Message from the Principal Adviser

Dr. Bhabani Shankar Chayani

Dear students,

It is a matter of great happiness on my part as the **Founder and the Chief Mentor** of **LISAS'IAS** to find that **"LISAS CAREER IN FOCUS"** has obtained great acceptance from the students preparing for different competitive examinations. I would like to thank the Editorial Team **LISAS'IAS** who has shown great sincerity in bringing out more than hundred issues of this magazine. The present issue also contains topics on different subjects which will be of great use for all of you.

I congratulate the large number of students of **LISAS'IAS** who have come out in flying colours in the recently published results of **OPSC CIVIL SERVICES EXAMINATIONS.** A sound management principle is that "**Vision – Action = Day Dream"** but "**Vision + Action = You Can Change The World"**. So I would urge upon all of you to achieve great success by combining your vision with hard and systematic work.

I wish you **"BEST OF LUCK"** for upcoming **Odisha Civil Services (Preliminary) Examination.**
ALL THE BEST

Dr. Bhabani Shankar Chayani
Mob : 9437170693

Message from the Editor

Dr. Linu Chayani

Dear students,

It is a pleasure on my part to bring out the present issue of **"LISAS CAREER IN FOCUS"**. This issue would educate you on different recent current events of national, international and regional spheres.

On this occasion I would like to impress upon you the necessity of hard work as a means of success. While walking on the path of success, you will come across several challenges. A simple principle to overcome these challenges is that no matter what happens you should never give up. Sincerity combined with a positive attitude will tremendously help you succeeding in the competitive examinations.

I wish you **"BEST OF LUCK"** for upcoming **Odisha Civil Services (Preliminary) Examination.**

ALL THE BEST

Dr. Linu Chayani
Mob : 9437079693

ISSUES OF THE MONTH

EMPOWERING AGRICULTURE THROUGH CARBON CREDITS

The Kyoto Protocol laid the foundation for carbon credits (CC) as a financial innovation aimed at reducing greenhouse gas (GHG). Carbon markets allow corporations to purchase CC from projects that mitigate emissions through various means, including afforestation, renewable energy and methane capture.

Each CC purchased allows an emitter to emit one tonne of greenhouse gasses, enabling them to market themselves as carbon neutral. Agriculture is highlighted as

a major contributor to India's emissions, with the potential for reduced emissions through natural farming practices.

Shifting to these methods can reduce farmers' input costs and enhance soil health, qualifying them to receive carbon credits. However, there are challenges in developing a viable agricultural project that generates carbon credits, including high costs and extended timelines for implementation.

The Kyoto Protocol :

o It provides for three mechanisms that enable countries, or operators in developed countries, to acquire greenhouse gas reduction credits:

- Under Joint Implementation (JI), a developed country with relatively high costs of domestic greenhouse reduction would set up a project in another developed country.

- Under the Clean Development Mechanism (CDM), a developed country can "sponsor" a greenhouse gas reduction project in a developing country where the cost of greenhouse gas reduction project activities is usually much lower, but the atmospheric effect is globally equivalent. The developed country would be given credits for meeting its emission reduction targets, while the developing country would receive capital investment and clean technology or beneficial change in land use.

- Under International Emissions Trading (IET), countries can trade in the international carbon credit market to cover their shortfall in Assigned Amount Units (AAUs). Countries with surplus units can sell them to countries that are exceeding their emission targets under Annex B of the Kyoto Protocol.

What is Carbon Credit?

▪ A carbon credit refers to a carbon offset, represents a credit for greenhouse gas emissions that have been reduced or removed from the atmosphere through an emission reduction project.

o These credits can be utilized by governments, industries, or individuals to

offset the emissions theyproduce elsewhere. Entities that find it challenging to reduce their emissions can continue operations, albeit at a higher financial cost.

- **Key Features:** Carbon credits are part of cap-and-trade systems, where governments set a caZp on total greenhouse gas emissions. Companies that reduce their emissions below the cap can sell their excess credits to other companies that exceed their limits.
- **Types of Markets:**
  o **Compliance Market:** Governed by national or international legislation, such as the European Union Emissions Trading Scheme (EU ETS), where companies are mandated to adhere to emission limits.
  o **Voluntary Markets**: Allow individuals and companies to purchase carbon credits voluntarily to offset their emissions. This is often pursued for corporate social responsibility (CSR) initiatives or to achieve sustainability goals.
- **Importance of Carbon Credits:**
  o **Mitigation of Climate Change:** Carbon credits create economic incentives for reducing greenhouse gas emissions, contributing to international efforts to combat climate change and achieve targets set in agreements such as the Paris Agreement.
  o **Funding Sustainable Development:** The revenues generated from the sale of carbon credits can be reinvested in sustainable practices, renewable energy projects, and other initiatives that promote environmental conservation and resilience.
  o **Economic Opportunities:** The carbon credit market offers new business opportunities for companies specializing in environmental services, renewable energy, and sustainable agriculture.

Role of Carbon Credits in Agriculture

- **Economic Incentives for Farmers:** According to NITI Aayog, Indian agriculture contributes 13% of a nation's gross emissions. By adopting sustainable practices that reduce emissions or enhance carbon sequestration, farmers can earn carbon credits.
- **Market Opportunities:** The global carbon credit market is growing, with prices for carbon credits ranging from USD 15 to USD 50 per ton. This presents a lucrative opportunity for farmers to monetize their sustainability efforts.
- **Promotion of Eco-Friendly Farming:** Carbon credit programs encourage farmers to implement sustainable agricultural practices such as agroforestry, cover cropping, reduced tillage, and organic farming. These practices not only generate carbon credits but also improve biodiversity and soil health.
  o **Sustainable agricultural practices:** It has the potential to sequester substantial amounts of carbon dioxide (CO_2) from the atmosphere, helping to offset emissions produced in other sectors.
  o **Soil Health Improvement:** Practices associated with carbon credit generation often enhance soil organic matter, leading to healthier soils that can support higher crop yields.
- **Support for National Commitments:** India has set an ambitious target of achieving net zero emissions by 2070. Carbon credits offer a mechanism for the agricultural sector to play a vital role in meeting these commitments.
- Many countries, including India, have committed to reduce their greenhouse gas emissions under international agreements like the Paris Agreement. Carbon credits

provide a mechanism for the agricultural sector to contribute to these commitments.

What are Global Carbon Farming Initiatives?

- **Carbon Trading:** In certain nations such as the US, Australia, New Zealand, and Canada, voluntary carbon markets are emerging.
  o These platforms enable farmers to earn extra income by engaging in verified carbon sequestration endeavours, thereby encouraging the uptake of carbon farming techniques.
- **Other Global Efforts:** Initiatives like the **'4 per 1000' initiative.**
  o Kenya's Agricultural Carbon Project (backed by the World Bank) was introduced at the 2015 United Nations Climate Change Conference (COP21) in Paris.
  o Australia's Carbon Farming Initiative, advocate for carbon farming on a global scale.
- **India's Legal Framework:** The Government of India passed an amendment in 2022 to the Energy Conservation Act 2001, which lays the foundation for the Indian Carbon Market. Following this, the Council on Energy, Environment and Water (CEEW) conducted an industry stakeholder discussion to understand their concerns and perspectives.
  o This issue briefly deconstructs the two key typologies of carbon markets – project-based/offset and Emission Trading Scheme (ETS) markets and outlines their key features that determine their environmental integrity and functional boundaries.

Challenges of Carbon Credits in Agriculture

- **Complexity of Carbon Accounting:** Accurately measuring carbon sequestration and emissions reductions in agriculture is challenging due to variations in soil, weather and farming techniques.
  o The lack of standardized methodologies causes discrepancies in credit valuation, and the United Nations Development Programme (UNDP)has raised concerns about double counting and greenwashing in the process.
- **Fund Requirements:** Transitioning to sustainable practices that generate carbon credits often requires significant upfront investment in technology, training and infrastructure, which may be a barrier for smallholder farmers.
  o Moreover, adopting such practices may initially lead to losses; for example, Sri Lanka's shift to organic farming resulted in a severe food crisis.
- **Market Access and Participation:** Many farmers are unaware of carbon credit programs and how to participate, which restricts their access to potential revenue. Additionally, they face challenges in entering carbon markets due to administrative burdens, limited resources and difficulties meeting project scale requirements.
- **Regulatory and Policy Uncertainty:** Changes in government policies and regulations related to carbon credits can create uncertainty for farmers and investors, potentially discouraging participation in carbon credit programs.
- **Impact of Climate Variability:** Extreme weather events and climate change can affect the ability of agricultural practices to sequester carbon effectively, jeopardizing credit generation.
  o For example, Soil erosion from heavy rains or extreme temperatures can reduce the soil's ability to sequester carbon, increasing uncertainty in the value and reliability of carbon credits from agricultural practices.

How can Carbon Credits be effectively adopted in Agriculture?

▪ **Access to Financial Resources**:

o **Microfinance and Grants**: Facilitate access to microloans, grants, or subsidies for farmers looking to invest in sustainable practices that generate carbon credits.

• For example, farmers in Kenya have accessed microloans through programs like the African Agricultural Capital Fund, enabling them to implement practices that improve soil carbon sequestration.

o **Incentives for Participation**: Governments can offer financial incentives for farmers adopting practices that contribute to carbon credit generation.

• In December 2023, the Government of India introduced the Carbon Credit Trading Scheme to implement a carbon trading mechanism and promote the Voluntary Carbon Market (VCM) in the agricultural sector.

• Programs like these can provide additional revenue streams to incentivize participation.

▪ **Standardization and Certification**:

o **Establish Clear Methodologies**: Develop standardized methodologies for measuring and verifying carbon sequestration and emissions reductions in agriculture, making it easier for farmers to participate in carbon credit programs.

o **Certification Bodies**: Establishing reputable certification bodies is key for transparency and credibility. For example, Verra's Verified Carbon Standard (VCS)certifies agricultural carbon credits, ensuring they meet strict quality and reporting standards.

▪ **Integration with Existing Agricultural Policies**:

o **Align Carbon Credit Programs with National Policies**: Integrate carbon credit initiatives into existing agricultural and environmental policies to ensure coherent support and alignment with national goals.

o **Promote Sustainability Goals**: Encourage farmers to adopt carbon credit practices as part of broader sustainability objectives, such as improving soil health and biodiversity.

▪ **Community Engagement and Participation**:

o **Involve Local Communities**: Encourage community-based initiatives that empower farmers to collectively engage in carbon credit programs, sharing resources and knowledge.

o **Stakeholder Collaboration**: Foster collaboration among farmers, government agencies, NGOs, and private sector players to create a supportive ecosystem for carbon credit adoption.

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INDIA'S STRATEGIC DIPLOMACY AMID WEST ASIA'S TENSIONS

The escalating tensions between Iran and Israel have once again raised concerns about the potential for a wider regional conflict. India, with its strategic interests in the West Asian region, has urged both sides to exercise restraint and resolve the crisis through dialogue and diplomacy. While India has not offered to play a mediatory role, it has maintained communication channels with both parties and expressed its deep concern over the humanitarian situation in Gaza.

India's relations with Israel have deepened in recent years, while its relationship with Iran has been marked by both cooperation and tension. A wider conflict could have serious implications for India's economic interests, energy security and regional stability.
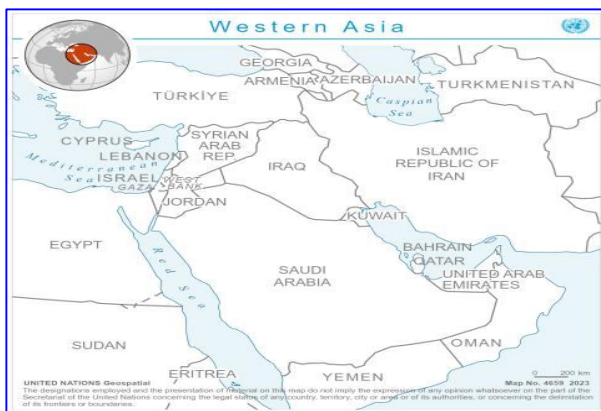
Why is West Asia consistently prone to conflicts?

- **Geopolitical Rivalries and Proxy Wars:** The rivalry between Iran and Saudi Arabia is a significant source of tension in West Asia, driven by both nations' ambitions to expand their influence in the region.

- This competition often manifests in their support for opposing sides in various conflicts.

- The Yemeni Civil War, for example, has seen Saudi Arabia lead a coalition against the Iran-backed Houthi rebels, resulting in a humanitarian crisis with over 377,000 deaths reported by the United Nations between 2015 and beginning of 2022.

- These proxy wars have given blow to the regional refugee crisis, as per UN Refugee Agency report of March 2024, more than 7.2 million Syrians remain internally displaced in their own country where 70% of the population is in need of humanitarian aid.

- Additionally, Israel views Iran as a threat due to its nuclear ambitions and support for Hezbollah, leading to instances of cyber warfare and airstrikes on Iranian targets in Syria.

- In 2022, Iran accused Israel of sabotaging its Natanz nuclear facility.

- Israel recently claimed it killed a senior Hezbollah commander in a strike on Beirut, Lebanon recently.

- The recent pager attack in Lebanon is also reportedly attributed to Israel.

- **Religious Sectarianism and Identity Conflicts:** The Sunni-Shia divide is a major factor in many conflicts across West Asia, exacerbating sectarian violence and political struggles.

- The population is approximately 85% Sunni and 15% Shia, with Iran and Saudi Arabia representing these factions.

- About half a million people died in Iraq as a result of war-related causes between the US-led invasion in 2003 and mid-2011.
- Bahrain has also experienced tensions due to the Sunni monarchy's repression of the Shia-majority population, particularly since the 2011 Arab Spring protests.
- These sectarian conflicts contribute significantly to the region's instability and violence.
- **Abundance of Oil and Resource Control:** West Asia is home to approximately 48% of the world's proven oil reserves, making control over these resources a critical issue.
- The economic dependence on oil has fuelled internal and external conflicts, such as the Iraq-Kuwait conflict, which was motivated by oil control and led to a Gulf War.
- OPEC decisions continue to influence global oil prices. Members of the OPEC+ oil alliance have delayed plans to hike production by a scheduled 180,000 barrels per day in October 2024 leading to suspicions with the United States and other oil-consuming nations.
- Additionally, strategic waterways like the Strait of Hormuz are vital for oil transit. About a fifth of the volume of the world's total oil consumption passes through the Strait on a daily basis.
- Iran's threats to close this chokepoint have heightened military tensions with the U.S. and its allies.
- **Colonial Legacy and Artificial Borders:** The colonial legacy in West Asia, particularly the Sykes-Picot Agreement, established arbitrary borders that ignored ethnic and tribal divisions, leading to long-term instability.
- This has resulted in communities being split across national borders and forced into multi-ethnic states lacking a unified national identity.
- The Kurdish struggle for autonomy exemplifies this issue, as Kurds seek independence across Turkey, Syria, Iraq and Iran, highlighted by a 2017 referendum in Iraq that was met with opposition from neighbouring countries.
- The Palestinian-Israeli conflict also has roots in the British Mandate, with ongoing disputes resulting in the displacement of millions.
- As of September 2024, the situation has deteriorated significantly, with Israel's siege preventing 83% of food aid from reaching Gaza.
- **Authoritarian Regimes and Political Repression:** Many West Asian countries are governed by authoritarian regimes, including monarchies and military dictatorships, leading to widespread discontent and political repression.
- The Arab Spring in 2011 sparked significant uprisings, but many regimes responded with brutal crackdowns.
- As of March 2024, with the support of Russia, the Assad regime has conducted attacks across north-west Syria, resulting in over 500 civilian casualties and the displacement of over 120,000 people.
- Human rights organizations have documented numerous abuses, further illustrating the region's struggle for democratic representation.
- **Foreign Interventions and Military Presence:** The United States has maintained a significant military presence in West Asia due to its strategic interests in oil and regional stability.
- Since 2001, the U.S. has been involved in conflicts in Afghanistan, Iraq, and Syria, often with unintended consequences

that breed resentment among local populations.

o The 2003 invasion of Iraq, premised on eliminating weapons of mass destruction and promoting democracy, led to prolonged instability, sectarian violence, and the rise of extremist groups like ISIL.

o In late June 2019, Iran downed a U.S. Global Hawk drone in the Strait of Hormuz, and the US President ordered a cyber-attack and the imposition of new sanctions.

Implications of issues in West Asia for India

- **Energy Security and Oil Imports:** West Asia is vital to India's energy security, supplying over 60% of its crude oil imports.

o In 2022-23, Iraq became the second largest crude oil supplier to India after Russia. Political instability in the region often results in oil price volatility, which can significantly impact India's economy.

o Brent crude oil prices have been trading at USD 80-85 per barrel affecting India's import costs and inflation.

- To mitigate these risks, India is actively diversifying its energy sources, including agreements with Russia, the U.S., and Latin America.

o India has already felt the effects of the West Asian conflicts, as its share of crude petroleum imports from the region has declined from 34% in FY22 to 30.9% in FY23, and further to approximately 23% in FY24.

- **Remittances from the Indian Diaspora:** The Indian diaspora in West Asia, numbering over 8 million, is a crucial source of remittances.

o In 2021, India received around USD 87 billion in remittances, with about 50% coming from Gulf Cooperation Council (GCC) countries.

o Economic downturns, like those prompted by the "Saudization" policy in Saudi Arabia, can adversely affect these remittances, impacting families in states like Kerala that heavily rely on this income.

o The Covid-19 pandemic caused many Indian workers to return home and while the situation has come back to normal, the ongoing regional conflicts may continue to threaten job stability and remittance flows.

- **Trade Relations and Economic Impact:** The Gulf Cooperation Council (GCC) is one of India's most important trade partners.

o During FY 2023-24, India-GCC bilateral trade stood at USD 161.59 billion. India's exports were USD 56.3 billion.

o Any disruptions in trade relations due to regional instability could negatively impact India's export sector and food supplies in the Gulf.

o Furthermore, India's Comprehensive Economic Partnership Agreements (CEPA) with countries like the UAE aim to enhance trade but may be hindered by geopolitical tensions.

- **Maritime Security and Trade Routes:** Strategic maritime chokepoints, such as the Strait of Hormuz and Bab el-Mandeb, are crucial for India's trade and energy imports.

o Threats to these waterways from piracy or state-sponsored attacks can jeopardize India's trade security.

o The Strait of Hormuz remains a critical chokepoint. The seizure of an Israel-linked cargo ship by Iran in April 2024, with 17 Indian nationals aboard, underscores India's stake in the situation.

- **Terrorism and National Security:** The instability in West Asia creates fertile ground for extremist organizations like ISIS, Al-Qaeda and Hezbollah, which sometimes seek recruits from South Asia, including India.
  - The recent FATF report highlights the significant terrorism threat to India from ISIS and Al-Qaeda-linked groups in Jammu and Kashmir.
- **Cultural and Religious Ties:** The historical and cultural connections between India and West Asia significantly influence bilateral relations:
  - India is home to the world's third-largest Muslim population (about 200 million), making developments in West Asia, particularly regarding Islamic holy sites, of domestic importance.
- **Geopolitical Alignments and Great Power Rivalries:** China's expanding influence in West Asia, particularly through its Belt and Road Initiative (BRI), poses challenges for India, especially as China strengthens ties with Iran and Saudi Arabia.
  - China's growing influence in the region, exemplified by brokering the Iran-Saudi Arabia rapprochement in March 2023, challenges India's strategic interests.
  - India's participation in the I2U2 group (India, Israel, UAE, US) since July 2022 marks a new phase in its West Asia policy, but balancing alignment with rival nations to Israel and UAE presents a significant challenge.

Measures India adopts to balance its relations to Western Asian Countries despite concerns

- **Pursue Strategic Autonomy and Non-Alignment:** India should maintain its policy of non-alignment in West Asian conflicts by fostering strong bilateral relationships with key players such as Saudi Arabia, Iran, Israel, and the UAE.
  - By avoiding overt alignment with any particular faction, India can navigate regional rivalries without becoming embroiled in them.
  - Consistently adopting a neutral stance on sensitive issues like the Iran-Saudi Arabia rivalry and the Israel-Palestine conflict will further enhance India's image as a peace-promoting nation and a reliable partner for all parties involved.
- **Strengthen Economic and Energy Ties:** While West Asia remains crucial for India's energy security, the country should prioritize diversifying its energy imports to reduce dependency on any single region.
  - Enhancing renewable energy capabilities will help lessen reliance on West Asian oil over time.
- Strengthening trade and investment relations with GCC countries is essential, exploring new sectors such as technology, defence, and infrastructure for significant benefits.
  - The India-UAE Comprehensive Economic Partnership Agreement (CEPA) has the potential to substantially boost trade, and similar agreements with other GCC nations can help safeguard India's economic interests.
- **Expand Diplomatic Engagements and Multilateral Cooperation:** India should continue strengthening bilateral relations through regular high-level engagements with West Asian countries.
  - Active participation in regional multilateral forums such as the Gulf Cooperation Council (GCC), the Organization of Islamic Cooperation (OIC) (as an observer), and the Quad (comprising India, Israel, UAE,

and the U.S.) will reinforce India's role as a constructive regional actor, allowing collaboration on issues like maritime security and counter-terrorism.

o Additionally, leveraging the I2U2 forum (India, Israel, UAE, and the U.S.) can facilitate collaboration in areas such as food security, clean energy, and technology.

▪ **Enhance Defence and Security Cooperation:** Given the strategic importance of maritime chokepoints like the Strait of Hormuz, India should strengthen its naval presence in the Indian Ocean and Arabian Sea.

o Increasing naval collaborations through joint exercises with Oman, the UAE, and the U.S. can enhance India's capability to secure these vital sea lanes.

o Expanding bilateral defence agreements with West Asian countries, focusing on joint military training, intelligence sharing, and arms sales, will be vital.

o Strengthening counter-terrorism collaboration with countries like Saudi Arabia, the UAE, and Israel, particularly in intelligence-sharing, cyber-security, and counter-radicalization efforts, can mitigate potential threats from extremist groups and enhance India's internal security.

▪ **Prioritize Energy Security and Renewable Energy Initiatives:** To mitigate risks arising from West Asian conflicts, India should expand its Strategic Petroleum Reserve (SPR) capacity.

o India eyes a new strategic crude oil reserve in Mangalore. This would provide a buffer against disruptions in oil supply, as experienced during the Saudi oil facility attacks in 2019.

o Collaborating with West Asian countries on renewable energy projects, given the region's growing interest in clean energy, is essential.

o Joint initiatives on solar energy with the UAE or hydrogen fuel projects with Saudi Arabia would align with India's goals under the International Solar Alliance and contribute to its energy diversification strategy.

▪ Promote Cultural Diplomacy and People-to-People Ties: With over 8 million Indians residing in West Asia, India should continue to advocate for their welfare, particularly concerning labour reforms.

o Diplomatic missions must actively engage with host governments to protect Indian workers' rights and ensure safe repatriation when necessary.

o Hosting cultural festivals and events (IPL Auction 2025 is likely to be held in Saudi Arabia) can help build soft power in the region and foster goodwill.

o Moreover, India could offer technical training and educational scholarships for students from West Asia, enhancing its reputation as a destination for higher education and skill development, fostering long-term people-to-people ties and generating goodwill in the region.

India's strategic interests in West Asia necessitate a balanced approach to navigate the complexities of regional tensions. Prioritizing issue-based diplomacy and multilateral cooperation will be essential for India to emerge as a stabilizing force in a region fraught with conflict, thereby protecting its national interests while contributing to regional peace and stability.

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STRENGTHENING BONDS IN INDIA-GERMANY PARTNERSHIP

The relationship between India and Germany has evolved into a robust and dynamic partnership, characterized by mutual respect, shared values, and a commitment to addressing global challenges. Since the establishment of diplomatic ties in 1951 and the formalization of a **'Strategic Partnership'** in 2000, both nations have witnessed significant growth in collaboration across various sectors, including trade, technology, defence, and sustainable development. With bilateral

trade reaching approximately USD 33 billion and a thriving presence of around 2,200 German companies in India, the economic potential is immense.

The upcoming 7th Inter-Governmental Consultations in India will be a pivotal moment to set strategic directions amidst shifting global dynamics. Furthermore, the 18th Asia-Pacific Conference of German Business in New Delhi later this year highlights the increasing importance of innovation, particularly in areas like digital technology and green solutions. As both countries strive to deepen their engagement, enhancing educational exchanges and talent mobility will be crucial. The foundation laid by past collaborations paves the way for a future that is not only economically beneficial but also

rich in cultural and technological exchanges, positioning India and Germany as vital partners on the global stage.

Major areas of cooperation between India and Germany

- **Historical Context:** India and Germany have a rich history of political and economic ties dating back to the late 19th century, with a formalized strategic partnership established through various agreements since 2000.

- **Economic and Trade Relations:**

o **Growing Trade Volume**: Bilateral trade between India and Germany has surged, reaching approximately USD 33 billion annually. Also, investments from Germany are about USD 25 million.

- This increasing trade volume underscores the significance of the economic partnership, with Germany ranking among India's key trading partners.

o **Significant Investment Presence:** Germany's investment in India is substantial, with around 2,200 German companies operating in various sectors.

- This investment not only contributes to job creation but also facilitates technological advancements, reinforcing economic ties.

o **Market Entry Support:** The "Make in India Mittelstand (MIIM)" program supports German SMEs and family businesses, helping 152 companies invest nearly 1.46 billion Euros in India, including over 30 leaders in niche technologies.

o **Emerging Opportunities:** The upcoming Asia-Pacific Conference of German Business in October 2024, hosted in New Delhi, presents a crucial platform for enhancing collaboration between Indian and

German businesses, fostering new investments and joint ventures.

- **Science and Technology Collaboration:**
- o **Long-standing Partnership:** The Indo-German Science and Technology Centre has played a vital role in supporting industrial research for over 50 years.
- This partnership is pivotal for innovation and technological exchange.
- o **Academic Exchanges:** With more than 500 partnerships between Indian and German universities, the two nations promote knowledge transfer and skill development, paving the way for collaborative research and innovation.
- o **Future Roadmap**: Plans for a new science and technology roadmap aim to deepen cooperation in key scientific areas, potentially leading to groundbreaking advancements in fields such as artificial intelligence and biotechnology.
- **Green and Sustainable Development Partnership:**
- o **Commitment to Climate Action**: The Green and Sustainable Development Partnership (launched in 2022) highlights both nations' dedication to addressing climate change.
- This partnership focuses on energy transition and environmental preservation.
- o **Financial Commitments:** India and Germany signed 38 agreements worth 3.22 billion Euros. This highlights the potential for collaboration, especially in green hydrogen and green ammonia.
- o **Focus on Renewable Energy**: Both countries are actively collaborating on renewable energy, highlighted by the recent launch of the India-Germany Platform for Investments in Renewable Energies Worldwide, which aims to develop sustainable solutions and support India's renewable energy goals.

- o **Innovative Projects:** Collaborative initiatives, such as solar energy projects in Maharashtra, exemplify the practical outcomes of this partnership, showcasing the potential for innovation in sustainable development.
- **Defence and Security Cooperation:**
- o **Military Cooperation:** The 17th edition of the India-Germany Military Cooperation Sub Group (MCSG) meeting was held in October 2024, in Berlin, Germany, focusing on enhancing bilateral military cooperation and strengthening defence engagements.
- The MCSG serves as a forum to boost defence ties through strategic and operational discussions between the Integrated Defence Staff of India and the German Armed Forces.
- o **Increasing Military Collaboration:** Joint military exercises, such as "Tarang Shakti", indicate a growing commitment to defence cooperation.
- o **Maritime Cooperation:** The Indian Navy frigate INS Tabar's visit to Hamburg reinforced maritime cooperation and cultural exchange between the two nations.
- o **Expanding Defence Trade**: The defence trade volume has seen a remarkable increase, with a sevenfold rise from 2021 to 2023 (from 34 million Euros to 2,136 million Euros).
- This growth reflects an enhanced focus on strategic military collaboration.
- **Strategic Importance of the Indo-Pacific:**
- o Both nations acknowledge the need for security cooperation in the Indo-Pacific region, aligning their strategies to address common challenges and enhance regional stability.
- **Education & People-to-People:**
- o **Growing Student Presence** : Approximately 50,000 Indian students currently study in

Germany, highlighting the significance of educational ties between the two countries.

o **Facilitating Talent Mobility:** The Mobility and Migration Agreement signed in 2022 aims to streamline pathways for skilled professionals, fostering workforce collaboration and enhancing economic interactions.

o **Cultural Exchange Initiatives:** Increased scholarships and internship opportunities will further strengthen the people-to-people connection, promoting mutual understanding and cooperation.

▪ **Areas of Cooperation:**

o Identified during the 5th Intergovernmental Conference (IGC), focus areas for cooperation include Artificial Intelligence, digitalization, clean energy, e-mobility, smart cities, railways, Industry 4.0, startups, skill development and waste management.

Challenges faced by India-Germany Relations

▪ **Trade and Investment Barriers:**

o **Absence of a Bilateral Investment Treaty (BIT):** The lack of a BIT presents a significant obstacle to deeper economic engagement.

• Germany has a Bilateral Trade and Investment Agreement (BTIA) with India via EU, it does not have the competence to negotiate it separately.

• It limits investor confidence and protections, which are crucial for fostering a stable investment environment.

o **Concerns over Trade Liberalizatio**n: Germany's skepticism regarding India's trade liberalization measures and labour regulations can complicate negotiations, potentially stifling growth in economic relations.

o **Need for Regulatory Alignment**: Addressing regulatory discrepancies and

streamlining trade processes are essential to facilitate smoother economic interactions, promoting mutual benefits.

▪ **Divergent Perspectives on Geopolitical Issues:**

o **Occasional Disagreements**: While India and Germany align on many global issues, occasional differences in perspectives can complicate diplomatic efforts.

• Such divergences necessitate careful navigation to maintain a constructive dialogue.

o **Balancing National Interests:** India's pragmatic approach to foreign policy may clash with Germany's emphasis on a rules-based international order.

• Continuous dialogue is essential to mitigate misunderstandings and strengthen collaboration.

o **Importance of Strategic Dialogue:** Regular consultations on geopolitical matters can build trust and confidence, ensuring alignment on shared interests.

