrity of the communication.
- **Random Number Generation:** Quantum nonlocality is used to generate truly random numbers, a critical requirement for various applications, including cryptographic systems and simulations.
 - ♦ Unlike classical random number generators, which can be predictable, quantum random number generators exploit the inherent unpredictability of quantum measurements to produce random sequences with high entropy and no bias.
- **Cryptographic Key Creation:** In addition to QKD, quantum nonlocality plays a role in generating and distributing cryptographic keys. Entangled particles can be used to create shared secret keys between parties, which are crucial for encrypting and decrypting information.
 - ♦ The security of these keys is fundamentally guaranteed by the principles of quantum mechanics, making them resistant to future advances in computational power or cryptographic attacks.
- **Quantum Computing:** Quantum nonlocality also underpins the operation of quantum computers. Quantum entanglement allows quantum bits (qubits) to perform complex computations at speeds unattainable by classical computers.
 - ♦ Quantum algorithms, such as Shor's algorithm for factoring large numbers and Grover's algorithm for database search, leverage entanglement to achieve computational efficiencies.
- **Quantum Networking:** Developments in quantum networking are exploring the use of quantum nonlocality to create a global quantum internet.
 - ♦ This network would allow for the transmission of entangled quantum states over long distances, enabling new forms of secure communication, distributed quantum computing, and enhanced synchronization of quantum systems.
- **Quantum Teleportation:** Quantum nonlocality is fundamental to quantum teleportation, a process where the state of a quantum particle is transferred from one location to another without physically moving the particle itself.
 - ♦ This technique has potential applications in quantum communication and computing, where it could facilitate the transfer of quantum information across a network

GIANT RADIO SOURCES

A team led by Indian radio astronomers have reported the discovery of 34 new Giant Radio Sources (GRSs) using the Giant Metrewave Radio Telescope (GMRT).

About:

- Giant radio sources are massive structures in the universe that **emit huge amounts of radio waves**.
- They are often associated with **active galactic nuclei** and are typically found in the **central regions of large galaxies**.
- Giant radio sources can **span millions of light-years**. They are some of the **largest structures known in the universe**, much larger than most galaxies.
- **Cygnus A**: One of the most well-known giant radio sources, located about 700 million light-years away.
- **3C 295**: Another prominent example, noted for its large and complex radio structure.

Significance of Studying Giant Radio Sources:

- **Galaxy Formation and Evolution**: Giant radio sources offer valuable insights into the early stages of galaxy formation and their subsequent evolution.
 - ♦ They help scientists understand how galaxies grow and change over cosmic time, including the influence of supermassive black holes on their structure.
- **Role of Supermassive Black Holes**: These sources are often linked to Active Galactic Nuclei (AGN) and provide crucial information about the behavior of supermassive black holes.
 - ♦ Studying their energy output and feedback mechanisms helps researchers understand black hole growth and its impact on their host galaxies.
- **Galaxy-Environment Interactions**: Giant radio sources reveal how galaxies interact with their surrounding environments, including the effects on the intergalactic medium.
 - ♦ These interactions offer insights into the dynamics of galaxies and their influence on the broader cosmic environment.
- **Cosmological Insights**: Observations of giant radio sources contribute to mapping large-scale structures of the universe, such as galaxy clusters and superclusters.
 - ♦ They also help test and refine cosmological models, improving our understanding of fundamental cosmic forces like dark matter and dark energy.

AXIOM-4 MISSION

Indian astronauts Group Captain Shubhanshu Shukla and Group Captain Prasanth Balakrishnan Nair have been shortlisted to go to the U.S. to train for the upcoming Axiom-4 mission to the International Space Station (ISS).

About:

- **NASA and Axiom Space** have signed an order for **Axiom Mission 4 (Ax-4)**, a private astronaut mission to the **International Space Station (ISS)**, with a target launch date no earlier than August 2024 from Kennedy Space Center, Florida.
- It is the fourth private astronaut mission to the International Space Station.
- **Purpose**: It is part of NASA's effort to **transition low Earth orbit (LEO) operations** from primarily government-sponsored to commercial, with NASA aiming to become one of many customers in the LEO marketplace.
 - ♦ NASA's goal is to develop a commercial LEO marketplace while focusing on deep space missions like Artemis to the Moon and Mars.

CERAMIC OBJECTS

Humans have been creating and using ceramic objects for over 25,000 years.

About:

- **Ceramic Materials**: Ceramics are produced by heating nonmetallic, inorganic materials to high temperatures. The term "ceramic" originates from the Greek word *keramos*, meaning "potter's clay," reflecting ceramics' historical use in pottery.
- **Ceramography**: It is the scientific study of ceramics' microscopic properties.
- **Discovery**: Archaeologists have unearthed ceramic pottery and figurines from various ancient civilizations, including those in the Indus Valley and Keezhadi in Tamil Nadu.
- **Properties**: Ceramics are known for their ability to endure high temperatures and acidic environments, resist chemical erosion, and exhibit hardness and compressive strength. However, they are also brittle, prone to shattering, and do not handle shear or sliding stress well.

Applications:

- **Aerospace and Space Technology**:
 - ♦ **Heat Shields**: Ceramics are used in heat shields for space shuttles to protect spacecraft from intense heat during atmospheric reentry.
 - ♦ **Thermal Protection Systems**: They are employed in thermal protection systems to safeguard spacecraft components from extreme temperatures.
- **Microwave Technology**: Ceramics are used in microwave furnaces to produce heat, leveraging their ability to withstand high temperatures without degrading.
- **Industrial Applications**:
 - ♦ **Abrasives**: They are utilized in abrasive materials for grinding and cutting due to their hardness and durability.
 - ♦ **Varistors**: Ceramics are key components in varistors, which protect electronic circuits from voltage surges.

- **Electronics:**
 - ♦ **Semiconductors:** Certain ceramics are used in the production of semiconductors, which are essential for various electronic devices.
 - ♦ **Insulators:** They serve as electrical insulators in high-voltage applications, preventing electrical leakage and ensuring safety.
- **Nuclear Technology:** Ceramics are used as nuclear fuel, thanks to their stability and ability to withstand radiation and high temperatures.
- **Defense and Military:**
 - ♦ **Armor:** Advanced ceramics are incorporated into body armor and vehicle armor to provide protection due to their hardness and lightweight properties.
 - ♦ **Fighter Aircraft Windows:** They are used in the windows of fighter aircraft, where their ability to withstand high temperatures and stresses is crucial.
- **Medical Technology:** Ceramics are used in tomographic scanners for imaging purposes, benefiting from their stability and precision.
- **Consumer Products:**
 - ♦ **Pottery and Tableware:** Traditional ceramics, such as pottery and tableware, continue to be used in everyday items due to their aesthetic and functional properties.
 - ♦ **Tiles and Flooring:** Ceramic tiles are widely used for flooring and wall coverings in homes and commercial spaces due to their durability and ease of maintenance.

- ♦ It is supporting developing countries through **technical assistance and capacity building**.
- The key objective is to **improve the capabilities** of national authorities in the **prevention, detection, investigation, and prosecution of cybercrime**.
- Convention includes the **definition of criminal offenses** such as illegal access to information systems, illegal interception, data manipulation, and system interference.
- It **deals with the criminal liability of legal persons**, the seizure and confiscation of the proceeds of crime, and international cooperation in criminal prosecution and the preservation of evidence.

CYBERCRIME

- Cybercrime refers to criminal activities that involve the use of computers, networks, and digital technologies.
- It encompasses a **wide range of illicit activities** conducted in the virtual space, often with the intent to compromise, damage, or gain unauthorized access to computer systems, networks, and data.
- Cybercriminals employ **various techniques and tools** to exploit vulnerabilities in networks, and they may target individuals, organizations, or even governments.

Common types of Cybercrime include:

- **Hacking:** Unauthorized access to computer systems or networks to steal, alter, or destroy data.
- **Phishing:** Deceptive attempts to acquire sensitive information, such as usernames, passwords, and financial details, by posing as a trustworthy entity.
- **Malware:** Malicious software designed to disrupt, damage, or gain unauthorized access to computer systems. This includes viruses, worms, trojans, ransomware, and spyware.
- **Identity Theft:** Stealing and using someone's personal information, such as social security numbers or credit card details, for fraudulent purposes.
- **Cyber Espionage:** Covert activities aimed at gaining unauthorized access to sensitive information for political, economic, or military purposes.
- **Cyberbullying:** Using digital platforms to harass, threaten, or intimidate individuals.
- **Online Fraud:** Engaging in fraudulent activities, such as online scams and financial fraud, to deceive and exploit victims for monetary gain.

Cybercrime in India:

- Chief executive officer of Indian Cyber Crime Coordination Centre (I4C), mentioned that on average **5,000 cyber complaints** are registered in the country every day and around **40-50% originate outside the country**.

UN CONVENTION AGAINST CYBERCRIME

The member states of the United Nations have finalized a new international convention against cybercrime.

About:

- The draft convention is expected to be adopted by the General Assembly later this year, thus becoming the **first global legally binding instrument on cybercrime**.
- **Background:** The road to this convention began more than five years ago when the United Nations recognized the new challenges to international security and criminal law.
 - ♦ The Ad Hoc Committee was established in 2019 and the draft convention was finally finalized in August 2024.

About the Convention:

- **Aim:** To strengthen **international cooperation** in the fight against cybercrime, coordinate law enforcement efforts, and promote technical assistance and capacity building in member states.
- **Tools:** It provides states with a range of tools to effectively combat crimes such as terrorism, drug trafficking, human trafficking, arms smuggling, and other criminal activities facilitated by modern information technologies.

- Most cyber crimes were reported from **Haryana, Telangana, Uttarakhand, Gujarat and Goa**. Among Union Territories, most complaints came from **Delhi**, followed by Chandigarh and Puducherry.

Impact of Cyber Crimes:

- **National Security Threats:** Cyber crimes pose a threat to national security when state-sponsored actors or criminal organizations target critical infrastructure, government institutions, or military systems.
- **Financial Loss:** This includes theft of personal information, online banking fraud, credit card fraud, and ransomware attacks.
- **Data Breaches:** Data breaches can lead to the exposure of personal information, trade secrets, intellectual property, and other confidential data, causing severe damage to the affected entities.
- **Disruption of Services:** Cyber attacks can disrupt essential services such as power grids, communication networks, and transportation systems.

