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DEFYING CASTE: THE LEGACY OF MAHAD SATYAGRAHA AND DR. B.R. AMBEDKAR

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DEFYING CASTE: THE LEGACY OF MAHAD SATYAGRAHA AND DR. B.R. AMBEDKAR

CONTEXT: On Ambedkar Jayanti, a look at the significance of the Mahad Satyagraha



BACKGROUND:

The Mahad Satyagraha is hailed as a pivotal event in the Dalit movement, symbolizing their rejection of the caste system and assertion of human rights. Initiated in 1927 under the leadership of Dr. B.R. Ambedkar, it marked a significant step towards Dalit emancipation.

KEY POINTS:

- Initiation and Purpose: The Mahad Satyagraha emerged from a resolution passed in 1923, advocating for Dalits' access to public resources. Ambedkar, through his Bahishkrit Hitkarini Sabha, rallied Dalits against untouchability.
- Preparation and Gathering: Ambedkar organized a conference in Mahad, Konkan, mobilizing Dalit leaders and emphasizing the need for social awakening. Around 2,500 delegates attended, representing various regions.
- Satyagraha Implementation: Participants, including Ambedkar, marched to the Chavadar tank, challenging caste-based restrictions on water usage. Ambedkar's symbolic act of drawing water signified defiance against Response and Backlash: The Satyagraha sparked opposition, leading to clashes and purification rituals by upper-caste Hindus. Despite setbacks, Ambedkar persisted, planning a larger Satyagraha in December 1927. Legal Challenges: Court injunctions and legal battles ensued, questioning the Satyagraha's legitimacy. While

facing legal obstacles, Ambedkar's followers burnt the Manusmriti, denouncing caste-based laws.

Legacy and Impact: The Mahad Satyagraha laid the groundwork for future Dalit movements, showcasing collective resistance against caste discrimination. It propelled Ambedkar into a leadership role, advocating for Dalit rights nationally.

SIGNIFICANCE:

The Mahad Satyagraha remains a landmark event in India's social history, embodying the struggle against caste hierarchy and the quest for equality. Ambedkar's role as a champion of social justice and Dalit empowerment is commemorated annually on Ambedkar Jayanti.



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THE IMPACT OF JALLIANWALA BAGH MASSACRE ON INDIA'S STRUGGLE FOR FREEDOM

CONTEXT AND BACKGROUND

The Jallianwala Bagh massacre, ordered by Brigadier-General Reginald Dyer, took place on April 13, 1919, in Amritsar, marking a tragic event in India's fight for independence.

The Massacre



Dyer's troops opened fire on a peaceful gathering, resulting in a high death toll, with estimates ranging into the thousands. This event is considered a pivotal moment in India's relationship with British colonial rule.

British Response and Condemnation

While initially condoning Dyer's actions, the British government faced internal criticism. Winston Churchill's condemnation in Parliament led to Dyer's removal in 1920, though some still viewed him as a hero.

Turning Point for Indians

The brutality of the massacre shocked the nation, leading to protests and Nobel laureate Rabindranath Tagore returning his knighthood. This event fueled Mahatma Gandhi's Non-Cooperation – Khilafat Movement, signaling a shift in India's independence struggle.

Impact on Colonial Rule

The Amritsar Massacre exposed the violence and vulnerabilities of British colonialism, eroding its moral legitimacy and galvanizing nationalist movements.

Conclusion

The Jallianwala Bagh massacre stands as a tragic reminder of the sacrifices and resilience of those who fought for India's freedom, shaping the course of history.

AMAR SINGH CHAMKILA: THE ENIGMATIC JOURNEY OF PUNJAB'S MUSICAL MAVERICK

Introduction

The biopic "Amar Singh Chamkila," directed by Imtiaz Ali and featuring Diljeet Dosanjh and Parineeti Chopra, sheds light on the life and legacy of Amar Singh Chamkila, known as the 'Elvis of Punjab,' who left an indelible mark on Punjabi folk music.



Early Life and Music Career

Born Dhani Ram in a humble Dalit family in Ludhiana, Chamkila's passion for music led him to become a prolific singer-songwriter. His raw and uninhibited songs, touching on societal issues, earned him a massive following despite initial criticisms.

Rise to Fame

Teaming up with Amarjot Kaur, Chamkila's musical prowess soared. Their electrifying performances and chart-topping albums made them icons in Punjab's music scene. Chamkila's ability to connect with audiences and his prolific songwriting made him unparalleled in popularity.

Musical Landscape Amidst Turmoil

Chamkila's career coincided with Punjab's turbulent times, marked by insurgency and political unrest. Despite facing threats and challenges, Chamkila continued to produce music that resonated deeply with his fans.

Tragic End and Legacy

Chamkila's life was cut short tragically at the age of 27, sparking conspiracy theories and speculation. His untimely demise left a void in Punjabi music, but his impact and influence endure through his timeless songs and the biopic immortalizing his journey.

Controversies and Speculations

The circumstances surrounding Chamkila's death remain shrouded in mystery, fueling various theories from political motives to personal vendettas. Films and literature have explored these themes, adding layers to Chamkila's enigmatic persona.

Conclusion

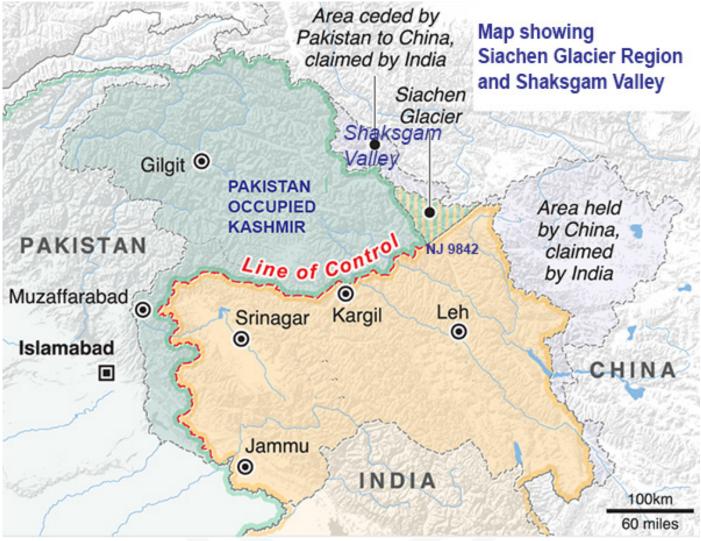
"Amar Singh Chamkila" biopic encapsulates the essence of a musical legend whose songs echoed the pulse of Punjab, leaving an indelible imprint on its cultural landscape.



OPERATION MEGHDOOT: INDIA'S STRATEGIC TRIUMPH AT SIACHEN GLACIER

INTRODUCTION

Operation Meghdoot, executed by the Indian Army on April 13, 1984, stands as a testament to strategic planning and bold execution. This operation not only secured the Siachen Glacier but also reshaped the geopolitical dynamics of the region.



The Architects of Victory

The success of Operation Meghdoot was orchestrated by key military leaders including Army Chief Gen AS Vaidya, Lt Gen CN Somanna, Lt Gen ML Chibber, and other strategic minds who meticulously planned and executed the operation.

Preparation and War Games

The groundwork for Operation Meghdoot was laid during Exercise Walnut Cracker, a war game conducted by HQs 15 Corps to fine-tune the operational and logistical aspects of the operation. This exercise played a pivotal role in shaping the success of the mission.