▪ **Visa and Mobility Concerns:**

o **Visa Process Challenges:** Delays and complexities in the visa issuance process can hinder talent mobility, affecting the flow of skilled professionals and limiting educational exchanges.

• Simplifying the visa process is crucial for fostering greater people-to-people connections, enabling knowledge exchange and enhancing bilateral ties.

o **Focus on Mutual Recognition of Qualifications:** Collaborating on mutual recognition of educational qualifications can enhance mobility and facilitate smoother integration for Indian professionals in Germany.

Way Forward

- **Enhancing Trade and Investment:**
  o With current trade at USD 33 billion, there is significant room for growth in mutual investments.
  o India's evolving business climate should act as a catalyst for deeper economic ties.
  o Negotiating a bilateral investment treaty by establishing a comprehensive BIT would enhance investor confidence and facilitate easier business operations, thereby driving economic growth.
- **Focus on Innovation and Technology:**
  o Greater emphasis should be placed on innovation, particularly in digital technologies, artificial intelligence, fintech and clean/green technologies to drive future growth.
- **Strengthening Defence Cooperation:**
  o Increased attention to defence collaboration is crucial, especially with the expansion of the Indian private sector in this area.
  o Updating export controls will be necessary to facilitate this cooperation.
  o Recent air exercises and upcoming naval visits to Goa should be leveraged to enhance military ties.
- **Progress in Green and Sustainable Development:**
  o The Green and Sustainable Development Partnership is making steady strides, with 38 agreements amounting to Euro 3.22 billion.
  o There is significant potential in sectors like green hydrogen and green ammonia, which should be explored further.

- **Enhancing Educational and Talent Mobility:**
  o The number of Indian students in Germany has doubled to 43,000 over the past five years, but the flow of talent can increase significantly.
  o Establishing frameworks for skills mobility will help strengthen this connection, akin to the living bridge with the US.
- **Continuous Consultation on Global Issues:**
  o Ongoing dialogue on global matters is vital for building trust and confidence in the partnership.
  o This will be a key focus in discussions between Indian and German foreign ministers to enhance collaboration on international issues.

Conclusion

The 7th Intergovernmental Consultations in India will be pivotal, providing strategic directions on key issues during a crucial time for both nations. Both nations are committed to sustainable development, innovation, and collaborative efforts to address global challenges. The 18th Asia-Pacific Conference of German Business (APK 2024) in New Delhi this October is essential for fostering business collaboration and engagement between Indian and German firms.

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STRENGTHENING INDIA'S AIR QUALITY MANAGEMENT

As winter approaches, Delhi once again grapples with its annual air pollution crisis, implementing a Winter Action Plan with some promising additions like drone monitoring and inter-departmental task forces. However, the city's efforts remain plagued by delayed implementation and a short-term perspective. While the plan addresses immediate concerns such as stubble burning in neighbouring states, it fails to integrate into a comprehensive year-round strategy necessary for a metropolis with consistently high baseline pollution levels.

The challenge extends beyond Delhi, highlighting systemic issues in India's approach to air quality management. The Central government's Commission for Air Quality Management (CAQM) has been criticized for lack of effective mediation between states. Moreover, despite expert recommendations for targeted, geography-based interventions using the air shed method, Delhi's plan lacks substantial implementation of this approach. As India faces another season of hazardous air quality, there is an urgent need for authorities to adopt more flexible, proactive, and scientifically informed strategies to combat this persistent public health emergency.

Why Air Pollution Remains a Major Concern in India?

- **Ineffective Implementation of Pollution Control Measures:** Despite numerous policies and regulations, India struggles with the implementation of pollution control measures.
  - For instance, the National Clean Air Programme (NCAP) launched in 2019 aimed to reduce particulate matter concentrations by 20-30% by 2024 in 122 cities.
- However, as of 2023, only 95 cities have shown a decrease in PM10 levels, with many still far from reaching the target.
- **Persistent Agricultural Practices Contributing to Seasonal Spikes:** The practice of stubble burning in northern

India continues to be a significant contributor to air pollution, especially during the winter months.

- In 2022, Punjab alone reported over 30,000 stubble burning incidents, despite efforts to provide farmers with alternative solutions.
- The stubble burning contributes about 25% to 30% of the air quality issue**s** (in Delhi) during peak burning days.
- While there has been a slight decrease in burning incident**s** compared to previous years, the practice remains widespread due to economic constraints faced by farmers and the lack of viable alternatives, highlighting the need for more comprehensive and supportive policies.

- **Rapid Urbanization and Infrastructure Development**: India's rapid urbanization and infrastructure development continue to exacerbate air pollution levels.
  - According to the 2019 London Atmospheric Emissions Inventory (LAEI)**,** construction activities account for approximately 30% of particulate matter (PM10) emissions in the city, along with 8% of fine particulate matter (PM2. 5).
  - This unchecked growth, coupled with inadequate dust management practices, significantly contributes to the deterioration of air quality in urban areas.
- **Increasing Vehicle Emissions in Urban Centres:** The burgeoning number of vehicles in Indian cities continues to be a major source of air pollution.
  - India is the largest tractor producer, second-largest bus manufacturer, and third-largest heavy truck manufacturer in the world.
  - India's annual production of automobiles in FY23 was 25.9 million vehicles.
  - Despite efforts to promote electric vehicles (EVs), they still represent only a small fraction of total vehicles.
  - The slow transition to cleaner fuels and electric mobility, coupled with inadequate public transportation infrastructure**,** keeps vehicle emissions a persistent problem in urban air quality management.
- **Industrial Emissions and Lack of Stringent Enforcement**: Industrial emissions remain a significant contributor to air pollution in India.
  - Only 5% of India's coal-fired power plants have installed air pollution control devices for sulphur dioxide emissions.
  - Furthermore, the Central Pollution Control Board identified 43 industrial clusters in 17 States as Critically Polluted Areas (CPAs).
- Further, 32 industrial clusters are categorized as Severely Polluted Areas (SPAs).
  - The lack of stringent enforcement and frequent relaxation of norms for industries highlight the ongoing challenge in balancing economic growth with environmental protection.
- **Indoor Air Pollution and Its Health Impacts:** Indoor air pollution remains an often-overlooked but critical issue in India.
  - According to the World Health Organization's 2023 report, about 6.7 million premature deaths annually are attributed to indoor air pollution globally, with India being one of the most affected countries.
  - Despite government initiatives like the PradhanMantriUjjwalaYojana, the sustained use of clean fuels remains a challenge due to economic factors and cultural preferences.
  - Around 53% of Indian households still depend on solid fuels for part or all of their cooking needs.
  - The practice of using solid fuels alongside LPG, known as fuel stacking**,** leads to ongoing exposure to harmful household air pollution (HAP), even for those with access to LPG connections.
- **Climate Change Exacerbating Air Quality Issues:** Climate change is increasingly recognized as a factor exacerbating air pollution in India.
  - The 2023 report by the Intergovernmental Panel on Climate Change (IPCC) highlighted that rising temperatures and changing weather patterns in South Asia are likely to increase the frequency and intensity of air pollution episodes.
  - For instance, the unusual rainfall patterns in October 2023 in North India led to

prolonged periods of stagnant air, trapping pollutants and worsening air quality.

o The interplay between climate change and air pollution creates a vicious cycle, where each exacerbates the other, making it crucial to address both issues simultaneously for effective long-term solutions.

Steps Taken by the Government for Air Quality Improvement

▪ **National Clean Air Programme (NCAP)**: Launched in January 2019, the NCAP aims to improve air quality in 131 non-attainment and million-plus cities by reducing PM10 levels by 40% by 2025-26.

o Public grievance systems, emergency response mechanisms, and other measures have been implemented, showing improvements in 88 out of 131 cities as of FY 2022-23.

▪ **Control of Vehicular Emissions:** The government has implemented BS-VI fuel standards nationwide and introduced BS VI-compliant vehicles since April 2020.

o Schemes like FAME-II promote electric vehicles, while SATAT supports biogas production.

o New expressways and highways divert non-destined traffic from major cities to reduce vehicular emissions.

▪ **Control of Industrial Emissions**: New standards for SO2 and NOx emissions in thermal power plants have been enforced.

o Pet coke and furnace oil are banned in NCR states and industrial units are shifting to cleaner fuels like PNG or biomass.

o Emission standards for 56 industrial sectors have been notified, and online continuous emission monitoring systems (OCEMS) are mandated for high-polluting industries.

▪ **Measures to Control Stubble Burning:** Subsidies are provided for crop residue management machinery to prevent stubble burning in Punjab, Haryana, and Uttar Pradesh.

o Financial assistance has been offered to set **up** pelletization and torrefaction plants to utilize paddy straw.

o Monitoring by CPCB and enforcement by the Commission for Air Quality Management (CAQM**)** help prevent stubble burning incidents during harvest seasons.

▪ **Air Quality Monitoring and Network:** The National Air Quality Index (AQI) was launched in 2015, with over 1,400 air quality monitoring stations set up across the country.

o Data is disseminated through bulletins, and air quality forecasts are made available, especially for Delhi-NCR. The Central Control Room provides real-time tracking of air quality data and hotspots.

▪ **Control of MSW and Construction Waste:** Guidelines for managing construction and demolition (C&D) waste have been issued**,** and directions were provided for deploying anti-smog guns at large construction sites.

o Efforts to manage municipal solid waste (MSW) include bioremediation of legacy waste and preventing fires at landfill sites, contributing to overall air quality improvement.

▪ **Regulatory Actions and Graded Response Action Plan (GRAP)**: CPCB has implemented the Graded Response Action Plan (GRAP) to address air pollution based on AQI categories.

o Revised versions of GRAP, effective from 2022, include measures like restricting DG set usage, shifting industries to cleaner fuels, and imposing dust control measures.

o These policies help in curbing air pollution in the NCR region.

Various Technology-driven Projects aimed at reducing Air Pollution

- **Pariyayantra Filtration Units on Buses**: In a pilot study, 30 buses were retrofitted with Pariyayantra Filtration units on their rooftops.
  o These passive filters capture dust particles from the environment, reducing the pollution caused by vehicular movement.
  o Each unit provides filtration equivalent to six room air filters without requiring any power.
- **WAYU Air Purification Units at Traffic Intersections:** They were installed at major traffic intersections in Delhi to reduce the impact of vehicular emissions.
  o These localized air purifiers target pollution at the source, offering a solution for high-traffic areas.
- **Ionisation Technology for Air Pollution Reduction:** This technology neutralizes pollutants through ionization, improving air quality in targeted areas. It explores the potential of ionization as a method to curb ambient pollution.
- **Smog Towers**: Large-scale smog towers have been installed to act as air purifiers, specifically designed to reduce particulate matter and other pollutants over a wider area.
- **Retrofitting Emission Control Devices in Older Vehicles**: A pilot project focused on retrofitting older vehicles (like BS III compliant ones) with emission control devices.
  o This aims to lower emissions from in-use vehicles, helping reduce their environmental impact.

Measures can be adopted to enhance Air Quality Management in India

- **Implement Stringent Industrial Emission Controls:** India can adopt more stringent industrial emission norms, similar to China's coal-fired pollution control measures.
  o For instance, mandating the installation of Flue Gas Desulfurization (FGD) units in all coal-based power plants, as per the latest Central Electricity Authority directive, could significantly reduce SO_2 emissions.
  o Implementing a nation-wide emissions trading scheme, like the one piloted in Gujarat, could incentivize industries to adopt cleaner technologies.
- This approach, combined with real-time emission monitoring systems linked directly to pollution control boards, can ensure better compliance and reduce industrial pollution effectively.
- **Accelerate Transition to Clean Energy**: Rapidly scaling up renewable energy adoption is crucial for improving air quality.
  o India's target of 500 GW of non-fossil fuel capacity by 2030 is a step in the right direction. The recent success of the Solar Parks scheme demonstrates the feasibility of large-scale clean energy projects.
  o Encouraging rooftop solar installations through simplified regulations and incentives, as seen in Gujarat's SuryashaktiKisanYojana can further accelerate this transition.
  o Additionally, promoting energy storage solutions and green hydrogen production can address intermittency issues and enable deeper penetration of renewables.
- **Enhance Urban Green Cover and Vertical Forests:** Taking inspiration from China's vertical forest in Nanjing, Indian cities can adopt similar green infrastructure projects.
  o For example, Mumbai's recent initiative to create urban forests in Aarey Colony is a step in this direction.
  o Implementing mandatory green building codes that incorporate vertical gardens and

- rooftop plantations, as seen in Singapore's Skyrise Greenery Incentive Scheme**,** could significantly increase urban green cover.
  - o Cities like Bengaluru, can focus on creating mini-forests using the Miyawaki technique, which has shown success in creating dense urban forests in small areas, enhancing air purification capacity in cities.
- **Revolutionize Urban Transportation:** India needs to prioritize sustainable urban mobility to combat vehicular emissions.
  - o The successful implementation of Delhi's electric vehicle policy can be replicated in other cities.
  - o Expanding and improving public transport infrastructure, like Kochi's water metro system launched in 2023, can provide efficient alternatives to private vehicles.
  - o Implementing congestion pricing in major cities, similar to London's Ultra Low Emission Zone, can discourage private vehicle use in high-pollution areas.
- Additionally, creating extensive networks of dedicated bicycle lanes and pedestrian zones**,** as seen in Copenhagen**,** can promote non-motorized transport options.
- **Adopt Advanced Air Quality Monitoring and Management Systems**: Implementing a comprehensive, real-time air quality monitoring network across India is crucial.
  - o The recent expansion of the Central Pollution Control Board's network to 804 monitoring stations in 344 cities is a positive step, but more granular data is needed.
  - o Integrating low-cost sensor networks**,** satellite data, and AI-powered forecasting models can provide more accurate and localized air quality information.

- o Implementing a national-level air quality data platform, similar to China's Blue Map app, can increase public awareness and participation in air quality management.
- o Pi Green Innovations, a Pune-based green tech company, provides retrofit systems for vehicles and diesel generators to reduce carbon emissions and is a solution partner for UNDP's 'Clear Air Initiative' in India.
- o **BreathEasy,** a Delhi-based company, offers air quality testing, portable and centralized air purification solutions, and green consulting services to optimize indoor environments.
- ▪ **Tackle Agricultural emissions through Sustainable Practices:** Addressing stubble burning requires a multi-faceted approach.
- o Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue needs to be intensified.
- o Exploring innovative solutions like bio-decomposers (PUSA Decomposer) and Palletisation, can offer a cost-effective alternative to burning.
- o Additionally, promoting crop diversification away from paddy in Punjab and Haryana**,** can reduce stubble generation.
- o Implementing a reward system for farmers who adopt sustainable practices, similar to the Payments for Environmental Services Program in Costa Rica, could provide economic incentives for change.
- ▪ **Implement Sector-Specific Emission Reduction Strategies:** Developing and implementing targeted emission reduction strategies for key polluting sectors is essential.
- o For the construction sector, which contributes significantly to particulate matter pollution, enforcing strict dust control measures as mandated by

the Construction and Demolition Waste Management Rules, 2016, is crucial.

o The recent initiative by the National Capital Region Planning Board to use artificial rain for dust suppression in Delhi-NCR can be explored for wider application.

o In the brick kiln industry, promoting the shift to cleaner technologies like zig-zag kiln**s** can be implemented

o For the transport sector, accelerating the adoption of BS-VI fuel standards and incentivizing the scrapping of old vehicles through programs like the Vehicle Scrappage Policy launched in 2021 can significantly reduce vehicular emissions.

Conclusion

To effectively tackle India's persistent air pollution crisis, a holistic approach is essential—one that integrates long-term, science-based solutions, stringent enforcement of emission norms, and promotion of sustainable practices across industries, transportation, and agriculture. Enhanced coordination between states and a shift towards clean energy and urban green infrastructure will play a critical role. Only through proactive and comprehensive efforts can India safeguard public health and improve air quality for future generations.

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EXPLORING THE PROSPECTS OF ONE NATION ONE ELECTION

With the approval of a proposal for simultaneous elections nationwide and the report submitted by a high-level committee chaired by former President Ram NathKovind, the idea of "One Nation, One Election(ONOE)" has once again gained significant traction in India's political landscape. Advocates argue that this approach could enhance governance

by reducing the frequent interruptions caused by staggered elections, allowing governments to focus on long-term policy implementation rather than short-term electoral strategies. Additionally, it could potentially lower the costs associated with conducting multiple elections and streamline the electoral process, promoting a sense of stability and predictability in governance.

However, the proposal has also sparked considerable debate, raising critical concerns about its implications for federalism and political representation.Critics warn that simultaneous elections may overshadow local issues and marginalize regional parties,favouring national parties and reducing political diversity. Additionally, the logistical challenges and theneed for fair representation across diverse demographics must be carefully considered as India explores this significant change.

What is One Nation, One Election?

- **Definition: ONOE** refers to the proposal of holding simultaneous elections for the LokSabha and all State Legislative Assemblies in India.
  o In some cases, it may also include local body elections, such as those for municipalities and panchayats.
- **Objective:** The fundamental aim of ONOE is to align the electoral cycles across different levels of government, conducting elections concurrently or within a set timeframe.
  o This would necessitate significant constitutional amendments and changes to various election related laws and processes..
- **Historical Context**: India experienced synchronized elections from 1951 to 1967, during which elections for the LokSabha and most State Assemblies were held simultaneously.
  o However, this practice eroded due to political factors and premature dissolutions of assemblies.
  o The election cycles diverged further due to political instability and defections in the 1960s.

Advantages of One Nation, One Election

- **Cost Reduction**: Simultaneous elections could lead to significant savings in resources like security personnel, polling staff, and election materials.
  o The cost of LokSabha elections in India has increased significantly, rising from Rs 10.5 crore in the first election of 1951-52 to Rs 50,000 crore in 2019.

- o This significant escalation reflects the growing complexities and scale of the electoral process over the decades.
- o Also, the Election Commission of India's (ECI) operational costs could decrease due to streamlined processes.
- **Governance Continuity:** Fewer elections could mitigate the "policy paralysis" caused by short-term electoral strategies and the Model Code of Conduct, while also reducing resource strain, constant campaigning, and corruption among political parties.
- **Reduced Disruptions**: Less frequent elections would mean fewer disruptions to public life, benefiting educational institutions often used as polling stations.
- o Also, teachers, along with other government service holders, are indulged in election duties and training, disrupting their actual duties.
- o Thus, ONOE could enhance administrative efficiency by allowing officials to focus more on governance instead of election duties.
- **Increased Voter Participation:** Supporters argue that simultaneous elections may reduce "election fatigue," potentially leading to higher voter turnout and engagement.
- **Streamlined Campaigns:** Political parties could benefit from concentrated campaign efforts, allowing smaller parties a better chance to compete effectively.
- **Economic Benefits**: The Kovind Committee report indicated that India's national real GDP growth could be 1.5% points higher in the year following simultaneous elections compared to the previous year.
- o The report also indicated a potential 1.28% increase in fiscal deficit and a 17.67% rise in public spending following simultaneous elections.
- o Also, fewer elections might diminish the influx of black money and pressure on businesses for political donations. The ECI seized Rs.10000 crore during the 18th LokSabha elections.
- **Improved Election Monitoring**:The concentrated nature of simultaneous elections might facilitate better election monitoring.
- **Enhance Administrative Efficiency:** Supporters argue that holding joint polls can enhance administrative efficiency.
- o Simultaneous elections would reduce governance downtime and improve security by freeing resources usually tied up in the election process.

Challenges of One Nation, One Election

- **Threat to Federalism:** Synchronizing national and state elections could overshadow local issues, as the national narrative may dominate electoral discourse.
- o This could result in national parties overshadowing regional voices, diminishing the representation of local concerns and needs, which are often best understood by state-level parties.
- o Also, in a synchronized election framework, smaller regional parties may find it difficult to compete against parties having deeper pockets and larger influence, potentially diminishing political diversity and overshadowing regional issues.
- o Simultaneous voting may confuse less informed or first-time voters, leading to uninformed choices and more invalid votes, which could undermine democracy.
- **Logistical Challenges**: Organizing simultaneous elections would place immense strain on the resources and capabilities of the ECI and security forces.

- Implementing simultaneous elections would require a significant purchase of Electronic Voting Machines (EVMs) and Voter Verifiable Paper Audit Trail (VVPAT) machines.
- The Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice (2015) estimated that around Rs 9,284.15 crore would be needed for the procurement of these machines.
- Logistical challenges in diverse regions could compromise the integrity and smooth execution of elections.
- **Constitutional Concerns:** Implementing ONOE would necessitate significant amendments to the Constitution and Representation of People Act, 1951 (RPA) potentially altering its fundamental structure.
- Some amendments will require a special majority of one third members under art 368 and require ratification by more than half of India's states.
- Such changes might infringe on existing powers of the President and state governors, raising questions about the balance of power and the nature of India's parliamentary democracy.
- **Governance Vacuums:** The reduced flexibility in calling early elections in response to political crises could result in prolonged periods of President's Rule in states where governments fall mid-term.
- This could create governance vacuums, leaving citizens without adequate representation or decision-making during critical periods.
- **Reduce Accountability**: Frequent elections keep representatives vigilant, but experts warn that less frequent elections might reduce their accountability, limiting voters' chances to express dissatisfaction.

- This could lead to complacency among elected officials, reducing their responsiveness to constituent needs and concerns.
- **Pressure on Election Machinery:** The ECI would face significant pressure to conduct free and fair elections simultaneously across the country.
- Any systemic failures or irregularities could have far-reaching consequences, potentially eroding public trust in the electoral process and institutions.

Recommendations of various Committees on ONOE

- **High level Committee on Simultaneous Elections**: The Union Cabinet has recently approved the proposal for simultaneous elections in India, as recommended by the high-level committee led by former President Ram NathKovind.The Key Recommendations are-
- **Phased Implementation:** Simultaneous election in two phases-
- **First Phase**: Conduct LokSabha and State Assembly elections simultaneously.
- **Second Phase**: Hold local body elections (panchayats and municipalities) within 100 days of the first phase.
- **Constitutional Amendments:** The Kovind committee proposed 15 amendments to the Constitution, requiring two Constitution Amendment Bills.
- **First Bill**: Addresses the transition to a simultaneous election system and allows for fresh elections if a LokSabha or State Assembly is dissolved before its term ends. This bill does not require state ratification.
- **Second Bill**: Focuses on local body elections and the establishment of a Single Electoral Roll. This bill will require ratification by more than half of India's states.

- o **New Constitutional Articles:**
- **Article 82A:** Proposed to facilitate the transition to simultaneous elections.
- Notification by the President marking the "Appointed date."
- All legislative assemblies formed after this date will end with the LokSabha's full term.
- Expands Parliament's power to include conducting simultaneous elections by amending Article 327.
- o **Handling Early Dissolutions:**
- Amendments to Articles 83 and 172 clarify the terminology of "full term" and "unexpired term" for LokSabha and State Assemblies.
- Assemblies that replace dissolved ones will serve only for the unexpired term before subsequent simultaneous elections.
- o **Local Body Elections and Electoral Roll:**
- The second Bill proposes a new Article 324A, empowering Parliament to ensure local elections occur simultaneously with general elections.
- A new Article 325(2) introduces a Single Electoral Roll for all elections, to be managed by the ECI, reducing the role of State Election Commissions to a consultative capacity.
- **Logistical Considerations:** The implementation of these recommendations will require extensive planning and coordination among various levels of government to ensure a seamless electoral process.
- ▪ **Earlier Recommendations:**
- o **The Law Commission Working Paper (2018):**
- Amend the Constitution and the Representation of the People Act, 1951, to enable simultaneous elections.
- Modify the Anti-Defection Law to prevent stalemates in hung legislatures.

- Extend the six-month limit for issuing election notifications for added flexibility.
- o **Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice (2015):**
- The 2015 report emphasized the advantages of synchronized elections for better political stability.
- The committee noted that implementing simultaneous elections would need extensive resources, including EVMs and VVPATs, estimated to cost around Rs.9,284.15crore, while also highlighting significant logistical and constitutional challenges.
- o **National Commission to Review the Working of the Constitution:** Their 2002 report advocates for simultaneous elections to promote continuity in governance.
- o **NITI AAYOG:** The 2017 Working Paper supports simultaneous elections to streamline the electoral process and strengthen democracy.

Way Forward
- ▪ **National Dialogue**: Initiate comprehensive discussions involving political parties, civil society organizations, and experts to assess support and address concerns regarding ONOE.
- o This dialogue should aim to ensure that diverse perspectives are taken into account, facilitating consensus-building around the initiative.
- o For instance, the high-level committee on ONOE has gathered more than 20,000 responses from citizens, with 81% expressing their support for the concept of simultaneous elections.
- ▪ **Gradual Implementation:** Consider a phased approach by starting with pilot programs that align a few state elections with LokSabha elections.

- o This allows for real-world testing of the concept, enabling stakeholders to identify challenges and make necessary adjustments before a nationwide rollout.
- **Legal Preparations**: Draft essential constitutional amendments and legislative changes, with guidance from legal experts, to establish a strong legal framework for ONOE.
- o For instance, as suggested by ECI, to prevent premature dissolution, a no-confidence motion must include a confidence motion for a named successor.
- If dissolution is unavoidable, the President may administer until the next election if the remaining term is short; otherwise, fresh elections should occur for the original term length. Similar provisions apply to Legislative Assemblies.
- o This process should involve extensive consultations to ensure that the proposed amendments uphold democratic principles and the integrity of the Constitution.
- **Safeguarding Federalism**: Design measures to ensure that state-specific issues remain central in electoral discussions, while also considering ways to protect and promote regional political parties.
- o This will help maintain the diversity and representation of various interests within India's federal structure.
- **Strengthening the Election Commission**: Enhance the capabilities and independence of the Election Commissions to effectively manage the increased responsibilities associated with ONOE.
- o This may involve upgrading technological infrastructure and increasing human resources to handle simultaneous elections.

- o Invest in more EVMs and VVPAT systems, and develop tech solutions for voter registration, voting, and result tabulation to manage simultaneous elections effectively.
- **Capacity Building**: Implement comprehensive training programs for election officials, security personnel, and other stakeholders to ensure efficient management of simultaneous elections.
- o These programs should focus on best practices in election administration and crisis management.
- **International Engagement:** Engage with other countries and international organizations to share experiences and best practices related to electoral reforms.
- o Learning from global examples can provide valuable insights and help avoid potential pitfalls in the implementation of ONOE.
- o For example, South Africa holds simultaneous elections for the National Assembly and provincial legislatures every five years, with the President elected by the Assembly.
- In contrast, Sweden and Germany elect their Prime Ministers and Chancellors every four years, while the UK has fixed-term elections every five years.
- **Economic Planning:** Prepare for changes in election-related expenditures by developing strategies to mitigate potential economic disruptions during the transition period.
- o This includes planning for resource allocation and budgeting to accommodate the new electoral framework.
- **Public Consultations**: Conduct extensive public awareness campaigns to educate citizens about the implications of ONOE.

Conclusion

The proposal for "One Nation, One Election" presents a transformative vision for India's

electoral landscape, promising to enhance governance efficiency and reduce costs associated with frequent elections. While proponents emphasize the potential for streamlined administration and improved policy focus, significant concerns remain regarding the impact on federalism, local representation, and the practical challenges of implementation.

As India navigates this complex issue, it is crucial to engage in thorough discussions, consider diverse perspectives, and ensure that any reforms uphold the principles of democracy and equity in representation.

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NUCLEAR DISARMAMENT: INDIA'S BALANCING ACT

The International Day for the Total Elimination of Nuclear Weapons (26th September) brings renewed focus to global nuclear disarmament efforts, particularly the Treaty on the Prohibition of Nuclear Weapons (TPNW). As the United Nations grapples with divisive issues like the Ukraine war and climate change, the TPNW's agenda gains significance. The treaty, which came into force in 2021, goes beyond the Non-Proliferation Treaty (NPT) by comprehensively banning the development, testing, production, and use of nuclear weapons. With 70 states parties and 27 signatories as of July 2024, the TPNW represents a growing movement to delegitimize nuclear weapons.
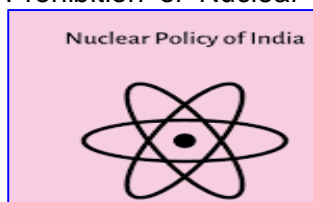
India's stance on the TPNW is crucial, given its status as a nuclear power outside the NPT framework. While India has historically opposed the NPT as discriminatory, it has not actively undermined the treaty. As the global community reassesses nuclear risks in light of recent geopolitical tensions, India must navigate its national security interests while considering the normative potential of the TPNW in delegitimizing nuclear weapons.

How Global Nuclear Disarmament Efforts Evolved Over Time?

- **Early Nuclear Era and First Disarmament Attempts (1945-1960):** The modern nuclear age began with the Trinity test and the bombings of Hiroshima and Nagasaki in 1945.
- By 1949, the Soviet Union had tested its first nuclear device, initiating the arms race.
- The 1946 Baruch Plan proposed international control of atomic energy but failed due to Cold War tensions.
- In **1953,** Dwight Eisenhower's "Atoms for Peace" speech attempted to shift focus to peaceful nuclear applications.
- The International Atomic Energy Agency (IAEA) was established in 1957 to promote peaceful nuclear use and prevent military applications.
- India, newly independent, initially advocated for complete disarmament but began its own nuclear program in the 1950s under HomiBhabha.
- **Non-Proliferation Treaty and Partial Test Ban (1960-1970):** The 1963 Partial Nuclear Test Ban Treaty prohibited above-ground nuclear tests.
- The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) was opened for signature in 1968, entering into force in 1970.
- The NPT recognized five nuclear weapon states (US, USSR, UK, France, China) and aimed to prevent further proliferation.
- The treaty established a review process every five years.
- India refused to sign the NPT, viewing it as discriminatory, and continued its nuclear program under the guise of peaceful purposes.
- **SALT, START, and Regional Nuclear-Free Zones (1970-1990):** The Strategic Arms Limitation Talks (SALT) between the US and USSR resulted in the Anti-Ballistic Missile Treaty (1972) and SALT I (1972).
- The first Nuclear-Weapon-Free Zone was established in Latin America (Treaty of Tlatelolco).