Government Initiatives:

- **Indian Computer Emergency Response Team (CERT-In):** CERT-In is the national nodal agency for responding to cybersecurity incidents.
 - ♦ It provides proactive and reactive cybersecurity support and plays a crucial role in ensuring the security and resilience of the country's cyber infrastructure.
- **National Critical Information Infrastructure Protection Centre (NCIIPC):** It is responsible for protecting critical information infrastructure from cyber threats.
 - ♦ It identifies and designates critical sectors and advises organizations in these sectors on enhancing their cybersecurity measures.
- **Cyber Crime Prevention against Women & Children (CCPWC) scheme:** The Ministry of Home Affairs has provided financial assistance to all the States & UTs under the scheme to support their efforts for setting up of cyber forensic-cum-training laboratories, training, and hiring of junior cyber consultants.
- **Indian Cyber Crime Coordination Centre (I4C):** The Government has established I4C to provide a framework and ecosystem for Law Enforcement Agencies (LEAs) to deal with cyber crimes in a comprehensive and coordinated manner.
- **National Cyber Crime Reporting Portal:** The Government has launched the National Cyber Crime Reporting Portal to enable the public to report incidents pertaining to all types of cyber crimes.
- **Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre):** This initiative is aimed at creating awareness about **botnet and malware infections** and providing **tools for detection and cleaning**.

INTERNATIONAL CONVENTIONS ON CYBER CRIMES

- **Budapest Convention on Cybercrime (Council of Europe Convention on Cybercrime):** Also known as the Budapest Convention, it is the first international treaty specifically addressing crimes committed via the internet and other computer networks.
 - It includes provisions on offenses such as illegal access, data interference, system interference, and content-related crimes.
- **Internet Governance Forum:** The United Nations Internet Governance Forum (IGF) serves to bring people together from various stakeholder groups, as equals, in discussions on digital public policy.
- **African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention):** This convention focuses on cybersecurity and personal data protection on the African continent.
- **Organization of American States (OAS) Cybercrime Convention:** This convention, also known as the "OAS Model Law on Cybercrime," provides a model legal framework for member states to address cybercrime.

Conclusion:

- The UN Convention against Cybercrime is more than just a legal instrument.
- It is a symbol of the need for global cooperation in a world in which digital technologies are becoming increasingly important and at the same time pose new risks and threats.
- The global community now faces the task of putting this Convention into practice and ensuring that it not only helps to combat cybercrime but also protects human rights and freedom in the digital age.

UNESCO KALINGA PRIZE FOR POPULARISATION OF SCIENCE

The Ministry of Science and Technology (DST) has withdrawn its annual contribution to the UNESCO Kalinga Prize. Former Odisha Chief Minister Naveen Patnaik has protested the withdrawal and requested the restoration of support.

About:

- It was established in **1951** following a donation from Mr. Bijoyanand Patnaik, Founder and President of the Kalinga Foundation Trust.
- It is UNESCO's oldest prize.
- The prize winner is selected by UNESCO's Director-General on the recommendation of a five-member jury.
- The award is presented during the World Science Day celebrations in Budapest, alternating with India.

- **Eligibility:** Individuals, institutions, NGOs, or entities making significant contributions to science and technology communication.
- **Donors:** Kalinga Foundation Trust, Government of the State of Orissa, Government of India (Department of Science and Technology).
- **Award:** Cash prize of US\$40,000 and a Kalinga Chair with an additional US\$5,000, UNESCO-Albert Einstein silver medal.
- **Objectives :** It rewards contributions to the popularization of science and technology.
 - ♦ It aims to bridge the gap between science and society.
 - ♦ Includes various forms of media communication in science popularization.
- **Financial Losses:** For e-commerce and online businesses, downtime translates into lost sales and revenue. The longer the disruption, the greater the potential financial impact.
- **Operational Strain:** The IT and security teams may face increased workload during and after an attack, diverting resources from other critical activities and increasing operational strain.
- **System Vulnerabilities:** Prolonged attacks may expose underlying system vulnerabilities, which can be exploited in subsequent attacks or by other malicious actors.
- **Legal and Compliance Issues:** Organizations may face regulatory scrutiny and potential penalties if they fail to comply with data protection and security standards during an attack.

DDoS ATTACK

Elon Musk hosted Donald Trump for a live audio interview on the social media platform X. The interview experienced a delay and glitches due to a suspected "massive DDoS attack."

About:

- A Denial-of-Service (DoS) attack prevents access to a website or online service by overwhelming it with traffic.
- A Distributed Denial-of-Service (DDoS) attack involves multiple sources attacking a single target, making it harder to identify the attackers.
- **How DDoS Attacks Work:** Attackers direct a large volume of traffic to overwhelm a server's bandwidth.
 - ♦ Networks of compromised devices used to execute the attack.
 - ♦ Uses spoofed IP addresses to flood the target's servers with responses.
 - ♦ Sends incomplete connection requests, overloading the server and preventing legitimate connections.
- **Signs:** Slowed internet speed and inability to access online services.
 - ♦ Firewalls and online security systems are best for verification, as internet issues can have other causes.
- **Anti-virus Software:** Advanced antivirus and security solutions can analyze traffic patterns for unusual activity, helping to detect and block potential DoS attacks before they cause significant damage.
- **Automatic Updates:** Regular updates to antivirus software ensure that the latest threat signatures and attack patterns are recognized and mitigated.
- **Firewalls:** Deploying firewalls that can filter out malicious traffic is essential for protecting network infrastructure and mitigating the impact of DoS attacks.
- **Intrusion Detection Systems (IDS):** IDS can monitor network traffic for signs of suspicious activity, providing early warnings of potential attacks.
- **Load Balancing and Redundancy:**
 - ♦ **Load Balancers:** Implementing load balancers can distribute incoming traffic across multiple servers, reducing the impact of high traffic volumes and maintaining service availability.
 - ♦ **Redundant Systems:** Having redundant systems and failover mechanisms ensures that if one system is attacked or fails, others can continue to operate, minimizing downtime.
- **Rate Limiting and Traffic Shaping:** Limiting the number of requests that can be made to a server within a given timeframe helps to prevent overload and mitigate DoS attacks.
- **Cloud-Based Protection Services: Content Delivery Networks (CDNs)** can absorb and mitigate large volumes of traffic, reducing the load on origin servers and maintaining service availability.
- **ISP Coordination:** Collaborating with Internet Service Providers (ISPs) can help in identifying and blocking malicious traffic upstream, preventing it from reaching the target network.
- **Law Enforcement:** Engaging with law enforcement and cybersecurity agencies can aid in investigating and addressing the source of the attacks, as well as in implementing preventive measures.

Impact of DoS Attacks:

- **Service Disruption:** DoS attacks can cause significant downtime for targeted services, affecting their availability for hours or even days. This impacts users who rely on these services and can lead to substantial financial losses for businesses.
- **Operational Interruptions:** Organizations may experience interruptions in their operations, affecting productivity and efficiency.
 - ♦ This can be particularly damaging for critical services such as healthcare, finance, and emergency services.

JUSTICE HEMA COMMITTEE REPORT

Recently, a report by the Justice Hema Committee revealed widespread sexual exploitation and violations of women's rights within the Malayalam film industry.

Background:

- On February 17, 2017, a leading Malayalam film actress was abducted and sexually assaulted in her car by a group of men, an incident that would later implicate a prominent actor.
- This case ignited widespread outrage across Kerala and highlighted the pervasive discrimination faced by women in the Malayalam film industry.
- In response to this incident, the Women in Cinema Collective (WCC) was formed, comprising women actors, producers, directors, and technicians.
- On May 18, 2017, the WCC submitted a petition to the Kerala Chief Minister, calling for an inquiry into the incident and addressing broader gender issues within the state's film industry.
- Following this, in July 2017, the Kerala government established a three-member committee led by **Justice K Hema**, a retired Kerala High Court judge, to investigate issues of sexual harassment and gender inequality in the Malayalam film industry.
- After extensive discussions with multiple women in the industry, the committee submitted its report to the Kerala Chief Minister.

Key Takeaways from the Report:

- **Pervasive Culture of Sexual Harassment:**
 - ♦ The report reveals a deeply ingrained culture of sexual harassment in the Malayalam film industry.
 - ♦ This includes the prevalence of the casting couch, where powerful men demand sexual favors from women in exchange for film opportunities.
 - ♦ The report also highlights the frequent use of suggestive and vulgar comments by men in the workplace and instances where drunk male co-actors force themselves into the rooms of female colleagues.
- **Fear of Retribution:**
 - ♦ The report underscores a significant fear of retribution, which prevents many from reporting sexual harassment.
 - ♦ Justice Hema notes that many women who testified before the committee were too afraid to disclose their experiences, indicating that their fears were well-founded.

- ♦ Beyond direct retaliation, the report also highlights the fear of cyber harassment, particularly from toxic fan clubs, as a tool used to silence women.
- **Dominance of an All-Male "Mafia":**
 - ♦ The report describes an all-male "mafia" of influential actors and producers who exert significant control over the industry, wielding their power with impunity.
 - ♦ The report states that both men and women fear speaking out against this powerful group, as doing so could lead to being "wiped off" the industry by this dominant lobby.
- **Lack of Basic Facilities for Women:**
 - ♦ The report criticizes the industry's failure to provide even basic facilities for women, such as toilets and changing rooms on film sets.
 - ♦ Women staff often have to rely on open spaces or shared bathrooms, leading to health risks like urinary tract infections (UTIs) and hospitalizations.
- **Gender Pay Disparity:**
 - ♦ The report attributes the lack of gender parity in remuneration primarily to the absence of written contracts.
 - ♦ This lack of formal agreements perpetuates unequal pay between men and women in the industry.

WOMEN ENTREPRENEURSHIP PROGRAMME

The National Skill Development Corporation (NSDC) launched the Women Entrepreneurship Programme.

About:

- The initiative aims to empower **25 lakh** women across India, providing them with the skills, knowledge, and resources needed to start and grow successful businesses.
- Divided into two phases, NSDC, with support from the **National Institute for Entrepreneurship and Small Business Development (NIESBUD)**, will offer free online self-learning entrepreneurship courses through the **Skill India Digital Hub (SIDH)** as part of the programme.
- In the next phase, NSDC extends incubation support to 10,000 shortlisted contestants across **100 business models**.