Strategic Objectives and Challenges

The objectives of Operation Meghdoot included securing crucial heights and passes around the Siachen Glacier, ensuring Pakistan's denial of access to this strategic area. The operation faced challenges such as inclement weather and logistical complexities, which were overcome with precision planning.

Operational Execution

On April 13, the Indian Army executed the operation with precision, deploying troops and securing key positions like

Bilafond La and Sia La. The meticulous execution of the plan led to the establishment of Camps I, II, and III, marking India's firm control over the Glacier.

19 Kumaon's Remarkable Feat

The role of 19 Kumaon Battalion, which marched across the snow-bound Zojila Pass during winter, showcased exceptional grit, discipline, and resilience. This historic march highlighted the Indian Army's capabilities in challenging terrains.

Legacy and Impact

Operation Meghdoot's success not only secured a critical strategic location but also reshaped India's military posture in the region. The operation's legacy continues to inspire military strategies and underscores India's commitment to safeguarding its borders.

Conclusion

Operation Meghdoot remains a defining moment in India's military history, showcasing the Indian Army's capability to undertake complex operations in extreme environments. The triumph at Siachen Glacier stands as a symbol of India's determination to defend its territorial integrity.



Operation Meghdoot, executed by the Indian Army in 1984, had a significant background rooted in the geopolitics of the Siachen Glacier region. Here's a detailed background to Operation Meghdoot:

- **Strategic Importance:** The Siachen Glacier, located in the eastern Karakoram Range in the Himalayas, holds immense strategic significance due to its proximity to the Line of Control (LoC) between India and Pakistan. Control over this glacier provides a tactical advantage in monitoring and securing the region.
- **Territorial Dispute:** The Siachen Glacier was part of the broader Kashmir territorial dispute between India and Pakistan. Both countries claimed sovereignty over the glacier, leading to tensions and occasional skirmishes in the region.
- Lack of Demarcation: The 1949 Karachi Agreement and the 1972 Simla Agreement, which aimed to delineate the LoC, did not specifically demarcate the Siachen Glacier area. This ambiguity contributed to conflicting interpretations and heightened military presence in the region.
- Strategic Moves by Pakistan: In the early 1980s, Pakistan made attempts to establish a military presence in the Siachen Glacier area. Concerned about potential threats and Pakistan's intentions, India began considering preemptive measures to secure the glacier.
- Military Assessments: Indian military assessments indicated that Pakistan might seek to occupy key heights and passes around the Siachen Glacier, posing a threat to

Indian positions and strategic interests in the region.

- Planning and Preparation: Against this backdrop, Indian military planners initiated detailed planning and preparations for a preemptive operation to secure critical positions and deny Pakistan access to the glacier and its surroundings.
- Operation Meghdoot's Objectives: Operation Meghdoot, named after the mythical character who brings rain, aimed to preemptively secure strategic heights, passes, and the Siachen Glacier itself. The operation's objectives included establishing Indian military control over these areas and thwarting potential Pakistani incursions.
- Logistical Challenges: The operation faced logistical challenges due to the extreme weather conditions, high altitudes, and rugged terrain of the Himalayas. However, meticulous planning and strategic coordination helped address these challenges to a large extent.
- **Political and Military Authorization:** The operation received political and military authorization, with the Prime Minister and Defence Minister providing support and approval for the strategic move.
- Operational Execution: On April 13, 1984, the Indian Army executed Operation Meghdoot, deploying troops and securing key positions as part of a well-coordinated military strategy.

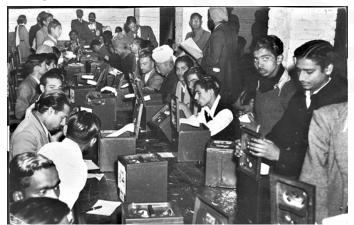
Overall, Operation Meghdoot was a strategic response to the evolving geopolitical situation in the Siachen Glacier region, aimed at safeguarding India's territorial integrity and strategic interests in the area.

THE INCEPTION OF INDIA'S FIRST GENERAL ELECTION

•

Setting the Stage: India's Path to Democracy

The year 1951 marked a pivotal moment as India embarked on its inaugural Lok Sabha election, symbolizing the nation's democratic journey post-independence. This historic event unfolded over several months, encompassing the election of 489 Lok Sabha and 3,283 state Assembly seats across the country.



Diverse Political Landscape: Contesting Parties and Leaders

The electoral arena featured a diverse array of political entities, including the Indian National Congress under the leadership of Jawaharlal Nehru, alongside parties like the Socialist Party with Jayaprakash Narayan, Kisan Mazdoor Praja Party led by J B Kripalani, Communist Party of India (CPI), and others, each vying for representation and influence. Unprecedented Ambition: A Leap of Faith in Democracy Ramachandra Guha's insights in "India After Gandhi" capture the audacious ambition of these elections, viewed as an "act of faith" in democracy despite significant challenges. The electorate, comprising largely unlettered individuals, demonstrated a remarkable participation in shaping the nation's political landscape.

Electoral Infrastructure: ECI's Herculean Task

The establishment of the Election Commission of India (ECI) and the appointment of Sukumar Sen as Chief Election Commissioner marked crucial steps in organizing the electoral process. The logistical challenges were immense, given India's vast geographical spread and diverse social dynamics.

Ballots and Boxes: Innovations in Electoral Mechanisms The electoral machinery introduced innovative measures, including colorful ballot boxes and distinctive ballot papers, reflecting the rich diversity of candidates and constituencies. These measures aimed to facilitate voting in a population where literacy rates were modest.

Successful Execution: Triumph of Democratic Spirit

Despite initial skepticism and logistical hurdles, the first general election unfolded successfully, with millions of voters exercising their franchise. The Congress party's significant victory underscored the acceptance and enthusiasm for democratic principles among the Indian populace.

Post-Election Reflections: Nehru's Confidence in Democracy



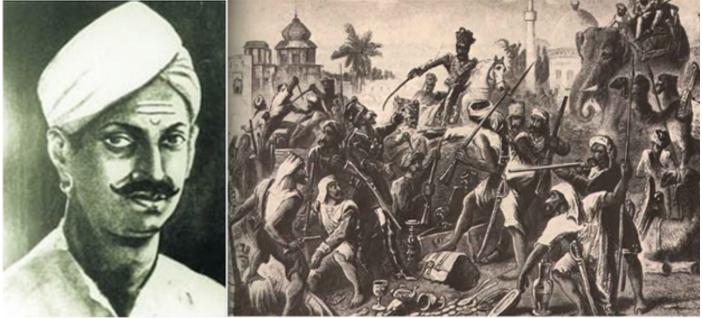
Jawaharlal Nehru's post-election reflections highlighted his newfound respect for the electorate, dispelling doubts about adult suffrage and affirming the strength of India's democratic ethos. In retrospect, India's inaugural general election stands as a testament to the nation's commitment to democratic ideals and the collective determination to shape its political destiny through the ballot box.

MANGAL PANDEY'S IMPACT AND THE REVOLT OF 1857

Triggering the Revolt: Mangal Pandey's Act of Defiance The shot fired by Sepoy Mangal Pandey on March 29, 1857, at Barrackpore near Kolkata reverberated across India, igniting what would be remembered as the Revolt of 1857, also known as the Sepoy Mutiny or the First War of Indian Independence. This act marked the beginning of the end of the East India Company's rule in India, paving the way for direct governance under the British Monarch through a Secretary of State. movement against British rule. The rebels, comprising soldiers and peasants, voiced their collective discontent and fought bravely despite significant odds.