- The Intermediate-Range Nuclear Forces Treaty (1987) eliminated an entire class of nuclear weapons.
- India conducted its first nuclear test, "Smiling Buddha," in 1974.
- **Post-Cold War Disarmament Momentum (1990-2000):** The slowdown of the Cold War accelerated disarmament efforts.
- The Strategic Arms Reduction Treaty (START I) was signed in 1991, reducing deployed nuclear warheads.
- The Comprehensive Nuclear-Test-Ban Treaty (CTBT) was opened for signature in 1996.
- However, it has not entered into force due to non-ratification by key states.
- India and Pakistan both conducted nuclear tests in 1998, declaring themselves nuclear powers outside the NPT framework.
- **Challenges to Disarmament and New Initiatives (2000-2010)**: The US withdrew from the Anti-Ballistic Missile Treaty in 2002, citing new security threats.
- The Global Threat Reduction Initiative was launched in 2004 to secure nuclear materials worldwide.
- India signed a civil nuclear agreement with the US in 2008, gaining de facto recognition of its nuclear status while remaining outside the NPT.
- **Humanitarian Initiative and Ban Treaty (2010-2020)**: The Humanitarian Initiative, launched in 2010, refocused disarmament efforts on the catastrophic humanitarian consequences of nuclear weapons.
- This led to the negotiation of the Treaty on the Prohibition of Nuclear Weapons (TPNW) in 2017, which entered into force in 2021.
- The 2015 Joint Comprehensive Plan of Action (Iran nuclear deal) was a significant non-proliferation achievement, though challenged by US withdrawal in 2018.
- India maintained its policy of "credible minimum deterrence" and continued to advocate for universal nuclear disarmament.
- N**ew Challenges and Uncertain Future (2020-Present):** The **Covid-19 pandemic** disrupted disarmament diplomacy, with many meetings postponed or held virtually.
- The US and Russia extended New START for five years in 2021, preserving the last remaining bilateral nuclear arms control treaty.
- Tensions over Ukraine led to increased nuclear rhetoric, raising global concerns.
- Also, The recent escalation between Israel and Hamas has heightened concerns with the risk of broader conflict raising questions about nuclear security in the Middle East.
- Emerging technologies like hypersonic weapons and AI Supported Warfare pose new challenges to strategic stability.
- India continues to modernize its nuclear arsenal while supporting disarmament in principle**,** advocating for a time-bound framework for universal nuclear disarmament.

Current Nuclear-Related Issues that India is Facing

- **Balancing Nuclear Deterrence with Disarmament Advocacy:** India faces the challenge of maintaining its nuclear deterrent while advocating for global disarmament.
- As of 2023, India is estimated to possess about 160 nuclear warheads.
- India continues to modernize its nuclear arsenal, including the development of submarine-launched ballistic missiles (SLBMs) like the K-4.
- Simultaneously, India has been a vocal proponent of universal nuclear disarmament, calling for a time-bound framework at various international forums.
- This dual stance creates diplomatic tensions, particularly as India remains outside the Non-Proliferation Treaty

(NPT) while seeking greater integration into the global nuclear order.

- **Managing the China-Pakistan Nuclear Axis:** The strategic partnership between China and Pakistan poses a significant challenge to India's security calculus.
  - China's support for Pakistan's nuclear program, including the alleged transfer of missile technology and nuclear materials, has been a long-standing concern.
  - Recent developments, such as China's construction of nuclear reactors in Pakistan (e.g., the Karachi Nuclear Power Plant Units 2 and 3), have heightened these concerns.
  - The potential for a two-front nuclear threat scenario complicates India's Defence planning and nuclear posture.
  - This has led to India's development of longer-range missiles like the Agni-V, capable of reaching targets across China, and investments in sea-based deterrence capabilities.
- **Nuclear Doctrine and No First Use Policy:** India's nuclear doctrine, cantered around its No First Use (NFU) policy, faces scrutiny and debate in light of evolving regional dynamics.
  - Some strategists argue for a revision of the NFU policy, particularly given Pakistan's development of tactical nuclear weapons and China's nuclear expansion.
  - In August 2019, India's Defence Minister's statement that the future of NFU would depend on circumstances sparked speculation about potential doctrinal shifts.
  - The debate continues on whether India's NFU policy enhances or undermines its deterrence credibility, especially in asymmetric conflict scenarios. This discussion has implications for India's nuclear posture, force structure, and diplomatic relations.
- **Nuclear Security and Safety Concerns:** Ensuring the security and safety of its growing nuclear infrastructure is a critical challenge for India.
  - The country has 23 operational nuclear reactors as of 2023, with plans to increase nuclear power capacity to 22,480 MWe by 2031.
  - While India has a good nuclear safety record, incidents like the 2010 Mayapuri radiation exposure highlight potential vulnerabilities.
  - International concerns persist about the security of India's nuclear materials, despite its participation in global initiatives like the Nuclear Security Summit process.
  - The Nuclear Threat Initiative (NTI) Nuclear Security Index ranked India 20th out of 22 countries with weapons-usable nuclear materials, indicating areas for improvement in nuclear security practices.
- **Civil Nuclear Cooperation and NSG Membership:** India's quest for greater integration into the global nuclear order faces ongoing challenges.
  - Despite the landmark India-US Civil Nuclear Agreement of 2008 and subsequent Nuclear Suppliers Group (NSG) waiver, India's full membership in the NSG remains elusive.
  - China's opposition, linked to Pakistan's parallel NSG bid, has been a significant obstacle.
  - This situation impacts India's access to advanced nuclear technologies and its ability to participate fully in global nuclear commerce.
  - Recent developments, such as India's civil nuclear cooperation agreements with countries like Japan (operationalized in 2017) demonstrate progress but also highlight the complexities of India's unique position in the global nuclear landscape.
- **Technological Advancements and Strategic Stability:** India's pursuit of advanced nuclear and missile technologies

presents both opportunities and challenges.

o The successful test of the Agni-P missile in December 2021, a canisterized missile with improved accuracy and quicker response time, enhances India's deterrence capabilities.

o However, such advancements, along with the development of Multiple Independently Targetable Reentry Vehicles (MIRVs) and Ballistic Missile Defence (BMD) systems, could potentially trigger an arms race in the region.

▪ **Nuclear Energy Expansion and Environmental Concerns**: India's ambitious plans to expand its nuclear energy sector face significant challenges.

o The target of increasing nuclear power capacity to 22,480 MWe by 2031 requires substantial investment and overcoming public opposition.

o Protests against nuclear power plants, such as those at Kudankulam and Jaitapur, highlight concerns about safety and environmental impact.

o The push for indigenous technology, exemplified by the design of the 700 MWe Pressurized Heavy Water Reactors (PHWRs), aims to reduce dependence on foreign technology but faces technical and economic hurdles.

Measures India can adopt to balance Nuclear Deterrence with Disarmament

▪ **Strengthen Credible Minimum Deterrence (CMD):** India can reinforce its Credible Minimum Deterrence posture by clearly defining what constitutes "minimum" in the current geopolitical context.

o The successful test of the K-4 submarine-launched ballistic missile in 2020 demonstrates India's commitment to a credible sea-based deterrent.

o By emphasizing quality over quantity in its nuclear modernization efforts, India can maintain deterrence while signalling its commitment to restraint and eventual disarmament.

▪ **Promote Regional Strategic Stability Dialogues:** India can initiate and participate in regional strategic stability dialogues, involving both nuclear and non-nuclear states in South Asia.

o These dialogues could focus on risk reduction measures, confidence-building, and crisis management mechanisms.

o For instance, India could propose regular meetings of nuclear risk reduction centres with Pakistan, similar to the US-Russia model.

o By fostering open communication channels, India can work towards reducing nuclear tensions while demonstrating its commitment to regional stability and eventual disarmament.

▪ **Engage in Global Disarmament Initiatives:** While maintaining its deterrent, India can take a more active role in global disarmament initiatives.

o This could include proposing concrete steps towards a nuclear-weapon-free world at forums like the Conference on Disarmament.

o For example, India could champion the development of a multilateral treaty on No First Use of nuclear weapons, building on its own policy.

o India's participation in the Nuclear Security Summits and its contributions to the International Atomic Energy Agency (IAEA) demonstrate its capacity for constructive engagement.

o By leading such initiatives, India can strengthen its position as a responsible nuclear power committed to ultimate disarmament. •

▪ **Invest in Verification Technologies:** India can invest in and contribute to the development of nuclear disarmament verification technologies.

o This demonstrates a commitment to creating the technical conditions necessary for future disarmament while maintaining current deterrence capabilities.

o India's expertise in space and satellite technology, demonstrated by missions like Chandrayaan-3 in 2023, could be leveraged for developing verification satellites.

- Such investments position India as a key player in shaping the future of disarmament processes.

▪ S**trengthen Domestic Controls and Export Regulations**: India can further strengthen its domestic nuclear controls and export regulations, demonstrating responsible stewardship of nuclear technology while maintaining deterrence.

o This could involve enhancing physical security at nuclear facilities, improving nuclear material accounting systems, and tightening export controls on dual-use technologies.

o For instance, India's implementation of the Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) list, which regulates the export of sensitive items, can be further refined and expanded.

o These measures reinforce India's image as a responsible nuclear power committed to non-proliferation and eventual disarmament.

▪ **Promote Nuclear Energy for Sustainable Development:** India can emphasize the peaceful uses of nuclear technology, particularly in addressing climate change and sustainable development goals, while maintaining its deterrent.

o This could involve expanding its nuclear energy program with a focus on advanced, safer reactor designs.

o For example, India's development of the Advanced Heavy Water Reactor (AHWR), which uses a thorium fuel cycle, demonstrates its commitment to sustainable nuclear energy.

o By highlighting the civilian benefits of nuclear technology, India can maintain public support for its nuclear program while advocating for global disarmament in the long term.

▪ **Engage in Track 1.5 and Track 2 Diplomacy:** India can actively participate in and support Track 1.5 and Track 2 diplomatic initiatives focused on nuclear risk reduction and disarmament.

o These unofficial dialogues can explore innovative ideas and build relationships that facilitate official negotiations.

o For instance, India could sponsor regional workshops on nuclear risk reduction, similar to the "Stability-Instability Paradox" workshops held by the Stimson Centre.

o Such initiatives allow India to contribute to disarmament discourse while maintaining its deterrent posture.

Conclusion

India faces the complex task of balancing its national security interests with global disarmament goals. By modernizing its deterrence capabilities while actively advocating for nuclear disarmament, engaging in international diplomacy, and investing in peaceful nuclear technologies, India can strengthen its position as a responsible nuclear power committed to eventual disarmament. •

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INDIA'S QUEST FOR SOLAR DOMINANCE

India's Solar Ambitionshave reached new heights with the recent REINVEST meet in Gandhinagar, which garnered renewable energy investment proposals totalling USD 386 billion and aims to create 570 GW of solar power capacity by 2030. This ambitious goal puts India on track to surpass its global commitment of 500 GW non-fossil fuel capacity by 2030. However, to realize India's estimated solar potential of 749 GW, the country must significantly accelerate its current annual capacity additions of 10-15 GW.

The push for solar dominance is not just about clean energy; it's a strategic move

with geopolitical implications. India's recent policy shifts, including production-linked incentives for solar cells and modules and the introduction of the Approved List of Models and Manufacturers (ALMM), aim to reduce dependency on Chinese imports and bolster domestic manufacturing. While this protectionist approach may lead to higher domestic power costs in the short term, it positions India as a potential global hub for solar technology production.

Current status of India's Solar Sector?

- India is the 3rd largest energy-consuming country in the world. And, India stands 5th in solar power capacity (REN21 Renewables 2024 Global Status Report).
- At COP26, India pledged to achieve 500 GW of non-fossil fuel-based energy by 2030, part of the Panchamrit initiative—the world's largest renewable energy expansion plan.
- **Solar Energy Growth:**
- Installed solar energy capacity has increased 30-fold in the last 9 years, reaching 89.4 GW in August 2024.
- India's solar potential is estimated to be 748 GWp (National Institute of Solar Energy, NISE).
- **Investment and FDI:**
- 100% Foreign Direct Investment (FDI) is allowed under the automatic route for renewable energy generation and distribution projects, subject to The Electricity Act 2003.

Significance of Solar Energy Dominance for India

- **Energy Independence**: India's push for solar energy is a cornerstone of its quest for energy independence.
- With the country importing over **80% of its oil needs**, solar power offers a path to reduce this dependency.
- The ambitious target of 500 GW non-fossil fuel capacity by 2030, with solar playing a major role.
- The recent REINVEST meet in Gandhinagar, which attracted USD 386 billion in investment proposals, underscores the scale of this transition.
- This shift not only bolsters energy security but also insulates the economy from global oil price volatility, as evidenced by

the relative stability of renewable energy prices during recent global energy crises.

- **Economic Catalyst:** The solar sector is emerging as a significant economic multiplier for India.
  o Solar energy sector is projected to generate 3.26 million jobs by 2050. As of 2021-22, over 29,000 people were employed in the solar sector.
  o The government's Production Linked Incentive (PLI) scheme for solar manufacturing, with an outlay of ₹24,000 crore, is expected to add significant manufacturing capacity for fully and partially integrated solar PV modules.
  o This not only creates jobs but also positions India as a potential global manufacturing hub.
- **Climate Change Mitigation:** Solar energy is at the forefront of India's climate change mitigation efforts.
  o Solar power installed capacity has increased from 2820 MW in March 2014 to 72002 MW in Oct 2023, i.e. an increase of around 25.54 times, making it the fifth-largest solar power producer globally.
  o The recent introduction of India's Carbon Credit Trading Scheme further incentivizes solar adoption, potentially accelerating the transition and positioning India as a leader in climate action among developing nations.
- **Rural Electrification**: Solar power is revolutionizing rural electrification in India, bringing light to the country's most remote corners.
  o The PradhanMantriKisanUrjaSurakshaevamUtthaanMahabhiyan (PM-KUSUM) scheme aims to add 30.8 GW of solar capacity by 2026.
  o Moreover, initiatives like the Solar Charkha Mission are empowering rural artisans. These programs not only provide clean

energy but also boost rural economies, demonstrating solar's potential to bridge the urban-rural divide.

- **Technological Innovation**: India's solar ambitions are driving significant technological innovations.
  o Indian scientists have indigenously developed highly stable, low-cost Carbon-based perovskite solar cells with superior thermal and moisture stability.
  o The establishment of the National Institute of Solar Energy (NISE) as an autonomous R&D institution further underscores this commitment.
  o These innovations not only enhance efficiency but also drive down costs.
- Solar cells and modules have witnessed price drops of 65% and 50% respectively in 2022, making solar increasingly competitive with conventional power sources.

Major Issues related to the Solar Sector in India

- **Land Acquisition Challenges**: Land scarcity poses a significant hurdle for large-scale solar projects in India.
  o Solar Power Plants occupy at least 5 acres of land per 1 MW output; the country's 500 GW renewable energy target by 2030 could necessitate over 1.5 million acres for solar alone.
- This demand often conflicts with agricultural and habitation needs, leading to social tensions and project delays.
  o For instance, the 5000 MW Dholera Solar Park in Gujarat faced protests from local farmers, delaying its implementation.
- The land issue is further complicated by India's complex land ownership laws.
- **Grid Integration and Infrastructure Bottlenecks:** The intermittent nature of solar power poses significant challenges for grid stability and management.

- India's grid infrastructure, designed primarily for conventional power sources, struggles to accommodate the variability of solar generation.
- The country's transmission losses stand at about 16.4% as of 2021-22, significantly higher than the global average.
- Recent grid failures, like the one in Mumbai in October 2020, highlight the vulnerability of the system.
- **Financing and Investment Hurdles:** Despite the recent influx of investment proposals, securing consistent financing for solar projects remains challenging.
- The outstanding dues of electricity discoms dropped by one-third to ₹93,000 crore by May,2023 following the implementation of the Late Payment Surcharge (LPS) Rules in June 2022, but still it is significant creating liquidity pressures and increasing investor risk perception.
- While green bonds and specialized financial instruments are emerging, with India's first sovereign green bonds raising ₹16,000 crore in 2023, scaling up these funding mechanisms to meet the sector's needs remains a crucial challenge.
- **Technological Dependence and Manufacturing Gaps**: India's solar sector heavily relies on imported technology, particularly from China.
- Despite recent policy pushes like increased import duties and the Production Linked Incentive (PLI) scheme, domestic manufacturing capacity remains limited.
- The lack of a robust domestic supply chain for critical components like wafers and ingots increases vulnerability to global supply disruptions.
- Post July 2020, polysilicon price in the global markets increased from USD 6.8/Kg to USD 43/Kg in November 2021(~6 times increment).
- **Storage and Round-the-Clock Power:** The lack of cost-effective energy storage solutions hinders the full potential of solar power in India.
- With solar generation limited to daylight hours, meeting evening peak demand remains a challenge.
- The current battery storage capacity in India is merely 20 MWh, against a projected requirement of 74 gigawatts by 2032.
- The high cost of battery storage makes round-the-clock solar power economically viable for many applications.
- **Environmental and Social Impacts:** While solar energy is clean, its large-scale deployment is not without environmental concerns.
- Solar parks can lead to habitat destruction and biodiversity loss.
- The Bhadla Solar Park in Rajasthan, one of the world's largest at 2245 MW, has raised concerns about its impact on local flora and fauna.
- Moreover, the end-of-life management of solar panels poses a significant challenge.
- India is expected to generate 34,600 tonnes of solar panel waste by 2030, yet lacks a comprehensive recycling policy.

Steps India can take to enhance the viability and efficiency of Solar Energy

- **Streamlined Land Acquisition and Innovative Land Use Policies:** Implement a centralized land bank system for solar projects, identifying and pre-clearing suitable non-agricultural lands.
- Introduce a national policy on agrivoltaics, incentivizing dual use of land for agriculture and solar generation.

- Simplify land leasing regulations for solar projects, allowing for longer lease periods of up to 40 years.
- Encourage the use of brownfield sites, such as closed landfills and abandoned mines, for solar installations.

- **Grid Modernization and Smart Integration Technologies:** Invest heavily in smart grid technologies and energy management systems to handle the variability of solar power.
  - Implement advanced forecasting tools and artificial intelligence for better prediction and management of solar generation.
  - Upgrade transmission infrastructure, focusing on high-capacity interstate transmission lines dedicated to renewable energy.
  - Incentivize the deployment of distributed energy resources (DERs) and microgrids to reduce transmission losses and improve grid resilience.

- **Innovative Financing Mechanisms and Risk Mitigation Tools:** Establish a dedicated Green Bank for renewable energy projects, offering low-interest loans and credit enhancement tools.
  - Introduce solar-specific green bonds and climate bonds to tap into global sustainable finance markets.
  - Implement a national payment security mechanism to address the risk of delayed payments from DISCOMs.
  - Create a standardized solar asset-backed securities market to improve liquidity for developers.

- **Domestic Manufacturing through Technology Transfer and R&D:** Implement a phased manufacturing program for the entire solar value chain, from polysilicon to modules.
  - Establish joint ventures with global technology leaders for knowledge transfer and capacity building.
  - Increase R&D funding for next-generation solar technologies like perovskite cells and tandem modules.
  - The recent success of the Indian Institute of Technology (IIT) Bombay in developing 4T- silicon-perovskite tandem solar cells with more than 26% efficiency demonstrates the potential for indigenous innovation, which could be scaled up with targeted support.

- **Comprehensive Energy Storage Policy and Infrastructure:** Develop a national energy storage mission with clear targets and incentives for various storage technologies.
  - Implement a regulatory framework that recognizes and compensates the value of storage in grid stabilization.
  - Incentivize the co-location of storage facilities with solar plants through additional tariffs or capacity payments.
  - Promote pumped hydro storage in suitable geographical locations as a cost-effective large-scale storage solution.

- **Skill Development and Workforce Training Programmes:** Establish a network of solar skill development centres across the country, focusing on rural areas where large solar projects are typically located.
  - Integrate solar technology courses into ITI and polytechnic curricula to create a pipeline of skilled technicians.
  - Implement a national certification program for solar installers and maintenance personnel to ensure quality standards.
  - Introduce apprenticeship programs in collaboration with solar companies to provide hands-on training.

- The Suryamitra Skill Development Programme could be expanded and modernized to include advanced technologies and soft skills training.
- **Water-Efficient Cleaning Technologies and Practices:** Mandate the use of robotic dry-cleaning systems for large-scale solar installations in water-stressed areas.
  - Invest in research and development of hydrophobic coatings for solar panels to reduce dust accumulation.
  - Implement rainwater harvesting systems at solar parks for cleaning purposes.
  - Promote the use of treated wastewater for panel cleaning in areas near urban centres.
- **Accelerating Rooftop Solar Adoption**: Revamp the rooftop solar ecosystem by implementing a unified, nationwide net metering policy with consistent regulations across states.
  - Introduce innovative financing models like solar leasing and on-bill financing to reduce upfront costs for consumers.
  - The PradhanmantriSuryodayYojana seeks to outfit 10 million households with rooftop solar panels.
- For this, simplifying the approval and installation process through a single-window clearance system and standardized equipment ratings is necessary.

Conclusion

India's ambitious solar goals are not only key to achieving energy independence but also critical for driving economic growth, climate action, and technological innovation. By focusing on grid modernization, innovative financing, domestic manufacturing, and sustainable practices, India can unlock the full potential of its solar energy sector and become a global leader in renewable energy production. A comprehensive and balanced approach is necessary to ensure long-term viability and efficiency in the solar domain.

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URBAN FLOODING: A LOOMING THREAT

Urban Flooding has become a pressing issue in India, with many states experiencing heavy rainfall and flooding that exceeds normal averages by over 20% this monsoon season.

This increase in extreme weather events is primarily attributed to the climate crisis, with over 64% of Indian sub-districts witnessing more heavy rainfall days in the last decade compared to the previous 30 years. However, human activities exacerbate the problem through poor land-use policies, inadequate solid waste management, and insufficient stormwater drainage systems, all of which contribute to increased water runoff and waterlogging in urban areas.

To address this growing challenge, Indian cities must shift from reactive measures to proactive flood risk management. This involves regularly reassessing rainfall patterns and updating stormwater infrastructure accordingly, identifying flood "hotspots" through comprehensive risk assessments, and implementing a range of short, medium, and long-term interventions. By adopting a year-round, risk-informed approach to water planning, Indian cities can better protect lives, livelihoods, and urban infrastructure from the increasing threat of floods.

What is Urban Flooding?

- Urban flooding refers to the inundation of land or property in densely populated areas due to heavy rainfall, overflowing rivers, poor drainage systems, or other water-related incidents.
- Unlike traditional floods that occur in rural or natural settings, urban flooding is exacerbated by the impervious surfaces in cities (such as roads, pavements, and buildings) which prevent water from being absorbed into the ground.
- It leads to waterlogging, disrupting transportation, damaging infrastructure, and posing health hazards to urban populations.

Why are Indian Urban Cities increasing prone to Flooding?

- **The Impermeable Menace**: Rapid urbanization has led to extensive concretization of Indian cities, replacing natural permeable surfaces with impervious ones.
- This drastic reduction in water absorption capacity overwhelms drainage systems during heavy rainfall.
- For instance, Mumbai saw a 99.9% increase in built-up area in the last 27 years. The result is amplified surface runoff, with some areas experiencing up to 30 times more runoff compared to natural landscapes, significantly increasing flood risk.
- **Drain Pain**: Many Indian cities rely on drainage systems designed decades ago, ill-equipped to handle current population densities and rainfall intensities.
- These outdated systems frequently become clogged with debris and waste, further reducing their capacity.
- Delhi has retained the same archaic structure for 42 years, even as the population has increased four-fold.
- The last drainage master plan for Delhi was created in 1976, leading to frequent flooding.

- **Extreme Weather Events on the Rise**: Climate change is intensifying rainfall patterns, with more frequent and severe extreme weather events.
  o Indian cities are experiencing unprecedented downpours that overwhelm existing infrastructure.
  o Chennai, for example, received 1,218.6mm of rainfall in November 2015, the highest in over a century, causing catastrophic flooding.
  o Widespread extreme rain events across central India have tripled since 1950.
  o This trend is expected to continue, with projections indicating a 20-40% increase in monsoon rainfall intensity by the end of the century.
- **Loss of Natural Water Bodies:** Urbanization has led to the encroachment and destruction of natural water bodies that once acted as flood buffers.
  o Lakes, ponds, and wetlands are being filled in for construction, eliminating crucial water storage and infiltration areas.
  o Bengaluru, once known for its numerous lakes, has lost 79% of its water bodies, reducing its flood resilience.
- **Unplanned Development in Ecologically Sensitive Areas:** Uncontrolled construction on hillsides and in **eco-**sensitive zones has increased landslide risks and altered natural water flow patterns.
  o Cities like Dehradun and Shimla have seen rapid expansion into surrounding hills, disrupting natural drainage systems.
  o The 2013 Kedarnath floods, exacerbated by unplanned development, resulted in massive destruction, highlighting the dangers of such encroachment.
  • Over 300 multi-storey buildings, hotels, and businesses, illegally built on ecologically-sensitive areas near the Ganga and its tributaries**,** were swept away or severely damaged by flash floods.

- **Solid Waste Spillover- Choking the Urban Arteries:** Inadequate solid waste management in Indian cities leads to clogged drains and reduced water flow capacity. With rapid urbanization, waste generation has skyrocketed, overwhelming existing disposal systems.
  o India generates over 1.5 lakh tonnes of municipal solid waste (MSW) per day, but only 83% of waste is collected and less than 30% is treated, illustrating the magnitude of the problem.
- **Coastal Conundrum:** Many of India's major cities, such as Mumbai, Chennai, and Kolkata, **a**re situated along the coast, making them vulnerable to both sea level rise and land subsidence.
  o Climate change-induced sea level rise is exacerbating flood risks in these areas.
  o In February 2021, McKinsey India had said in a report that by 2050, Mumbai will witness a 25% increase in the intensity of flash floods accompanied by a half-meter rise in the sea-level.

Major impacts of Urban Flooding
- **Financial Devastation in Urban Centres**: Urban flooding inflicts severe economic damage, disrupting businesses, destroying infrastructure, and causing long-term financial setbacks.
  o The 2005 Mumbai floods resulted in estimated economic losses of USD 2 billion, while the 2015 Chennai floods caused damages worth USD 3 billion.
  o Beyond immediate losses, urban floods can lead to reduced foreign investment and tourism.
  o The World Bank estimates that by 2050, flood damage in urban areas could cost USD 1 trillion annually worldwide if no preventive actions are taken.
- **Public Health •Crisis:** Floodwaters in urban areas often mix with sewage and industrial waste, creating a breeding ground for waterborne diseases.
  o In the aftermath of the 2019 Patna floods, there was a huge

- outbreak of **malaria** and diarhorria in almost all villages of Patna.
- The 2005 Mumbai floods led to a leptospirosis outbreak.
- The long-term health impacts can be severe, with studies showing a 50% increase in the risk of gastrointestinal illnesses in children exposed to urban floodwaters.
- **Urban Mobility Paralysis:** Urban floods bring cities to a standstill, crippling transportation networks and causing massive economic losses due to reduced productivity.
- During the 2022 Bengaluru floods, IT companies reported losses of ₹225 crore per day due to employees being unable to reach work.
- **Disproportionate Impact on Urban Poor:** Urban floods disproportionately affect slum dwellers and low-income communities, exacerbating existing socio-economic inequalities.
- In Mumbai, about 41-42% of the population lives in slums, many of which are located in low-lying areas or along flood-prone creeks.
- During the 2005 floods, these areas were among the worst affected.
- The long-term impacts on these communities include increased debt, reduced access to education, and perpetuation of the poverty cycle.
- **Psychological Toll of Recurring Floods:** The psychological impact of urban flooding is profound and often underappreciated.
- A study found a 67% increase in mental health issues among urban residents in flood-affected areas.
- Post-Traumatic Stress Disorder (PTSD) rates in flood-affected urban populations can be as high as 30-40%, persisting for years after the event.
- This psychological toll has broader societal impacts, affecting productivity, social cohesion, and overall quality of life in urban areas.
- **Cultural Heritage Havoc**: Urban flooding poses a significant threat to cultural heritage sites, many of which are integral to a city's identity and tourism economy.
- The 2019 floods in Hampi, a UNESCO World Heritage Site and popular urban tourist destination, caused massive damage.
- Beyond physical damage, the loss or degradation of cultural sites can have long-lasting impacts on urban identity and tourism.

Government initiatives related to Urban Flooding
- Jal Shakti Abhiyan (JSA)
- AmritSarovar Mission
- AtalBhujalYojana
- Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0

Measures can be adopted to enhance the Flood Resilience of Indian Cities
- **Sponge City Revolution:** Implementing the "Sponge City" concept can significantly enhance urban flood resilience by mimicking natural water cycles.
- This approach involves creating permeable surfaces, rain gardens, and bioswales to absorb and filter rainwater.
- China's Sponge City program has shown promising results, with pilot cities retaining 70–90% of average annual rain water.
- Implementing sponge city principles across 30% of urban areas could reduce peak runoff by up to 50%, significantly mitigating flood risks. This approach not only manages floods but also recharges groundwater and improves urban biodiversity.
- **Smart Stormwater Systems:** Integrating Internet of Things (IoT) technology into stormwater management can revolutionize flood prediction and response.
- Smart sensors in drainage systems can provide real-time data on water levels and

flow rates, enabling proactive flood management.

- o **Singapore's Smart Water Assessment Network (SWAN)** uses sensors to monitor water quality and flooding, reducing flood-prone areas.
- o Implementing similar systems across major Indian cities could improve flood prediction accuracy and reduce flood damage costs.
- ▪ **Urban Wetland Revival**: Restoring and protecting urban wetlands can significantly enhance a city's capacity to absorb excess water during heavy rainfall.
- o Wetlands act as natural sponges, absorbing up to 1 million gallons of water per acre.
- o Kolkata's East Kolkata Wetlands, naturally treat 750 million litres of wastewater daily and provide flood protection.
- o Implementing comprehensive wetland restoration programs in the top 10 flood-prone Indian cities could provide flood protection for millions of urban residents and save crores annually in flood damages.
- ▪ **Skyscrapers as Green Flood Barriers:** Incorporating vertical forests into urban architecture can significantly reduce stormwater runoff while improving air quality and biodiversity.
- o These green buildings can absorb up to 70% of rainwater that falls on them, reducing pressure on drainage systems.
- o Milan's BoscoVerticale, with 800-900 trees on two residential towers, absorbs tons of CO2 annually and significantly reduces runoff.
- ▪ **Flood-Resilient Architecture:** Adopting flood-resilient architectural principles can transform urban areas from flood victims to flood adapters.
- o This includes elevated structures, amphibious buildings, and water-permeable designs.