Challenges faced by Women Entrepreneurs in India:

- **Socio-Cultural Barriers:** Women entrepreneurs often face significant socio-cultural obstacles, including gender inequality, societal expectations, and familial responsibilities that impede their entrepreneurial efforts.

- **Financial Constraints:**
 - ♦ Access to capital and financial resources is a major challenge for women entrepreneurs. Limited availability of credit and working capital hampers their ability to grow and sustain their businesses.
 - ♦ For instance, Women constitute only 7% of the outstanding credit to Micro, Small & Medium Enterprises (MSMEs).
- **Marketing and Competition:** Women entrepreneurs frequently encounter difficulties in marketing their products and facing competition from larger, male-dominated enterprises. These challenges are especially common among unregistered and small-scale businesses.
- **Limited Government Support and Awareness:** Despite various government initiatives designed to support women entrepreneurs, many remain unaware of these opportunities. Improved outreach and support mechanisms are needed to bridge this gap and enhance awareness.
- **Glass Ceiling:** The glass ceiling represents the invisible barriers that prevent women from advancing to top positions within their careers. In India's leading companies, this phenomenon is evident, with only 5% of women occupying CEO roles.

Government Initiatives:

- **Skill Upgradation and Mahila Coir Yojana:** Provides two months of coir spinning training for women artisans with a monthly stipend of Rs. 3,000.
- **Mahila Samridhi Yojana:** Offers microfinance with an interest rebate, providing financial assistance up to Rs. 1,40,000 for women.
- **Women Entrepreneurship Platform (WEP):** An aggregator platform offering resources, partnerships, and learning opportunities for women entrepreneurs.
- **Trade Related Entrepreneurship Assistance and Development (TREAD):** Grants up to 30% of the project cost for NGOs to promote women's entrepreneurship, with the remainder financed as a loan.
- **Support to Training and Employment Programme for Women:** Focuses on enhancing employability and providing skills for self-employment and entrepreneurship.
- **Mudra Yojana for Women / Mahila Udhayami Yojana:** Provides loans up to Rs. 10 lakh without collateral, with low interest rates and flexible repayment terms for women-led businesses.
- **Nai Roshni - Scheme for Leadership Development of Minority Women:** Empowers minority women with training on leadership, financial literacy, and other essential skills through NGOs and government institutions.
- **Mahila Shakti Kendra:** Aims to empower rural women through community participation, providing a platform for accessing government benefits and capacity building.
- **BIRAC-TiE WinER Awards:** Offers INR 5 lakhs in seed funding to selected women entrepreneurs, along with mentorship and access to accelerator programs.

- **Credit Guarantee Scheme for Micro and Small Enterprises:** Provides credit facilities at low interest rates for women micro enterprises, including those in the Northeast region.
- **Self Employment Lending Schemes - Mahila Samridhi Yojana:** Offers training for women in craft activities, followed by micro-credit up to INR 1 lakh at a 7% interest rate.

NATIONAL SKILL DEVELOPMENT CORPORATION (NSDC)

- NSDC was established in **2008**, as a not-for-profit public limited company under section 25 of the Companies Act, 1956 (now **section 8 of the Companies Act, 2013**).
- It is a Public Private Partnership (PPP) enterprise working under the **Ministry of Skill Development & Entrepreneurship (MSDE)**, Government of India.
- NSDC aims to **promote skill development by catalyzing creation of large, quality and for-profit vocational institutions.**

DHANGARS OF MAHARASHTRA

Recently, a large group of Dhangars demanded a 'grazing corridor' for their sheep and goats in Maharashtra's Buldhana district.

About:

- The Dhangars are a pastoral community known for their rich cultural heritage and traditional way of life, centered around shepherding.
- They are primarily found in Maharashtra but also reside in neighboring states like Gujarat, Karnataka, and Andhra Pradesh.
- **Historical Grazing Routes:**
 - ♦ For centuries, the Dhangars have followed specific routes for grazing their livestock.
 - ♦ These grazing corridors are not just a means of sustenance; they are integral to the Dhangar way of life, representing a deep connection to their cultural and ancestral practices.
 - ♦ These routes are as much a part of their identity as their language, customs, and traditions.
- **Cultural Identity:**
 - ♦ The paths used by the Dhangars for grazing are more than just geographical routes; they embody the cultural heritage of the community.
 - ♦ The movement of their flocks along these routes is a practice passed down through generations, making it a vital aspect of their cultural preservation.
- **Current Classification:**
 - ♦ In Maharashtra, the Dhangars are currently classified under the Vimukta Jati and Nomadic Tribes (VJNT) category.
 - ♦ This classification offers them certain benefits, but it is not as advantageous as the recognition under the Scheduled Tribe (ST) category.

- **Persistent Advocacy:**
 - ♦ The Dhangar community has been advocating for recognition as a Scheduled Tribe (ST) for several decades.
 - ♦ This pursuit is driven by the desire for greater access to reservation benefits, which they believe would better support their community's economic and social development.
- **Regional Discrepancies:**
 - ♦ Interestingly, in other parts of India, particularly outside Maharashtra, the community is recognized as "Dhangad" and already enjoys the benefits of ST status.
 - ♦ This discrepancy has fueled the Dhangars' ongoing efforts to achieve similar recognition in Maharashtra, as they seek to secure the same rights and opportunities that their counterparts in other states have.

PASMANDA MUSLIM

Recently, All India Pasmanda Muslim Mahaz (AIPMM) and other Muslim groups have demanded inclusion of at least 12 Muslim castes among scheduled castes.

About:

- **Categories of Muslims in India:** Muslims in India are generally categorized into three main groups:
 - ♦ **Ashrafs:** Known as the "noble" elite or the "honourable ones," they are considered to hold a higher social status within the Muslim community.
 - ♦ **Ajlafs:** Referred to as backward Muslims, they belong to socially and economically disadvantaged classes.
 - ♦ **Arzals:** These are the Dalit Muslims, who occupy the lowest rung in the social hierarchy.
- **The Pasmanda Identity:**
 - ♦ The term "Pasmanda," derived from Persian, translates to **"the ones left behind."**
 - ♦ It is used to describe the marginalized and depressed classes among Muslims, highlighting their systematic exclusion and social marginalization.
 - ♦ Over time, "Pasmanda" has evolved into a collective identity that encompasses backward, Dalit, and tribal Muslims, uniting them under a common cause.
- **Historical Context:**
 - ♦ The term "Pasmanda Muslims" was first introduced in 1998 by Ali Anwar Ansari, who founded the Pasmanda Muslim Mahaz.
 - ♦ This organization was established to advocate for the rights of Pasmanda Muslims and to address the social and economic inequalities they face within the larger Muslim community.
- **Challenges Faced by Pasmanda Muslims:**
 - ♦ Despite being numerically dominant within the Muslim community, Pasmanda Muslims remain underrepresented in key areas such as employment, legislative bodies, and government-run minority institutions.
 - ♦ Additionally, they are often excluded from leadership positions in community-run Muslim organizations, which are typically dominated by the Ashraf class.
- **Key Demands of the Pasmanda Community:** Pasmanda Muslims have put forth several demands to address the inequalities they face:
 - ♦ **Caste Census:** They advocate for a comprehensive caste census to accurately capture the social stratification within the Muslim community and to ensure that policies reflect their needs.
 - ♦ **Restructuring of Reservation Categories:** They call for a reorganization of the existing reservation system to better serve the backward, Dalit, and tribal Muslims, ensuring that affirmative action benefits reach the most marginalized.
 - ♦ **State Support for Marginalized Workers:** Pasmanda Muslims also seek greater state support for artisans, craftsmen, and agricultural laborers, many of whom belong to the Pasmanda community, to improve their economic conditions.

INCLUSION CRITERIA

- **Background:**
 - ♦ The **Justice (Retired) KG Balakrishnan Committee** has been examining the potential inclusion of various castes from different religions into the category of Scheduled Castes (SC) based on their social, economic, and educational conditions.
- **Criteria for Inclusion:**
 - ♦ **Scheduled Castes (SCs):**
 - ♦ Communities that experience extreme social, educational, and economic backwardness primarily due to the traditional practice of untouchability are considered for inclusion in the Scheduled Castes category.
 - ♦ This recognition aims to address historical injustices and ensure better representation and support for these communities.
 - ♦ **Scheduled Tribes (STs):**
 - ♦ Presence of primitive traits
 - ♦ A distinctive culture
 - ♦ Geographical isolation
 - ♦ Shyness of contact with the broader community
 - ♦ General backwardness in terms of development and social indicators
 - ♦ **Other Backward Classes (OBCs):** Communities that exhibit social, educational, and economic backwardness, along with inadequate representation in Central Government posts and services, are considered for inclusion in the OBC category.

• **Procedure for Inclusion:**

- ♦ **Scheduled Castes and Scheduled Tribes:** The inclusion of communities in the SC and ST categories is governed by **Articles 341 and 342 of the Indian Constitution**, respectively. The process involves a series of steps:
 - ♦ Proposals for inclusion are submitted by the concerned State Governments or Union Territory Administrations.
 - ♦ These proposals must be agreed upon by the Registrar General of India (RGI) and the National Commission for Scheduled Castes (NCSC) in the case of SCs, or the National Commission for Scheduled Tribes (NCST) for STs.
 - ♦ Once agreed upon, these proposals are processed according to the provisions of Clause (2) of Articles 341 and 342 of the Constitution.
- ♦ **Other Backward Classes:**
 - ♦ The inclusion of communities in the Central List of OBCs is carried out based on the advice of the National Commission for Backward Classes (NCBC), as stipulated in Section (9) of the NCBC Act, 1993.
 - ♦ The process ensures that only communities meeting the specified criteria are included in the list.