Legacy of Courage: Heroism and Limitations

The rebels' courage and determination, exemplified by figures like Mangal Pandey, marked a significant chapter in India's struggle for freedom. However, despite their valiant efforts,



Origins of Discontent: Awadh's Resentment and Annexation Mangal Pandey hailed from Awadh, a region deeply aggrieved by the treacherous annexation orchestrated by the British in 1856. The annexation of Awadh, despite agreements with the Begums and the kingdom's significant contribution to the Company's army, sparked widespread discontent among the populace, especially the soldiers like Pandey.

Mutiny and Sacrifice: Mangal Pandey's Stand and Execution Pandey's refusal to use the Enfield rifle's cartridges, seen as an affront to religious beliefs, symbolized the larger grievances against British policies. His mutiny and subsequent hanging on April 8, 1857, epitomized the spirit of resistance against oppressive colonial practices.

Spreading Rebellion: Awadh's Influence and Beyond The revolt, fueled by Awadh's plight and Pandey's defiance, quickly spread to other regions, culminating in a mass superior British forces eventually quelled the rebellion, leading to significant repercussions in India's governance under British rule.

Aftermath and Policy Shifts: Impact on British Rule

The Revolt of 1857 prompted a reevaluation of British strategies in India. The transfer of powers from the East India Company to the Crown, Queen Victoria's Proclamation, and subsequent policy changes reflected a newfound awareness among the British of Indian sentiments and the need for long-term governance strategies.

Commemorating Sacrifice: Remembering Mangal Pandey Mangal Pandey's legacy lives on as a symbol of resistance and sacrifice. Efforts to commemorate his bravery, such as the park in Barrackpore, serve as reminders of his selfless act that sparked a movement for freedom and justice in India's history.



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UNRAVELING INDIA'S FIRST PRIME MINISTER: NEHRU, BOSE, OR MAULANA BARKATULLAH?

Kangana Ranaut's Controversial Claim

Actress-turned-politician Kangana Ranaut stirred controversy by asserting that Subhas Chandra Bose, not Jawaharlal Nehru, held the title of India's first prime minister. This statement, amidst historical debates, prompts a closer examination of India's political landscape during pivotal periods.

The Azad Hind Government: Bose's Assertion of Authority Subhas Chandra Bose's proclamation of the Provisional Government of Azad Hind in 1943 marked a significant challenge to British rule. This government, operating from Singapore, aimed to assert its authority over Indian territories under Japanese control and garnered recognition from Axis



Nehru, Bose, or ... Maulana Barkatullah? Who was India's 'first prime minister'?

powers.

Political Maneuvers: The Kabul Provisional Government

In an earlier era, the Indian Independence Committee (IIC) established the Provisional Government of India in Kabul during World War I. Led by Raja Mahendra Pratap and Prime Minister Maulana Barkatullah, this government-in-exile symbolized resistance against British colonialism.

Legitimacy and Symbolism: Functions of Provisional Governments

Provisional governments, such as those led by Bose and Barkatullah, served dual purposes of political legitimacy and symbolic defiance. They navigated complex international relations while embodying the aspirations of Indian freedom fighters during tumultuous times.

Historical Significance vs. Practical Governance

While Bose's Azad Hind government and Barkatullah's Kabul government were symbolic acts of defiance, they lacked widespread international recognition and control over Indian territories. Their significance lies in challenging British authority and inspiring nationalist sentiments.

Legacy of Resistance: Impact on India's Freedom Struggle

The legacy of provisional governments extends beyond governance, influencing nationalist consciousness and strategies for independence. Despite their limitations, they symbolize the determination and resilience of India's freedom fighters.

Conclusion: Untangling Historical Narratives

The debate over India's first prime minister reflects the complexity of historical narratives and the diverse paths taken by leaders in the struggle for independence. Understanding these nuances enriches our appreciation of India's journey towards self-rule.

CELEBRATING UTKALA DIBASA: THE FORMATION OF ODISHA

Odisha Day: Inception of a State

April 1 marks Odisha Day, or Utkala Dibasa, commemorating the formation of Odisha (formerly Orissa) as a separate state on this date in 1936. This significant event unfolded through the bifurcation of the Bihar and Orissa Province and the inclusion of specific districts from the Madras Presidency.



Historical Roots: Odisha's Political Identity

Odisha's journey towards statehood traces back to its rich history, where it evolved a distinct political identity over millennia. Ruled by various dynasties, Odisha flourished as a hub of culture and heritage until external conquests altered

its trajectory.

From Conquest to Colonial Rule

The Bengal Sultanate's conquest in 1568 marked a shift in Odisha's political landscape, followed by Maratha and British rule. For over a century, Odisha remained under the Bengal Presidency, igniting aspirations for linguistic and cultural autonomy among its people.

The Movement for Linguistic Statehood

The late 19th and early 20th centuries witnessed a fervent movement advocating for Odia-speaking regions' separate statehood. Organizations like the Utkal Sabha and Utkal Sammilani played pivotal roles in articulating the demand for an exclusively Odia-speaking state.

Madhusudan Das: Architect of Odisha's Creation

Madhusudan Das, a prominent leader, spearheaded the movement for Odisha's formation. His relentless efforts within the united Bihar and Orissa province and advocacy for linguistic reorganization influenced the eventual creation of Odisha.



Congress's Linguistic Reorganization Agenda

By 1920, the Indian National Congress embraced linguistic reorganization as a core agenda. This shift in policy, coupled with growing subnationalism, propelled the establishment of Odisha as a separate administrative entity.

Administrative Changes and Territorial Inclusions

The formation of Odisha involved intricate administrative procedures, including the delineation of borders from Bihar

and Orissa Province, Madras Province, and Central Provinces. Despite the integration of princely states, Odisha emerged as a distinct political entity.

Legacy of Utkala Dibasa

Utkala Dibasa symbolizes Odisha's resilience, cultural identity, and journey towards self-determination. It stands as a testament to the aspirations and struggles of Odia-speaking communities for linguistic and administrative autonomy.



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- ONLINE CLASSES, CURRENT AFFAIRS HIGHLIGHTS, Q & A DISCUSSIONS, LIVE DOUBT CLEARING SESSIONS
- INTERACTIONS FOCUS ON EFFECTIVE LEARNING, DEVELOPING RIGHT STARTEGY FOR SCROING.
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DR. Alexander Jacob IPS Former DGP, Kerala Dean of Academics, Vedhik IAS Academy