- o The FLOAT House in New Orleans showcases how architecture can adapt to flood risks.
- o Implementing these principles in new constructions in flood-prone urban areas could protect millions of households from flood damage annually, saving billions in reconstruction costs.
- ▪ **Community-Led Micro-Interventions:** Engaging communities in micro-level flood management can significantly enhance urban flood resilience.
- o This approach involves training local groups to implement small-scale interventions like rainwater harvesting and permeable pavements.
- o For instance, to address flooding issues, Rotterdam has designed multifunctional public spaces called "water squares."
- • These spaces collect and store excess rainwater during heavy downpours, mitigating flood risks while providing recreational areas for residents.
- o The success story of Nagdarwadi, Maharashtra, showcases the potential of this approach. This small village transformed from water-scarce to water-sufficient through comprehensive rainwater harvesting

Conclusion

Urban flooding in India, driven by rapid urbanization and climate change, causes significant economic, health and infrastructure damage. Effective measures include adopting "Sponge City" concepts, integrating smart stormwater systems, reviving urban wetlands, and implementing flood-resilient architecture. Community-led initiatives can further enhance resilience and protect urban areas.

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WORLD AFFAIRS

Hurricane Milton is set to land Florida

The National Hurricane Center (NHC) expects Milton to land as an "extremely dangerous hurricane" in the US state of Florida. It could strike near the city of Tampa. It could cause torrential rain, flash flooding, and high winds. It is steadily moving eastwards, through the Gulf of Mexico. It has been placed in the most powerful hurricane category five. In recent years, Milton has been one of the most powerful storms to form in the North Atlantic. Hurricanes are a type of tropical storm that form in the North Atlantic. The National Oceanic Atmospheric Association (Noaa) has predicted that the 2024 hurricane season will be more active than usual.

Claudia Sheinbaum took oath as first female president of Mexico

Claudia Sheinbaum was elected as Mexico's first female president on October 1, 2024, succeeding Andrés Manuel LópezObrador. She is a climate scientist and won the election with almost 60% of the vote. She took office for a six-year term lasting until 2030. Sheinbaum previously served as Head of Government of Mexico City from 2018 to 2023. Mexico, located in North America, has a federal presidential republic system, with its capital being Mexico City and its currency the Mexican peso.

UK decided to cede Chagos Island sovereignty to Mauritius

The United Kingdom will cede sovereignty of the Chagos Islands to Mauritius, marking a step toward the complete decolonization of Mauritius. Under the treaty, the UK acknowledges Mauritius's sovereignty over the Chagos Archipelago, including Diego Garcia, while retaining authorized control over the base there for an initial period of 99 years. This agreement allows Mauritius to implement a resettlement program on the islands, which the UK has controlled since 1814, detaching them from Mauritius in 1965.

Hurricane Helene's destruction across the southeastern United States has left 93 people dead

Deaths have been reported in South Carolina, Georgia, Florida, North Carolina, Virginia and Tennessee. Hurricane Helene was a large, fast-moving tropical cyclone. It was the strongest on record to strike the Big Bend region of Florida. This is the fifth hurricane of the 2024 Atlantic hurricane season. Helene developed from a broad low pressure area, the Central American gyre, in the Western Caribbean Sea in late September. A cyclone is called a 'hurricane' in the American continent. In Japan, it is called a 'typhoon'. A cyclone is a very low-pressure system with very high-speed winds revolving around it.

Sri Lanka's new president named HariniAmarasuriya as its new prime minister

Anura Kumara Dissanayake is the new president of Sri Lanka, elected on September 21, 2024. HariniAmarasuriya, a college professor and first-time lawmaker, has become the third woman to serve as Prime Minister of Sri Lanka. She is part of Dissanayake's National People's Power (NPP) coalition, which includes his JanathaVimukthiPeremuna (JVP) party.

Amarasuriya follows Sirimavo Bandaranaike and Chandrika Bandaranaike Kumaratunga as female prime ministers in Sri Lanka.

According to CEO Elon Musk, SpaceX plans to send five unmanned Starship missions to Mars in the next two years

Elon Musk announced that the first crewed missions to Mars will depend on the success of upcoming uncrewed flights. If the unmanned missions land safely, crewed missions could start in four years; however, any difficulties could delay them by two more years. A Starship rocket successfully demonstrated a landing in the Indian Ocean in June. Additionally, NASA has postponed the Artemis 3 mission, which will use SpaceX'sStarship for the first crewed moon landing in fifty years, originally set for late 2025.

Jordan became the first country to eliminate leprosy

Jordan has received official verification from the World Health Organisation (WHO) of completely eliminating leprosy. This milestone reflects Jordan's commitment to eradicate this disease. Leprosy is a chronic infectious disease caused by the bacterium Mycobacterium leprae. It affects the skin, nerves, and respiratory tract. It has long carried a social stigma. The Jordanian Ministry of Health in partnership with the WHO and other international organizations has worked to provide multi-drug therapy (MDT) and spread awareness about leprosy. WHO's verification process is rigorous and requires meeting specific criteria.

Jafar Hassan became the new Prime Minister of Jordan

Jordanian King Abdullah II appointed Jafar Hassan as the Prime Minister of Jordan. Islamic Action Front (IAF) has won 31 out of 138 seats. This made it the largest party in the elected lower house of parliament. After the parliamentary election, Hassan received the charge to form the government. He had served as planning minister before becoming King Abdullah II's chief of staff. He replaced BisherKhasawneh, who had headed the government since October 2020. In Jordan, the King makes high-level appointments including the prime minister.

SpaceX's Polaris Dawn mission was completed recently

Billionaire Jared Isaacman led the Polaris Dawn mission, which marked significant

milestones in private space exploration. After five days, the Crew Dragon capsule, named "Resilience," safely returned to Earth. The crew included pilot Scott "Kidd" Poteet and SpaceX engineers Sarah Gillis and Anna Menon. On September 12, they conducted the first-ever commercial spacewalk, testing SpaceX's new EVA suits for over 20 minutes, a key step for future deep space missions. The crew also performed about forty scientific investigations on microgravity's effects on the human body and tested SpaceX'sStarlink satellites for communication.

Algerian President AbdelmadjidTebboune was re-elected with 84.3% of the vote

Algeria's President AbdelmadjidTebboune won a second term with 84.3% of the vote. Tebboune was challenged by YoucefAouchiche of the Socialist Forces Front and Abdellah Hassan Cherif of the Movement for Society for Peace. Algeria held its presidential elections on September 7, 2024. They were initially scheduled for December 2024. Tebboune was elected in December 2019 during Hirak's massive pro-democracy protests. Algeria's president is elected in two rounds. If no candidate obtains a majority of the votes in the first round, a second round is

conducted. Algeria is a country in North Africa. Algiers is its capital and largest city. Nadir Larbaoui is its Prime Minister. Type of government is unitary semi-presidential republic.

Switzerland topped in the 'Best Countries Ranking 2024'

Switzerland ranked first in the Best Countries Ranking 2024 for the third year in a row, assessed across 89 countries based on ten weighted sub-rankings like quality of life and entrepreneurship. India placed 33rd, declining three spots from the previous year, with its best rankings in "movers" (7th) and heritage (10th). The top five countries are Switzerland, Japan, the USA, Canada, and Australia. Only the UAE and Qatar from the Middle East and Japan, Singapore, China, and South Korea from Asia made it to the top 25. The rankings were released by US News & World Report.

WHO granted the first mpox vaccine approval for Africa

The World Health Organization (WHO) has approved a vaccine for mpox in adults in Africa. The vaccine, pre-qualified by Bavarian Nordic, can now be purchased by donors like GAVI and UNICEF. It is administered in two doses to individuals aged 18 and older. The Congo has reported 70% of mpox cases, with 107 new deaths and 3,160 new cases in the past week. Mpox shares a virus family with smallpox and causes symptoms like fever, chills, and body aches.

Algeria became a new member of the BRICS New Development Bank (NDB)

Algeria's membership to the BRICS New Development Bank (NDB) has been approved. This was announced by the NDB chief DilmaRoussef at a meeting in Cape Town, South Africa. Algeria has taken an important step towards integrating into the global financial system. Algeria is a leading exporter of natural gas in the African continent. BRICS New Development Bank (NDB): It was formed in 2015 to mobilise resources for projects in emerging markets and developing countries. Brazil, Russia, India, China and South Africa are the founding members of the BRICS New Development Bank. Its main aim is to offer an alternative to international financial institutions like the World Bank and IMF. ●●●

NATIONAL AFFAIRS

Hizb-Ut-Tahrir and all its manifestations and front organisations declared terrorist organisations by the Center

Hizb-ut-Tahrir (HuT) has been declared a terrorist organization by India's Union Ministry of Home Affairs under the Unlawful Activities (Prevention) Act (UAPA). The ministry's gazette notification stated that HuT allegedly radicalizes youth to join terrorist groups like ISIS and raises funds for terrorism. The group aims to establish an Islamic caliphate by overthrowing democratically elected governments through jihad and terrorism. They also use social media and secure apps to recruit individuals. On October 9, 2024, an alleged member of HuT was arrested by the National Investigation Agency (NIA).

The registration portal for 5th phase of YuvaSangam under Ek Bharat Shreshtha Bharat has been launched by the Ministry of Education

YuvaSangam is a central government's initiative. This seeks to strengthen people-to-people connections between youth of different states and union territories. In this initiative, youth between the ages of 18 and 30 can take part by registering on the YuvaSangam portal. 21st October is the last date for registrations for YuvaSangam. During YuvaSangam tours, multi-dimensional exposure under five broad areas will be provided to the visiting delegation over a period of 5-7 days. The five broad areas are Paryatan, Parampara, Pragati, ParasparSampark, and Prodyogiki.

'Humsafar Policy' has been launched by Union Minister NitinGadkari

A new policy has been launched to improve travel on national highways and enhance wayside amenities. It aims to make highway travel easier, safer, and more enjoyable, benefiting local communities. The initiative emphasizes environmental sustainability, incorporating solar energy, waste recycling, soil, and water conservation. The "Humsafar" policy will provide standardized, clean, and well-maintained facilities for commuters. Additionally, the "RajmargYatra" app will help travelers access information about local service providers.

A number of key initiatives have been unveiled by Union Health Minister JP Nadda

The government has increased monthly nutritional support for tuberculosis (TB) patients under the NikshayPoshanYojana from Rs 500 to Rs 1,000. For patients with a BMI below 18.5, energy-dense meals will be provided. The Ni-KshayaMitra initiative will now include family members of TB patients, offering nutritional support of Rs 3,000 to Rs 6,000 for all TB patients annually. This initiative will benefit 2.5 million TB patients, with an estimated cost of Rs 1,040 crore shared between the central and state governments. Additionally, food baskets will be provided to household contacts to boost their immunity.

Jal Hi AmritYojana was launched by the government and major metro projects were approved

Union Housing and Urban Affairs Minister ManoharLal announced the launch of the Jal

Hi AmritYojana, aimed at promoting efficient water management within the first 100 days of the government's tenure. This initiative encourages States and Union Territories to manage sewage treatment plants (STPs) effectively to produce high-quality, recyclable treated water. Under AMRUT 2.0, 68 projects worth Rs 3,020 crore and 41 projects worth Rs 3,805 crore will be implemented across 13 states. Additionally, three metro projects totalingRs 31,000 crore have been approved, including the Bengaluru Metro Phase-3 and Thane Internal Ring Road Metro Project.

National Mission on Edible Oils - Oilseeds (NMEO - Oilseeds) approved by the Cabinet for the period 2024-25 to 2030-31

The National Mission on Edible Oils - Oilseeds (NMEO-Oilseeds) is a seven-year initiative (2024-25 to 2030-31) with a budget of Rs 10,103 crore aimed at boosting domestic oilseeds production and achieving self-reliance in edible oils. The mission targets major oilseed crops like mustard, groundnut, soybean, sunflower, and sesame, with a goal to increase production from 39 million tonnes (2022-23) to 69.7 million tonnes by 2030-31. It also aims to enhance domestic edible oil production to 25.45 million tonnes, covering about 72% of the country's needs. To support this, a five-year seed plan will be launched through the SATHI Portal, and over 600 value chain clusters will be developed across 347 districts, expanding oilseed cultivation by an additional 40 lakh hectares.

Government launched the Prime Minister's Internship scheme to provide 1.25 lakh internships in FY 2024-25

The government has launched the pilot phase of the Prime Minister's Internship Scheme, offering 1.25 lakh internship opportunities in fiscal year 2024-25. In collaboration with the top 500 companies in India, the scheme aims to create 1 crore internships over the next five years, managed through an online portal by the Ministry of Corporate Affairs (MCA). Eligible candidates must be aged 21 to 24, not currently employed full-time, and cannot have family members working in government. Graduates from prestigious institutions like IITs or IIMs, or those with CA or CMA qualifications, are also excluded. The program will roll out in two phases to train 10 million youth in five years.

Cabinet approved India's decision to join the International Energy Efficiency Hub

The Union Cabinet has approved India's Letter of Intent to join the International Energy Efficiency Hub, supporting the country's commitment to sustainable development and reducing greenhouse gas emissions. Established in 2020, the Hub aims to promote energy efficiency by bringing together governments, international organizations, and private sector entities. It currently includes 16 members, such as the U.S., China, the U.K., and Germany. The Bureau of Energy Efficiency (BEE) will facilitate India's involvement in the Hub and align it with national energy efficiency goals, marking a step toward a low-carbon economy.

Union Cabinet has approved classical language status for five languages

The languages mentioned are Marathi, Bengali, Assamese, Pali, and Prakrit. Since 2013, there has been a demand for Marathi to be granted classical status. Currently, India recognizes six classical languages: Tamil, Telugu, Malayalam, Kannada, Sanskrit, and Odia. Tamil was the first to receive this status in 2004, followed by Sanskrit in 2005. In July 2024, the Linguistics Experts Committee, led by the SahityaAkademi, revised the criteria for classical status. When a language is designated as classical, the Ministry of

Education offers incentives, including international prizes for scholars and the establishment of a Centre of Excellence for classical language studies.

Union Cabinet made the decision to merge all Central schemes in the agriculture sector into two new schemes

The government has launched two new schemes: Pradhan Mantri Rashtriya Krishi Vikas Yojana (PM-RKVY) and Krishonnati Yojana (KY), with a total projected cost of ₹1,01,321.61crore. The Central Government will contribute ₹69,088.98 crore, while States will contribute ₹32,232.63 crore. PM-RKVY has a budget of ₹57,074.72 crore aimed at promoting sustainable farming practices, while KY has ₹44,246.89 crore allocated for food security and agricultural self-sufficiency. Both programs will combine existing initiatives and focus on value chain development and private sector involvement, with state governments responsible for implementation.

Supreme Court said that caste bias and segregation in prisons are violations of dignity

The Supreme Court ruled that caste-based discrimination among prisoners is a violation of human dignity and ordered reforms to eliminate caste references in prison records. The court condemned the labeling of inmates from de-notified tribes as "habitual offenders" and emphasized that such individuals should not be arrested arbitrarily. Chief Justice Chandrachud highlighted Article 15(1) of the Constitution, which prohibits discrimination. The court directed the Central government to amend prison manuals and the 2023 Act within three months to address these issues and ensure compliance with the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.

PM E-DRIVE Scheme has been launched by Union Minister H. D. Kumaraswamy

Union Minister H.D. Kumaraswamy launched the PM E-DRIVE Scheme in New Delhi. This initiative will accelerate electric vehicle (EV) adoption and boost domestic innovation. This scheme has been launched with a financial outlay of ten thousand nine hundred crore rupees for two years. 3680 crore rupees have been allocated for e-two-wheelers, e-three-wheelers, e-ambulances, e-trucks, and emerging EVs. 2000 crore has been allocated for installing fast chargers, including various other allocations for electric vehicles. Aadhar-authenticated e-vouchers will be introduced by the government for EV buyers to avail the demand incentives.

Government released new draft guidelines on passive euthanasia

The Union Health Ministry has released draft guidelines on passive euthanasia, advising doctors on when to withdraw life support for terminally ill patients. The guidelines emphasize that decisions should prioritize the patient's best interests, considering factors like brainstem death and informed consent from the patient or their family. Doctors are instructed not to initiate life support if it is unlikely to benefit the patient. The ministry has invited feedback on the draft by October 20, noting that many ICU patients are terminally ill and not expected to benefit from life-sustaining treatments.

India joined the Minerals Security Finance Network

India has become a part of the Minerals Security Finance Network. It is a US-led Network to strengthen cooperation among members to secure supply chains for critical minerals. It is a new initiative that originated from the Minerals Security Partnership (MSP).

It is a pact of 14 countries and the European Union. Earlier, in June 2023, India had been inducted into the MSP. Its main aim is to catalyze public and private investment in critical mineral supply chains globally. The MSP grouping is focused on the supply chains of minerals such as cobalt, nickel, lithium and also the 17 "rare earth" minerals. Rare earth elements is classified as light RE elements (LREE) and heavy RE elements (HREE).

ParyatanMitra and ParyatanDidi initiative has been launched by the Ministry of Tourism

On World Tourism Day, September 27, 2024, national responsible tourism initiatives were launched to enhance travelers' experiences. The initiative focuses on training women and youth to develop new tourism products like heritage walks, culinary tours, craft tours, and nature hikes. Training includes digital literacy to help these offerings reach domestic and international travelers. Since the program began on August 15, about 3,000 individuals in six pilot destinations have been trained on providing excellent tourist experiences.

Centre has increased minimum wage rates for workers

The central government has revised minimum wage rates by adjusting the Variable Dearness Allowance (VDA) to help workers cope with the rising cost of living, especially in the unorganised sector. This update, effective from October 1, 2024, considers workers' skill levels and regional classifications. Semi-skilled workers will earn Rs 868 per day, while unskilled workers in area "A" will receive Rs 783 per day. Clerical and skilled workers will earn Rs 954 per day, and highly skilled workers will be paid Rs 1,035 per day. The VDA is updated twice a year, on April 1 and October 1, based on the Consumer Price Index.

Civil Aviation Ministry has approved India's newest airline, Shankh Air

Before the airline can begin operations, the Directorate General of Civil Aviation (DGCA) must still grant its clearance. The first scheduled airline in Uttar Pradesh will soon be Shankh Air. Shankh Air will run out of hubs located in Noida and Lucknow. The duration of the No Objection Certificate (NOC) to operate is three years. With more than 60% of the Indian aviation market, IndiGo is the market leader. The second-biggest airline in the nation is called Air India. In order to bolster its fleet and market presence, Air India is also buying AirAsia India and combining it with Air India Express, its low-cost carrier.

India has signed Biodiversity Beyond National Jurisdiction (BBNJ) Agreement

This is an international agreement to protect marine biodiversity on the high seas. BBNJ Agreement was signed by External Affairs Minister Dr. S. Jaishankar at the United

Nations Headquarters in New York. BBNJ Agreement is an important step towards ensuring that the oceans remain healthy and resilient. The Law of the Seas Treaty agreement aims to guarantee the sustainable use and conservation of marine life on the high seas. The term "high seas" refers to areas that are outside of a country's territorial waters and exclusive economic zone, which can be up to 200 nautical miles or 370 kilometres from shores.

'EkPedMaaKeNaam' app has been launched by Union Minister for Communications and Development of North Eastern Region, Jyotiraditya M. Scindia

The 'EkPedMaaKeNaam' app is a unique platform where users can plant and dedicate a

tree in honour of their mothers. This app not only allows users to contribute towards environmental sustainability but also provides a special way to celebrate their bond with their mother. With its user-friendly interface, people can easily upload pictures of the trees they are planting as a tribute to their mothers. 'EkPedMaaKeNaam' app combines environmental responsibility with a personal touch. Key Features and Functionality of the app are given below. Simple App Launch User-Friendly Upload ProcessCapture and Upload Image Tree Details Seamless Submission Location and Timestamp Progress Updates Carbon Credit Tracking Social Media Sharing.

India's first CO2-to-methanol pilot plant will be set up in Pune

The foundation stone for India's first CO2-to-methanol pilot plant was laid at Thermax Limited in Pune, Maharashtra, marking a significant advancement in carbon capture and utilization (CCU) technologies. The plant, with a capacity of 1.4 tons per day, is a public-private partnership between Thermax Limited and IIT-Delhi, costing ₹31 crore and supported by the Department of Science and Technology (DST). This pilot plant aims to demonstrate decarbonization potential in coal-based thermal power sectors, which contribute to 30% of India's carbon emissions.

EPFO recorded the highest number of net members in July

Employees Provident Fund Organisation (EPFO) added a record 19.94 lakh net members in July 2024. It is the highest recorded increase since payroll data tracking began in April 2018. The net member enrolment under EPFO was 16.70 lakh in June 2024. The youth group (18-25 age group) recorded the highest-ever net payroll additions at 8.77 lakh. Around 3.05 lakh new female members joined EPFO in July 2024. In July 2024, Maharashtra, Karnataka, Tamil Nadu, Haryana, and Gujarat's share was 59.27 per cent of the total net member additions. Maharashtra led among the States/UTs with a contribution of 20.21 per cent of the total new members. 38.91 per cent of net additions came from expert services.

Pune Airport to be rename as JagadguruSantTukaramMaharaj Pune International Airport

Maharashtra government state cabinet has approved the renaming of Pune Airport as JagadguruSantTukaramMaharaj Pune International Airport. This proposal will be sent to the central government for approval. A Guaranteed Progression Scheme for Children's Homes Observatory staff has been also approved by the state cabinet. The government has also decided to add three Kunbi sub-castes to the Other Backward Classes list.

PM Mega Integrated Textile Regions and Apparel (PM MITRA) Park foundation stone is laid in Amravati

Prime Minister NarendraModi laid the foundation stone of PM Mega Integrated Textile Regions and Apparel (PM MITRA) Park in Maharashtra's Amravati. It is spread over 1000 acres and is being developed by the Maharashtra Industrial Development Corporation (MIDC). The central government had approved setting up 7 PM MITRA Parks for the textile industry. PM Modi also launched the "AcharyaChanakya Skill Development Centre" scheme of the Maharashtra government. Under this scheme, Skill development training centres will be established in renowned colleges across the state to provide training to youth aged 15 to

45. PM Modi also launched the "PunyashlokAhilyadeviHolkar Women Startup" Scheme. Under this scheme, financial assistance of up to Rs 25 lakh will be provided to women-led startups.

HCLTech has become number one India-headquartered Company in World's Best Companies 2024 list of TIME magazine

HCLTech has also achieved a place in the global top 10 list within the Professional Services category. In the World's Best Companies 2024 ranking, top-performing companies across the globe are identified. The companies are identified on the parameters of employee satisfaction, revenue growth, and sustainability. The ranking includes 1000 companies worldwide. It features 22 Indian-born companies this year. HCLTech has secured the 112th position globally. Infosys and Wipro are ranked at 119th and 134th respectively. The Adani Group and MukeshAmbani-led Reliance Industriesstands at 736th and 646 place, respectively. In the banking sector, Axis Bank is leading at 504th place. State Bank of India (SBI) follows at 518th.

International WASH Conference 2024 concluded at 8th India Water Week

The International WASH Conference was held in New Delhi by the Department of Drinking Water and Sanitation during the 8th India Water Week. Focusing on the theme "Sustaining Rural Water Supply," the three-day event aimed to address global WASH challenges and promote Sustainable Development Goal 6. It featured over 40 sessions, 143 offline paper presentations, 43 online presentations, and 5 panel discussions on topics like water quality, greywater management, and climate change adaptation. A highlight was the SwachhSujalGaon, a model village demonstrating India's efforts to enhance the WASH sector in rural areas.

The continuation of the Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA) scheme has been approved by the Union Cabinet

The Union Cabinet allocated Rs. 35,000 crore for the PMAASHA scheme, aimed at stabilizing prices of essential commodities and ensuring fair prices for farmers until 2025-26. The scheme integrates the Price Support Scheme (PSS), Price Stabilisation Fund (PSF), Price Deficit Payment Scheme (PDPS), and Market Intervention Scheme (MIS). Starting in the 2024-2025 season, 25% of the country's output of copra, oilseeds, and notified pulses will be purchased at Minimum Support Price (MSP). The government plans to buy all Tur, Urad, and Masur without a procurement ceiling. Additionally, the purchase guarantee for oilseeds, copra, and pulses has been increased to Rs. 45,000 crore, and the PDPS coverage for recognized oilseeds has been raised from 25% to 40% of state production to better support farmers.

Union Cabinet approved the Rs. 9,197 crore Bio-RIDE scheme

The Union Cabinet approved the Biotechnology Research Innovation and Entrepreneurship Development (Bio-RIDE) scheme with a budget of ₹9,197 crore. This scheme merges two existing initiatives under the Department of Biotechnology (DBT) to foster innovation and promote bio-entrepreneurship. Bio-RIDE aims to accelerate research, enhance product development, and connect academic research with industry. It introduces a new component, Biomanufacturing and Biofoundry, to help create a circular bioeconomy through indigenous solutions. The initiative is also expected to contribute to India's goal of achieving a $300 billion bioeconomy by 2030.

'One Nation, One Election' will be implemented during the tenure of this government

The concept of holding simultaneous elections for the LokSabha and state assemblies, dubbed "One Nation, One Election", will be implemented during the current term of the NarendraModi government. The government hopes to get support from all political parties, especially the National Democratic Alliance (NDA) allies. The census exercise, which was not done since 2011, will also start soon. The issue of holding simultaneous elections was raised by Prime Minister NarendraModi within a few months of coming to power in 2014. A committee headed by former President Ram NathKovind had also considered the issue during the previous tenure of the Modi government. It recommended holding simultaneous elections to Parliament and Assemblies followed by local body elections within 100 days.

PM Modi virtually flagged off India's first Namo Bharat Rapid Rail

The Prime Minister inaugurated development projects worth over ₹8,000 crore at GMDC

ground in Ahmedabad. He launched India's first Namo Bharat Rapid Rail between Ahmedabad and Bhuj and flagged off six other Vande Bharat trains connecting various cities. The Namo Bharat Rapid Rail will enhance intercity connectivity for middle-class households. The Prime Minister praised Gujarat's infrastructure development and mentioned that the state will soon produce India's first Made in India transport aircraft. He also approved over 30,000 houses under the PradhanMantriAwasYojana-Gramin and laid the foundation for the quadrupling of railway lines between Samakhiali-Gandhidham and Gandhidham-Adipur.

Operation Sadbhav launched by India to provide humanitarian assistance to the countries affected by Typhoon Yagi

Operation Sadbhav aims to provide humanitarian assistance to countries affected by Typhoon Yagi, specifically Myanmar, Laos, and Vietnam, which are experiencing severe floods. India has sent 10 tonnes of aid, including dry rations, clothes, and medicines, to Myanmar via the Indian Naval ship INS Satpura. Additionally, an Indian Air Force aircraft is transporting 35 tonnes of relief material to Vietnam and 10 tonnes to Laos, including generators, water purification supplies, hygiene items, mosquito nets, blankets, and sleeping bags. This operation is part of India's broader efforts to support humanitarian assistance and disaster relief in the ASEAN region under its 'Act East Policy.'

AnMoU signed to increase efficiency and accountability in food grain procurement and distribution

AnMoU was signed by the Department of Food and Public Distribution and the Food Corporation of India (FCI) for FY 2024-25 to enhance the efficiency and accountability of foodgrain procurement and distribution. The MoU outlines specific performance standards and accountability measures, including performance standards for FCI depots. These are aimed at optimising the use of public funds in managing food safety operations. The performance standards for FCI depots include depot efficiency parameters such as capacity utilisation, operating losses, safety measures, modernisation and automation of processes at the depots, etc. In 1965, FCI was established under the Food Corporations Act, 1964 of the Parliament. Its primary duty is to procure, store, handle/transport, distribute and sell food grains.

The Ministry of Commerce and Industry's Jan Sunwai portal was launched by Union Minister PiyushGoyal

The portal's purpose is to support exporters in resolving their problems online and to enable direct, transparent contacts between dealers. It consists of various departments, including the Directorate General of Foreign Trade, APEDA, Coffee Board, Spices Board, Rubber Board, and Tea Board. Mr.Goyal also inaugurated the Export Credit Guarantee Corporation's redesigned SMILE-ERP facility. Mr.Goyal also chaired a meeting of the Board of Trade. The meeting was attended by ministers from 10 states. The discussion included a range of export-related projects from states like Tamil Nadu, Gujarat, Uttar Pradesh, Karnataka, Madhya Pradesh, and Telangana.

November 26 will be commemorated as a "Constitution Glorification Campaign"

Union Minister KirenRijiju announced that the 75th anniversary of the Indian Constitution will be commemorated with a nationwide "Constitution Glorification Campaign". The 75th anniversary will be celebrated on November 26. KiranRijiju highlighted the government's initiative to construct Constitution buildings in every district. Constitution Day is celebrated on November 26 every year to mark the adoption of the Constitution of India in 1949. The Constituent Assembly of India adopted the Constitution of India, which came into effect on 26 January 1950.

STATE NEWS

Eight products of Assam received the GI tag

The Geographical Indications Registry in Chennai has granted GI tags to eight products from Assam. Three variants of rice beer—'BodoJouGwra', 'MaibraJouBidwi', and 'BodoJouGishi'—were registered by the Bodo Traditional Brewers Association. The Bodo community believes that rice beer, considered a medicine, originates from Lord Shiva. Additionally, the Association of Traditional Food Products secured GI tags for four traditional food items: 'BodoNapham' (fermented fish), 'BodoOndla' (rice powder curry with garlic and ginger), 'BodoGwkha' (also known as 'GwkaGwkhi'), and 'BodoNarzi' (a semi-fermented dish made with jute leaves).