- ♦ This empowers workers to control their availability and reduce work-related stress during their personal time.
- ♦ **Employer Communication:**
 - ♦ While employers are not prohibited from reaching out outside of business hours, the policy allows employees to determine when it is reasonable to respond.
 - ♦ This ensures that communication outside of work hours does not infringe upon personal time.
- ♦ **Dispute Resolution:**
 - ♦ Disagreements between employers and employees regarding after-hours communication should be resolved directly between the two parties.
 - ♦ If necessary, the Fair Work Commission (FWC) can mediate disputes.
- **Role of the Fair Work Commission (FWC):**
 - ♦ **Mediation and Enforcement:**
 - ♦ The FWC has the authority to mediate disputes and issue orders related to after-hours communication.
 - ♦ The Commission can direct employers to cease contact after hours or require employees to respond if their refusal is deemed unreasonable.
 - ♦ **Penalties for Noncompliance:** Failure to comply with FWC's orders can result in significant fines. Individuals may face fines up to A\$19,000, while enterprises could incur fines up to A\$94,000.

RIGHT TO DISCONNECT

Recently, Australia introduced a regulation called the "right to disconnect," allowing employees to ignore communications from their employers outside of working hours.

About:

- **Policy Objectives:**
 - ♦ **Reducing Stress:** The policy is designed to alleviate the stress associated with the expectation of being constantly available and responsive to employer communications outside regular working hours.
 - ♦ **Promoting Work-Life Balance:** By allowing employees to ignore communications after work hours, the policy aims to help employees maintain a healthy work-life balance and ensure they have dedicated downtime to recharge.
- **Global Context:**
 - ♦ The Australian government's policy aligns with similar regulations adopted in over 20 countries, primarily in Europe and Latin America.
 - ♦ These regulations recognize the need to set boundaries between work and personal time.
- **Implementation Details:**
 - ♦ **Employee Rights:**
 - ♦ Employees have the option to decline calls or texts from their employers after regular working hours without facing negative consequences.

Implications:

- **Enhancing Work-Life Balance:**
 - ♦ **Purpose:** The right to disconnect is designed to improve work-life balance by ensuring that employees have dedicated time free from work-related communications.
 - ♦ **Employee Well-being:** It acknowledges that employees need time away from work to recharge, thus helping to mitigate stress and burnout associated with constant digital connectivity.
- **Concerns and Considerations:**
 - ♦ **Flexibility Issues:**
 - ♦ There are concerns that rigid boundaries might impact roles requiring constant availability, such as emergency services or certain critical positions.
 - ♦ These roles might face challenges in adhering strictly to disconnection norms.
 - ♦ **Productivity Impact:** Some argue that strict regulations on after-hours communication could potentially hinder business productivity, particularly in a globalized economy where continuous connectivity and quick responses are often essential.
- **Employer Responsibilities:**
 - ♦ **Protecting Well-being:** Advocates emphasize that employers have a duty to protect their employees' well-being by managing the impact of constant digital connectivity. Unchecked connectivity can lead to increased stress and burnout.

- ♦ **Balance with Business Needs:** While protecting employee well-being is crucial, there is a need to balance this with business requirements and operational flexibility.
- **Technology and Cultural Shifts:**
 - ♦ **Evolving Norms:** The right to disconnect reflects changing cultural norms regarding technology use, recognizing that the "always on" mentality is not sustainable for long-term employee health and productivity.
 - ♦ **Tech Design:**
 - ♦ Critics argue that instead of imposing strict regulations, tech companies should focus on designing tools that promote healthy boundaries and support work-life balance.
 - ♦ This approach would align technology use with evolving work norms and help manage connectivity in a more balanced manner.
- **Himachal Pradesh's Role:** Himachal Pradesh is notable for being the first state in India to enact legislation that raises the marriage age of girls to 21.

Key Amendments:

- **Definition of a "Child":**
 - ♦ **Current Law (Section 2(a)):** Defines a "child" as a male who has not completed twenty-one years of age, and a female who has not completed eighteen years of age.
 - ♦ **Proposed Bill:** Removes the gender distinction. Defines a "child" as "a male or female who has not completed twenty-one years of age."
- **Definition of "Child Marriage" (Section 2(b)):**
 - ♦ **Current Law:** Defines "child marriage" as a marriage to which either contracting party is a child.
 - ♦ **Proposed Bill:**
 - ♦ Adds a clause giving the new age requirement overriding effect over any other laws, customs, or practices.
 - ♦ This means the new minimum marriage age will apply universally in Himachal Pradesh, irrespective of other laws or cultural practices.
- **Petition for Annulment of Marriage (Section 3):**
 - ♦ **Current Law:** Allows a contracting party who was a child at the time of marriage to file a petition to annul the marriage within two years of reaching the age of majority (before they turn 20 for women and 23 for men).
 - ♦ **Proposed Bill:** Extends this period to five years, allowing both women and men to file petitions to annul their marriage before they turn 23 years old.

HP INCREASES MINIMUM AGE OF MARRIAGE FOR WOMEN

The Himachal Pradesh State Assembly recently passed the 'Prohibition of Child Marriage (Himachal Pradesh Amendment) Bill, 2024'.

About:

- **Current Legislation:**
 - ♦ **Act Overview:** The Prohibition of Child Marriage Act, 2006 was enacted to prevent child marriages and address related issues.
 - ♦ **Objective:** The Act aims to prohibit the solemnisation of child marriages and address various matters related to child marriage.
- **Proposed Changes:**
 - ♦ **Amendment Bill:** The bill proposes raising the minimum age of marriage for girls from 18 to 21 years.
 - ♦ **Goals of the Amendment:** The increase in the minimum age is intended to provide gender equality, and create more opportunities for girls to pursue higher education and personal development.
- **Significance:**
 - ♦ **Empowerment and Opportunities:** By raising the marriage age, the amendment seeks to empower women by allowing them more time to complete their education and develop personally and professionally.
 - ♦ **Health and Career Impact:**
 - ♦ Early marriages can negatively impact a woman's career prospects and physical health.
 - ♦ The proposed increase in the marriage age aims to mitigate these issues, providing women with better choices and opportunities.

Implementation Process:

- **Constitutional Framework: Concurrent List:** The subjects of marriage, divorce, and related matters fall under the Concurrent List (List III) of the Seventh Schedule of the Constitution, allowing both central and state governments to legislate on these issues.
- **Legislative Procedure:**
 - ♦ **State and Central Law:**
 - ♦ Normally, a Bill passed by a state legislature must be sent to the Governor for assent.
 - ♦ If the Bill conflicts with central law, it must be reserved for the President's consideration under Article 254(2) of the Constitution.
 - ♦ **Inconsistency with Central Law:**
 - ♦ If a state law is inconsistent with central law, the state law is void under Article 254(1) unless it receives presidential assent.
 - ♦ The Himachal Pradesh Bill, which proposes a different marriage age, needs to be reserved for the President's consideration and must receive presidential assent to become valid.

UDHAM SINGH

Recently, India commemorated the 85th death anniversary of Udhm Singh.

About:

- Udhm Singh, **born as Sher Singh** on December 26, 1899, in **Sunam, Punjab**, was a passionate patriot and a symbol of unwavering determination.
- His life's mission was to seek justice for the victims of the infamous Jallianwala Bagh massacre.

Jallianwala Bagh Massacre:

- **Arrest of Local Leaders:** Lieutenant Governor of Punjab, Sir Michael O'Dwyer, ordered the arrest of local leaders Dr. Saifuddin Kitchlew and Dr. Satyapal in Amritsar, leading to widespread protests.
- **Protests and Violent Response:**
 - ♦ Demonstrations were held in Amritsar demanding the release of the arrested leaders.
 - ♦ The troops fired on peaceful protesters, causing numerous deaths and intensifying public outrage.
- **Jallianwala Bagh Gathering:** Over 15,000 people gathered at Jallianwala Bagh for a public meeting, including local residents and pilgrims visiting the Golden Temple.
 - ♦ Brigadier General Reginald Dyer arrived with troops, blocked the exits, and ordered indiscriminate firing on the crowd without warning.
 - ♦ The shooting lasted 10 minutes, resulting in over 1,000 deaths and 1,500 injuries.
- **Aftermath and Martial Law:**
 - ♦ Martial Law was imposed in five districts—Lahore, Amritsar, Gujranwala, Gujarat, and Lyallpore.
 - ♦ This measure empowered the Viceroy to direct immediate trials by court-martial for those involved in revolutionary activities.
 - ♦ As news of the massacre spread, Rabindranath Tagore renounced his Knighthood in protest.

Assassination of Michael O'Dwyer:

- Udhm Singh, an Indian independence activist, tracked down Michael O'Dwyer, the former Lieutenant Governor of Punjab who was responsible for the Jallianwala Bagh massacre.
- Singh shot O'Dwyer during a public meeting at Caxton Hall.
- This assassination was not merely an act of revenge but a powerful statement demanding justice for the atrocities committed during the Jallianwala Bagh massacre.

Trial and Imprisonment:

- ♦ After the assassination, Udhm Singh was tried for the murder of Michael O'Dwyer.
- ♦ During his imprisonment, Singh went on a hunger strike, demonstrating his steadfast commitment to his cause and his protest against the British judicial system.
- ♦ Singh was tried at the Central Criminal Court in London, where he was found guilty of murder.

PINGALI VENKAYYA

The Prime Minister, Shri Narendra Modi has paid tributes to Pingali Venkayya on his birth anniversary and remembered his efforts in giving the Tricolour to the nation.

About:

- **Background:** Pingali Venkayya, born on August 2, 1876, in Krishna district, Andhra Pradesh.
- **Career:** He Served in the British Army during the Anglo Boer War in South Africa, where he met Mahatma Gandhi.
 - ♦ He Formed a lasting association with Gandhi, which extended over 50 years.

ANGLO-BOER WAR

- The Anglo-Boer War, also known as the South African War, was fought between the British Empire and two Boer republics: the South African Republic (Transvaal) and the Orange Free State.
- Tensions between the British and Boer settlers (Boers) over control of South Africa, particularly related to the gold and diamond resources discovered in the Boer republics, as well as the political rights of the British settlers in those areas.
- The British eventually emerged victorious, leading to the signing of the Treaty of Vereeniging on May 31, 1902.
 - ♦ The treaty ended the war and resulted in the integration of the Boer republics into the British Empire as the Union of South Africa in 1910.
- **Flag Design and Adoption:** He initially presented flag designs to Gandhi in Vijayawada in 1921.
 - ♦ The design evolved from saffron and green to include white and a spinning wheel.
 - ♦ The Indian National Congress officially adopted his flag design in 1931.

EVOLUTION OF INDIAN NATIONAL FLAG

The National Flag of India, in its current form, was officially adopted on July 22, 1947. Its evolution reflects the various phases of India's struggle for independence, and its display represents the story of India's freedom.