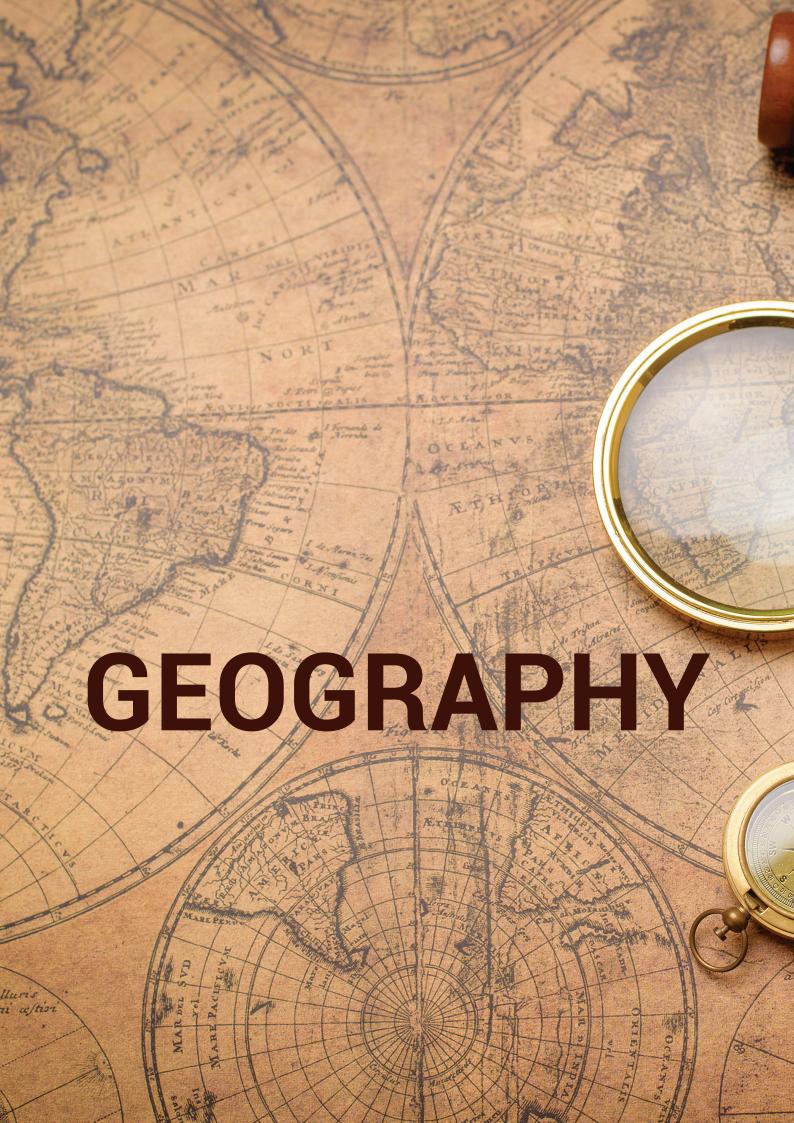


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7PM TO 9PM





AFRICA'S AFAR TRIANGLE

SWELL WAVES

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'GRAVITY HOLE' IN THE INDIAN OCEAN

ARCTIC'S POLAR VORTEX

SOUTHERN OCEAN

BRIGHTEST-EVER COSMIC EXPLOSION

ROGUE WAVES

MOUNT RUANG

MOUNT EREBUS



AFRICA'S AFAR TRIANGLE

hominins and human tool culture.

CONTEXT: Geologists have discovered a fault in Africa's Afar Triangle, indicating a potential formation of the world's sixth ocean

CAUSES FOR THE RIFT:

This geological phenomenon is driven by tectonic plate movements, particularly in the East African Rift system. The rift, caused by the separation of tectonic plates, could split the African continent in 5 to 10 million years, leading to the creation of a new ocean basin.

ABOUT AFAR TRIANGLE:

It is part of the Great Rift Valley in East Africa and is a geological depression known for its significance in human evolution. It overlaps Eritrea, Djibouti, and the Afar Region of Ethiopia and contains Lake Assal, Africa's lowest point. The region experiences extreme heat and drought, with some of the hottest temperatures on Earth. It is bordered by the Ethiopian Plateau, the Danakil block, the Somali Plateau, and the Ali-Sabieh block. Fossil sites in the Afar region, such as Hadar and Dikika, have yielded important discoveries related to early

CONTEXT: Coastal areas in southern and centralKerala experienced inundation from swell waves, locally known as 'Kallakkadal,' prompting alertness from disaster management authorities.

The phenomenon is not common for this time of the year, as noted by the fishing community.

Swell waves refer to ocean waves that have travelled over

'GRAVITY HOLE' IN THE INDIAN OCEAN

CONTEXT: Scientists from the Indian Institute of Science in Bengaluru, India, have proposed a credible explanation for the "gravity hole" in the Indian Ocean.

- Gravity Hole is where Earth's gravitational pull is weaker, leading to a sea level dip of over 328 feet (100 meters).
- Using computer simulations dating back 140 million years, the researchers suggest that plumes of magma from

ARCTIC'S POLAR VORTEX

CONTEXT: In a surprising turn of events, scientists observed the Arctic's polar vortex spinning in the opposite direction, marking one of the six strongest occurrences of its kind since 1979.

The polar vortex is a massive spinning wheel of freezing cold air that forms high in the atmosphere near the North Pole, held together by a strong west-to-east wind current.

This wind current, often referred to as the polar night jet, can reach speeds comparable to a Category 5 hurricane.

The reversal in the vortex's direction was attributed to "Sudden Stratospheric Warming events," which caused an influx of ozone from lower latitudes around the Arctic.

ABOUT POLAR VORTEX:

The polar vortex is a large, persistent circulation of

EURASIAN Gul RABIAN PLATE AFRIC/ AFRICAN PLATE (Nubian) TLANTIC INDIAN PLATE AFRICAN PLATE (Somalian) EXPLANATION Plate East African Rift Zone

SWELL WAVES

long distances from their area of origin, usually generated by distant weather systems or storms.

These waves typically have a consistent and smooth appearance and can travel thousands of kilometres across the ocean's surface without breaking.

Swell waves are a significant factor in shaping coastal areas and can cause inundation and erosion when they reach shore.

deep within the planet, similar to those that create volcanoes, are responsible for the anomaly.

These plumes, originating from the disappearance of an ancient ocean between the Indian plate and Asia, are believed to have brought low-density material closer to Earth's surface, shaping the "gravity hole."

frigid air located in the stratosphere and typically centred near the Earth's poles.

It is characterized by a strong wind current that circulates from west to east, trapping cold air within the polar regions during the winter months.

The polar vortex plays a crucial role in maintaining the polar climate and can influence weather patterns in mid-latitude regions.

Occasionally, disruptions in the polar vortex can occur, leading to phenomena such as sudden stratospheric warming events, which can result in shifts in weather patterns and colder temperatures in regions outside of the polar areas.

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SOUTHERN OCEAN

CONTEXT: The Southern Ocean is known for having the cleanest air on Earth, a fact previously attributed mainly to minimal human activity.

However, recent research has unveiled that clouds and rain play a significant role in keeping the air pristine.

ROLE OF CLOUDS:

- The Southern Ocean experiences unique cloud patterns, particularly honeycomb-shaped clouds, which regulate climate by reflecting or allowing sunlight.
- These clouds generate sporadic but intense rain showers,

BRIGHTEST-EVER COSMIC EXPLOSION

CONTEXT: A significant astronomical discovery regarding the brightest burst of light ever recorded, occurred in 2022.

Researchers found that the burst originated from an exploding star, known as a supernova, located in a distant galaxy. However, the intensity of the burst surpassed expectations, leading to questions about its cause and implications. The burst's extraordinary brightness, labelled as the "Brightest Of

Rogue waves are large, unpredictable, and dangerous ocean waves that are at least twice the height of the surrounding waves.

They can be formed when multiple wave crests pass through a single point, or from a combination of waves and currents.

Rogue waves are rare, but they can be a threat to ocean liners, capital ships, and land structures.

effectively washing aerosol particles out of the air.

ABOUT SOUTHERN OCEAN:

The Southern Ocean is the body of water that surrounds Antarctica and is bounded by the continents of Antarctica, South America, Africa, and Australia.