National Marine Heritage Complex in Gujarat approved by Cabinet

The Union Cabinet has approved the development of the National Maritime Heritage Complex (NMHC) in Lothal, Gujarat, to preserve India's 4,500-year-old maritime heritage. This project will be implemented in two phases, with the museum expected to be the largest maritime heritage complex in the world. Phase 1B and Phase 2 have been approved, with funding from voluntary contributions; the Light House Museum for Phase 1B will be funded by the Directorate General of Lighthouses and Lightships (DGLL). A governing council will oversee the project's development and operations. Phase 1A is currently under construction, with over 60% of the work completed and a planned completion date of 2025. Phases 1A and 1B will use the EPC (engineering, procurement, and construction) mode, while Phase 2 will involve a public-private partnership.

WAZA suspended the membership of Delhi's National Zoological Park for six months

The World Association of Zoos and Aquariums (WAZA) has suspended the membership of Delhi's National Zoological Park due to concerns about the welfare of Shankar, an African elephant kept in chains and without a mate. India plans to bring a

female elephant from Botswana to be Shankar's companion. WAZA, a non-governmental organization that sets accreditation standards for zoos, has placed the Delhi Zoo under a six-month suspension for violating its Code of Ethics, which prevents the zoo from participating in WAZA's conferences and activities. Shankar was originally gifted to former President Shankar Dayal Sharma by Zimbabwe.

MACE, Asia's largest and world's highest Imaging Cherenkov Observatory inaugurated by Department of Atomic Energy (DAE) at Hanle, Ladakh

Dr.Ajit Kumar Mohanty, Secretary of the Department of Atomic Energy (DAE) and Chairman of the Atomic Energy Commission, inaugurated the Major Atmospheric Cherenkov Experiment (MACE) Observatory in Hanle, Ladakh. MACE is Asia's largest imaging Cherenkov telescope and the highest of its kind in the world, situated at about 4,300 meters. It was built indigenously by BARC in collaboration with ECIL and other Indian industry partners. The telescope will observe high-energy gamma-rays, aiding global efforts to understand phenomena like supernovae, black holes, and gamma-ray bursts. The inauguration was part of the DAE's Platinum Jubilee Year celebrations.

Bharatiya Janata Party (BJP) has secured a majority in 90-member Haryana Legislative Assembly

The BharatiyaJanata Party (BJP) has won a third consecutive term in Haryana, securing 48 out of 90 assembly seats. Congress followed with 37 seats, and the Indian National Lok Dal won 2 seats. Chief Minister Nayab Singh Saini won from the Ladwa seat, while Congress wrestler VineshPhogat won in Julana.In Jammu and Kashmir, the National Conference and Congress alliance will form the next government, winning 48 seats together (National Conference: 42, Congress: 6). The BJP secured 29 seats, and the Peoples Democratic Party won 3 seats. Polling in Jammu and Kashmir occurred in three phases from September 18 to October1.

Prime Minister Narendra Modi launched development projects worth Rs 56,000 cr in Maharashtra

Prime Minister NarendraModi visited Maharashtra and launched several initiatives in agriculture and animal husbandry worth around ₹23,300 crore. He inaugurated the BanjaraVirasat Museum, highlighting the heritage of the Banjara community, and laid the foundation for various development projects worth over ₹32,800 crore in Thane. Modi released the 18th installment of the PradhanMantriKisanSammanNidhi (PM-KISAN) scheme and dedicated over 7,500 projects under the Agriculture Infrastructure Fund. He also launched a Unified Genomic Chip for cattle and indigenous sex-sorted semen technology, dedicated five solar parks with a total capacity of 19 megawatts, and laid the foundation stone for the Thane Integral Ring Metro Rail Project.

The International Film Festival and Forum on Environment and Wildlife, 'Vatavaran' inaugurated in New Delhi

The theme of the three-day film festival is "Wetlands for Life", which focuses on awareness and conservation of the wetlands ecosystem. Wetlands are very important to India because of their ecological and economic benefits. About 6% of Indians directly depend on wetlands for their livelihoods, making their conservation even more important. During the film festival, meaningful issues can be discussed and conservation strategies can be prepared.

Gaushala with Bio-CNG plant has been inaugurated by PM Modi in MP

Prime Minister Modi virtually inaugurated the Lal Tipara Gaushala with a Bio-CNG plant in Gwalior, which can produce three tonnes of natural gas daily using 100 tonnes of cow dung. This gaushala is India's first modern and self-reliant facility, developed at a cost of ₹32 crore with funding from the Indian Oil Corporation's corporate social responsibility initiatives. On SwachhtaDiwas, October 2, 2024, he also launched multiple development projects worth ₹685 crore in Madhya Pradesh, including a ₹299.20 crore sewerage scheme for Sagar and water supply schemes for Chhindwara and Seoni-Malwa. SwachhtaDiwas is celebrated every year on Gandhi Jayanti.

Telangana becomes the first state to get NITI Aayog's Women Entrepreneurship Platform chapter

NITI Aayog launched the first State Chapter of Women Entrepreneurship Platform (WEP). NITI Aayog in association with WE Hub and the Telanganagovernment, launched the first State Chapter of Women Entrepreneurship Platform (WEP). The platform aims to promote and support women entrepreneurs across sectors. The Women Entrepreneurship Platform (WEP) Hub will be the nodal agency for all WEP activities in the State. It will provide those resources, tools, and a robust network to enhance their business growth. WEP will provide customized support like digital skills, access to financial services, mentorship and market linkages. WE Hub is a first-of-its-kind incubation centre in India exclusively for women entrepreneurs.

Dharti Aaba Janjatiya Gram Utkarsh Abhiyan launched by the Prime Minister from Hazaribagh, Jharkhand

The Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (DAJGUA) was launched on Mahatma Gandhi's birth anniversary with a total outlay of ₹79,156 crore, covering 63,843 villages and benefiting over 5 crore tribal people across 30 States and Union Territories. The initiative aims to improve social infrastructure, health, education, and livelihoods in tribal areas through 25 initiatives by 17 ministries. Additionally, the Prime Minister inaugurated 40 EklavyaVidyalayas and laid the foundation for 25 new EMRSs, costing around ₹2,834 crore. Under the PradhanMantriJanjatiAdivasiNyayaMahaAbhiyan (PM-JANMAN), projects worth ₹1,365 crore were also inaugurated, including the construction of 1,387 km of roads, 120 Anganwadicenters, 250 multi-purpose centers, and 10 school hostels.

Kerala ranked first in the urban governance index

A two-year study by the Praja Foundation ranked Kerala at the top of the Urban Governance Index (UGI) among several Indian cities, scoring 59.31 out of 100. The study highlighted Kerala's achievements in decentralized planning and financial empowerment, where it scored 23.22 out of 30. Odisha followed in second place with 55.10 points. However, Kerala ranks 20th in empowering municipal administration. The report noted that Kerala allows the mayor to write the 'annual confidential report' of the commissioner and mandates that every councillor be part of at least one deliberative committee, a requirement not seen in most other states. Additionally, many functions assigned to municipal governments are managed by multiple agencies, which reduces their independence.

PM Modi inaugurated 'Jamaica Marg' in Delhi

Prime Minister NarendraModi named the road in front of the Jamaica High Commission as 'Jamaica Marg'. The unveiling of Jamaica Marg is a reminder of the global reach of India's diplomatic efforts. Both countries leaders met at Hyderabad House in New Delhi. They discussed various aspects of the India-Jamaica partnership, including further cooperation in sports and cultural exchanges. Both countries also advocated for reform of multilateral institutions, including the UN Security Council. They also focused on areas like south-south collaboration, including India's flagship Indian technical and economic cooperation program.

Three villages in Madhya Pradesh have been awarded the title of 'Best Tourism Village' by the central government

Three villages—Pranpur, Sabarvani, and LadpuraKhas—have been recognized in the Best Tourism Villages competition 2024 by the Ministry of Tourism, Government of India. Pranpur, located in Ashoknagar district, received the title in the Craft category, while Sabarvani in Chhindwara and LadpuraKhas in Niwari were recognized in the Responsible Tourism category. The competition, launched in 2023, aims to highlight villages that preserve their natural and cultural heritage using sustainable practices. This year, 36 villages were recognized across eight categories, with 991 applications received from 30 states and Union Territories.

Telangana government launched the 'TelanganaDarshini' scheme for student tours

TelanganaDarshini's aim is to provide students immersive learning experience outside the classroom. This scheme has been launched under the Youth Advancement, Tourism, and Culture (T&PMU) Department. It has been designed to take school and college students on educational tours across the State. This scheme will help students in knowing about the state heritage sites, historical monuments, dynamic urban landscapes and scientific institutions. The programme has been structured to fulfil the educational needs of different age groups, from class 2 up to graduation. Students of classes 5 to 8 could also participate in day trips within a 20-30 kilometre radius of their schools. Students of Class 9 to intermediate level tours will be more extensive and will cover distances of 50-70 kilometres and lasting for two days.

U.P., Rajasthan and Madhya Pradesh recorded highest number of atrocities cases on Dalits

In 2022, around 97% of all reported atrocities against Scheduled Castes occurred in 13 states, with Uttar Pradesh, Rajasthan, and Madhya Pradesh having the highest numbers. Uttar Pradesh had the most cases at 12,287 (23.78%), followed by Rajasthan with 8,651 (16.75%) and Madhya Pradesh with 7,732 (14.97%). Other states with significant cases include Bihar (6,799), Odisha (3,576), and Maharashtra (2,706), together accounting for nearly 81% of all atrocities against Dalits. Of the SC-related cases, 60.38% led to charge sheets, while 14.78% were concluded with final reports. For ST-related cases, 63.32% resulted in charge sheets, and 14.71% ended with final reports.

Computer Security Incident Response Team-POWER facility inaugurated by Union Minister ManoharLal

The Computer Security Incident Response Team-POWER (CSIRT-POWER) was inaugurated in New Delhi to enhance cyber security in the Indian power sector. Its main

goal is to build resilience against cyber-attacks, which pose significant risks to critical infrastructure. Existing regional teams lack the authority and resources to effectively handle cyber incidents, making CSIRT-POWER a necessary and proactive solution to these challenges.

Uttarakhand government approved a bill to make protesters pay for damage to public property

Uttarakhand governor Lieutenant General (Retired) Gurmit Singh gave assent to a bill that would enable full recovery of damages caused to public property during riots or protests. Uttarakhand Public and Private Property Damage Recovery Bill was passed by the state assembly in August 2024. It would serve as a strong deterrent for potential offenders who damaged public property during strikes, protest demonstrations or riots. The main aim of the bill is to stop people from damaging public property during riots. Apart from full recovery of the damaged property, a fine of up to Rs 8 lakh will also be imposed upon them. Protestors will have to pay also the expenses of the government staff on riot control measures.

Kerala secured first spot in the 2024 State Food Safety Index (SFSI)

Kerala, Tamil Nadu, and Jammu & Kashmir topped the State Food Safety Index (SFSI) 2024, released by the Food Safety and Standards Authority of India (FSSAI). Gujarat and Nagaland received special mentions. The index assesses states and union territories based on five criteria: Human Resources, Compliance, Food Testing, Training, and Consumer Empowerment. FSSAI noted that Kerala exceeded its inspection target for FY24. The SFSI was established to promote improvements in food safety. Additionally, FSSAI launched the Food Import Rejection Alerts (FIRA) portal to inform the public about food import rejections at Indian borders.

Rajnath Singh received the flag off the first-of-its-kind open water swimming expedition to 21 islands of Andaman & Nicobar archipelago named after ParamVir Chakra awardees in New Delhi

Prime Minister NarendraModi named 21 unnamed islands in the Andaman & Nicobar Islands after PVC award winners to honorNetajiSubhash Chandra Bose's birth anniversary. To mark the first anniversary of this naming, the tri-service Andaman & Nicobar Command launched 'AbhiyanParamveer,' where a team from the Indian Army, Navy, Air Force, and Coast Guard swam to each of the 21 islands to hoist the national flag in tribute to the gallantry award winners. Led by Wing Commander Paramvir Singh, the expedition began on March 22, 2024, World Water Day, and covered over 300 kilometers over five months, concluding on August 15, 2024, India's 78th Independence Day.

New MSME Policy 2024 launched by Telangana Chief Minister Revanth Reddy

The New MSME Policy 2024 has been launched by Telangana Chief Minister Revanth Reddy to address six major challenges faced by Micro, Small and Medium Enterprises (MSMEs). This policy includes an investment of Rs 4 thousand crore in five years. The Chief Minister praised the policies of former Prime Minister PV NarasimhaRao for opening up India's economy through liberalisation, privatization, and globalisation (LPG). The new policy is aimed at providing industrial opportunities to Dalits and women and to promote MSMEs. He said there is a gap between education and jobs, and there is a shortage of skilled workers. He said after discussions with Tata, a plan has been made to upgrade Industrial Training Institutes (ITIs) with an investment of Rs 2,400 crore.

A centre has been opened in New Delhi by the University of Melbourne

The Melbourne Global Centre – Delhi will serve as the University's central hub in India. It will make cooperation and information sharing easier between the community, industry, research, and education. The Melbourne Global Centre is not intended to be an off-campus learning environment or for teaching. The Melbourne Global Centre in Delhi represents firm commitment to help India achieve its long-term goals in research and academia. The University of Melbourne is a government-run institute in Australia. It is ranked number one in Australia.

Medical education in Hindi medium started by the Rajasthan Government

Rajasthan's state medical colleges will now offer medical education in Hindi. The Medical Education Department announced this initiative on Hindi Diwas, September 14. The program has begun at Dr.Sampurnanand Medical College in Jodhpur and Barmer Medical College, allowing students starting in the 2024–25 academic session to choose between English and Hindi medium. This change aims to help students from rural backgrounds or those who have studied in Hindi, who often find it challenging to learn in English. Other medical colleges will also introduce this facility soon.

The most auspicious day of Onam, Thiruonam was celebrated by Keralites

Thiruonam is the 10th and the most auspicious day of Onam, the biggest cultural festival of the State. Keralites all over the world, irrespective of their religious beliefs, celebrate this festival with great enthusiasm. The festival marks the homecoming of the great ruler of the kingdom, King Mahabali, and showcases the unique customs, traditions and cuisine of the kingdom. Kerala's harvest festival Onam is celebrated in the Malayalam month of Chingam (August to September). The kingdom is believed to have had its golden age during the reign of King Mahabali, and his annual visit to meet his subjects marks the Onam festival. Onam is associated with the famous Onasadya, Onakodi, Ujjayattam, Pulikalli, Vallamkalli etc.

The fourth RE-INVEST inaugurated by PM Modi at Mahatma Mandir in Gandhinagar

The Prime Minister launched the second phase of the Ahmedabad Metro, connecting Ahmedabad to Gandhinagar and GIFT City. He also interacted with beneficiaries of the PM SuryagharMuftBijaliYojana and inaugurated projects worth over ₹8,000 crore, including India's first Vande Bharat Metro train between Ahmedabad and Bhuj. Additionally, the Union Ministry of New and Renewable Energy is hosting the 4th Global Renewable Energy Investors Meet and Expo (4th RE-INVEST) from September 16 to 18, 2024, featuring Germany, Australia, Denmark, and Norway as partner countries. The valedictory session on September 18 will be attended by Vice President JagdeepDhankhar. Previous RE-INVEST events took place in 2015, 2018, and 2020.

Sri Vijaya Puram is the new name of Port Blair in the Andaman and Nicobar Islands, according to government decision

According to Union Home Minister Amit Shah,

the government decided to free the country of its colonial heritage. According to Union Home Minister, Sri VijayaPuram represents the nation's successful freedom struggle. The Andaman and Nicobar Islands hold a unique position in the history and freedom struggle of the nation, according to the Union Home Minister. The island region that was previously the Chola Empire's naval base is now positioned to provide the vital foundation for our aspirations for growth and strategy. The Andaman and Nicobar Islands Union

territory's capital city is Sri VijayaPuram. The Centre's ₹72,000 crore project for Nicobar Island has made news, raising concerns that it could force the native Shompen tribe to relocate. There are 244 Shompens, who are mostly nomadic hunters who live in isolation on Nicobar Island. In honour of ParakramDiwas, Prime Minister NarendraModi named 21 sizable, unidentified UT islands after recipients of the ParamVir Chakra. Additionally, the prime minister announced the model for the NetajiSubhas Chandra Bose Dweep, formerly known as Ross Islands, where a national memorial honouring the late leader will be erected.

Telangana became third state to launch caste survey

The Telangana government has started a Comprehensive Household Caste Survey to ensure fair resource distribution among communities. This makes Telangana the third state, after Andhra Pradesh and Bihar, to conduct a caste-based census. The Chief Secretary has ordered a door-to-door survey, which aims to gather data within 60 days. The Planning Department will oversee the process. The survey's goal is to develop social, economic, educational, and political opportunities for OBCs, SCs, STs, and other disadvantaged groups.

Government issued a notification to revoke the President's rule in Jammu and Kashmir

The President's rule in Jammu and Kashmir, imposed in 2018 by then-President Ram NathKovind, has been revoked before the appointment of a new Chief Minister. This is the first time since 1996 that President's rule was applied in the state. The National Conference-Congress alliance won the recent Assembly elections, and Omar Abdullah has been elected as the next Chief Minister. The Jammu and Kashmir Reorganisation Act, which abrogated Article 370 and its special status, was passed by Parliament on August 5, 2019. President's rule is enforced under Article 356 of the Indian Constitution.

ODISHA

PM Modi launched Subhadra scheme in Bhubaneswar

Subhadra scheme is Odisha government's flagship initiative. It is the largest women-centric initiative in Odisha. It is aimed at supporting more than 1 crore women. Under the scheme, eligible beneficiaries of ages between 21 and 60 will get 50000 rupees over five years. Beneficiaries will get 10,000 rupees annually in two equal instalments by means of Aadhaar-linked, DBT-enabled bank accounts. At the time of launch event, PM Modi initiated 1st fund transfer to more than 10 lakh women beneficiaries. He laid the foundation stone of railway projects worth more than 2,800 crore rupees. He also laid the foundation stone of National Highway Projects of over 1000 crore rupees.

Odisha Unveils India's First Silicon Carbide Facility

Odisha Chief Minister Mohan Charan Majhi led the groundbreaking ceremony for India's first silicon carbide manufacturing facility. This major project, developed by RIR Power Electronics Limited, is being set up at EMC Park in Info Valley, Bhubaneswar, with a significant investment of Rs 620 crore.

India Successfully Launches Agni-4 Ballistic Missile in Odisha

India recently conducted a successful test of the Agni-4 ballistic missile from the Integrated Test Range (ITR) in Chandipur, Odisha. The test was carried out by the Strategic Forces Command (SFC), confirming the missile's performance and technical abilities.

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INDIA AND THE WORLD

India and ASEAN called for collaboration on digital public infrastructure and AI

India and ASEAN countries are collaborating to enhance Digital Public Infrastructure (DPI) in various sectors, such as education, healthcare, agriculture, and climate action. In their Joint Statement on Advancing Digital Infrastructure, they emphasized sharing knowledge and best practices to promote DPI development in the region. Both parties acknowledged financial technology and innovation as key drivers for their economic partnership and highlighted the importance of cybersecurity cooperation as part of their strategic partnership.

PM Modi unveiled a 10-point plan to strengthen India-ASEAN ties

Prime Minister NarendraModi unveiled a 10-point plan to enhance the India-ASEAN partnership during the 21st India-ASEAN Summit. The plan includes celebrating 2025 as the ASEAN-India Year of Tourism and marking the decade of the Act East Policy with events like a Youth Summit, Start-up Festival, Hackathon, and Music Festival. Modi also announced a regular ASEAN-India Cyber Policy Dialogue to boost digital resilience and a workshop on Green Hydrogen. India-ASEAN trade has increased significantly, doubling to over USD 130 billion in the past decade.

'Study In India' Campaign has been launched by India at UAE Education Show

India officially launched its 'Study in India' campaign at the 20th International Education Show in Sharjah, organized by EdCIL under the Ministry of Education. The campaign aims to position India as a global education hub and showcases over 590 Indian universities and institutions. The 'Study in India' portal serves as a centralized platform for international students to simplify the application process. India's higher education sector is the second largest in the world. The event, supported by the Sharjah Chamber of Commerce and Industry, features over 100 universities and educational institutions from more than 20 countries.

India eliminated trachoma as a public health problem. As per the WHO, India has eliminated trachoma as a public health problem

Trachoma is a contagious bacterial eye infection caused by Chlamydia Trachomatis. It spreads through contact with the eye, nose, or throat secretions of infected individuals. The World Health Organization classifies it as a neglected tropical disease, primarily affecting underprivileged communities in poor environmental conditions. Once a leading cause of blindness in India during the 1950s and 60s, India has now become the third country in the Southeast Asia Region to eliminate trachoma, thanks to strong government leadership and the efforts of healthcare workers in surveillance, diagnosis, and management.

UPI (India) and AANI (UAE) to be integrated for seamless cross border transactions between India and UAE

During a press conference after the 12th India-UAE High-Level Joint Task Force on Investments meeting in Mumbai on October 7,

Mr.Goyal announced plans to facilitate seamless cross-border transactions between India and the UAE. This initiative will benefit over 3 million Indians living in the UAE by allowing them to use UPI and AANI for transactions. The UAE will also invest around $2 billion in food parks in India over the next 2 to 2.5 years, enhancing food security in the UAE and boosting the income of Indian farmers while creating jobs for Indian youth. Since the Comprehensive Economic Partnership Agreement (CEPA), trade between the two countries has reached $84 billion in 2023-24, with the trade deficit decreasing from $22 billion to $12 billion. The HLJTFI was established in 2013 to enhance trade and investment relations between India and the UAE.

B2B Framework Agreement has been signed between Nepal and India for the development of petroleum infrastructure in Nepal

Indian Oil Corporation Limited and Nepal Oil Corporation (NOC) signed a Business to Business (B2B) Framework Agreement in New Delhi, following a Government-to-Government Memorandum of Understanding (MoU) signed on May 31, 2023. The B2B agreement includes the construction of a 50-kilometer petroleum pipeline from Siliguri, India, to Charali, Jhapa, and a Smart Greenfield Terminal at Charali. Additionally, a 62-kilometer pipeline from Amlekhgunj to Lothar in Chitwan will be funded by a grant from the Indian government, while NOC will build a 91,900 kilolitre Smart Greenfield Terminal at Lothar with Indian technical support. The total project cost is around Rs 15 billion. These projects will facilitate petroleum transit from India to landlocked Nepal, reducing costs for NOC and minimizing environmental hazards and traffic issues associated with tank truck transportation.

They will also enhance Nepal's energy security during natural disasters like landslides and floods.

India and Maldives signed several MoUs including the currency swap deal worth $400 million

India and the Maldives signed several agreements during President Mohamed Muizzu's four-day visit to India, including the launch of the RuPay payment service. Prime Minister Modi and President Muizzu conducted the first transaction with a RuPay card. The countries agreed to initiate talks on a Free Trade Agreement (FTA) and renewed a Memorandum of Understanding on cooperation in sports and youth affairs. India approved a $400 million currency swap and a $357.35 million agreement, and both nations established a comprehensive economic and maritime security partnership. Additionally, India agreed to repair and refit the Maldivian Coast Guard Ship Huravee at no cost.

India and the US inked a pact to expand and diversify the critical minerals supply chain

During the 6th Commercial Dialogue, Union Minister of Commerce PiyushGoyal and U.S. Commerce Secretary Gina Raimondo signed a memorandum of understanding (MoU) to enhance and diversify the critical minerals supply chain between India and the U.S. The MoU aims to leverage the strengths of both countries to improve resilience in the critical minerals sector. Discussions also included semiconductor supply chains and collaboration with third countries. India has identified 30 critical minerals for its national priorities and has joined the Minerals Security Partnership.

India became the fourth country to have 700 billion dollars in Forex reserves

India has become the fourth country to surpass 700 billion US dollars in foreign reserves. China, Japan, and Switzerland are the other countries having more than 700 billion dollars in Forex reserves. India's foreign exchange reserves touched a new all-time high of 704.885 billion dollars for the week ending September 27. The sharp increase in forex reserves will strengthen India's ability to tackle global economic uncertainties. It will also provide greater stability to its currency in the volatile international markets. India's gold reserves rose 2.184 billion to 65.796 billion dollars.

Bharat Electronics and Israel Aerospace Industries formed a joint venture firm

Navratna Defence PSU Bharat Electronics Limited (BEL) and Israel Aerospace Industries (IAI) have announced to form of a joint venture company (JVC) named BEL IAI AeroSystems Private Ltd. It will be the single point of contact (SPOC) for extending long-term product support to the medium-range surface-to-air Missile (MRSAM) systems of India's defence forces. JVC has been set up to provide both technical and maintenance support. MRSAM is an advanced, path-breaking air and missile defence system. It has been jointly developed by IAI and DRDO for India's defence forces.

India and Uzbekistan signed an Investment Treaty

To boost investor confidence, India and Uzbekistan signed a Bilateral Investment Treaty. Finance Minister NirmalaSitharaman and Deputy Prime Minister of Uzbekistan, KhodjayevJamshidAbdukhakimovich signed this treaty. The Bilateral Investment Treaty will ensure appropriate protection for Uzbekistan investors in India and Indian investors in Uzbekistan. It will boost the confidence of investors by providing a minimum standard of treatment and non-discrimination. It will also ensure transparency, transfers and compensation for losses. This will pave the way to increase bilateral investments.

India and Indonesia celebrated the 75th anniversary of their diplomatic relations

The 8th India-Indonesia Foreign Office Consultations were held in New Delhi. Both sides review bilateral ties, including political exchanges, defence and security, the maritime domain, etc. They also exchanged perspectives on regional and global issues of mutual interest. They also discussed the ongoing commemoration of the 75th anniversary of the establishment of India-Indonesia diplomatic relations. Both sides also agreed to hold the next FOC at a mutually convenient date. India and Indonesia established their diplomatic relations on 16 April 1949. Andaman and Nicobar Islands share a maritime border with Indonesia along the Andaman Sea. Both are member states of the G-20, the E7 (countries), and the Non-aligned Movement.

India has been chosen to the fifteen-member steering committee of the GlobE Network

India was elected to the steering committee of the Global Operational Network of Anti-Corruption Law Enforcement Authorities (GlobE Network) during a plenary session in Beijing. This network, established on June 3, 2021, aims to combat financial crime and global corruption under the G20 framework. India's involvement will enhance its role in international anti-corruption efforts and asset recovery. The GlobE Network facilitates global collaboration, with 219 member authorities from 121 countries. In India, the Ministry of Home Affairs serves as the Central Authority,

with the Enforcement Directorate (ED) and the CBI representing the country in the network.

India remains Nepal's largest trading partner

India is Nepal's largest trading partner, with Nepal's trade deficit reaching NPR 237.45 billion by mid-September in the financial year 2024-25. While Nepal trades with 145 countries, it has a deficit with over 100. The trade deficit with India is NPR 144.67 billion, compared to NPR 51.80 billion with China. Nepal exports goods like hydropower, resin, agricultural products, yarn, pashmina shawls, leather, handicrafts, and jewelry to India. In return, it imports petroleum products, chemical fertilizers, salt, sugar, rice, vehicles, copper, and cotton from India.

India secured the third most powerful nation in Asia: 2024 Asia Power Index

According to the 2024 Asia Power Index by the Lowy Institute, India has surpassed Japan to become the third most powerful nation in Asia. This improvement is attributed to India's strong economic recovery post-pandemic and its demographic advantage, with a significant rise in its Economic Capability and Future Resources scores. India's strategic autonomy has helped it manage complex international relationships, and it ranked sixth in diplomatic dialogues in 2023. However, itsDefense Networks score has decreased, placing it ninth in that category.

The Cancer Moonshot initiative launched by the Quad countries to reduce the burden of cancer in the Indo-Pacific region

The United States, Australia, India, and Japan have launched a collaborative initiative to combat cancer, announced during the Quad Leaders Summit. India will contribute $7.5 million for cancer testing and screening in the Indo-Pacific and provide 40 million vaccines through the Gavi and Quad initiatives. The Quad Cancer Moonshot aims to enhance cancer care by improving health infrastructure, research collaborations, and data systems. Cervical cancer, a preventable disease, remains a significant health issue, causing 150,000 deaths among women in the region each year. The Cancer Moonshot program, initially launched in 2016 by then-President Obama, focuses on accelerating cancer research.

The US and India have decided to set up a new plant for semiconductor fabrication

A new semiconductor fabrication plant, or fab, will focus on advanced sensing,

communication, and power electronics for green energy, telecom, and national security. It will produce silicon carbide, gallium nitride, and infrared semiconductors. This facility is part of a collaboration between the US Space Force, Bharat Semi, and 3rdiTech, backed by the India Semiconductor Mission. It is the first multi-material fab for national security in India and worldwide, addressing high-voltage power electronics, communications, and sensing. The demand for these technologies is also growing in green energy, data centers, telecom, and railways.

A MoU has been signed between FSSAI and the Ministry of Agriculture and Livestock (MAPA) of Brazil

The Food Safety and Standards Authority of India (FSSAI) signed anMoU with Brazil's Ministry of Agriculture (MAPA) to enhance food safety through technical collaboration and joint projects. The MoU was signed during the Global Food Regulators Summit in New Delhi. FSSAI also held a meeting with the Bhutan Food and Drug Authority (BFDA) to discuss the implementation of their March

2024 agreement, focused on improving food safety and streamlining food import procedures through technical cooperation.

India demands modification of the Indus Water Treaty

India has formally requested Pakistan to review and modify the Indus Water Treaty, signed in 1960 by Jawaharlal Nehru and Ayub Khan. The treaty allows India unrestricted use of the Eastern rivers (Sutlej, Beas, Ravi) and Pakistan of the Western rivers (Indus, Jhelum, Chenab). India seeks changes due to unforeseen circumstances, aiming to address clean energy development, environmental concerns, and population growth.

India wants Change in Indus Water Treaty

India and the EU have decided to work together in the area of sustainable water management

India and the EU have agreed to collaborate on river basin management, focusing on sustainable water management. During the 6th EU-India Water Forum, both sides strengthened their partnership, which began with the India-EU Water Partnership (IEWP) in 2016. This collaboration currently focuses on the Tapi and Ramganga River Basins and will expand to the Brahmaputra in Phase III. The forum also explored trilateral cooperation between India, the EU, and East Africa to address water issues in regions like Lake Victoria and Lake Tanganyika.