- **1906:** During the Swadeshi and Boycott movement, the first Indian flag was hoisted at Parsee Bagan Square in Kolkata.
- **1907:** A similar flag, with slight modifications, was raised by Madam Bhikaji Cama in Paris.
 - ♦ This flag was also showcased at a socialist conference in Berlin, earning it the name "Berlin Committee Flag."
- **1917:** As part of the Home Rule Movement, Annie Besant and Bal Gangadhar Tilak hoisted a new flag representing autonomous rule for Indians within the colonial empire.
- **1921:** At the Congress session in Bezwada (now Vijayawada), freedom fighter Pingali Venkaiah presented a flag design to Mahatma Gandhi.
 - ♦ This flag featured three stripes symbolizing harmony among various communities in India, with a spinning wheel in the center to signify progress.
- **1931:** A formal resolution adopted Pingali Venkaiah's flag design with minor changes.
 - ♦ The red stripe was replaced by saffron, which symbolized courage, while white represented peace and green stood for fertility and growth.
- **July 1947:** The Constituent Assembly officially adopted the flag of independent India.
 - ♦ The spinning wheel was replaced by the Dharma Chakra of Emperor Ashoka, symbolizing truth and life, and the flag became known as the Tiranga.
- **Posthumous Recognition:** A stamp was issued in his honour in 2009.
 - ♦ Recommended for Bharat Ratna by Andhra Pradesh government in 2014.
 - ♦ In 2015, AIR Vijayawada was renamed after Venkayya and a statue was unveiled.

SRINAGAR GETS TAG OF 'WORLD CRAFT CITY'

The World Craft Council's (WCC) has included Srinagar in the World Craft Cities list.

About:

- **Srinagar** has become the fourth Indian city to be recognized as a 'World Craft City' by the **World Craft Council (WCC)**.
- This recognition comes **three years** after Srinagar was designated as part of the **UNESCO Creative City Network (UCCN)** for its crafts and folk arts.
- Other Indian cities that have previously been recognized as World Craft Cities include: Jaipur, Malappuram and Mysore.

- Srinagar is home to different traditional crafts that continue to thrive in the city and its suburbs, including:
 - ♦ **Papier-mâché:** A crafting technique using paper, typically mixed with glue or paste, to create decorative and functional items. It involves layering paper strips over a mold and then painting or decorating the hardened result.
 - ♦ **Walnut Wood Carving:** The wood's natural richness and color make it ideal for creating detailed designs.
 - ♦ **Carpets:** Traditional Indian carpets from Kashmir feature intricate patterns and designs, often hand-knotted from wool, silk, or a blend of fibers.
 - ♦ **Sozni Embroidery:** A fine embroidery technique from Kashmir, it involves creating delicate, intricate patterns on fabric using silk threads. This embroidery style is known for its detailed floral and geometric designs, often worked on fine wool or silk fabric.
 - ♦ **Pashmina Shawls:** These are luxurious shawls made from the soft undercoat of the Himalayan goat, known as the Pashmina goat.
 - ♦ **Kani Shawls:** Unlike Pashmina shawls, Kani shawls are woven with a small wooden stick called "Kani" and feature elaborate patterns, often inspired by Mughal designs. They are renowned for their intricate, colorful designs and craftsmanship.
- Located on the historic Shakra-e-Abresham (Silk Route) the city generated a wealth of ideas related to arts and crafts and facilitated exchange of activities in trade, cultural practices, and scientific knowledge.
- This has opened up a rare window to trace the centuries-old craft influences in the region and provide opportunities to the craftsmen to enhance their skills and roots.

World Crafts Council (WCC):

- **Aim:** The Council aims to **promote fellowship among craftspersons** by offering them encouragement, help, and advice.
- **Objective:** The primary objective of the World Crafts Council AISBL is to **strengthen the status of crafts** in both cultural and economic life.
- **World Crafts Council** is a **Kuwait-based organization** dedicated to the recognition and preservation of traditional crafts worldwide.
- The organization was founded during the **1st World Crafts Council General Assembly** in New York on **June 12, 1964** by:
 - ♦ Ms. Aileen Osborn Vanderbilt Webb
 - ♦ Ms. Margaret M. Patch
 - ♦ Smt. Kamaladevi Chattopadhyay
- Since its inception, the World Crafts Council has maintained an **affiliation with UNESCO** under **Consultative Status** for many years.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

- **Establishment and Structure:**
 - ♦ UNESCO was established on November 16, 1945.
 - ♦ **Members:** It comprises 195 Member States and 8 Associate Members.
 - ♦ The Secretariat, led by the Director-General, is responsible for implementing decisions from these governing bodies.
 - ♦ UNESCO operates over 50 field offices worldwide, with its **headquarters situated in Paris.**
- **Mission and Objectives:**
 - ♦ UNESCO aims to foster a culture of peace, eradicate poverty, promote sustainable development, and encourage intercultural dialogue.
 - ♦ Its mission is realized through efforts in education, sciences, culture, communication, and information.
- **Core Focus Areas:**
 - ♦ The organization strives to facilitate dialogue among civilizations, cultures, and peoples, grounded in shared values.
 - ♦ Through such dialogue, UNESCO envisions achieving global sustainable development, upholding human rights, mutual respect, and alleviating poverty.

QUIT INDIA MOVEMENT

Recently, the Prime Minister of India has paid tributes to all those who took part in the Quit India Movement under Mahatma Gandhi's leadership.

About:

- **Background and Initial Developments:**
 - ♦ In 1939, with the onset of World War II, India, as part of the British Empire, was automatically involved in the conflict.
 - ♦ The Congress Working Committee condemned German aggression on October 10, 1939, but insisted that India could not support the war without prior consultation.
 - ♦ On October 17, 1939, the Viceroy stated that Britain was fighting to promote global peace and promised post-war reforms in the 1935 Act based on Indian desires.
- **Gandhi's Reaction and Congress Response:**
 - ♦ Gandhi criticized the Viceroy's statement, describing it as a continuation of the "**divide and rule**" policy. The Congress demanded more substantial concessions but received only minor promises.
 - ♦ The Congress High Command directed its ministers to resign, which led to resignations across eight provinces.
- **Political Changes and Conservative Stance:**
 - ♦ In England, Winston Churchill replaced Neville Chamberlain as Prime Minister.

- ♦ The Conservative government was less sympathetic to Indian demands, and the situation worsened.
- ♦ To appease Indians amidst escalating war conditions, the Conservatives offered the "August Offer" on August 8. This offer was rejected by both the Congress and the Muslim League.
- **Gandhi's Call for Individual Civil Disobedience:**
 - ♦ Amidst widespread dissatisfaction and the failure of the Cripps Mission, Gandhi proposed launching Individual Civil Disobedience.
 - ♦ This movement, led by Vinoba Bhave, aimed to protest against British policies through nonviolent means.
- **Quit India Movement:**
 - ♦ Initiated on **August 8, 1942**, the Quit India Movement was a mass protest demanding the British "orderly withdrawal" from India, based on Gandhi's call to "**Do or Die**" given at Gwalior Tank Maidan in Mumbai.
 - ♦ The Congress Working Committee, on July 14, 1942, passed a resolution demanding Complete Independence and proposed extensive Civil Disobedience if the British did not comply.
 - ♦ Despite initial reservations from leaders like Jawaharlal Nehru and Maulana Azad, the movement received strong support from figures such as Sardar Vallabhbhai Patel, Dr. Rajendra Prasad, and others.
 - ♦ Regional successes included the establishment of parallel governments in Tamluk and Contai subdivisions of Midnapore, and a notable uprising in Ballia, Uttar Pradesh.
 - ♦ Rural Bengal saw protests driven by resentment against war taxes and rice exports.
- **Government Response and Repression:**
 - ♦ The British government imprisoned all members of the Congress Working Committee.
 - ♦ Despite the lack of direct leadership, protests, strikes, and demonstrations occurred nationwide.
 - ♦ The movement included acts of violence, such as bombings, arson, and disruption of services. The British arrested over ten thousand individuals in response.

152ND BIRTH ANNIVERSARY OF SRI AUROBINDO

PM Modi recently commemorated the 152nd birth anniversary of the philosopher, thinker, and spiritual leader Sri Aurobindo.

About:

- **Early Life and Education:**
 - ♦ Sri Aurobindo was born on August 15, 1872, in Calcutta. In 1879, at the age of seven, he was sent to England with his two elder brothers for education. They lived there for fourteen years.

- ◆ Initially, he was brought up in an English family in Manchester and later attended St. Paul's School in London starting in 1884.
- ◆ In 1890, he transferred to King's College, Cambridge, where he studied for two years.
- ◆ **Indian Civil Service Attempt:**
 - ◆ In 1890, he also passed the open competition for the Indian Civil Service but failed to complete the riding examination, leading to disqualification.
 - ◆ During this period, he secured a position in the Baroda Service through an appointment by the Gaekwar of Baroda.
- **Service in Baroda:**
 - ◆ Sri Aurobindo served in Baroda from 1893 to 1906 in various roles: first in the Revenue Department and Secretariat work, then as a Professor of English, and later as Vice-Principal of Baroda College.
 - ◆ This period was marked by himself-culture, literary activity, and preparation for future endeavors.
 - ◆ He learned Sanskrit and several Indian languages and absorbed the essence of Indian civilization.
- **Political Engagement:**
 - ◆ **Early Political Activities:**
 - ◆ Sri Aurobindo's political activities began in 1902, focusing on the Swadeshi movement and the New Party.
 - ◆ He advocated for a more aggressive political stance compared to the moderate reformism of the Indian National Congress.
 - ◆ **Formation of the Nationalist Party:**
 - ◆ He played a key role in the formation of the Nationalist Party within the Congress, which aimed for Swaraj (independence) rather than gradual reform.
 - ◆ This party opposed British goods and institutions while promoting indigenous industries and education.
 - ◆ **Role in Bande Mataram:**
 - ◆ Sri Aurobindo took charge of the daily newspaper Bande Mataram, which played a significant role in shaping Indian political thought.
 - ◆ His efforts led to significant political upheaval, including his prosecution for sedition.
- **Shift to Spiritual Focus:**
 - ◆ **Political Setbacks and Withdrawal:**
 - ◆ After being acquitted of sedition charges in 1907 and arrested in the Alipore Conspiracy Case in 1908, Sri Aurobindo faced numerous challenges.
 - ◆ Despite attempts to revive the nationalist movement, he eventually recognized the need for a more focused spiritual pursuit.
 - ◆ **Retirement and Spiritual Work:**
 - ◆ In February 1910, he retired from political life and moved to Pondicherry in French India, where he dedicated himself to spiritual work.
- ◆ He founded the Sri Aurobindo Ashram, which grew into a significant spiritual community.
- **Contributions to Philosophy and Literature:**
 - ◆ **Publication of Arya:**
 - ◆ In 1914, Sri Aurobindo began publishing the Arya, a philosophical monthly.
 - ◆ His major works, including "*The Life Divine*," "*The Synthesis of Yoga*," and "*Essays on the Gita*," were published in this journal.
 - ◆ **Philosophical Views:**
 - ◆ Sri Aurobindo's philosophy integrated spiritual and material aspects, emphasizing the transformation of life through the descent of divine consciousness.
 - ◆ He proposed that the material world is a stage for spiritual evolution and that the highest human potential involves a direct connection with the Divine.
 - ◆ **Spiritual and Cultural Impact:**
 - ◆ Sri Aurobindo's teachings and writings have had a profound impact on Indian spirituality and cultural thought.
 - ◆ His approach to Yoga aimed at integrating spiritual realization with active engagement in life, influencing subsequent philosophical and spiritual movements.