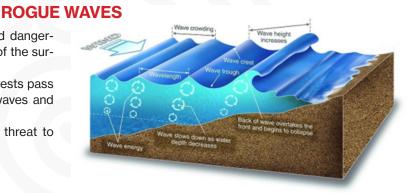
It is the southernmost ocean on Earth and is characterized by its vast expanse of open water, strong currents, and harsh climate conditions.

The Southern Ocean plays a critical role in regulating global climate and ocean circulation patterns.

All Time" (B.O.A.T.), puzzled astronomers.

WHAT ARE SUPERNOVAS?

They are massive stellar explosions that occur at the end of a star's life cycle. They produce and eject vast amounts of energy and material into space. These explosions are responsible for creating and dispersing heavy elements such as gold, platinum, lead, and uranium into the universe.



MOUNT RUANG

CONTEXT: Indonesian authorities issued a tsunami alert after Mount Ruang volcano erupted five times, expelling ash and lava.

The Centre for Volcanology and Geological Disaster Mitigation issued the highest-level alert, warning of potential hazards including the collapse of the volcano into the sea, which could trigger a tsunami. Indonesia, with 120 active volcanoes, faces frequent

volcanic activity due to its location along the Ring of Fire.

MOUNT EREBUS

ABOUT MOUNT EREBUS:

CONTEXT: Mount Erebus, located in Antarctica, is raining gold on Earth, spewing out approximately 80 grams of gold worth \$6000 daily, according to NASA's Earth Observatory. However, the remote location makes it impossible for anyone to claim this fortune, ruling out any possibility of a gold rush.

HOW IS GOLD BEING FORMED IN THE VOLCANO?

Gold is being formed and ejected in Mount Erebus, an Antarctic volcano, through a geological process involving the release of gases from deep within the Earth. These gases contain tiny particles of gold, which crystallize as they rise to the surface. When the volcano erupts, these gas pockets burst open, dispersing the crystallized gold far and wide, including in the surrounding area.

Mount Erebus, located on Ross Island, Antarctica, is the southernmost active volcano on Earth. As a stratovolcano, it features a conical shape with layers of hardened lava, tephra, and volcanic ash. Notably, Mount Erebus is renowned for its persistent lava lake, active since at least 1972, making it one of the few long-lived lava lakes globally.

It is the tallest active volcano in Antarctica. It stands out as the most violent, with a tragic history, including the infamous Mount Erebus disaster, where an Air New Zealand plane crashed into it, killing 257 people due to an optical illusion known as 'whiteout'.

"Intelligence plus character-that is the goal of true education. — Martin Luther King Jr.



POLITY AND GOVERNANCE



A SPECIAL ID HAS TO BE CREATED TO DONATE AN ORGAN: CENTRE

GOVT. TO RECORD PARENTS' RELIGION TO REGISTER BIRTHS

REGISTRATION OF BIRTHS AND DEATHS (AMENDMENT) ACT, 2023

EC DATA SHOW NUMBER OF WOMEN CANDIDATES GREW 16-FOLD FROM 1957 TO 2019

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SC BACKS EVMS, RULES OUT REVIVAL OF PAPER BALLOTS

ON GLOBAL INDICES MEASURING DEMOCRACY

PARLIAMENTS PAST, A MIRROR TO CHANGING DYNAMICS

REVISIT THESE SECTIONS OF THE BHARATIYA NYAYA SANHITA

IS THE URBAN WATER SYSTEM BREAKING?

SC STAYS HC ORDER STRIKING DOWN LAW REGULATING MADRASAS

THE ADVENT OF A HOLISTIC APPROACH TO 'ONE HEALTH'

SOUNDING THE GAVEL ON CURATIVE JURISDICTION

THE PHYSICS AND MATHS OF KEEPING ELECTIONS FAIR AND REPRESENTATIVE



A SPECIAL ID HAS TO BE CREATED TO DONATE AN ORGAN: CENTRE

CONTEXT: The Union Health Ministry has issued an order banning the sale of organs for commercial purposes, particularly where foreign nationals are involved.



REGARDING THE MOST RECENT DIRECTION

- Unique National Organ and Tissue Transplant Organization (NOTTO) IDs for both the donor and the receiver are obtained for every organ transplant, regardless of whether the donor is alive or deceased.
- Hospitals' role is to produce this ID utilizing the NOTTO website (www.notto.mohfw.gov.in) to stop unlawful organ trading.
- The state government's role: They must strengthen oversight and put an end to wrongdoing, particularly when it comes to foreigners receiving organ transplants. Local government officials ought to examine more thoroughly.
- Routine inspection: To guarantee quality and appropriate follow-up for donors and recipients, state authorities are required to keep an eye on licensed hospitals that conduct transplants. Investigations shall be conducted into any infractions of the Transplantation of Human Organs and Tissues Act (THOTA), 1994, and its regulations.

THE NECESSITY OF A DISTINCT ID

As it stands, organ transplantation is a laborious and complex operation that necessitates a unique ID. The system for organ donation and transplantation is dispersed and depends on the hospitals, organ donor organizations, and state governments that each contributes. Many issues result from this decentralization, such as

- Ineffective coordination: In the absence of a conducted system, there are restrictions on matching organ donors with recipients, which causes the matching process to move slowly and become disorganized.
- Lack of openness: Sadly, the current system is unable to give transparency, which has the resulted that corruption and unethical behaviour are pervasive.
- Inadequate infrastructure: There is still a severe scarcity

of organs that are ready for transplantation since the Indian organ transplant system is inadequate.

ADVANTAGES OF A SPECIAL ID

It is anticipated that the creation of a Unique ID for organ donation will solve these issues and provide several advantages, such as:

- Better coordination: This kind of centralised organ donorrecipient matching system will reduce processing times and increase results by streamlining the procedure.
- Increased transparency: By providing a Unique ID, the system will be more transparent regarding organ donation and transplantation, which will reduce the possibility of dishonest practices and criminal activity.
- Enhanced organ availability: To find possible donors and guarantee organ availability for transplant, systems for gathering and documenting patient data will be implemented.
- Improved patient care: Installing a Unique ID allows other healthcare organizations to access a patient's medical records and organ donation status, both of which are critical for enhancing patient outcomes.

HOW DOES THE UNIQUE ID FUNCTION?

A centralized system will be used to generate the unique ID for organ donation, which will:

- Both organ donors and recipients should be required to register.
- Look for a donor who meets the recipient's medical needs and compatibility.
- After organ donation, there should be a transplant.
- Real-time updates would have been given to many stakeholders, including patients, family members, and healthcare professionals.

APPLICATION AND DIFFICULTIES

It will cost a lot of money to adopt a Unique ID for organ donation in terms of infrastructure, technology, and human resources. The Center must:

- Create a centralized organ donation and transplant registry.
- Provide a strong IT foundation to enable the Unique ID system.
- Educate stakeholders and healthcare professionals about the new system.
- Make guarantee data security and privacy

CONCLUSION

One of the most important phases in the organization of transplantation in India is the creation of a unique ID for organ donation. This is a multi-pronged approach that improves patient care quality, coordination, and transparency, which in turn enhances organ availability and lowers losses. However, high-level execution will require careful project planning, significant financial outlays, and careful consideration of moral and legal concerns.



GOVT. TO RECORD PARENTS' RELIGION TO REGISTER BIRTHS

CONTEXT: The Union Ministry of Home Affairs mandates recording parents' individual religions in birth registrations, facilitating a national database update for various services, amid State governments' pending adoption of the new rules.