The progress of bilateral cooperation reviewed by India and the US in the 2+2 inter-sessional meeting

India and the US reviewed progress in defence, technology, space cooperation, clean energy, and maritime security during the 2+2 inter-sessional meeting in New Delhi on September 16. Officials discussed regional and international issues, laying the groundwork for the next 2+2 Ministerial Dialogue to further strengthen the India-US Comprehensive Global Strategic Partnership. The Indian delegation was led by Joint Secretaries Nagaraj Naidu and VishweshNegi, while the US was represented by Donald Lu and Jedidiah P. Royal.

Two MoUs on defence industry cooperation signed by SIDM with UAE partners

The Society of Indian Defense Manufacturers (SIDM), Emirates Defence Companies Council (EDCC), and EDGE Group UAE signed two MoUs to strengthen defence cooperation. These agreements focus on joint development of unmanned systems, co-production of advanced platforms, and exploration of critical minerals in third countries. This development took place at the first India-UAE Defense Industry Partnership Forum in Abu Dhabi on September 18, organized by the Indian and UAE Ministries of Defense. Existing agreements from 2003 and 2011 have laid the foundation for this growing defence partnership.

Global Bio-India 2024 fourth edition was successfully concluded

The fourth edition of Global Bio-India 2024 was organized by the Department of Biotechnology (DBT), Ministry of Science & Technology. Global Bio-India 2024 was organized under the theme: Biotech Innovation' and 'Bio-manufacturing' and its impact on the Bioeconomy. It was organized from 12th – 14th September, at PragatiMaidan, New Delhi in collaboration with Biotechnology Industry Research Assistance Council (BIRAC). This was the largest representation of biotechnology stakeholders of India and international biotech

community. On this occasion, contributions to the biotech industry were recognized with awards, namely: BIRAC Innovators Awards Best Startup Exhibitor Awards Best Incubator Exhibitor Awards BioE3 Competition Awards.

High Altitude Anti-Submarine Warfare (HAASW) sonobuoys worth $52.8 million will be sold by the USA to India

The U.S. approved the sale of anti-submarine warfare sonobuoys and related equipment to India for $52.8 million. These air-launched devices will improve India's ability to conduct anti-submarine operations using MH-60R helicopters. The sale strengthens the U.S.-India strategic relationship, supporting political stability and security in the Indo-Pacific and South Asia. Secretary of State Antony Blinken approved the sale on August 23, 2023.

India placed in the 'serious' category in the Global Hunger Index 2024

India ranks 105th in the 2024 Global Hunger Index (GHI), placing it in the "serious" category with a score of 27.3. The GHI, released by Welthungerhilfe and Concern Worldwide, tracks hunger levels in 127 countries. India's score is based on indicators such as 13.7% undernourishment, 35.5% stunted children, 18.7% wasted children, and 2.9% child mortality. Other South Asian countries like Bangladesh, Nepal, and Sri Lanka perform better, falling in the "moderate" category. Globally, 733 million people face hunger, and 2.8 billion cannot afford a healthy diet.

India has become third largest supplier of nutrition and health support to UNICEF

According to the United Nations Children's Fund (UNICEF), Indian suppliers rank third among the organization's global suppliers of health and nutrition support for children. Indian companies have given UNICEF over six billion dollars' worth of goods and services for its worldwide operations. In order to meet children's health and nutritional needs globally, this contribution comprises medications, vaccines, and nutrition supplies. Leila Pakkala, director of UNICEF's supply division, stated that Indian providers of children's life-saving products and services are essential to UNICEF's global mission for children. Leila Pakkala, the director of UNICEF's supplies division, was in India for the first time on her official visit.

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BUSINESS AND ECONOMY

As per the NABARD survey, the average monthly income of rural households has increased by 57%

Between 2016-17 and 2021-22, the average monthly income of rural households in India increased by over 57%, rising from 8,059 rupees to 12,698 rupees. Average monthly expenditure also grew from over 6,600 rupees to over 11,200 rupees. Household savings rose from around 9,100 rupees to over 13,200 rupees, with the percentage of households saving increasing from 50.6% to 66%. However, the proportion of households with outstanding debt also rose from 47% to 52%. Additionally, insurance coverage significantly improved, with insured households increasing from 25.5% to 80.3%, and pension coverage increased from 18.9% to 23.5%. The Kisan Credit Card (KCC) was noted for its role in enhancing financial inclusion among rural farmers.

Repo rate remained unchanged at 6.50% for the tenth consecutive time

The Reserve Bank of India has kept the policy repo rate unchanged at 6.50% for the tenth consecutive time during the Monetary Policy Committee (MPC) meeting held on October 7-9. The Standing Deposit Facility (SDF) rate remains at 6.25%, and the Marginal Standing Facility (MSF) rate and Bank Rate are at 6.75%. The MPC shifted its monetary policy stance to 'neutral' to align inflation with the target while supporting growth, aiming for a medium-term consumer price index (CPI)

inflation target within a range of 2% to 4%. India's real GDP grew by 6.7% in the first quarter of FY2024-25, driven by private consumption and investment. The next MPC meeting is scheduled for December 4-6, 2024.

Asian Development Bank (ADB) has approved a loan of $162 million to support tourism development in Himachal Pradesh

This loan amount will help in unleashing the state's tourism potential through the enhancement of cultural and heritage sites. It will help in creating new infrastructure to promote the tourism sector. The Sustainable and Inclusive Tourism Development Project will target the promotion of heritage and cultural sites in the Mandi and Hamirpur districts. Historic Naggar Castle in Kullu will be restored and public places will be improved. These initiatives aim to improve accessibility for the elderly, women, children, and people with disabilities. These projects will help in developing wellness centres, recreational facilities, an adventure sports hub, and a water park complex.

NCERT joined hands with Amazon to improve textbook availability across the country

The National Council for Educational Research and Training (NCERT) has partnered with Amazon Seller Services to provide original NCERT textbooks at their printed price across India. Education Minister DharmendraPradhan announced that NCERT plans to triple its book publication, aiming to release 15 crore books during the academic year 2025-26. Amazon will assist NCERT in monitoring and removing unauthorized sellers of counterfeit or overpriced books. This collaboration will also allow NCERT to gather

customer feedback to improve textbook quality, with sales data shared to inform future print orders.

An internal committee constituted by CBDT for a comprehensive review of the Income Tax Act

The Central Board of Direct Taxes (CBDT) has formed an internal committee to review the Income Tax Act, 1961, following an announcement in the Union Budget 2024-25 by Finance Minister NirmalaSitharaman. The committee aims to make the Act concise, clear, and easy to understand, thereby reducing disputes and providing greater tax certainty. The Finance Ministry is also seeking suggestions from stakeholders, experts, and the public regarding the Income Tax e-filing portal in four areas: simplification of language, reduction of litigation, compliance reduction, and removal of redundant or obsolete provisions.

The reconstitution of the Monetary Policy Committee has been notified by the government

The Governor of the RBI serves as the ex-officio Chairperson of the Monetary Policy Committee, which also includes the Deputy Governor responsible for monetary policy and one officer nominated by the Central Board. New members appointed to the committee are Professor Ram Singh, Saugata Bhattacharya, and Dr.Nagesh Kumar. Professor Ram Singh is the Director of the Delhi School of Economics, and Dr.Nagesh Kumar is the Director and Chief Executive of the Institute for Studies in Industrial Development. They will serve for four years, replacing AshimaGoyal, ShashankaBhide, and Jayanth R Varma.

India's current account deficit increased to 1.1% of GDP

In Q1 of FY25, India's current account deficit increased to $9.8 billion from $8.9 billion in the same quarter last year, primarily due to a rise in the merchandise trade deficit, which reached $65.1 billion compared to $56.7 billion a year earlier. This increase was driven by higher oil and gold imports and other non-oil imports. Despite this deficit, India recorded a current account surplus of $4.6 billion (0.5% of GDP) in Q4 of FY24. Additionally, net service receipts rose from $35.1 billion to $39.7 billion, while private transfer receipts, mainly remittances from Indians abroad, grew from $27.1 billion to $29.5 billion. The primary income account experienced a net outflow increase from $10.2 billion to $10.7 billion. Inflows from net foreign direct investment (FDI) rose from $4.7 billion to $6.3 billion, and net inflows from external commercial borrowings (ECBs) totaled $1.8 billion in Q1FY25. A current account deficit occurs when a country's imports of goods and services exceed its exports.

Government proposed 2022-23 as the new base year for GDP computation

The Statistics Ministry will publish GDP data using a new base year of 2022-23 in February 2026, along with updates for retail inflation and factory output growth. Currently, the base year for GDP calculations is 2011-12. The Advisory Committee on National Accounts Statistics (ACNAS), chaired by BiswanathGoldar, is expected to complete this review by early 2026. This shift aims to enhance the accuracy and relevance of economic data, following the last revision in 2015 when the base year changed from 2004-05 to 2011-12. Gross Domestic Product (GDP) is a key economic indicator that measures the total value of goods and services produced within a country.

The dominance of fossil fuels in electricity generation will end by 2030

The Reserve Bank of India (RBI) reports that the dominance of fossil fuels in power generation is expected to end by the decade's close, with renewable energy projected to contribute over 50% of global electricity generation. The report highlights a rapid transition to clean energy, with significant growth in clean technology investments. The RBI emphasizes the need to invest three dollars in renewable energy for every dollar spent on fossil fuels, shifting from the current equal funding model. Tripling renewable energy capacity by 2030 is crucial for meeting net-zero emissions targets by mid-century. Additionally, the RBI estimates that fully decarbonizing the global energy system by 2050 will cost around $215 trillion.

Central government will collect ₹20,000 crore by issuing 'Sovereign Green Bonds' in the second half (OctoberMarch) of the financial year 2024-25

The government will issue green bonds in four tranches, each valued at ₹5,000 crore. The first tranche is a 10-year Sovereign Green Bond, scheduled for issuance from November 25 to November 29. A 30-year bond will follow, issued from December 9 to December 13. The third tranche, another 10-year bond, is set for January 27 to January 31, and the final tranche, a 30-year green bond, will be issued between February 17 and February 21. Sovereign Green Bonds are government debt instruments aimed at funding initiatives that support India's transition to a low-carbon economy, specifically for environmentally friendly public sector projects and sustainable initiatives.

New rules have been introduced by the Securities and Exchange Board of India (SEBI)

New rules have been introduced to simplify the application process for public issues of debt securities. Starting November 1, individual investors applying through intermediaries for amounts up to ₹5 lakh must use the Unified Payments Interface (UPI) for fund blocking and include their UPI ID with the bid-cum-application form. Additionally, the Securities and Exchange Board of India (SEBI) has made changes to expedite fund access for issuers: the minimum subscription period for public debt securities has been reduced from three to two working days, and the bidding period can now be extended by one working day in case of price band or yield modifications. The period for public comments on draft offer documents has been shortened to one day for issuers with listed securities and five days for others.

FPI Outreach Cell launched by SEBI for seamless market access

SEBI has launched a dedicated Foreign Portfolio Investor (FPI) Outreach Cell to enhance and simplify the experience of foreign investors in the Indian securities market. Operating under SEBI's Alternative Investment Funds and Foreign Portfolio Investors Department, the cell will engage directly with FPIs and assist them with documentation and compliance during the pre-application stage. It will also support FPIs during the onboarding process and address any operational challenges that arise. The goal is to provide targeted support and streamline operations for foreign investors in the Indian financial markets.

India signed the IPEF bloc's agreements on a clean and fair economy

India has signed agreements within the 14-member Indo-Pacific Economic Framework for Prosperity (IPEF) to enhance cooperation in clean and fair economies. These agreements aim to develop, access, and deploy clean energy and climate-friendly technologies while promoting investments and strengthening anti-corruption and tax transparency measures. The clean energy agreement will help IPEF partners improve energy security, reduce greenhouse gas emissions, and build capacity. It will also facilitate investments and collaborative projects. Additionally, India signed an administrative pact to establish an oversight mechanism at the ministerial level.

India economy to be third-largest by 2030-31: S&P Global

S&P Global predicts that India will become the world's third-largest economy by 2030–31, growing at an annual rate of 6.7%. India was the fastest-growing large economy in FY 2024, with a GDP growth rate of 8.2%. To support this growth, India needs to improve its infrastructure and geopolitical strategies, particularly for its extensive coastline, as around 90% of its trade is seaborne. Robust port infrastructure is essential for managing increasing exports; however, only three Indian ports ranked among the top 50 in the World Bank and S&P Global's Container Port Performance Index 2023. Overall, India's medium-term economic prospects are promising, with opportunities across multiple sectors.
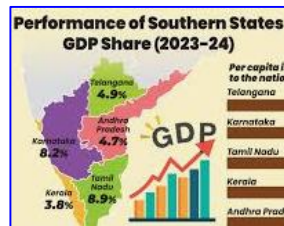
Institutional credit to agriculture reached to all-time high of ₹25.10 lakh cr in FY24

According to RBI Deputy Governor Swaminathan J, Institutional credit to agriculture reached to all-time high of ₹25.10 lakh cr. RBI Deputy Governor Swaminathan J highlighted that Indian agriculture is going through a demographic challenge. The average age of farmers now at 50.1 years. He underscored the need to attract younger generations to the agriculture sector. Swaminathan said about 7.4 crore active Kisan Credit Cards have become important tools for timely and flexible credit. He noted that climate change and sustainability are two critical issues. Sustainable agriculture means agricultural practices that fulfil today's food needs while at the same time preserving resources for future generations.

Southern states emerged as major contributors in India's GDP

Karnataka, Andhra Pradesh, Telangana, Kerala, and Tamil Nadu are significant

contributors to India's GDP, collectively accounting for around 30%. Telangana has emerged as a key player, while Maharashtra remains the largest contributor, although its share has decreased to 13.3%. Notably, Maharashtra is not among the top five states for per capita income. Bihar, the third-most populous state, contributes only 4.3% to GDP, while Uttar Pradesh contributes about 9.5%. West Bengal's contribution to GDP has declined, accounting for only 5.6% in 2023–24, with its per capita income dropping from 127.5% above the national average in 1960-61 to 83.7% in 2023-24.

GST Council formed a Group of Ministers (GoM) to suggest GST rates on health and life insurance products

A 13-member Group of Ministers (GoM) will suggest a GST rate on premiums of various health and life insurance. Bihar Deputy Chief Minister SamratChoudhary is the convenor of the GoM. At the 54th GST Council meeting on September 9, a GoM was set up to decide the

GST rate on health and life insurance products. Currently, 18 per cent Goods and Services Tax (GST) is on insurance premiums. The Group of Ministers (GoM) will submit its report by October 30, 2024. In 2023-24, the centre and states collected Rs 8,262.94 crore through GST on health insurance premiums.

NaBFID has been notified by the Centre as a 'Public Financial Institution'

National Bank for Financing Infrastructure and Development (NaBFID) has been notified by Corporate Affairs Ministry as a 'Public Financial Institution' under Company law. With PFI status, NaBFID would gat various benefits under the Company Law, Income Tax law, SARFAESI law etc. Under the National Bank for Financing Infrastructure and Development Act 2023, NaBFID was established as a Development Finance Institution (DFI). With effect from December 29, 2022, NaBFID had started its commercial operations. It was established to aid in the growth of India's long-term non-recourse infrastructure finance.

Hindustan Aeronautics Ltd became 14th Maharatna CPSE

Hindustan Aeronautics Limited (HAL) has been upgraded to 14th Maharatna Central Public Sector Enterprises. Union Finance Minister NirmalaSitharaman has approved the up gradation of Hindustan Aeronautics Limited to Maharatna CPSE. Its upgrade has been recommended by the Inter-Ministerial Committee headed by the Finance Secretary and the Apex Committee headed by the Cabinet Secretary. Hindustan Aeronautics Limited is a Department of Defense Production, CPSE. It has a turnover of 28 thousand 162 crore rupees and a net profit of over seven thousand five hundred crore rupees in 2023-24.

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SCIENCE AND TECHNOLOGY

A key enzyme to overcome cancer drug resistance has been discovered by scientists

Scientists from the Indian Association for the Cultivation of Science (IACS) in Kolkata have identified a new therapeutic target for cancer treatment by activating the DNA repair enzyme Tyrosyl-DNA phosphodiesterase 1 (TDP1). This discovery could lead to combination therapies for cancer patients resistant to current treatments, like Camptothecin, Topotecan, and Irinotecan, which block the enzyme Topoisomerase 1 (Top1) necessary for DNA replication. The study emphasizes the potential of combining CDK1 inhibitors with Top1 inhibitors to enhance treatment effectiveness, particularly for cancers that do not respond to traditional therapies.

The integration of the UMANG app with DigiLocker has been announced by the National e-Governance Division

This has been done to provide citizens seamless access to a wide range of government services. With this collaboration, users will be allowed to manage multiple services through a single platform. The UMANG app is accessible to all Android users. Services of the UMANG app can be accessed through the DigiLocker app. DigiLocker is a flagship initiative under the Digital India program. It is aimed at providing secure cloud-based storage of documents. The UMANG app provides a single platform for all Indian citizens to access pan-India e-Government services, spanning from Central to Local Government organisations.

A collaboration announced by Adani and Google to promote clean energy in India

A partnership announced by Adani Group and Google with the aim of enhancing their sustainability efforts and contributing to the development of clean energy in India. The Adani Group said it will supply renewable energy generated from a new solar-wind hybrid project located in Khavda, Gujarat, which is home to the world's largest renewable energy facility. The project is expected to start commercial operations in the third quarter of 2025. This collaboration also aligns with Google's ambitious goal of achieving 24/7 carbon-free energy for its operations worldwide. The Google aims to reduce all its combined Scope 1, 2, and 3 emissions by 50% by 2030. In 2019, this initiative was launched by the company.

India's Maritime Decarbonization Conference concluded in New Delhi

The Ministry of Ports, Shipping, and Waterways and the Asian Development Bank co-hosted the Conference on Maritime Decarbonization in India. 200 delegates discussed the future of green shipping and port operations. The conference is committed towards the vision of achieving net-zero carbon emissions by 2070. India's maritime sector is a key driver of the economy but also a critical factor in the fight against climate change. The delegates discussed covered a range of critical themes, including green port infrastructure, clean harbour craft, and the use of zerocarbon fuels.

Government declared Eco-Sensitive Zone around Gir protected areas

The central government has declared 1.84 lakh hectares near the Gir Protected Area as an Eco Sensitive Zone (ESZ). The area under 10 km of the outer boundary of the Gir Protected Area is considered ESZ. As per the notification, the Eco-Sensitive Zone distance from the sanctuary will range from 2.78 kilometres to 9.50 kilometres. This ESZ has 196 villages in three districts and 17 rivers. The new ESZ will include more than 24 thousand hectares of forest area and 1.59 lakh hectares of non-forest area. Gir Protected Area is home to Asiatic lions. Gujarat has set aside 1,468.16 square kilometres for lions and wildlife, which includes the Gir National Park, Gir, Paniya, and Mitiyala Wildlife Sanctuaries.

India climbed to 39th place in the Global Innovation Index 2024

In the Global Innovation Index (GII) 2024, India ranked 39th out of 133 economies, improving from 40th last year. It holds the top position among 10 Central and Southern Asian economies and is 7th globally in intangible asset intensity. Major cities like Mumbai, Delhi, Bengaluru, and Chennai are among the world's 100 science and technology clusters. Switzerland, Sweden, the United States, Singapore, and the United Kingdom are the top innovative economies. China, Turkey, India, Vietnam, and the Philippines are recognized as the fastest innovative economies, with China ranked 11th overall.

DRDO and IIT Delhi have developed lightweight bulletproof jackets

The Defence Research and Development Organisation (DRDO) and the Indian Institute of Technology, Delhi, have developed lightweight bulletproof jackets called Advanced Ballistics for High Energy Defeat (ABHED). Made from polymers and indigenous boron carbide ceramic materials, these jackets provide 360-degree protection while meeting the Indian Army's highest threat levels. They weigh a minimum of 8.2 kg and 9.5 kg for different BIS levels. The jackets were created at the DRDO Industry Academia Centre of Excellence (DIA-CoE) at IIT Delhi, which was established in 2022 to enhance collaboration between industry and academia in defense research.

PM Modi dedicated to nation three indigenously developed computers in Pune

This is in line with his commitment to make India self-reliant in the field of supercomputing technology. The three PARAM Rudra supercomputers are worth around 130 crore rupees. They are developed indigenously under the National Supercomputing Mission. They have been developed in Pune, Delhi, and Kolkata to facilitate pioneering scientific research. He inaugurated, laid the foundation stone and dedicated to the nation projects worth more than 22,600 crore rupees. He flagged off the Metro train scheduled to run from the district court to Swargate, Pune. PM Modi also inaugurated a high-performance computing system tailored for weather and climate research. This project represents an investment of 850 crore rupees. It marks a key leap in India's computational capabilities for meteorological applications.

The first-ever tri-services 'Future Warfare' course launched by India

The Indian Armed Forces will conduct its first tri-services "Future Warfare" course from September 23-27, led by Chief of Defence Staff General Anil Chauhan. The course aims to prepare officers for modern warfare and will include participants from Major General rank and equivalents from the Navy and Air Force.

It will cover operational and technical aspects of conflicts, focusing on emerging warfare, kinetic and non-kinetic operations, and psychological warfare. The course will also explore the impact of new technologies like artificial intelligence, machine learning, robotics, and hypersonic weapons on future battlefields.

The Indian Coast Guard (ICG), The Habitats Trust and HCL Foundation signed a MoU for marine conservation in New Delhi

The main objective of this initiative is to implement critical conservation efforts. These include the removal of ghost nets, mapping and classifying areas affected by ghost gear, and improving understanding to prioritize cleanup efforts. As part of this MoU, surveys will be carried out in ecologically sensitive regions to protect and monitor marine biodiversity. In order to promote stewardship of marine ecosystems, the ICG, Habitats Trust, and HCL Foundation will collaborate to involve coastal communities in conservation efforts. Ghost gear refers to derelict fishing gear. It refers to any lost, abandoned, or thrown fishing gear found in maritime environments.

Indian Government approved mission to Venus after Moon and Mars

The Union Cabinet has approved the Venus Orbiter Mission (VOM), marking a significant milestone in India's space exploration. The mission aims to explore Venus, the closest planet to Earth, and understand its surface, subsurface, and atmosphere, as well as how the Sun affects its atmosphere. ISRO will develop and launch the spacecraft, with the mission expected to be completed by March 2028. The total budget for VOM is ₹1,236 crore, with ₹824 crore allocated for the spacecraft.

Government approved the development of the first unit of the BharatiyaAntariksh Station (BAS-1)

India will become third country with its own space station by setting up BharatiyaAntariksh Station very soon. The Union Cabinet has approved expansion of India's Gaganyaan program. It includes the development of the first unit of the BharatiyaAntariksh Station (BAS-1) and the integration of new technologies and missions to support the BAS. BAS-1 will act as a platform for testing and validating new technologies crucial for the station's construction and operation. The revision of the Gaganyaan Programme includes additional requirements for the station and precursor missions. The total budget for the revised Gaganyaan program has been increased to ₹20,193 crore. The Gaganyaan project envisages human spaceflight capability of 3 members to an orbit of 400 km for a 3-day mission. At present, the International Space Station (ISS) and China's Tiangong Space Station (TSS) are the two active space stations orbiting Earth.

The preliminary automotive trials of the Indian Light Tank, Zorawar have been successfully conducted by DRDO

In the desert terrain, where field trials were conducted, the Light Tank performed well. During the field trials, it effectively achieved every goal that was intended. This platform is highly adaptable and can be used in high-altitude environments. During the first stage, the tank's ability to fire was closely monitored, and it met the necessary accuracy on pre-identified targets. The Combat Vehicles Research and Development Establishment has successfully developed Zorawar. The development of various sub-systems was contributed by many Indian industries,

including Micro, Small, and Medium-Sized Enterprises (MSMEs). This demonstrates the power of the nation's domestic defense manufacturing capacities. The Zorawar is an Indian light tank. It is designed to have a high power-to-weight ratio. It is named for the 19th century General Zorawar Singh.

A web portal launched by Union Minister Dr.Jitendra Singh to monitor progress of Special Swachhata Campaign 4.0 Progress

A dedicated online portal has been launched to monitor the progress of Special Campaign 4.0, which runs from October 2 to October 31 each year, aimed at promoting cleanliness and reducing case backlogs in Indian government offices. The initial phase will take place from September 16 to September 30, 2024. Previous campaigns in 2021, 2022, and 2023 covered over 4 lakh cleanliness sites, freeing up 355 lakh sq. ft. of space and generating ₹1,162 crore from waste disposal. During the initial phase, ministries will identify pending tasks, mobilize workers, finalize campaign sites, and manage waste disposal. Best practices will be showcased during Good Governance Week 2024, from December 19 to 24.

Affordable device developed by IIT can detect cancer at one tenth of the cost of current methods

A compact device aimed at early detection of breast cancer has been introduced by IIT Indore, which is especially beneficial for women in rural and remote areas. This device has been developed by Professor SrivathsanVasudevan from the Department of Electrical Engineering, which offers a significant breakthrough in cancer screening at a fraction of the cost of traditional methods. The new device uses photoacoustic spectral response (PASR) technology, which combines optical and acoustic signals to identify abnormal tissue changes. It is incredibly affordable, making it cost approximately one-tenth the price of traditional diagnostic methods. This instrument uses a compact pulsed laser diode (PLD), which generates light that interacts with tissue. The resulting reaction is analyzed to determine whether the tissue is normal, benign, or malignant.

Indian Army rolls out its first overhauled T-90 Bhishma tank

The Indian Army has rolled out its first overhauled T-90 Bhishma tank. It is known for its firepower, speed, and protection. This overhauling process showcases the indigenous maintenance and technical skills developed in the country. The T-90 Bhishma is 9.6 meters long and 2.8 meters wide and is approximately 47 tonnes. The T-90 Bhishma is equipped with a 125 mm smoothbore gun, which is capable of firing various types of shells.

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SPORTS

Rafael Nadal announced his retirement from professional tennis

Rafael Nadal, 38, will make his final appearance for Spain at the Davis Cup final in

Malaga from November 19-24. He has won 92 ATP singles titles, including 36 Masters titles and 22 Grand Slam titles, with 14 of those being French Open titles. Nadal also won an Olympic gold medal in 2008 and helped Spain secure five Davis Cup titles. He has been a five-time year-end world number one and remained in the ATP top 10 for 17 years, from 2005 to March 2024. Nadal spent 209 weeks as the world's top player and won at least one title every year from 2004 to 2022.

Indian women's team created history by winning bronze medal at the Asian Table Tennis Championships

The India team won the first-ever medal in the women's team category at the Asian Table Tennis Championships. In the semifinals, India registered a 1-3 loss to Japan while in the other semifinal, China lost to Hong Kong by 3-0. In the semifinals, Ayhika Mukherjee lost to Miwa Harimoto by 2-3. ManikaBatra however brought back India into the tie with a 3-0 win over Satsuki Odo. India defeated South Korea in the quarterfinals by 3-2 to secure the medal.

Ministry of Youth Affairs and sports has released the draft of the National Sports Policy 2024 for public feedback

The Ministry of Youth Affairs has released the draft of the National Sports Policy 2024 for public consultation. The policy aims to promote sustainable growth in India's sports ecosystem and national development, making India a global sports powerhouse through collaboration with government, sports federations, and the private sector. It builds on previous initiatives like the National Sports Policy 2001, Khelo India Scheme, and Target Olympic Podium Scheme (TOPS). NSP 2024 focuses on nurturing talent from grassroots to elite levels, using sports for economic development, expanding access to sports infrastructure, and making sports a viable career. Its key pillars include targeting excellence on the global stage, economic and social growth, embedding sports in popular culture, and integrating sports with educational policy.

Olympian Dipa Karmakar announced her retirement from gymnastics

Gymnast DipaKarmakar has announced her retirement from competitive gymnastics. She made history as the first Indian woman to win a medal in gymnastics at the 2014 Commonwealth Games, securing bronze in the vault. Karmakar also won bronze at the 2015 Asian Championships and became the first Indian female gymnast to qualify for the final vault event at the 2016 Rio Olympics, finishing fourth. In 2018, she won gold at the Artistic Gymnastics World Cup in Turkey, becoming the first Indian gymnast to achieve this feat. She also claimed gold at the 2021 Asian Gymnastics Championships in Tashkent. Karmakar has received several prestigious awards, including the Padma Shri, Arjuna Award, and Major Dhyan Chand KhelRatna Award, for her contributions to sports.

India won seven medals at the Junior World Wushu Championships 2024

The Indian team won seven medals including two gold, one silver and four bronze medals at the Junior World Wushu Championships in Bandar Seri Begawan, Brunei. Aryan of India won the gold medal by defeating Gong Huanran of China in the boys group junior 48kg weight category. Shaurya won another gold medal in the boys' 48kg (kids) category by defeating his Iranian opponent AlirezaZamani. A 24-member Indian team participated in this tournament.

Gulveer Singh won the gold medal at the World Athletics Continental Tour

An Indian athlete Gulveer Singh won the gold medal in the men's 5,000-meter race at Japan's World Athletics Continental Tour. He set a new national record with a time of 13 minutes and 11.82 seconds. This broke his previous record of 13 minutes and 18.92 seconds in California. He crossed the finish line in 27 minutes and 41.81 seconds.

In Snooker, Kamal Chawla has won maiden IBSF World 6-Red title

He has won this title with a 6-2 victory over Pakistan's AsjadIqbal in the final at Ulaanbaatar, Mongolia. This victory is significant for Chawla. Chawla was the runner-up in the 2017 edition of the tournament. India has also secured three more bronze medals through Malkeet Singh, VidyaPillai, and KeerthanaPandian. In the women's category, India's Vidya finished with a bronze medal after semifinal loss to Hong Kong's Ng On Yee. Malkeet Singh won the bronze after losing semifinal to Iqbal. Pandian also won bronze after losing to Fong Mei Mei of Hong Kong in her semifinal match.