AUROBINDO ON 'INDIAN' NATIONALISM

- **Critique of Early Nationalists:**
 - ◆ **Early Nationalist Views:** Early nationalists believed that convening Congress sessions in different locations would help foster nationalism.
 - ◆ **Aurobindo's Perspective:** Aurobindo critiqued this view, asserting that Indian nationalism is not contingent on such events. He saw it as an eternal and intrinsic aspect of Indian identity.
- **Influence of Neo-Vedantism:**
 - ◆ Neo-Vedantism, associated with Swami Vivekananda, critiques Brahmanism and the caste system, advocating for the return to the principles of 'Sanatana Dharma' (eternal religion).
 - ◆ Vivekananda argued that Brahminism had undermined Indian unity.
 - ◆ He promoted the idea of 'unity in diversity' based on Sanatana Dharma, emphasizing that despite regional and cultural differences, there is a fundamental unity among all Indians.
 - ◆ **Aurobindo's Alignment:** Aurobindo shared this view, advocating that nationalism should become a guiding principle for the youth, similar to religious devotion, demanding the same level of commitment and dedication.

• **Spiritual Nationalism and Influence of Bankimchandra Chatterjee:**

- ◆ Bankimchandra Chatterjee depicted India as 'Mother India' embodied by the goddess Kali, symbolizing strength and resistance against British rule.
- ◆ He appealed to the patriotism of the youth, urging them to reject foreign domination.
- ◆ **Aurobindo's Adoption:** Aurobindo incorporated this symbolism into his concept of spiritual nationalism, emphasizing the divine power and collective strength of the Indian people against colonial oppression.

• **Aurobindo's Concept of Nation:**

- ◆ **Nation as a Divine Concept:**
 - ◆ Aurobindo defined the nation not merely as a geographic entity or political construct but as a divine and spiritual entity.
 - ◆ He viewed the nation as a faith, religion, and spirit, transcending material and intellectual definitions.
 - ◆ According to Aurobindo, the nation is not just a piece of land, a collection of people, or a political program. Instead, it is a divine faith with its own spirit and essence.

◆ **Foundation of the Namdhari Sant Khalsa:**

- ◆ On April 12, 1857, during Baisakhi, Satguru Ram Singh Ji revitalized the Sikh Khalsa by baptizing five chosen Sikhs, establishing the Namdhari Sant Khalsa.
- ◆ He unfurled the white triangular flag of freedom, setting in motion a multi-pronged freedom movement that would influence later leaders like Mahatma Gandhi.

• **Social and Religious Reforms:**

◆ **Revival of Sikh Practices:**

- ◆ Satguru Ram Singh Ji reintegrated thousands of Sikhs who had strayed from the teachings of Satguru Nanak and Satguru Gobind Singh Ji, reopening defunct Gurdwaras and reinstating the Sri Aad Granth Sahib Ji.
- ◆ He emphasized meditation, hymn singing, and service above self as core practices.

◆ **Prohibition of Social Evils:**

- ◆ The Namdharis were instructed to abstain from alcohol, meat, and drugs.
- ◆ The movement also called for a boycott of British goods and institutions, fostering a people's movement against imperial rule.

• **Resistance and Repression:**

◆ **Confrontation with the British:**

- ◆ The Namdharis actively opposed British policies, notably their establishment of cow slaughterhouses near the Golden Temple, which led to direct confrontations.
- ◆ Many Namdharis were executed or imprisoned, and Satguru Ram Singh Ji was exiled to Myanmar in 1872.

- ◆ **Continuity of the Movement:** Despite British repression, the Namdhari movement continued under the leadership of Satguru Hari Singh Ji (1819-1906), who maintained the community's spiritual and social practices, including organizing mass recitations of the Sri Aad Granth Sahib Ji and feeding thousands during the famine of 1891-1899.

• **Leadership and Legacy:**

◆ **Satguru Pratap Singh Ji's Contributions (1890-1959):**

- ◆ Satguru Pratap Singh Ji, who led the Namdharis after Satguru Hari Singh Ji, provided leadership and financial support to various freedom fighters and movements, including the Indian National Congress, the Gadar Party, and Subhash Chandra Bose's Azad Hind Fauj.
- ◆ Sri Bhaini Sahib became a sanctuary for freedom fighters.

◆ **Post-Independence Efforts:**

- ◆ After India's partition in 1947, Satguru Pratap Singh Ji played a key role in rehabilitating displaced Namdhari Sikhs and establishing educational institutions.
- ◆ His efforts continued to strengthen the Namdhari community and promote communal harmony, language, and culture.

NAMDHARI SECT

Recently, a violent clash erupted between hundreds of followers from two rival factions of the Namdhari religious sect in Rania, located in Haryana's Sirsa district.

About:

• **Unique Identity of Namdharis:**

- ◆ **Distinct Appearance:** Namdharis, also known as Kukas, are recognized within the Sikh community by their white attire, consisting of a kurta, churidar pyjama, and a traditional round white turban.
- ◆ **Foundational Beliefs:** The Namdharis trace their spiritual lineage to Satguru Balak Singh Ji (1785-1862), who, blessed by Satguru Gobind Singh Ji, passed on the spiritual mantle to Satguru Ram Singh Ji, marking the beginning of the Namdhari movement.

• **Satguru Ram Singh Ji's Vision and the Namdhari Movement:**

- ◆ **Historical Context:**
 - ◆ Born into a carpenter's family in Punjab, Satguru Ram Singh Ji served in the Sikh Army during and after Maharaja Ranjit Singh's rule.
 - ◆ He witnessed the decline of Sikh values and the divisive policies of the British, which motivated him to restore the Sikh Khalsa's glory and seek independence from British rule.

NATIONAL GEOSCIENCE AWARDS

The President of India, Smt. Droupadi Murmu, conferred the prestigious National Geoscience Awards (NGA) for the year 2023.

About:

- **Historical Significance:** The National Geoscience Awards, one of India's oldest and most prestigious honors in the field of geosciences, were instituted by the Ministry of Mines in 1966. Originally known as the National Mineral Awards, they were renamed in 2009.
- **Purpose of the Awards:** These awards aim to recognize and honor individuals and teams for their extraordinary achievements and outstanding contributions in various fields of geosciences, including mineral discovery, exploration, mining technology, mineral beneficiation, and both fundamental and applied geosciences.
- **Eligibility Criteria:** Any Indian citizen who has made significant contributions to any area of geosciences is eligible for the award, making it an inclusive recognition of excellence in the field.
- **Categories of Awards:** The Ministry of Mines annually presents the National Geoscience Awards in three categories:
 - ♦ National Geoscience Award for Lifetime Achievement
 - ♦ National Geoscience Award
 - ♦ National Young Geoscientist Award

ERI SILK

The North Eastern Handicrafts and Handlooms Development Corporation (NEHHDC) under the Indian ministry of development of North Eastern region (DoNER) recently received the OEKO-TEX certification from Germany for its Eri silk.

About:

- **Unique Characteristics:** Eri silk, also known as Ahimsa silk, is distinguished as the world's only vegan silk. Unlike traditional silks, the Samia Cynthia Ricini or Philosamia Ricini moth is allowed to naturally exit the cocoon, leaving it intact for use.
- **Geographical Significance:** Eri silk is predominantly found in North East India, with some production in China and Japan. It is recognized as a Geographical Indication (GI) product of Assam.

- **Properties of Eri Silk:** Eri silk is a protein fiber obtained from the cocoons of the Samia Cynthia Ricini moth. The fabric is noted for its coarse, fine, and dense texture. It is also strong, durable, and elastic. Its isothermal properties keep it cool in summer and warm in winter.
- **Oeko-Tex Certification:** Eri silk holds Oeko-Tex certification, a rigorous standard ensuring textiles are free from harmful substances and produced in environmentally friendly conditions.

RASHTRIYA VIGYAN PURASKAR

Recently, the President of India presented the Rashtriya Vigyan Puraskar-2024 at Rashtrapati Bhavan.

About:

- **Purpose and Prestige:** The Science and Technology Awards are prestigious honors recognizing exceptional contributions to science and technology. They celebrate outstanding scientists across various fields and categories.
- **Eligibility Criteria:** There are no age restrictions for any of the awards. They are open to Persons of Indian Origin (PIOs), with a maximum of one award for the Vigyan Ratna category, three for the Vigyan Shri and VY-SSB categories, and no awards for the Vigyan Team category.
- **Award Components:** The awards do not include a cash prize. Recipients receive a certificate and a medallion instead.
- **Selection Process:** A committee, chaired by the principal scientific adviser, is responsible for selecting the awardees. Committee members are ineligible to receive the awards during their tenure.