National database

All reported births and deaths are to be digitally registered through the Centre's portal for the Civil Registration System

 The database may be made available to other authorities preparing or maintaining other databases such as electoral rolls or ration cards

 Information from digital certificate can be used for purposes such as admission to an educational institution or appointment to government posts

 Data is used by the govt. for socio-economic planning and to evaluate the effectiveness of social sector programmes

BACKGROUND: The Indian government is changing birth registration to record both parents' religions. This data will be included in a national database linked to Aadhaar, voter rolls,

REGISTRATION OF BIRTHS AND DEATHS (AMENDMENT) ACT, 2023

This Act amends the Registration of Births and Deaths (RBD) Act, 1969, bringing about significant changes to birth and death registration in India.

KEY FEATURES:

NATIONAL DATABASE:

- Establishes a national database for birth and death records.
- This centralized system will improve accessibility and streamline record-keeping.

DATABASE INTEGRATION:

- Birth and death data can be used to update various databases like the National Population Register (NPR), electoral rolls, Aadhaar, and more.
- This facilitates data exchange and improves service delivery across government departments.

DIGITAL REGISTRATION:

- Mandates digital registration of all births and deaths through the central government's Civil Registration System (CRS) portal.
- This promotes efficiency and eliminates paper-based processes.

DIGITAL BIRTH CERTIFICATES:

- Birth certificates issued through the CRS portal will be valid documents for verifying date of birth for various purposes like education admissions.
- This eliminates the need for multiple documents and simplifies citizen services.
- MANDATORY DATA SHARING:
 - Requires states to register births and deaths on the CRS portal and share data with the Registrar General and Census Commissioner of India (RGI).
 - This ensures data consistency and facilitates centralized monitoring.

DIGITIZATION AND STANDARDIZATION:

All births and deaths in the country must be digitally

and other IDs. The purpose is for statistical information, but the database may be used for various services. States still need to adopt the new rules.

NEW REQUIREMENTS FOR BIRTH REGISTRATIONS:

- Union Ministry of Home Affairs mandates recording parents' individual religions in birth registrations.
- Previously, only the family's religion was recorded, but now the religion of both the father and mother must be separately noted.
- Similar changes apply to parents of adopted children.

IMPLICATIONS OF THE AMENDMENT ACT:

- The Registration of Births and Deaths (Amendment) Act, 2023, necessitates maintaining a national birth and death database.
- This database may be utilized to update various services, including the National Population Register (NPR), electoral rolls, Aadhaar number, ration card, passport, driving licence, property registration, etc.
- (RBD) registered through the Centre's portal for the Civil
 - registered through the Centre's portal for the Civil Registration System (CRS).
 - Digital birth certificates issued under this system serve as a single document for proof of date of birth for accessing various services, including educational institutions.

CHANGES IN BIRTH REGISTRATION FORMS:

- Proposed substitution of existing forms related to birth registration, adoption, and Medical Certificate of Cause of Death.
- Birth registration forms now include sections for recording Aadhaar numbers, mobile and e-mail IDs of parents, and detailed address information.

ROLE OF THE REGISTRAR GENERAL OF INDIA (RGI):

- RGI is tasked with maintaining the national database of registered births and deaths.
- Chief Registrars and Registrars appointed by State governments are obligated to share data with this central database.

LEGAL AND STATISTICAL INFORMATION:

- Birth register forms include sections for both legal and statistical information.
- Information on parents' religion is recorded for statistical purposes.

EMPOWERMENT OF RGI:

- The RGI is empowered to coordinate and unify the activities of Chief Registrars appointed by State governments.
- Civil Registration System (CRS) functionaries are appointed up to the panchayat level for effective implementation.

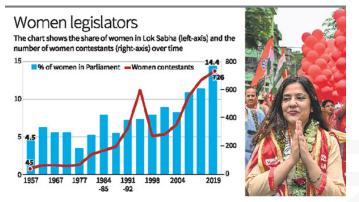
CONCLUSION: The new birth registration system in India aims to create a centralized database linked to various IDs. While the stated purpose of recording parents' religions is for statistics, the potential uses of this data remain to be seen. With digital registration becoming mandatory, concerns about privacy and data security exist. The success of this system hinges on state governments adopting the new rules and effective implementation at the local level.



EC DATA SHOW NUMBER OF WOMEN CANDIDATES GREW 16-FOLD FROM 1957 TO 2019

CONTEXT: The Election Commission data from 1957 to 2019 highlights a significant increase in the number of women candidates contesting Lok Sabha elections, although their representation has not crossed 1,000, indicating ongoing challenges such as limited opportunities and tougher electoral contests for women candidates compared to men.

A HINDRANCE TO JOURNALISTIC FREE SPEECH: THE NEW DATA LAW



HISTORICAL GROWTH OF WOMEN CANDIDATES

- In 1957, only 45 women contested Lok Sabha elections, compared to 726 in 2019, showcasing a 16-fold increase.
- Women's representation in Parliament rose from 4.5% in 1957 to 14.4% in 2019, albeit never exceeding 1,000 candidates.

GENDER DISPARITIES IN CANDIDATE NUMBERS

- Male candidates surged from 1,474 in 1957 to 7,322 in 2019, a five-fold increase.
- In 1957, women comprised 2.9% of candidates, growing to around 9% in 2019.

SUCCESS RATES AND TRENDS

- The success rate for women candidates dropped from 48.88% in 1957 to 10.74% in 2019, contrasting with men's decline from 31.7% to 6.4%.
- Experts note this doesn't signify inherent winnability but reflects increased candidate numbers.

MATURING DEMOCRACY AND CHALLENGES

- Analysts see the increased women candidates as a sign of democratic maturity.
- Despite higher winnability, women face limited opportunities and tougher contests due to party decisions and seat allocations.

CALL FOR A LEVEL PLAYING FIELD

- Experts highlight the need for parties to offer more opportunities to women candidates.
- Women often contend with difficult seats against stronger opponents, impacting their electoral success.

CONCLUSION: The historical growth of women candidates in Indian elections reflects progress towards gender inclusivity in politics, yet persistent challenges such as lower success rates and limited opportunities call for concerted efforts to create a truly level playing field for women in electoral contests.



Context: The Digital Personal Data Protection (DPDP) Act 2023, which was passed in India, has sparked concerns about how it would impact journalists' freedom of speech, particularly with regard to using personal information for reporting. **Background:**

- The Digital Personal Data Protection (DPDP) Act, 2023, which was brought into effect in August 2023, is India's first comprehensive data protection law.
- The purpose of the law is to protect people's right to privacy online and to govern the handling of personal data.

Key provisions of the Act:

• User consent for the processing of personal data is the fundamental tenet of the DPDP Act.

- It gives people certain basic rights, such as the ability to access and remove their data.
- Furthermore, the law also creates a complaints body as a means of resolving issues and places duties on businesses that handle personal data.

Effect on Freedom of Speech in Journalism:

- The potential effects of the DPDP Act on journalistic freedom of speech are one noteworthy feature.
- The final DPDP Act did not contain any exclusions for journalistic activities from privacy responsibilities, such as getting consent before using personal data, even though data protection laws generally exclude such obligations.
- Journalists and media organizations are worried about how this omission may affect their ability to do their jobs.

Challenges for Journalists Under the DPDP Act:

- Journalists would have to ask MPs for permission before using their personal information in stories under the DPDP Act.
- MPs could also use their right to erasure and ask that such reports be taken down even after they have been published.
- Journalists who cover investigative stories and hold public authorities responsible may face serious difficulties as a result.