India won double gold medals in the 2024 Chess Olympiad in Budapest

Both men's and women's teams won gold medals in the 2024 Chess Olympiad. In the men's final round, ArjunErigaisi defeated Jan Subelj of Slovenia. In the women's section final, the Indian women's team defeated Azerbaijan 3.5-0.5 to clinch the gold. Gukesh D, Praggnanandhaa R, ArjunErigaisi, ViditGujrathi, PentalaHarikrishna, and Srinath Narayanan were part of the Indian team for the open category. India's best performances prior to this year have been the bronze medals in 2022 and 2014.

Jasprit Bumrah became the 10th Indian bowler to reach 400 international wickets

Indian fast bowler JaspritBumrah completed 400 wickets in international cricket and

became the 10th bowler from India to achieve this feat. Bumrah achieved this feat during India's first Test match against Bangladesh in Chennai. With this achievement, Bumrah's tally of international wickets has now reached 401 in 196 matches. JaspritBumrah has taken 149 wickets in 89 ODIs, 89 wickets in 70 T20Is, and 163 wickets in 37 Tests. Anil Kumble (953 wickets), RavichandranAshwin (744 wickets), and Harbhajan Singh (707 wickets) are India's top three wicket-takers in international cricket.

Scotland has agreed to host Commonwealth Games in 2026

Glasgow will host the 2026 Commonwealth Games after the original host, Australia's Victoria state, withdrew due to rising costs. This will be the fourth time Scotland hosts the Commonwealth Games, following events in Edinburgh in 1970 and 1986, and in Glasgow in 2014. The Commonwealth Games, established in 1930 as the British Empire Games, occur every four years and involve 74 nations and territories. The 2022 games were held in Birmingham. This marks the second consecutive time a selected host has stepped down; Durban, South Africa, withdrew from

hosting the 2022 games due to financial issues, leading to Birmingham taking over. The Commonwealth Games have been held every four years since 1930, with the 2010 edition hosted by India.

Punjab clinched the 14th Hockey India Junior Men's National Championship 2024

Punjab defeated Uttar Pradesh in the finals of the 14th Hockey India Junior Men's National Championship 2024 at the Olympian Surjit Singh Hockey Stadium. The final winner of the match is decided in the shootout, with Punjab winning 4-3 to lift the trophy. Sukhwinder Singh (5'), Jarman Singh (33'), and Jobanpreet Singh (39') scored goals for Punjab. AjeetYadav (31'), Suraj Pal (48'), and Akash Pal (54') scored one goal each for Uttar Pradesh. Haryana defeated Karnataka 5-0 to secure third place on the podium.

India retained the Asian Champions Trophy title by defeating China

The Indian men's hockey team won the Asian Champions Trophy, defeating hosts China 1-0 in the final held in Hulunbuir, China. Jugraj Singh scored the winning goal in the 51st minute, securing India's fifth title and making them the most successful team in the tournament's history. This victory marks India's second consecutive win, having also won in 2023, and they previously won in 2016 and 2018. This was the team's sixth final in the eight tournaments held so far. Following the win, Hockey India announced cash rewards of ₹3 lakh for each player and ₹1.5 lakh for each support staff member. Pakistan finished third by defeating Korea 5-2.

Nima Rinzee Sherpa became the youngest person to climb all 14 peaks above 8,000 metres

NimaRinzee Sherpa, an 18-year-old Nepali climber, created a new world record by becoming the youngest person to climb all 14 of the world's peaks higher than 8,000 metres. His historic feat was completed on October 9, when he successfully climbed the 8,027-metre Shisha Pangma in Tibet, culminating his two-year expedition to conquer one of the most difficult mountains on earth. Sherpa, who began climbing high mountains when he was 16, climbed all eight thousand mountains in 740 days.

AWARDS

2024 Nobel Prize in Literature awarded to South Korean writer Han Kang

The Nobel Prize in Literature for 2024 has been awarded to South Korean writer Han Kang for her "intense poetic prose that confronts historical traumas and exposes the fragility of human life." She is the first South Korean to win this prize. Han Kang is best known internationally for her work *The Vegetarian*, which won the Man Booker International Prize in 2016. The Nobel Prize, with a monetary award of about $1 million, will be presented on December 10, 2024, in Stockholm. The prize has been awarded 117 times since 1901.

70th National Film Awards presented to the winners of various categories by President Draupadi Murmu

Veteran actor MithunChakraborty was honoured with the DadasahebPhalke Lifetime Achievement Award for the year 2022. Here is the important list of 70th National Film Awards 2024. Category Awardee/Work Best Feature Film "Aattam (The Play)" (Malayalam), directed by AnandEkarshi Best Non-Feature Film "Ayena (Mirror)", directed by SiddhantSarin Best Actor in a Leading Role RishabShetty, "Kantara" (Kannada) Best Actress in a Leading Role NithyaMenen, "Thiruchitrambalam" (Tamil) &Manasi Parekh, "Kutch Express" (Gujarati) Best Direction Sooraj R. Barjatya, "Uunchai" (Hindi) Best Film in Animation, Visual Effects, Gaming & Comic "Brahmastra - Part 1: Shiva" Best Popular Film Providing Wholesome Entertainment "Kantara" Best Hindi Film "Gulmohar" Best Supporting Actor

Pavan Raj Malhotra, "Fouja" (Haryanvi) Best Supporting Actress Neena Gupta, "Uunchai: Zenith" (Hindi) Best Debut Film "Fouja" Best Male Playback Singer Arijit Singh, "Kesariya" (Brahmastra - Part 1: Shiva) Best Female

Playback Singer Bombay Jayashri, "ChaayumVeyil" (Saudi Vellaka CC 225/2009) Best Child Artist Sreepath, "Malikapurram" (Malayalam) Best Documentary "Murmurs Of The Jungle" (Marathi).

Nobel Prize in chemistry has been awarded jointly to David Baker, Demis Hassabis and John Jumper

The 2024 Nobel Prize in Chemistry was awarded to David Baker for computational protein design, and to DemisHassabis and John M. Jumper for their work on protein structure prediction using AlphaFold 2. Baker led a team in 2003 that developed a new protein with custom software, while Hassabis and Jumper's AI model predicted millions of protein structures. This follows a trend of awarding non-chemists, as seen in 2023 when the prize went to Moungi G. Bawendi, Louis E. Brus, and Alexei I. Ekimov for quantum dots. Baker is based at the University of Washington, and Hassabis and Jumper work at Google DeepMind.

John J. Hopfield and Geoffrey E. Hinton have been awarded the 2024 Nobel Prize in Physics

The 2024 Nobel Prize in Physics was awarded for foundational discoveries that enable machine learning with artificial neural networks. John Hopfeld developed an associative memory for storing and reconstructing patterns, while Geoffrey Hinton created a method to autonomously identify elements in data. The prize includes 11 million Swedish kronor ($1 million). In 2023, the Nobel Prize in Physics was awarded to Pierre Agostini, FerencKrausz, and Anne L'Huillier for their work on attosecond light pulses to study electron dynamics. The first Physics Nobel in 1901 was given to Wilhelm Röntgen for discovering X-rays.

Red Panda Programme of Padmaja Naidu Himalayan Zoo, Darjeeling Selected as Finalist for WAZA Conservation Award

The Padmaja Naidu Himalayan Zoological Park in Darjeeling has been selected as a finalist for the 2024 WAZA Conservation Awards. The zoo, in collaboration with various institutions and the Indian government, has released nine captive-bred red pandas into Singalila National Park between 2022 and 2024. Its conservation efforts include habitat restoration and a biobanking facility that preserves genetic material of red pandas and other endangered species. The winner will be announced at the WAZA Annual Conference in Australia on November 7, 2024.

Shah Rukh Khan and Rani Mukerji won Best Actor awards at the 2024 International Indian Film Academy (IIFA) Awards

The International Indian Film Academy (IIFA) Awards 2024 was held in Abu Dhabi. On September 27, the three-day festival began with IIFA Utsavam and concluded on September 29.

Manipur's Andro village received the Best Heritage Tourism Village of 2024 award

The Andro Village of Manipur received the Best Tourism Village in Heritage category award in the 2024 edition of the Best Tourism Villages Competition. This award has been given due to the unique cultural heritage and traditional practices of Andro village. The village has a temple which showcases the rich cultural and historical heritage of the region. The village's cultural heritage includes the centuries-old fire worship which attracts tourists from various parts of the world. The villagers of Andro have adopted several strategies to engage the local community in promoting and sustaining their heritage.

ICMR received U.N. award for successes in non-communicable diseases control

The Indian Council of Medical Research (ICMR) has received the 2024 UN Inter-Agency Task Force Award. The ICMR has been recognized for its contributions to the advancement of multi-sectoral efforts aimed at mental health, noncommunicable disease prevention and control, and the broader Sustainable Development Goals (SDGs) connected to NCDs. This honor showcases ICMR's creative work in assistive technology, which develops solutions that are affordable, accessible, and longlasting. For people in India who suffer from mental health issues and non-communicable diseases (NCDs), these treatments improve their quality of life.

India earned 16 medals and Medallions of Excellence at the World Skills 2024 competition in Lyon, France

India won four Bronzes at the 47th World Skills Competition, held from September 10 to 15, 2024, in categories including Patisserie and Confectionery, Industry 4.0, Hotel Reception, and Renewable Energy. The Indian delegation also received 12 medallions of excellence. Ashwitha Police won the Best of the Nation Award in Patisserie and Confectionery. Other medal winners included Dhrumilkumar Gandhi and SathyajithBalakrishnan (Industry 4.0), JoethirAdithyaKrishnapriyaRavikumar (Hotel Reception), and Amaresh Kumar Sahu (Renewable Energy). Over 1,400 participants from more than 70 countries competed in various skills, with India competing in 52 skills.

76 Emmy Awards ceremony took place at the Peacock Theater in Los Angeles

Shogun bagged the Outstanding Drama Series award while Hacks was named 'Outstanding Comedy Series'. The award ceremony was hosted by Eugene Levy and Dan Levy. Four awards in the limited series or TV movie category were awarded to "Baby Reindeer." Christopher Storer won the award for Best Directing in comedy. Jodie Foster won the Emmy award for Lead Actress in Limited Series. Richard Gadd won his first Emmy for writing Baby Reindeer. Hiroyuki Sanada won the Outstanding Lead Actor award in a Drama Series. ●●●

MISCELLANEOUS

Indian Newspaper Society has elected M.V. Shreyams Kumar of Mathrubhumi as President for 2024-2025

M V Shreyams Kumar of Mathrubhumi has been elected as President of The Indian Newspaper Society (INS). Indian Newspaper Society is the apex body of publishers of newspapers, magazines and periodicals in India. He will take the place of Rakesh Sharma of AajSamaj. Vivek Gupta of Sanmarg has been elected the Deputy President and Karan RajendraDarda of Lokmat as the Vice President. Indian Newspaper Society was established in 1939 and its headquarters are located in Rafi Marg, New Delhi.

Udhayanidhi Stalin became deputy CM of Tamil Nadu

Udhayanidhi Stalin has been appointed as the deputy chief minister of Tamil Nadu. Four other DravidaMunnetraKazhagam (DMK) legislators were sworn in as cabinet ministers. The swearing ceremony took place at Raj Bhavan in the presence of Chief Minister MK Stalin. He was serving as the minister for youth welfare and sports development. Under his new role, he will also oversee the planning and development portfolio.

Air Marshal SP Dharka will be the new Vice Chief of Air Staff

He will succeed Air Marshal AP Singh, who is set to become the Chief of Air Staff. He has experience of more than 3,600 flying hours. He will bring extensive experience to the position. He joined the Air Force in June 1985 and has worked as a qualified flying instructor, fighter strike leader, instrument rating instructor and examiner, and Air Force examiner. He had also commanded a frontline fighter squadron and a Fighter Flying Training Establishment. He was the first Director General of the Defense Space Agency. He has been heading the Eastern Air Command for the last two years.

AnuragGarg takes became the new NCB Director General

AnuragGarg has become the new Director General of the Narcotics Control Bureau (NCB). He was serving as the Additional Director General in the Border Security Force (BSF). The Appointments Committee of the Cabinet (ACC) has approved the appointment of AnuragGarg. The Narcotics Control Bureau is an Indian central law enforcement and intelligence agency under the Ministry of Home Affairs. It was established in 1986 with the responsibility to combat drug trafficking and the use of illegal substances under the provisions of the Narcotic Drugs and Psychotropic Substances Act.

Amrit Mohan Prasad has been appointed as the Director General, Sashastra SeemaBal (SSB)

A senior IPS officer of the 1989-batch from the Odisha cadre, currently Special Director General of the CRPF, has been appointed Director General of SashastraSeemaBal (SSB). His tenure will last until his superannuation on August 31, 2025. The vacancy occurred after the previous SSB chief, Daljit Singh Chaudhary, was appointed DG of the Border Security Force (BSF) on August 28. SSB, formed in 1963, is responsible for guarding the Nepal-Bhutan border and operates under the Ministry of Home Affairs.

Noel Tata has been appointed Chairperson of Tata Trust

Noel Tata has been appointed Chairperson of Tata Trusts, following the passing of Ratan Tata at age 86. Noel Tata, Ratan Tata's half-brother, has been with the Tata Group for 40

years and serves on the boards of companies like Tata Steel and Voltas. Tata Trusts hold a 66% stake in Tata Sons, giving them significant control over Tata Sons' operations. Noel Tata is also the chairman of Tata International and Tata Investment Corporation Ltd.

OBITUARIES

SSP. Venugopal, former Director of AIIMS, passed away at the age of 82

Dr. P. Venugopal, who conducted India's first heart transplant, passed away at the age of 82. In this career, he led more than 50,000 heart surgeries. He published his memoirs, Heartfelt, jointly with his wife in 2023. He was also known as a man of uncompromising personal and professional integrity. He introduced many advanced concepts in cardiac surgery from the Western world to India. He received the Padma Bhushan in 1998 for his contributions to the field of Medicine.

Industrialist Ratan Tata passed away on 09 October 2024 at the age of 86

Renowned industrialist and philanthropist Ratan Tata had been undergoing treatment at a private hospital. He was in critical condition. One-day state mourning has been announced by the Maharashtra government on 10 October 2024. He received Padma Vibhushan in 2008. He had previously received the Padma Bhushan in 2000. He was awarded Order of Australia in 2023. He received Assam Baibhav in 2021 for contributing towards cancer care in Assam. He was awarded Honorary Knight Grand Cross of the Order of the British Empire in 2014. He died at Breach Candy Hospital in Mumbai, following age-related ailments.

BOOKS

The book "Khaki Mein Sthitapragya" has been released by Chief Minister Pushkar Singh Dhami

The book has been written by former Director General of Police of Uttarakhand, Anil Raturi. This is based on his memoirs and experiences as an IPS officer. This book will help the people coming into service to take decisions. Through this book, the author has tried to describe memories, experiences and challenges on basis of his three and a half decades of experience as a police officer. Through this book, the author has made an attempt to show how our new officers can face challenges. The author has also made an attempt to show how they can move forward on their path of work with patience. Vice Chancellor of Doon University Prof. Surekha Dangwal said that the influence of T.S. Eliot is visible in Anil Raturi's writing style. ●●●

MATCH POINT

- Indian Navy's new ship 'Sampark' has been built by- **L&T Shipyard**
- The 2024 Nobel Prize in Economics was awarded to DaronAcemoglu, Simon Johnson and James A. Robinson for the study of **- "How institutions are formed and affect prosperity"**
- ISSF Junior World Cup 2025 will be hosted by **- India**
- 14ᵗʰMaharatna status has been given to - **Hindustan Aeronautics Limited**
- 2024 Nobel Prize in Economics has been awared to **- DaronAcemoglu, Simon Johnson and James A. Robinson**
- This organization was awarded the Nobel Peace Prize in the year 2024**- Nihon Hidankyo Organization**
- New chairman of Tata Trust**- Noel Tata**
- In this district of Bihar will the state's second tiger reserve be established**- Kaimur**
- This state postal circle released a special cover in honor of Ratan Tata**- Bihar**
- International Energy Agency has collaborated for clean energy with **- IIT Delhi**
- Nobel Prize for Literature for the year 2024 has been awarded to **- Han Kang**
- National Maritime Heritage Complex will be established in **- Gujarat**
- 21st ASEAN-India summit will be held in **- Laos**
- PM Modi recently inaugurated the Indian Institute of Skills in **- Mumbai**
- Han Kang, who was awarded the Nobel Prize for Literature this year, is a citizen of **- South Korea**
- Nobel Prize for Chemistry 2024 has been awareded to **- David Baker, DemisHassabis and John M. Jumper**
- Nobel Prize in Physics 2024 has been awarded to **- John Hopfield and Geoffrey Hinton**
- For this discovery Victor Ambrose and Gary Ruvkun were awarded the Nobel Prize in Medicine for the year 2024**- Discovery of miRNA**
- PM Modi inaugurated the Banjara Heritage Museum in **- Maharashtra**
- This personality has been appointed by BCCI as the new chairman of its Anti-Corruption Unit**- Sharad Kumar**
- Recently this state government launched 'NijutMoina' scheme for girl students**- Assam**
- First woman Director General of Armed Forces Medical Services of India **- Vice Admiral AartiSareen**
- New head of NATO**- Mark Rutte**
- World Green Economy Forum was inaugurated recently in **- Dubai**
- PM Modi launched 'DhartiAaba Tribal Village Development Campaign' in **- Jharkhand**
- NITI Aayog has recently launched the Women Entrepreneurship Platform with this state**- Telangana**
- PM Modi inaugurated four bio-gas units**- Assam**
- India's first government-funded multimodal AI initiative**- BharatGen**
- Exercise 'Kazind' recently started between India and **- Kazakhstan**
- This mission has been launched to promote cruise tourism in India**- 'Cruise Bharat Mission'**
- SBI Card has launched co-branded credit card with this airline**- Singapore Airlines**
- First Indian left-arm spinner to take 300 test wickets in test cricket**- RavindraJadeja**

- Justice Manmohan has been sworn in as the Chief Justice **- Delhi High Court**
- This Indian won the gold medal in the World Athletics Continental Tour**- Gulveer Singh**
- This actor was recently honoured with the DadasahebPhalke Award**- MithunChakraborty**
- Winner of Best Actor Award at the International Indian Film Academy (IIFA) Awards 2024**- Shahrukh Khan**
- Winner of Best Actress Award at the International Indian Film Academy (IIFA) Awards 2024**- Rani Mukherjee**
- ParamRudra Supercomputer was launched by PM NarendraModi in**– Pune, Delhi, and Kolkata**
- Shigeru Ishiba has been chosen as the next Prime Minister of**– Japan**
- B. Vanlalvawna was recently appointed as the Indian ambassador to**– Cambodia**
- Justice Suresh Kumar Kait has recently become the Chief Justice of**– Madhya PradeshHigh Court**
- New Chief Justice of Jharkhand High Court **– M.S. RamachandraRao**
- This has launched a co-branded travel debit card in partnership with EaseMyTrip**– Bank of Baroda**
- Rank of India in the Asia Power Index 2024**- Third**
- Recently this airport has been named after JagadguruSantTukaramMaharaj**- Pune Airport**
- This state has recently given the status of special tribal group to the Mankidiya community**- Odisha**
- This sports persons won the men's doubles title of Hangzhou Open 2024**- JeevanNedunchezhiyan and Vijay SundarPrashanth**
- The new airline of India which has got approval from the Aviation Ministry**- Shankh Air**
- Nagar Van Yojana, which was in the news recently, has been started by **- Ministry of Environment, Forest and Climate Change**
- India has recently announced the opening of new consulates in these two US cities**- Boston and Los Angeles**
- This film was chosen as India's official entry in Oscars 2025**- 'Laapataa Ladies'**
- India won this medal in the 45th FIDE Chess Olympiad**- Gold**
- IIFA Awards will be held in the year 2025**- Jaipur**
- New President of Sri Lanka**- Anura Kumara Dissanayake**
- Winner of Miss India Worldwide 2024 title**- Dhruvi Patel**
- Commonwealth Games 2026 will be held in **– Glasgow**
- Third World Food India 2024 was organized in **- New Delhi**
- 'One Nation-One Election' has been done on the recommendation of **- Ram NathKovindCommittee**
- First female fighter pilot to join the elite 18 'Flying Bullets' squadron of the Indian Air Force**- Mohana Singh**
- PM Modi launched the SubhadraYojana in **–Odisha**
- New Chief Minister of Delhi**- AtishiMarlena**
- Amount will be given to women annually under Odisha government's SubhadraYojana**- 10 thousand rupees**
- Country's first Namo Bharat Rapid Rail was inaugurated in **– Gujarat**
- First Pakistani woman to become an international cricket umpire**- SalimaImtiaz**
- Country's first Namo Bharat Rapid Rail has been run between these two cities**- Bhuj and Ahmedabad**
- This city has emerged as the biggest tourist centre of Uttar Pradesh**- Ayodhya**

●●●

MCQ ON CURRENT AFFAIRS

1. What is the primary product of the Haber-Bosch process?
   (a) Sulphuric Acid
   (b) Ammonia
   (c) Methane
   (d) Hydrogen peroxide

2. With reference to Article 142 of the Indian Constitution, consider the following statements:
   1. It grants the Supreme Court extraordinary powers to deliver justice.
   2. It is used to address gaps in existing laws for pending cases.
   3. Laws enacted to make unenforceable the decree made under Article 142 may be declared void.

   How many of the statements given above are correct?
   (a) Only one
   (b) Only two
   (c) All three
   (d) None

3. Mount Adams, a stratovolcano recently seen in the news, lies in which country?
   (a) Canada
   (b) Chile
   (c) Australia
   (d) United States of America

4. Consider the following statements regarding the MAHA- EV Mission:
   1. It focuses on the development of key Electric Vehicle technologies to reduce dependency on imports and promote domestic innovation in India.
   2. It is an initiative of the Anusandhan National Research Foundation.

   Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

5. Consider the following statements regarding the United Nations Children's Fund (UNICEF):
   1. It is funded only by the elected governments around the world.
   2. It helps children and young people whose lives and futures are at risk.

   Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

6. THAAD Missile System, recently in news, is developed by:
   (a) India
   (b) China
   (c) Russia
   (d) USA

7. Consider the following statements regarding the Inter-Parliamentary Union:
   1. It is an international organization of Parliaments established to promote representative democracy.
   2. It is financed primarily by its members out of public funds.

   Which of the statements given above is/are correct?
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

8. Consider the following statements about Komodo Dragon
   1. It is the largest extant lizard species.
   2. Females of this species can produce offspring through parthenogenesis.
   3. They are found on islands of the Lesser Sunda Islands of Indonesia.

   How many of the statements given above are correct?
   (a) Only one
   (b) Only two
   (c) All three
   (d) None

9. Consider the following statements about Kalleshwar Temple
   1. It is a Hindu temple dedicated to Lord Vishnu built during the reign of Krishnadevaraya of Vijayanagara Empire.
   2. This temple is protected as a monument of national importance by the Archaeological Survey of India.

   Choose the incorrect statements:
   (a) 1 only
   (b) 2 only
   (c) Both 1 and 2
   (d) Neither 1 nor 2

10. Matsiguenka Community, recently seen in news are the indigenous people of which of the following country?

(a) Peru
(b) Solomon Island
(c) Mexico
(d) Venezuela

11. Consider the following statements regarding water chestnut (Goer) in Kashmir:
1. Water chestnut is harvested primarily during autumn in Wular Lake.
2. The edible part of the water chestnut is typically peeled, dried, and ground into flour.
3. Water chestnuts are high in potassium and carbohydrates but low in sodium and fat.

How many of the above statements is/are incorrect?

(a) Only one
(b) Only two
(c) All three
(d) None

12. Consider the following statements regarding the features of THAAD missile:
1. THAAD uses a radar system to detect incoming missiles.
2. THAAD covers a smaller area compared to the Patriot missile defense system.
3. THAAD uses kinetic energy rather than explosive warheads to destroy targets.

Which of the above statements are correct?
(a) 1 and 3 only
(b) 2 and 3 only
(c) 1 only
(d) 1, 2, and 3

13. Consider the following statements regarding Earthworms:
1. They break down dead and decaying organic matter into rich humus soil, thereby supporting plant growth.
2. They dig tiny channels and make holes that aerate soil and improve drainage.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

14. Kalleshwar Temple lies in which one of the following states?
(a) Tamil Nadu
(b) Madhya Pradesh
(c) Odisha
(d) Karnataka

15. Consider the following statements:
1. It is the largest tiger reserve in the country.

2. It is located in the Nallamala hill ranges of Andhra Pradesh.
3. The river Krishna traverses through this reserve.

The above statements correctly describe which one of the following Tiger Reserves?
(a) Indravati Tiger Reserve
(b) Simlipal Tiger Reserve
(c) Amrabad Tiger Reserve
(d) Nagarjunsagar-Srisailam Tiger Reserve

16. Consider the following statements regarding Dragon drones:
1. They release a substance called thermite which is a mixture of aluminium and iron oxide.
2. These thermite induced drones can only affect trees and military-grade vehicles.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

17. Consider the following statements about Brahmi Inscription
1. The Brahmi script is the earliest writing system developed in India after the Indus script.
2. Most examples of Brahmi found in North and Central India represent the Prakrit language.
3. The Bengali, Gujarati and Kannada scripts are descendant scripts of Brahmi.

How many of the statements given above are correct?
(a) Only one
(b) Only two
(c) All three
(d) None

18. Consider the following statements about Saryu River
1. It is a river that flows through the states of Uttarakhand and Uttar Pradesh.
2. Ayodhya city is is situated on the banks of the river Sarayu.
3. It joins the main River Ganga at Varanasi.

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 3
(d) All three

19. Consider the following statements about T-90 Bhishma Tank
1. It is the Indian Army's main battle tank.

2. It has an advanced thermal sighting system; the tank can detect targets up to 8 km away.

Choose the incorrect statement(s)
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

20. Anaconda strategy, recently seen in news is related to?
(a) A Military strategy
(b) An Alliance to conserve Anaconda
(c) Using soft power to take advantage of weaker nations
(d) None of the above

21. Consider the following statements regarding United Nations Interim Force in Lebanon (UNIFIL):
1. UNIFIL was established to oversee the Israeli withdrawal from Lebanon and to restore peace and security in the area.
2. The largest number of UNIFIL peacekeepers come from India.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

22. Consider the following statements regarding Synthetic Medical Images:
1. These are generated by AI or computer algorithms without being captured by traditional imaging devices.
2. These images help healthcare providers in AI development without the risk of violating patients' privacy.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

23. Consider the following statements regarding Shale gas:
1. It is a natural gas which can be extracted by using Hydraulic fracturing method.
2. It is produced from the decomposition of organic matter.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

24. Consider the following statements regarding Tele MANAS:

1. It aims to provide free tele-mental health services all over the country.
2. It is an initiative of the Union Ministry of Education.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

25. Chaukhamba Peak, recently seen in the news, lies in which one of the following states?
(a) Uttarakhand
(b) Odisha
(c) Arunachal Pradesh
(d) Kerala

26. Consider the following statements regarding Brahmi Script:
1. It is the earliest writing system developed in India.
2. In India, traces of Brahmi script were found in both Indo-Gangetic Plain and Deccan plateau region.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

27. Consider the following statements regarding MLA Local Area Development Fund:
1. It is a one time grant given to MLAs for local development such as repairing roads, and streetlights
2. Each MLA does not directly receive the funds but they can recommend projects for the scheme.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

28. Consider the following statements about Exercise Malabar
1. It is a trilateral naval exercise between India, the USA and Japan.
2. It takes place annually in the Indian Ocean and Pacific Oceans alternatively.
3. The 2024 edition is being held in India's Eastern Naval Command (ENC), Visakhapatnam.

How many of the statements given above are correct?
(a) Only one
(b) Only two
(c) All Three

(d)   None

29.   Consider the following statements about Halari donkey
1.   The Halari donkey is native to the Saurashtra region of Gujarat.
2.   It is a unique and rare breed known for its distinctive physical characteristics and historical significance.
3.   It is listed as Critically Endangered in IUCN Red List.
Which of the statements given above is/are correct?
(a)   1 and 2
(b)   1 and 3
(c)   2 and 3
(d)   All three

30.   Consider the following statements about MACE Observatory
1.   It is Asia's Largest and World's Highest Imaging Cherenkov Observatory.
2.   It is located at an altitude of ~4,300 m, at Hanle, Ladakh.
3.   It is indigenously built by ISRO with support from Electronics Corporation of India.
Which of the statements given above is/are correct?
(a)   1 and 3
(b)   1 and 2
(c)   2 and 3
(d)   All three

31.   Consider the following statements about Rice Fortification Initiative
1.   It is centrally a sponsored scheme and a component of Annapurna Scheme.
2.   It is implemented by the Cabinet Committee on Economic Affairs (CCEA).
Choose the incorrect statements:
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2

32.   What is the most common method used to extract shale gas?
(a)   Vertical drilling
(b)   Open-pit mining
(c)   Steam injection
(d)   Hydraulic fracturing

33.   Consider the following statements about the YuvaSangam initiative:
1.   The initiative provides multi-dimensional exposure to youth in areas like tourism and development.
2.   Only students from recognized universities are eligible to participate.

3.   The initiative encourages youth to experience India's diverse heritage firsthand.
Which of the above statements are correct?
(a)   1 only
(b)   2 and 3 only
(c)   1, 2, and 3
(d)   1 and 3 only

34.   What is the primary objective of the Humsafar Policy, recently seen in the news?
(a)   To promote eco-friendly tourism in coastal regions.
(b)   To promote telemedicine services in remote locations.
(c)   To promote digital banking in rural areas.
(d)   To enhance facilities along national highways.

35.   Which one of the following is the best description of 'Ardetosaurusviator', that was in the news recently?
(a)   A newly discovered marine reptile
(b)   An ancient crocodile species
(c)   A newly discovered species of sauropod dinosaur.
(d)   None of the above.