About Award Categories and Awardees:

- **Vigyan Ratna Award:** It celebrates lifetime contributions in any field of Science and Technology.
- **Recipient:** Prof. Govindarajan Padmanabhan, a pioneer in molecular biology and biotechnology research in India. His work has significantly advanced our understanding of life sciences.
- **Vigyan Shri Awards:** These acknowledge distinguished contributions to Science and Technology.
 - ♦ **Recipients:** Thirteen scientists who have made path-breaking research in their respective domains. Their work spans a wide range of scientific disciplines.
- **Vigyan Yuva-SSB Award:** It recognises exceptional contributions by young scientists.

- ◆ **Recipients:** Eighteen scientists who have significantly impacted fields such as *Indian Ocean Warming; Indigenous 5G Base Station Development; Quantum Mechanics Precision Tests*
- **Vigyan Team Award:** Given to teams of three or more scientists for groundbreaking research.
- ◆ **Recipient:** Chandrayaan-3 Team

VADHVAN PORT: A GAME-CHANGER FOR VIKSIT BHARAT

Prime Minister Narendra Modi laid the foundation stone of Vadhvan Port project which is set to boost India's trade in many aspects because of its strategic location and capacity.

About:

- The Vadhvan Port, located in the Palghar district of Maharashtra, is a joint venture between Jawaharlal Nehru Port Authority and Maharashtra Maritime Board.
- The port will be developed based on the Landlord Port Model. In this model, private players take over the operational aspects, while the port authority acts as a regulator and landlord.

Significance:

- This will be one of India's largest deep-water ports and will provide direct connectivity to international shipping routes like: International North-South Transport Corridor (INSTC) and India-Middle East-Europe Economic Corridor (IMEC).
- Further, the port is expected to generate significant employment opportunities, stimulate local businesses, and contribute to the overall economic development of the region.

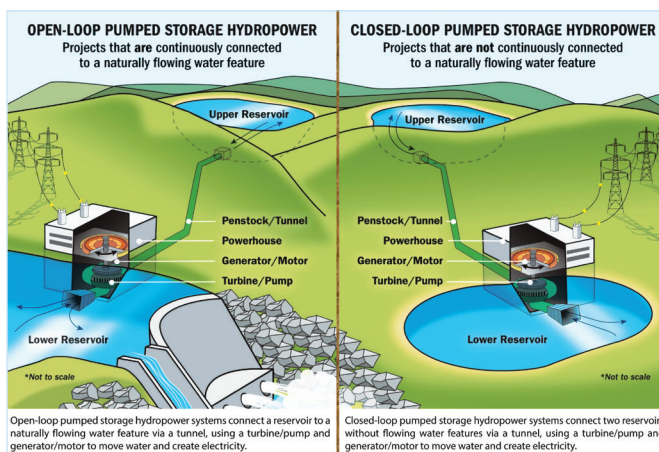
PUMPED STORAGE PROJECTS

The Union Budget for 2024-25 promised that a policy for promoting pumped storage projects will be brought out for electricity storage and facilitating smooth integration of the growing share of renewable energy with its variable and intermittent nature.

About:

- It is a configuration of two water reservoirs at different elevations that can generate power as water moves down from one to the other (discharge), passing through a turbine.
- **Pumped storage projects** store energy to balance the variability of renewable energy sources like wind and solar.
- **Types of Pumped storage:**
 - ◆ **On-River:** Traditional hydroelectric projects using river flow.
 - ◆ **Off-River:** Uses two reservoirs at different elevations in a closed loop. Energy is stored by pumping water to a higher reservoir and generating power by letting it flow down. One such project is at Kadamparai, Tamil Nadu.

- **Capacity:** 400MW with four 100MW units.



STATUS IN INDIA

- India has **3.3GW of pumped storage**. Main ones are in Nagarjunasagar (on the border of Andhra Pradesh and Telangana), Kadana (Gujarat), Kadamparai (Tamil Nadu), Panchet (Jharkhand) and Bhira (Maharashtra).
- **China leads the world with 50GW** of pumped storage supporting 1,300GW of wind and solar energy.
- India has planned to create an ambitious 500GW of non-fossil fuel energy by 2030.
- From 2021 to 2023, it created some 23GW of non-fossil generation capacity.
 - ◆ Out of the total 10GW added in eight months in 2023-24, 7.5GW were from wind and solar energy pointing to how renewables will account for most of the new power generation that will be added in India.

Advantages:

- **Stabilizing Grid with Quick Response:** These projects offer a quick response to generation variability, helping to stabilize the grid and maintain a steady energy supply.
- **Integration of Intermittent Energy Resources:** Pumped storage projects are highly effective at integrating intermittent energy resources, such as wind and solar, into the energy system, supporting the transition to renewable energy.
- **Improvement of Grid Efficiency:** The use of pumped storage projects enhances grid efficiency, optimizing energy distribution and performance.
- **Low Operation and Maintenance (O&M) Cost:** These projects are cost-effective due to their low operation and maintenance costs, making them a sustainable option for energy generation.
- **Environmentally Friendly:** Pumped storage projects are environmentally friendly, contributing to the reduction of greenhouse gas emissions associated with energy generation from fossil fuels.

NATS 2.0

The Union Minister for Education launched the National Apprenticeship and Training Scheme (NATS) 2.0 Portal in New Delhi. Stipends were distributed to apprentices via the Direct Benefit Transfer (DBT) system, amounting to Rs 100 crore.

About:

- It is developed in-house by the Ministry of Education with AICTE and BoATs/BoPT support.
- It manages apprenticeship lifecycle activities including student registration, vacancy advertisements, applications, contract creation, certification, and stipend disbursal.
- It aligns with the government's focus on enhancing skilling and improving youth employability.
- **Apprenticeship Sectors:** The apprentices are being trained in various sectors including IT/ITes, manufacturing, and automobiles.

Significance:

- **Streamlined Processes:** It simplifies and automates the apprenticeship process, reducing administrative burdens and enhancing efficiency in managing vacancies, contracts, and stipends.
- **Enhanced Transparency:** The system ensures transparency in stipend distribution and contract management, minimizing corruption and ensuring fair access to apprenticeship opportunities.
- **Data-Driven Insights:** It provides valuable data and analytics on apprenticeship trends, helping policymakers and industries make informed decisions to address skill gaps and align training with market needs.
- **Increased Accessibility:** By digitizing the apprenticeship lifecycle, it broadens access to opportunities, especially for apprentices from remote or underserved areas, fostering inclusivity in skill development.
- **Strengthened Industry Partnerships:** The system facilitates stronger collaboration between industries and educational institutions, aligning apprenticeship programs with industry requirements and improving the relevance of training.

NATS

- **National Apprenticeship Training Scheme (NATS)** is one of the flagship programmes of Government of India for Skilling Indian Youth in Trade disciplines.
- The National Apprenticeship Training Scheme under the provisions of the Apprentices Act, 1961 amended in 1973; offers Graduate, Diploma students and Vocational certificate holders; a practical, hands-on On-the-Job-Training (OJT) based skilling opportunities with duration ranging from 6 months to 1 year.

GLOBAL TRADITIONAL MEDICINE CENTRE

Recently, India has pledged USD 85 million over the next decade to support the WHO Global Traditional Medicine Centre to strengthen the evidence base for traditional medicine and promote its integration into health systems worldwide.

Efforts by WHO:

- It has established the **WHO Global Centre for Traditional Medicine in India** to harness their potential through modern science and technology.
- **Five Areas of Focus:**
 - ♦ Research and Evidence;
 - ♦ Primary Health Care and Universal Health Coverage;
 - ♦ Indigenous Knowledges and Biodiversity;
 - ♦ Digital Health Applications;
 - ♦ Biennial WHO Global Traditional Medicine Summit and Collaborations;
- **WHO Collaborating Centre:** In India, there are approximately 58 WHO Collaborating Centres spanning various disciplines of biomedicine and allied sciences.
 - ♦ The National Institute of Indian Medical Heritage (NIIMH), Hyderabad ranks as the third WHO Collaborating Centre in the domain of Traditional Medicine, following the Institute for Teaching & Research in Ayurveda, Jamnagar, and the Morarji Desai National Institute of Yoga (MDNIY), New Delhi.

TRADITIONAL MEDICINE IN INDIA

- India has a rich heritage of traditional medicine that includes **Ayurveda, Yoga, Naturopathy, Unani, Siddha, Sowa Rigpa, and Homeopathy.**
- **Practices:**
 - ♦ **Ayurveda and Yoga** are practised widely across the country.
 - ♦ **The Siddha system** is followed predominantly in **Tamil Nadu and Kerala.**
 - ♦ **The Sowa-Rigpa system** is practised mainly in **Leh-Ladakh and Himalayan regions** such as Sikkim, Arunachal Pradesh, Darjeeling, Lahaul & Spiti.
- These systems have been **integrated into the national healthcare system** with institutionalised education and research councils.
- **WHO describes traditional medicine** as the total sum of the **knowledge, skills and practices indigenous** and different cultures have used over time to maintain health and prevent, diagnose and treat physical and mental illness.

Efforts Made by India:

- **India** has established a **separate Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homoeopathy)** to promote holistic health and well-being.

- ◆ It oversees the growth and development of traditional Indian medicines and Homoeopathy with the objective of making accessible, safe, effective, and quality medicines available to the public.
- **Digital Initiatives and Portals:**
 - ◆ **AMAR Portal:** Catalogues Ayush manuscripts, with digitised content available.
 - ◆ **SAHI Portal:** Displays medico-historical artefacts.
 - ◆ **e-Books of Ayush:** Digital versions of classical textbooks.
 - ◆ **NAMASTE Portal:** Morbidity statistics from hospitals.
 - ◆ **Ayush Research Portal:** Indexes published Ayush research articles.
- **Collections and Publications:**
 - ◆ **Manuscripts and Library:** Over 500 physical manuscripts, rare books from the 15th century AD.
 - ◆ **Journal:** Publishes the Journal of Indian Medical Heritage.

Significance:

- **Strengthening Evidence Base:** The center will conduct rigorous research to validate traditional medicine practices, ensuring their safety and effectiveness through scientific evidence.
- **Integration into Health Systems:** It aims to incorporate traditional medicine into global health systems, enhancing primary healthcare and promoting universal health coverage.
- **Global Collaboration:** The center will serve as a hub for international cooperation, uniting researchers, policymakers, and healthcare professionals to share and advance knowledge in traditional medicine.
- **Standardization and Regulation:** The center will work towards developing global standards and guidelines, ensuring the safety, quality, and consistency of traditional medicine practices worldwide.
- **Capacity Building:** Focused on training, the center will enhance the skills of healthcare professionals and researchers, empowering them to contribute to the integration of traditional medicine into modern healthcare.
- **Innovation in Healthcare:** The center will foster innovation by combining traditional and modern healthcare practices, potentially leading to the development of new treatments and therapies.

NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF) 2024

Recently, the Ministry of Education Monday announced the National Institutional Ranking Framework (NIRF) 2024.

Key Highlights:

- **Indian Institute of Technology, Madras** retains its 1st position in Overall Category for the sixth consecutive year, and in Engineering for 9th consecutive year.
- **Indian Institute of Science, Bengaluru** tops the Universities Category for ninth consecutive year. It stood first in the Research Institutions Category for the fourth consecutive year.
- **IIM Ahmedabad** tops in Management subject retaining its first position for fifth consecutive year.
- **All India Institute of Medical Sciences (AIIMS), New Delhi** occupies the top slot in Medical for the seventh consecutive year.
- **Hindu College** secured the 1st position amongst Colleges for the first time replacing Miranda House which retained its 1st position for seven consecutive years.

National Institutional Ranking Framework (NIRF):

- **Launch and Purpose:** The National Institutional Ranking Framework (NIRF) was launched in November 2015 by the Ministry of Education to rank educational institutions in India.
- **Ranking Parameters:** The NIRF assesses institutions based on five broad categories:
 - ◆ Teaching, Learning & Resources
 - ◆ Research and Professional Practice
 - ◆ Graduation Outcomes
 - ◆ Outreach and Inclusivity
 - ◆ Perception Each of these categories carries a weightage on a scale of 10.
- **2024 Edition Additions:** The 2024 edition of India Rankings introduced four new elements:
 - ◆ Three new categories: State Public Universities, Open Universities, and Skill Universities.
 - ◆ Integration of the "Innovation" ranking into the India Rankings using the NIRF framework.
- **Expanded Portfolio:** With the addition of these three categories, the India Rankings 2024 now encompass 16 categories and subject domains.
- **Ranking Process:** The NIRF currently ranks institutions in various categories such as 'Overall', 'Research Institutions', 'Universities', 'Colleges', and specific disciplines like engineering, management, pharmacy, law, etc. The ranking is based on five broad parameters:
 - ◆ Teaching, Learning and Resources (TLR) – 30% weightage
 - ◆ Research and Professional Practice (RP) – 30% weightage
 - ◆ Graduation Outcomes (GO) – 20% weightage
 - ◆ Outreach and Inclusivity (OI) – 10% weightage
 - ◆ Perception (PR) – 10% weightage

India-Bangladesh:

- Bangladesh is India's biggest trade partner in South Asia, and India is the second biggest trade partner of Bangladesh in Asia.
- India is Bangladesh's largest export destination in Asia, with approx **USD 2 billion** of Bangladeshi exports to India in FY 2022-23.
- In FY 2022-23, the total bilateral trade has been reported as **USD 15.9 billion**.

India-Japan:

- In 2019, they established a sister-city relationship between Ahmedabad and Kobe, and in 2023, Japan pledged 5 trillion yen (USD 42 billion) for investment in India over five years.
- India is the largest recipient of Japanese Official Development Assistance (ODA), with significant projects including the Delhi Metro and High-Speed Railway.
- In FY 2022, Japan's aid included 567.5 billion yen in loans, grants, and technical cooperation.

India-Ukraine:

- The bilateral trade between India and Ukraine has seen significant growth, reaching USD 3.39 billion in 2021-22.
- Bilateral relations took a hit after the Russia-Ukraine war began in February 2022 — the volume of India-Ukraine trade dropped from \$3.39 billion in 2021-22 to \$0.78 billion and \$0.71 billion in 2022-23 and 2023-24 respectively.
- In response to the ongoing conflict in Ukraine, India has provided substantial humanitarian assistance, including 12 consignments totaling 99.3 tons of aid.

Tourism Sector:

- In 2022, the world saw 975 million international tourist arrivals. India contributed to this with 14.3 million international tourist arrivals, representing 1.47% of the global inbound tourism market.
- Within the Asia & Pacific region, India accounted for 15.66% of the international tourist arrivals in 2022, highlighting its significant role in the regional tourism market.

Lithium:

- India largely depends on imports to meet its lithium requirements, making it the world's largest importer of processed lithium.
- The majority of these imports come from Hong Kong and China. During the 2020-2021 fiscal year, India imported lithium worth over \$722.5 million.
- Additionally, India is a major importer of lithium-ion batteries, sourcing them primarily from China, Japan, and South Korea,

with 617 million units imported in 2022 alone, valued at \$1.8 billion.

- In January 2024, KABIL signed a **\$24 million** agreement for lithium exploration in five blocks in Argentina's Catamarca province.

LNG Sector:

- India's LNG Import Trends: India, the fourth-largest LNG importer globally, reduced its LNG imports in 2022 due to rising prices, with shipments from the US declining to 2.16 million tonnes (MT).
- The UAE's share in India's LNG imports saw fluctuations over recent years. It increased from 2.6 MT in 2019 to 3.32 MT in 2020, then declined to 2.59 MT in 2022, before rising again to 2.85 MT in 2023.
- Qatar remained India's largest LNG supplier for five consecutive years (2019-2023), with annual shipments exceeding 10 MT, except in 2019 when they totaled 9.7 MT.

BioEconomy:

- The BioEconomy accounted for 4% of India's gross domestic product (GDP) in 2022, with a GDP of \$3.47 trillion.
- The sector provides jobs for over 2 million people, making it a significant employment driver.
- The BioAgri sector is projected to nearly double its contribution to the Bioeconomy, from \$10.5 billion to \$20 billion by 2025.

Regional Rural Banks:

- For RRBs, tConsolidated Capital to Risk (Weighted) Assets Ratio (CRAR) has significantly improved from 7.8% in FY 2021 to 13.7% in FY 2024, reflecting stronger financial stability and resilience.
- The Gross Non-Performing Assets (GNPA) ratio, which indicates the proportion of bad loans, is relatively low at 3.9%.

Space Sector:

- India's space sector has directly contributed about \$24 billion (₹20,000 crore) to India's Gross Domestic Product over the last decade.
- In 2023, the space sector's revenues reached \$6.3 billion, representing about 1.5% of the global space market.
- Over the past decade, India has invested \$13 billion into its space sector.
- In the Union Budget for 2024-25, the Indian government allocated ₹13,042.75 crore to space-related initiatives.
- Under the amended FDI policy, 100% FDI is allowed in the space sector.
- Currently, India's export market share in space-related services stands at ₹2,400 crore (about \$0.3 billion).



Test Yourself

Objective Questions

Visit: www.nextias.com for monthly compilation of Current based MCQs

Mains Questions

GS PAPER - I

1. Examine the contributions of Sri Aurobindo to India's freedom struggle and his philosophy of spiritual nationalism. **(10 Marks, 150 Words)**
2. Discuss the significance of the Quit India Movement in India's struggle for independence. **(10 Marks, 150 Words)**
3. Analyze the objectives and key features of the Unified Pension Scheme (UPS). Discuss the potential benefits and challenges associated with its implementation. **(15 Marks, 250 Words)**
4. Discuss the current status of women's safety in India and suggest policy measures and societal reforms that can improve the safety and security of women in the country. **(10 Marks, 150 Words)**

PAPER-II

5. Discuss the key provisions of the Oilfields (Regulation and Development) Amendment Bill, 2024. How does it aim to address the challenges in India's oil and gas sector? **(10 Marks, 150 Words)**
6. Examine the key provisions of the Waqf (Amendment) Bill, 2024. Critically analyze its implications for transparency, accountability, and the rights of stakeholders. **(15 Marks, 250 Words)**
7. Discuss the issue of sub-classification within the Scheduled Castes (SC) and Scheduled Tribes (ST) in India. What are the arguments for and against sub-categorizing these groups for reservations? **(10 Marks, 150 Words)**
8. Critically examine the concept of lateral entry into civil services in India. What are the potential benefits and challenges of inducting professionals from the private sector and academia into government roles? **(15 Marks, 250 Words)**
9. Examine the evolution of India-Ukraine relations in recent years. Discuss the challenges and opportunities for enhancing strategic partnerships between the two nations. **(10 Marks, 150 Words)**
10. How have economic cooperation, strategic partnerships, and cultural exchanges influenced the bilateral relationship between India-Japan? Discuss the key areas of collaboration

and the potential challenges in further strengthening the ties between the two countries. **(15 Marks, 250 Words)**

11. Discuss the implications of the AUKUS new deal for international security and geopolitics. **(10 Marks, 150 Words)**
12. Evaluate the significance of the Global South Summit. How does it address issues faced by developing nations, and what impact does it have on global diplomacy and cooperation? **(10 Marks, 150 Words)**

PAPER-III

13. Examine the current state of the tourism sector in India. What are the key challenges hindering its growth? Suggest measures to enhance India's potential as a global tourist destination. **(15 Marks, 250 Words)**
14. Discuss the growth of the e-commerce sector in India and its impact on the economy. Analyze the major challenges faced by the sector and suggest policy measures to promote a balanced and inclusive growth of e-commerce in the country. **(10 Marks, 150 Words)**
15. Analyze the contribution of the space sector to India's GDP. Discuss the potential of the space sector in driving future economic growth and enhancing India's global standing in space exploration. **(15 Marks, 250 Words)**
16. Discuss the ecological and socio-economic importance of wetlands. What are the major threats to wetlands, and what measures can be taken for their conservation and sustainable management? **(15 Marks, 250 Words)**
17. Analyze the factors contributing to the increase in global flooding incidents. What are the impacts on communities and ecosystems, and what strategies can be implemented to mitigate and adapt to these changes? **(15 Marks, 250 Words)**
18. Examine the key provisions of the Disaster Management (Amendment) Bill, 2024. Critically assess its potential impact on enhancing the country's disaster management framework. **(15 Marks, 250 Words)**
19. Discuss the concept of e-mobility and its implications for sustainable transportation. **(10 Marks, 150 Words)**
20. Examine the role of biotechnology in advancing sectors such as agriculture, healthcare, and industry in India. **(15 Marks, 250 Words)**