The DPDP Act's effects on journalistic confidentiality:

- The government is authorized to obtain information from any data processor in India under the Digital Personal Data Protection (DPDP) Act.
- If this clause is applied liberally and strictly, it may jeopardize the secrecy that reporters are required to uphold regarding their sources and research materials.
- These possible ramifications cast doubt on journalists' capacity to properly secure their sources and carry out investigative reporting.

Examining Issues and Possible Remedies Regarding Journalistic Freedoms in the DPDP Act:

- The Digital Personal Data Protection (DPDP) Act raises important issues that must be addressed in order to guarantee a balanced approach that protects personal data while maintaining journalistic freedoms.
- The following fixes could assist in achieving this objective:
 - Open and Honest Consultation:
 - The elimination of the journalistic exemptions emphasizes the necessity of honest and open public consultations.
 - The public was given access to drafts of the DPDP Act, but the feedback that was received was not made available to the public.
 - More openness in the consultation process will help to better understand the opinions of stakeholders and guide the creation of laws that are more effective.
 - Journalists' Exemptions:
 - The national government ought to think about utilizing the DPDP Act's rule-making authority to exempt journalistic organizations, such as citizen journalists, from certain Act requirements.
 - This exemption would support openness and transparency in the journalism industry while safeguarding press freedom.
 - General Public Input:
 - Establishing a thorough, transparent, and open public consultation process could aid in improving comprehension and taking into account different points of view.
 - Using this strategy would result in a more sensible and practical data protection regulation that protects press freedom as well as the privacy of individuals' personal information.

Comparison of DPDP Act with other Data Protection Acts/ Laws:

General Data Protection Regulation ("GDPR"):

One of the most important laws that defines and establishes the standards for protecting people's privacy in a globalized society is the GDPR. It seems sense that the Indian DPDP and the GDPR have a lot in common and are somewhat similar. **Similarities:**

- Excluded data: Although the GDPR explicitly states that anonymised data is not applicable, the DPDP implies that this exemption would extend to data that has been sufficiently anonymized to prevent personal identification.
- Data processing without consent is allowed under certain conditions. The DPDP allows data fiduciaries (data controllers) to treat personal data for specific special use

cases under certain "legitimate uses" without the data principal's consent. Similar to this, the GDPR imposes requirements on data controllers while granting data controllers the authority to treat personal data without agreement in certain circumstances.

 Significant Data Fiduciary - Additional obligations like appointing data protection officers seem consistent with GDPR, given the factors relevant for classifying a data fiduciary as a significant data fiduciary under the DPDP (i.e., based on factors like volume and sensitivity of data processed).

Differences:

Even though the DPDP and GDPR share many parallels, the DPDP is distinct in its own right.

- No unique or distinct class of data: Personal data is divided into a number of distinct subsets under the GDPR. Specific compliance requirements apply to these types of personal data, including the reason for processing them. On the other hand, compliance with the DPDP is independent of the type of personal data; it applies to all types of personal data equally.
- According to the DPDP, notice must only be given when processing data is done with consent (and not for legitimate uses). However, it appears that the GDPR's notification requirements apply anytime data is obtained from the data subject and are not limited to consentrelated situations.
- 3. Grievance Redressal: In contrast to the DPDP, GDPR does not mandate that a data subject file a complaint with the relevant Supervisory Authority or go to court before resolving their grievance with the controller.

A critique:

The DPDP Act is not impervious to criticism. Some claim that because of its perceived strictness, it could stifle innovation. Others, on the other hand, say that it might not go far enough to protect individual privacy, mainly because of the Central Government's discretionary power over the processing of personal data. These characteristics will be significantly shaped by the regulations that will soon be implemented through delegated legislation. A strong data protection framework that benefits the whole Indian technology sector will be established through a standardized rule-release process and industry discussions, as demonstrated by the revisions made to the Information Technology Rules for online gambling.

To sum up:

One of the most important steps India has taken to protect personal data is the Digital Personal Data Protection (DPDP) Act, 2023. Its possible effects on the freedom of speech for journalists, however, present serious issues that need to be addressed.

The government should think about creating exemptions for journalists and encouraging open consultation procedures in order to find a balance between safeguarding individual privacy and preserving the core values of a free press. By facilitating the peaceful cohabitation of journalistic freedoms and personal data protection, these policies would guarantee that both essential components flourish in India's democratic environment.



SC BACKS EVMS, RULES OUT REVIVAL OF PAPER BALLOTS

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elections.

VERIFIABILITY MEASURES:

any constituency.

symbols into VVPATs.

100% cross-verification.

ENHANCED SECURITY MEASURES:

CONTEXT: The Supreme Court of India upheld the use of Electronic Voting Machines (EVMs) over paper ballots, rejecting pleas for paper ballot revival and increased verification. Concerns over blind distrust and electoral integrity were addressed, with suggestions for enhanced EVM security measures and candidate-requested verifications.

SUPREME COURT UPHOLDS EVMS:

- Rejects plea to revive paper ballots citing documented weaknesses and logistical challenges.
- Recognizes significant advantages of EVMs, upholding their use in elections.

ADDRESSING BLIND DISTRUST:

- Warns against blind distrust, emphasizing the need for evidence-based critique.
- Justice Sanjiv Khanna highlights the importance of maintaining citizen participation and confidence in

ON GLOBAL INDICES MEASURING DEMOCRACY

THE SIGNIFICANCE OF DEMOCRACY INDICES

refundable if tampering is found.

Global Criticism and Indian Response:

• Recent democracy indices label India as "one of the worst autocratisers," prompting government response.

Declines plea for VVPAT slips to be given to voters or for

Only 5% of EVM-VVPAT counts to be randomly verified in

Suggests exploring electronic methods for counting

Orders Symbol Loading Units to be sealed after loading

Allows verification of 5% of EVMs' burnt memory upon

Expenses for verification to be borne by applicants,

written request from second or third-place candidates.

VVPAT slips, considering manual counting's limitations.

 India aims to release its own democracy index to counter international criticisms and downgrades.

Motivation Behind India's Concern:

- Indices threaten India's sovereign ratings and rankings on global governance indicators.
- Indian officials criticize methodology flaws, inadequate sample sizes, and cultural biases in existing indices.

Data Sources and Methodologies:

- Types of Data Used:
- Observational data (OD) based on observable facts like voter turnout rates.
- 'In-house' coding utilizing academic material and news sources.
- Expert surveys providing subjective evaluations.
- Representative surveys gathering judgments from selected citizens.

Evaluation Criteria and Approaches:

- Indices assess various dimensions of democracy beyond electoral participation.
- Criteria include participatory democracy, deliberative decision-making, and egalitarian resource distribution.
- Differing approaches lead to varying indicator numbers, weightage, and aggregation models.

Limitations of Democracy Indices:

Subjectivity and Credibility:

- Criticism of subjectivity affecting credibility and precision of evaluations.
- Concerns over the judgment-based nature of assessments, such as V-Dem's "egalitarian" indicator.

Scope and Ideological Discrepancies:

- Critique of limited scope, with some indices excluding non-independent and microstates.
- Perceived ideological discrepancies due to ambiguous democracy definitions, leading to inconsistencies in country rankings.

CONTEXT: Amidst concerns over India's democracy ranking on global indices like V-Dem's recent assessment labeling it as "one of the worst autocratisers," debates ensue over the methodologies, subjectivity, and implications of such assessments, prompting India to consider creating its democracy index to counter perceived biases and inaccuracies.