36.   Consider the following statements regarding Footrot Disease:
1.   It is a highly contagious bacterial disease affecting ruminants.
2.   It tends to be seasonal, with the highest incidence occurring during the wet seasons.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2

37.   Where is the Katkari Tribe primarily found in India?
(a)   Rajasthan and Madhya Pradesh
(b)   Maharashtra and Gujarat
(c)   Odisha and West Bengal
(d)   Kerala and Tamil Nadu

38.   Living Planet Report, recently in news, is published by:
(a)   World Wide Fund for Nature
(b)   World Bank
(c)   United Nations Environment Programme
(d)   World Economic Forum

39.   Consider the following statements about INS Nirdeshak
1.   It is the first in a series of four Survey Vessels (Large) built.
2.   It was built by the Garden Reach Shipbuilders and Engineers.
Choose the incorrect statements:

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

40. Consider the following statements about IBSAMAR VIII
1. It is a joint multinational maritime exercise among Indian, Brazilian, and South African Navy.
2. The broad concept is based on Blue Water Naval Warfare, encompassing the dimensions of Surface and Anti-Air Warfare.
Choose the correct statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

41. Where is the National Maritime Heritage Complex (NMHC) being developed?
(a) Mumbai, Maharashtra
(b) Visakhapatnam, Andhra Pradesh
(c) Kochi, Kerala
(d) Lothal, Gujarat

42. Consider the following statements regarding AgasthyamalaiBambootail, recently seen in the news:
1. It is a new species of butterfly.
2. It was discovered in the Western Ghats.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

43. In which one of the following groups of states is the Tharu tribe mostly found?
(a) Punjab, Haryana, Rajasthan
(b) Assam, Meghalaya, Manipur
(c) Maharashtra, Gujarat, Madhya Pradesh
(d) Uttarakhand, Uttar Pradesh, Bihar

44. IBSAMAR Exercise, recently in news, is conducted between:
(a) India, Brazil and South Africa
(b) India, Brazil South Korea
(c) India, Brunei and South Africa
(d) Israel, Brazil and South Africa

45. With reference to Universal Postal Union, consider the following statements:
1. It is a United Nations specialized agency set up under the Treaty of Bern.
2. It sets the rules for international mail exchanges.
3. A non-member country of the United Nations can't become member of this organization.

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 3
(d) All three

46. Consider the following statements about 'The Major Atmospheric Cherenkov Experiment (MACE) Observatory'
1. It observes high-energy gamma rays such as supernovae, black holes, and gamma-ray bursts.
2. It is indigenously built by Bhabha Atomic Research Centre (BARC) with support from Electronics Corporation of India (ECIL)
Choose the correct statement(s)
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

47. Consider the following statements about 'Central Consumer Protection Authority (CCPA)'
1. It was established under the provisions of the Consumer Protection Act, 1986
2. The CCPA has powers to pass orders of discontinuation of practices and impose penalties
3. It will have a Chief Commissioner as head and ten other commissioners as members
Which of the statements given above is/are correct?
(a) 2 only
(b) 1 and 3
(c) 2 and 3
(d) All three

48. Consider the following statements about 'Unified Genomic Chip'
1. The chip is tailored for all cattle breeds and will help improve the quality of cattle
2. The chip comes in two versions – The 'Gau Chip' for cattle and the 'Mahish Chip' for buffalo.
Choose the correct statement(s)
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

49. Consider the following statements
1. Proteins are made up of smaller units called amino acids which are linked together in short chains.
2. The specific sequence in which they are arranged determines the protein's structure and function.

3. AlphaFold2 AI model was able to predict the structure of virtually all the 200 million proteins that researchers have identified.

Which of the statements given above is/are correct?

(a) 2 and 3
(b) 1 and 3
(c) 1 and 2
(d) All three

50. Consider the following statements regarding Machine Learning (ML):
1. It is a branch of Artificial Intelligence (AI) focused on building computer systems that learn from data.
2. Using historical data as input, these algorithms can make predictions, classify information, and generate new content.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

51. Consider the following statements regarding Mount Dhaulagiri:
1. It is the second-highest mountain in the world.
2. It is located in Nepal and is part of the Himalayan Mountain range.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

52. Consider the following statements regarding Trachoma:
1. It is a bacterial infection that affects the human eyes.
2. It is a contagious infection and the World Health Organisation declared it as a neglected tropical disease.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

53. Consider the following statements regarding the Major Atmospheric Cherenkov Experiment (MACE) Observatory:
4. It aims to study supernovae, black holes, and gamma-ray bursts.
5. It is indigenously built by the Bhabha Atomic Research Centre.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

54. Consider the following statements regarding the Exercise Malabar:
1. It is a bilateral naval exercise held between India and the US navy.
2. It is conducted annually in the Indian Ocean and Pacific Oceans alternatively.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

55. Consider the following statements about State of Global Water Resource Report
1. It is an annual report published by the United Nations Environment Programme since 2021.
2. According to current report 2021 marked the driest year for global rivers in 33 years.

Choose the incorrect statements:

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

56. Consider the following statements about Artificial Neural Network (ANN)
1. ANNs are collections of nodes designed to mimic neuron networks in animal brains.
2. Transformer, a new form of ANN is a two-part neural network that encodes and then decodes information.

Choose the correct statements:

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

57. Consider the following statements regarding Ni-kshayPoshanYojana (NPY):
1. It is a direct benefit transfer (DBT) scheme under the National Tuberculosis Elimination Program (NTEP) in India.
2. It provides a financial incentive of Rs.10000/- per month for each notified tuberculosis (TB) patient for duration for which the patient is on anti-TB treatment.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

58. Consider the following statements regarding Rudder:
1. It is a primary flight control surface which controls rotation about the vertical axis of an aircraft.
2. It is a movable surface which is used to steer the aircraft.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

59. Consider the following statements regarding the World Association of Zoos and Aquariums (WAZA):
1. It was established as a consequence of 1992 Rio Earth Summit.
2. It is the only organisation representing zoos and aquariums at the global level.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

60. Which one of the following organizations publishes the annual "State of Global Water Resources Report"?
(a) World Health Organization (WHO)
(b) United Nations Environment Programme (UNEP)
(c) World Meteorological Organization (WMO)
(d) International Water Management Institute (IWMI)

61. Consider the following statements regarding the World Telecommunication Standardization Assembly:
1. It is one of the three world conferences organized by the International Telecommunication Union.
2. It is held once in every four years and plays a pivotal role in setting global telecommunication standards.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

62. Consider the following statements regarding Unified Genomic Chip:
1. It helps farmers identify high-quality cattle early and enhance dairy farming efficiency in India.

2. It is developed by the National Dairy Development Board of India.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

63. Consider the following statements regarding MicroRNA:
1. It helps in fine-tuning the expression of genes in different cell types and under varying conditions.
2. It is a small and non-coding molecule of RNA.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

64. With reference to Indian Wild Ass, consider the following statements:
1. It is mainly found in the Little Rann of Kutch in Gujarat.
2. It is placed under Schedule- IV of the Wildlife Protection Act (1972).
3. It helps in seed dispersal and promotion of vegetation growth in its habitat.
Which of the statements given above is/are correct?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 3
(d) All three

65. Consider the following statements regarding English Channel:
1. It is a narrow arm of the Atlantic Ocean.
2. It separates the southern coast of England from the northern coast of France.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

66. Fattah-2, recently seen in the news, is a hypersonic ballistic missile, developed by which one of the following countries?
(a) Russia
(b) North Korea
(c) Turkey
(d) Iran

67. Consider the following statements regarding Pashtuns:

1. They are an ethnic group of people found throughout Afghanistan and Pakistan.
2. They are united primarily by a common language, Farsi.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

68. Consider the following statements regarding the Emergency Use Listing Procedure:
1. It is a risk-based procedure for assessing and listing unlicensed vaccines and therapeutics.
2. A vaccine is listed under this procedure if an existing product is not successful in eradicating the disease.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

69. With reference to Eco-Sensitive Zone, consider the following statements:
1. It is an area created as a shock absorber for the protected areas.
2. In this zone agricultural and horticulture activities are prohibited.
3. In this transition area commercial establishment of hotels are regulated.

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 3
(d) All three

70. Consider the following statements about Akashteer Systems

1. These are advanced Air Defence Control and Reporting Systems.
2. It is developed by Bharat Electronics Limited (BEL).

Choose the correct statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

71. Recently, JouGwran, MaibraJouBidwi and JouGishi, the unique varieties of rice beer have been granted GI Tag. The above mentioned varieties of rice beers belong to which of the following state?
(a) Assam
(b) Manipur

(c) Tripura
(d) Meghalaya

72. Consider the following statements regarding the Very Short-Range Air Defence System (VSHORADS):
1. It is a Man Portable Air Defence System (MANPAD) developed for neutralising low-altitude aerial threats at short ranges.
2. It has a range of up to 200 km.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

73. Which of the following statements is not correct about hammerhead sharks?
(a) They have 360-degree vision due to their uniquely shaped heads.
(b) They can migrate long distances depending on seasonal changes.
(c) All species of hammerhead sharks are considered critically endangered under IUCN.
(d) They are viviparous, meaning they give birth to live young.

74. Consider the following statements regarding the Co-district Initiative:
1. It aims to address the administrative challenges being faced by the administration in the districts.
2. It is an initiative of the government of Assam.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

75. Consider the following statements regarding Indian Grey wolf:
1. It is mainly found in scrub, grasslands and semi-arid pastoral agro-ecosystems in India.
2. It is categorized as critically endangered species under the IUCN Red list.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

76. Business- Ready Index, is prepared by:
(a) International Monetary Fund
(b) World Trade Organisation
(c) World Economic Forum
(d) World Bank

77. Which one of the following is the best description of 'Pseumenessiangensis', that was in the news recently?
    (a) A newly discovered bird species from the Western Ghats.
    (b) A newly discovered wasp species from Eastern Himalayas.
    (c) A new species of medicinal plant found in the Siang Valley of Arunachal Pradesh.
    (d) A rare reptile species found in the Thar Desert of India.

78. Where is 'Ceres', a dwarf planet recently seen in the news, located in the solar system?
    (a) Between Earth and Mars
    (b) In the Kuiper Belt
    (c) Between Mars and Jupiter, in the asteroid belt
    (d) In the Oort Cloud

79. The Negro River is a major tributary of which one of the following rivers?
    (a) Nile River
    (b) Amazon River
    (c) Niger River
    (d) Danube River

80. Consider the following statements regarding National Agriculture Code:
    1. It serves as a guide for farmers, agriculture universities, and officials involved in the agriculture field.
    2. It is prepared by the Bureau of Indian Standards.
    Which of the statements given above is/are correct?
    (a) 1 only
    (b) 2 only
    (c) Both 1 and 2
    (d) Neither 1 nor 2

81. With reference to Fluorescent Nano-Diamond, consider the following statements:
    1. It is a nanometre-sized diamond made of carbon nanoparticles.
    2. It can be used as sensors in many high-value industries and strategic sectors.
    3. It is unstable under light and toxic to living things.
    Which of the statements given above is/are correct?
    (a) 1 and 2
    (b) 1 and 3
    (c) 2 and 3
    (d) All three

82. BodoNapham and BodoOndla', which have received Geographical Indications tag, are from:
    (a) Punjab
    (b) Uttarakhand
    (c) Tripura
    (d) Assam

83. Consider the following statements about Vaikom Satyagraha
    1. It was a social reform movement which originated and took its place in a princely state of Travancore during 1934-35.
    2. The Satyagraha was led by K. Kelappan and T. K. Madhavan.
    3. Mahatma Gandhi supported the movement unconditionally and visited Vaikom.
    Which of the statements given above is/are correct?
    (a) 2 and 3
    (b) 1 and 2
    (c) 1 and 3
    (d) All three

84. Consider the following statements about Pygmy hog
    1. It is the smallest and rarest species of wild pig in the world.
    2. It is an indicator species of tall and wet grasslands.
    3. It is listed as Critically Endangered in IUCN Red List.
    How many of the statements given above are correct?
    (a) Only one
    (b) Only two
    (c) All three
    (d) None

85. Consider the following statements Linguistics Expert Committee
    1. It comprises of representatives of the Union Ministries of Home, Culture, and four or five linguistic experts at any given time.
    2. It is chaired by the President of the SahityaAkademi.
    Choose the incorrect statements:
    (a) 1 only
    (b) 2 only
    (c) Both 1 and 2
    (d) Neither 1 nor 2

86. Consider the following statements about the PM Internship Scheme:
    1. The scheme aims to provide 1 crore youth with work experience over five years.
    2. It offers internships in sectors like agriculture, pharmaceuticals, and automobiles.
    3. The stipend is entirely funded by the companies offering the internships.
    Which of the above statements is/are correct?
    (a) 1 only
    (b) 1, 2, and 3
    (c) 2 and 3 only

(d)   1 and 2 only

87. What was the main objective of the Vaikom Satyagraha?
(a)   Demand for political independence
(b)   Fight for workers' rights
(c)   Promote women's education
(d)   Protest against untouchability and caste discrimination

88. Consider the following statements regarding United States Commission on International Religious Freedom (USCIRF):
1.   It is an independent, bipartisan U.S. federal government agency.
2.   It reviews the facts and circumstances of violations of religious freedom internationally and makes policy recommendations.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2

89. With reference to the Joint United Nations Programme on HIV/AIDS (UNAIDS), consider the following statements:
1.   It works closely with global and national partners towards ending the AIDS epidemic by 2030 as part of the Sustainable Development Goals.
2.   It leads the world's most extensive data collection on HIV epidemiology, programme coverage and finance.
3.   It publishes the most authoritative and up-to-date information on the HIV epidemic—vital for an effective AIDS response.
How many of the statements given above are correct?
(a)   Only one
(b)   Only two
(c)   All three
(d)   None

90. Consider the following statements about DhartiAabaJanjatiya Gram UtkarshAbhiyan (DAJGUA) being launched recently,
1.   The nodal ministry to coordinate the various initiatives and activities under the scheme is the Ministry of Tribal affairs.
2.   It is a Central sector scheme, indicates that the entire spending is derived from the Consolidated fund of India.
 Select the statement(s) which are NOT correct
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2

91. The summit , "World Green Economy Forum 2024", aimed at addressing the pressing environmental issues, was held recently in the following location,
(a)   New Delhi
(b)   London
(c)   Beijing
(d)   Dubai

92. With reference to the Monetary Policy Committee (MPC), consider the following statements:
1.   It is entrusted with the task of fixing the benchmark policy rate (repo rate) required to contain inflation.
2.   It is a six-member committee with the Reserve Bank of India (RBI) Governor as Chairperson.
3.   It takes decisions based on a majority vote.
How many of the statements given above are correct?
(a)   Only one
(b)   Only two
(c)   All three
(d)   None

93. Consider the following statements regarding the Sahara Desert:
1.   It is the world's largest desert, occupying more than 10% of Earth's land area.
2.   The Sahel region serves as a transition zone between the Sahara Desert in the north and the humid savannas of Sub-Saharan Africa in the south.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2

94. Consider the following statements regarding SARTHIE 1.0 initiative:
1.   It is intended to empower disadvantaged communities in India.
2.   It aims to bridge the awareness gap and ensure the effective implementation of social welfare programmes.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2

95. Consider the following statements regarding the National Biodiversity Strategy and Action Plans Tracker:
1.   It aims to make biodiversity policies accessible to all stakeholder countries.

2. It is developed by the United Nations Environment Programme.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

96. Five-Hundred Aperture Spherical Telescope (FAST), the world's largest and most sensitive radio telescope, is located in which one of the following countries?
(a) Chile
(b) United States of America
(c) Italy
(d) China

97. With reference to BharatGen initiative, consider the following statements:
1. It is an initiative which generates high-quality text and multimodal content in various Indian languages.
2. It is the first Indian government supported Multimodal Large Language Model Initiative.
3. It is implemented by the Centre for Development of Telematics (C-DOT).

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 3
(d) All three

98. Anna DARPAN Project, recently in news, is an initiative of:
(a) Geological Survey of India
(b) Reserve Bank of India
(c) NITI Aayog
(d) Food Corporation of India

99. Which among the following best describes 'White Goods'?
(a) Electronic devices such as televisions and computers.
(b) Cleaning supplies like detergents and soaps
(c) Large home appliances such as refrigerators and washing machines.
(d) Home furniture made from white-colored materials.

100. With reference to Overseas Citizen of India, consider the following statements:
1. They get a multiple entry, multi-purpose life-long visa for visiting India.
2. They are eligible to hold Indian constitutional posts.
3. They require permission to visit protected areas in India.

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 3
(d) All three

101. Consider the following statements regarding Tsetse flies:
1. They are found in local patches of dense vegetation along banks of rivers.
2. They transmit the Trypanosoma parasites, which are responsible for sleeping sickness in humans.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

102. Consider the following statements regarding the DadasahebPhalke Award:
1. It is presented by the Directorate of Film Festivals, an organisation set up by the Union Ministry of Information and Broadcasting.
2. It is India's highest award in the field of cinema.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

103. Consider the following statements about Swachh Bharat Mission- Urban(SBM-U) 2.0
1. It was launched in 2021 for a period of 5 years.
2. It consists of a new component of Used Water Management (UWM) for cities with more than one lakh population.
3. The nodal ministry for SBM- U is the Ministry of Jal Shakti.

Which of the statements given above is/are correct?
(a) 1 only
(b) 1 and 3
(c) 2 and 3
(d) All three

104. The three nation grouping IBSA(India, Brazil and South Africa) established in 2003 under which declaration.
(a) New Delhi declaration
(b) Johannesburg declaration
(c) Brasilia declaration
(d) Rio de Janeiro declaration

105. With reference to White Revolution 2.0, consider the following:

1. Enhancing local milk production
2. Empowering women farmers
3. Increasing milk procurement by private companies
4. Boosting dairy exports

How many of the above are key focus areas of White Revolution 2.0?
(a) Only one
(b) Only two
(c) Only three
(d) All four

106. With reference to Vivad Se Vishwas Scheme 2024 (VSV 2.0), consider the following statements:
1. It will enable taxpayers and the Income Tax Department to resolve disputes through a streamlined appeals process.
2. It will waive penalties and interest for settlements, ensuring no prosecution will be initiated for cases resolved under the scheme.
3. Cases involving searches, prosecutions, and undisclosed foreign income are excluded from eligibility under the scheme.

How many of the above statements are correct?
(a) Only one
(b) Only two
(c) All three
(d) None

107. Consider the following statements regarding Mini moons:
1. These are asteroids that fail to escape Earth's gravity and end up orbiting it for some time.
2. These are from the Near-Earth Object (NEO) population, which consists of asteroids and other celestial bodies.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

108. With reference to the TRISHNA Mission, consider the following statements:
1. It is a joint mission of ISRO and French Space Agency CNES.
2. It aims to provide high spatial and temporal resolution observations of Earth's surface temperature and vegetation health.
3. It will be operated in the Low Earth Orbit region.

Which of the statements given above is/are correct?
(a) 1 and 2

(b) 1 and 3
(c) 2 and 3
(d) All three

109. Consider the following statements about National Board for Wildlife (NBWL)
1. It is a statutory board constituted by the Central Government under Biodiversity Act, 2002.
2. The committee is headed by the Prime Minister and the Minister of Environment, Forest, and Climate Change as vice chairperson.
3. NBWL had to approve all proposals that sought permission for "any activity" within a wildlife sanctuary.

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 2 and 3
(c) 1 and 3
(d) All three

110. Consider the following statements about Bio-RIDE Scheme
1. The scheme will offer grants and incentives for cutting-edge research and development for biotechnological sector.
2. Bio-manufacturing and Bio-foundry is one of the major components of Bio- RIDE.

Choose the correct statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

111. Which of the following components are included in the revamped PradhanMantriAnnadataAaySanraksHanAbhiyan (PM-AASHA)
1. Price Stabilisation Fund
2. Market Intervention Scheme
3. Price Deficit Payment Scheme
4. Price Support Scheme

Choose the correct code:
(a) Only one
(b) Only two
(c) Only three
(d) All four

112. Consider the following statements about NPS Vatsalya Scheme
1. It is an extension of the existing National Pension Scheme to All minor citizens (age below 18 years).
2. There is no limit on the maximum contribution by the Subscriber.

Choose the incorrect statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2

(d)   Neither 1 nor 2
113. Which military honor was posthumously awarded to the soldiers who fought in the Battle of Saragarhi?
(a)   Victoria Cross
(b)   ParamVir Chakra
(c)   Indian Order of Merit
(d)   George Cross
114. Consider the following statements regarding Houthis:
1.   They are an Iranian-backed Shiite Muslim military and political movement in Yemen.
2.   The Houthi movement began as an effort to maintain autonomy and protest Western influence in the Middle East.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2
115. Which one of the following is NOT a component of the PradhanMantriAnnadataAaySanraksHanAbhiyan (PM-AASHA) scheme?
(a)   Price Support Scheme (PSS)
(b)   Pilot of Private Procurement and Stockist Schemes (PPPS)
(c)   Market Intervention Scheme (MIS)
(d)   Price Deficiency Payment Scheme (PDPS)
116. Consider the following statements regarding the Naga king chilli:
1.   It is known for its extreme heat and ranked among the hottest chillies in the world.
2.   It has received a Geographical Indication (GI) tag.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2
117. With reference to NPS Vatsalya Scheme, consider the following:
1.   It is applicable to a minor citizen of India.
2.   It is opened through various Points of presence regulated by Pension Fund Regulatory Authority of India.
3.   The accumulated amount in minor account under this scheme can't be withdrawn until he/she attains the age of 18 years.
How many of the above given statements are correct?

(a)   Only one
(b)   Only two
(c)   All three
(d)   None
118. Consider the following statements regarding the Bio- RIDE Scheme:
1.   It is designed to foster innovation and promote bio-entrepreneurship in India.
2.   It is being implemented for a period from 2021-22 to 2025-26.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2
119. Consider the following statements regarding the Next Generation Launch Vehicle:
1.   It will have reusability and modular green propulsion systems.
2.   It will be developed to have a maximum payload capability of 300 tonnes to Low Earth Orbit.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2
120. Consider the following statements regarding the Venus Orbiter Mission:
1.   It aims to understand the Venus surface and influence of Sun on its atmosphere.
2.   It will be jointly developed by the India Space Research Organisation and NASA.
Which of the statements given above is/are correct?
(a)   1 only
(b)   2 only
(c)   Both 1 and 2
(d)   Neither 1 nor 2
121. Consider the following statements about Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)
1.   It aims to facilitate access to credit for the unserved and underserved MSE segment of the MSME Sector.
2.   The corpus of CGTMSE is being contributed by the Government of India and SIDBI in the ratio of 2:3.
3.   In cases of default, the trust settles the claim up to 75% of the amount in default of the credit facility extended.
Which of the statements given above is/are correct?
(a)   1 and 2

(b) 1 and 3
(c) 2 and 3
(d) All three

122. Consider the following statements about Windfall Tax
1. It is a higher tax imposed on specific industries when they make unusual and above-average profits.
2. Individual taxes such as inheritance tax or taxes on lottery or game-show winnings can also be construed as a windfall tax.
Choose the correct statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

123. Which of the following are the benefits of Seaweeds?
1. Sources of polysaccharides
2. Production of a protein
3. Binding agents in toothpaste
4. Protects the body from damages caused by freeradicals
Choose the correct code:
(a) Only one
(b) Only two
(c) Only three
(d) All four

124. Which of the following statements about Rapa Nui, recently seen in news is not correct?
(a) Recently UNESCO declared this island as World Heritage Site
(b) It is the easternmost outpost of the Polynesian island world.
(c) It faces a tropical rainforest climate.
(d) Rapa Nui is famous for its large statues called moai.

125. In the context of pagers, which of the following statements is correct?
(a) Pagers work by receiving short messages via radio waves.
(b) Pagers actively transmit signals like mobile phones.
(c) Pagers are easy to track because they constantly transmit signals.
(d) None of the above

126. Consider the following statements regarding the Battery Waste Management (BWM) Rules, 2022:
1. The BWM Rules, 2022 were issued by the Ministry of New and Renewable Energy (MNRE).
2. Producers are responsible only for the manufacturing stage of the battery lifecycle under Extended Producer Responsibility (EPR).

3. Environmental compensation is imposed for failing to meet recycling targets under these rules.
Which of the above statements is/are correct?
(a) 1 only
(b) 2 only
(c) 3 only
(d) None of the above

127. Consider the following statements about National Institute for Smart Government (NISG)
1. It is an autonomous organisation of MeIT that was set up in 2002.
2. It is as an institute of excellence in e-governance to assist governments for ushering in smart governance.
3. Union Minister of Electronics and Information Technology (MeIT) acts as the ex-officio chairman to it.
Choose the correct code:
(a) 1 and 2
(b) 1, 2 and 3
(c) 1 and 3
(d) 2 only

128. Consider the following statements about National Test House
1. It is a premier scientific institution that plays a pivotal role in the development of indigenous industries.
2. It is a subordinate office under the administrative control of Department of Consumer Affairs and acts as a certification body for drones.
Choose the correct statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

129. Consider the following statements regarding Invest India:
1. It is the National Investment Promotion and Facilitation Agency of India and acts as the first point of reference for investors in India.
2. It was set up as a nonprofit venture under the aegis of the Department of Investment and Public Asset Management, Ministry of Finance.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

130. With reference to the Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954, consider the following statements:

1. The term "advertisement," under the Act, extends to all notices, labels, wrappers and oral announcements.
2. The Act applies to all individuals and entities involved in the publication of advertisements, including manufacturers, distributors and advertisers.
3. If a company violates the act, individuals in charge of its business operations may also be deemed guilty.

How many of the statements given above are correct?
(a) Only one
(b) Only two
(c) None
(d) All three

131. Consider the following statements regarding Smart Precision Horticulture Programme:
1. It is an initiative under the Mission for Integrated Development of Horticulture (MIDH) scheme.
2. It uses smart technology like the Internet of Things, Artificial Intelligence, drones and data analytics to boost production.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

132. Consider the following statements about 'International Day of Democracy'
1. It is an annual celebration observed on September 15.
2. It calls for active engagement from international organizations, nation-states, civil society, and people to pursue the democratic idea.
3. Qatar spearheaded the campaign to observe an International Day of Democracy after the Universal Declaration on Democracy,

How many statement(s) mentioned above are correct
(a) Only one
(b) Only two
(c) None of the above
(d) All three

133. Consider the following statements about the Andaman Islands during British rule:
1. The Andaman Islands were primarily used as a trading post by the British.
2. Archibald Blair was a prominent Indian freedom fighter associated with Port Blair.

Which of the above statements is/are incorrect?
(a) 1 only

(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

134. Consider the following statements regarding Mammography:
1. It is an x-ray imaging method.
2. It is primarily used to detect bone fractures.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

135. Consider the following statements regarding Nidhi Companies:
1. These companies operate in the Non-Banking Financing Sector of India.
2. These are recognized under the Banking Regulation Act 1949 of Reserve Bank of India.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

136. With reference to Tropical cyclone, consider the following statements:
1. It is a rapidly rotating storm originating over warm tropical oceans.
2. It causes the air from surrounding areas with lower pressure to move towards the higher -pressure area.
3. It brings very violent winds, torrential rain and high waves.

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 1 and 3
(c) 2 and 3
(d) All three

137. Consider the following statements regarding the Vertical Launch Short Range Surface to Air Missile:
1. It is a ship-borne weapon system designed to neutralise various aerial threats at close ranges.
2. It is equipped with advanced guidance systems that provide enhanced agility and precision in targeting.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

138. Consider the following statements regarding Emmy Award:
1. It is the renowned accolades given to television and emerging media performances.
2. It is only given for documentary, technology and engineering related television performances.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

139. Consider the following statements regarding BHASKAR Platform:
1. It is an initiative of the Union Ministry of Commerce and Industry.
2. It is aimed at strengthening India's startup ecosystem.
Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

140. Consider the following statements about Bharat Start-up Knowledge Access Registry (BHASKAR) Initiative
1. The primary goal of it is to build the world's largest digital registry for stakeholders within the start-up ecosystem.
2. It is an initiative of the Ministry of Commerce and Industry.
Choose the incorrect statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

141. Consider the following statements about Bio-decomposer
1. It is a microbial liquid spray used to break down paddy stubble.
2. It has been developed by the Indian Agricultural Research Institute (IARI).
3. Its use enriches the soil with organic carbon (OC), nutrients and soil biological and physical properties.
How many of the statements given above are correct?
(a) Only one

(b) Only two
(c) All three
(d) None

142. Consider the following statements about Centre for Rural Enterprise Acceleration through Technology (CREATE)
1. It aims to drive rural industrialization and support local artisans across India.
2. It is an initiate of the Ministry of Micro, Small and Medium Enterprises.
Choose the correct statements:
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

143. With reference to the RashtriyaVayoshreeYojana, consider the following statements:
1. It provides aids and assistive devices to elderly individuals below the poverty line.
2. The scheme is funded through the Senior Citizens' Welfare Fund.
3. It is a contributory scheme requiring a nominal contribution from beneficiaries.
Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2, and 3

144. What is the primary objective of the SAMPANN Project?
(a) To provide insurance benefits to Department of Telecommunications employees.
(b) To establish a retirement fund for all central government employees.
(c) To create an online pension processing system for Department of Telecommunications pensioners.
(d) To enable medical services for retired employees of the Ministry of Communications.

ANSWER KEYS

1	B	51	B	101	C
2	C	52	C	102	C
3	D	53	C	103	A
4	C	54	B	104	C
5	B	55	C	105	C
6	D	56	C	106	C
7	C	57	A	107	C
8	C	58	A	108	A
9	A	59	B	109	B
10	A	60	C	110	C
11	D	61	C	111	D
12	A	62	A	112	D
13	C	63	C	113	C
14	D	64	B	114	C
15	D	65	C	115	B
16	A	66	D	116	C
17	C	67	A	117	B
18	A	68	C	118	C
19	D	69	B	119	A
20	A	70	C	120	A
21	A	71	A	121	B
22	C	72	A	122	C
23	C	73	C	123	D
24	A	74	C	124	A
25	A	75	A	125	A
26	C	76	D	126	C
27	B	77	B	127	D
28	C	78	C	128	C
29	A	79	B	129	A
30	B	80	C	130	D
31	A	81	A	131	C
32	D	82	D	132	D
33	D	83	A	133	C
34	D	84	C	134	A
35	C	85	D	135	A
36	C	86	D	136	B
37	B	87	D	137	C
38	A	88	C	138	A
39	A	89	C	139	C
40	C	90	B	140	D
41	D	91	D	141	C
42	B	92	C	142	B
43	D	93	B	143	A
44	A	94	C	144	C
45	A	95	A		
46	C	96	D		
47	A	97	A		
48	B	98	D		
49	A	99	C		
50	C	100	B		