THE GIST

- The V-Dem Institute's recent democracy index termed India as "one of the worst autocracies".
- While all agree that democracy is a political system in which citizens get to participate in free and fair elections (electoral democracy), indices like V-Dem's, Economist Intelligence Unit and the Bertelsmann Transformation Index assess other dimensions as well: is the democracy 'participatory', are citizen groups and civil society organisations functional? Are decisions made deliberately, in the best interest of all people, rather than through coercion or minority group interests?
- A major criticism is that there is a degree of subjectivity that tugs at the indices' credibility and precision.





CONCLUSION:

Absence of a singular, perfect democracy index due to the diverse nature of democracy definitions and evaluation methodologies.

CONTEXT: Indian Parliamentary proceedings, including legislative activities, ministerial priorities, interventions by lawmakers, the evolving dynamics of parliamentary engagement, with a focus on highlighting shifts in ministerial priorities, the utilization of interventions by lawmakers, and the need for revitalizing legislative engagement to ensure accountability and constructive debate are the legacies of the 17th Lok Sabha.

BACKGROUND: The Evolving Landscape of Indian **Parliamentary Proceedings**

India's Parliament grapples with a potential decline in active engagement. Ministries like Health and Agriculture reflect growing public concerns while waning interest in National Security is troubling. The rise of Zero Hour interventions highlights immediate issues, but deeper discussions are needed. Missed opportunities to hold the government accountable raise concerns about a robust Opposition. Revitalising parliamentary engagement is crucial for a healthy Indian democracy.

The Evolving Landscape Indian Parliamentary of Proceedings

The Indian Parliament, a bicameral legislature consisting of

Indices offer valuable insights into broad democratic trends and dynamics, allowing for comparisons across time and geography.

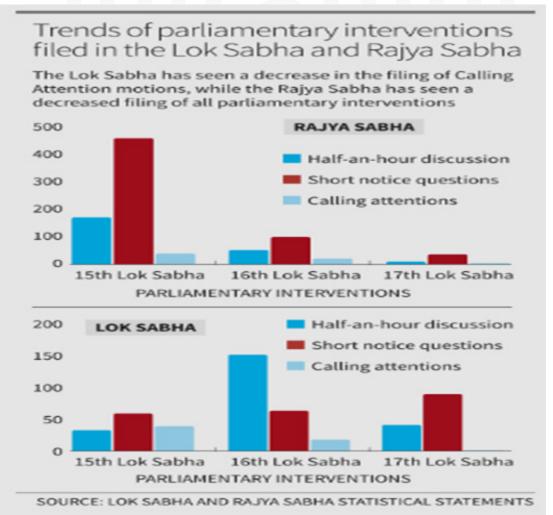
PARLIAMENTS PAST, A MIRROR TO CHANGING DYNAMICS

the Lok Sabha (House of the People) and the Rajya Sabha (Council of States), serves as the cornerstone of Indian democracy. Traditionally, Parliament has played a vital role in shaping national policy, holding the government accountable, and fostering a healthy exchange of ideas.

However, the critics highlight a concerning trend: a potential decline in robust parliamentary engagement.



Here's a deeper look at some key points mentioned in the context and further elaborated upon:





- Shifting Ministerial Focus: The rise in prominence of Ministries like Health and Family Welfare, Agriculture and Farmers' Welfare reflects growing public concern over healthcare and rural well-being. This aligns with various government initiatives like Ayushman Bharat (health insurance) addressing these areas.
- Waning Interest in National Security? The dwindling focus on the Ministry of Home Affairs, traditionally a high-priority area, is a cause for concern. This could be due to various factors, such as a shift in perceived security threats or a lack of transparency in government actions.
- Economic Ambitions and Scrutiny: The narrative around the Ministry of Finance is intriguing. While there's a decline in overall parliamentary interest, a rise in admitted questions suggests a growing focus on transparency in financial matters. This might be due to India's ambitious goal of becoming a top-five global economy.
- The Rise of Zero Hour: The surge in Zero Hour interventions, where members raise pressing issues

without prior notice, indicates a growing need to address immediate concerns. However, its limitations necessitate utilising other options like 'Calling Attention' for more indepth discussions.

Missed Opportunities and Apathy: The overlooked instances of holding the government accountable, like failing to raise privilege motions or missing crucial discussions, paint a concerning picture. A strong Opposition, as exemplified by the withdrawal of the Communal Violence Bill in 2014, is essential for a healthy democracy.

CONCLUSION: The Indian Parliament stands at a crossroads. While there are positive signs like increased focus on healthcare and financial transparency, a decline in scrutiny of critical areas and missed opportunities for constructive debate raise concerns. To ensure a vibrant democracy, revitalising parliamentary engagement and fostering a culture of accountability are paramount.

REVISIT THESE SECTIONS OF THE BHARATIYA NYAYA SANHITA

CONTEXT: The Central government's notification of the implementation of three criminal laws, including Section 106(2) of the Bharatiya Nyaya Sanhita (BNS), 2023, prompts call for reconsideration of various provisions due to concerns over disproportionate sentencing, potential conflicts with constitutional rights, and legal ambiguities.



ANALYSIS OF THE REFORM OF INDIAN JUSTICE SYSTEM



Reconsideration of Criminal Laws in Bharatiya Nyaya Sanhita (BNS), 2023:

Some experts have commented that several sections of the Bharatiya Nyaya Sanhita (BNS), India's new criminal code, warrant reconsideration due to potential legal and practical issues.

- Section 106(2) Reporting of Fatal Accidents:
- Maximum 10 years of imprisonment for failure to report a fatal accident.
- Disproportionate sentencing compared to other offences.
- Potential conflict with the constitutional right against selfincrimination (Article 20(3)).
- Inconsistency with Supreme Court rulings on compelled testimony.

Introduction of "Petty Organised Crime" (Section 112):

- Introduction of a new offence termed "petty organised crime".
- Offences include theft, snatching, cheating, unauthorised selling of tickets, gambling, etc.
- Lack of specificity in defining "petty organised crime" raises concerns.
- Sentences for offences within this category vary, creating ambiguity.

Proviso to Sub-section (2) of Section 303 - Property Theft:

- Proviso states theft of property valued less than ₹5,000 as non-cognizable offence.
- Raises legal and practical complications regarding reporting and prosecution.
- Impact on individuals, especially those from economically

weaker sections.

Interplay between sub-sections creates legal ambiguity.

Why this is an issue?

In India, thefts under ₹5,000 with the property returned and it's the first offense don't require police investigation. Instead, the offender does community service. This can cause problems:

- 1. Small thefts might not get reported, making it harder to track criminals.
- 2. Recovered stolen goods might be mixed with other crimes, causing legal issues.
- 3. If the property isn't returned, the only punishment is jail time, which might be too harsh for a small theft.

• Sections 6 and 7 of Section 143 - Human Trafficking:

- Both sections mandate life imprisonment without judicial discretion.
- Similarity to Section 303 of IPC, which was struck down for lack of judicial discretion.
- Raises concerns over legality and constitutionality.
- Need for judicial discretion in sentencing.

CONCLUSION:

IS THE URBAN WATER SYSTEM BREAKING?

 The identified sections of the Bharatiya Nyaya Sanhita (BNS), 2023, exhibit flaws ranging from disproportionate sentencing to potential conflicts with constitutional rights and legal ambiguities. Addressing these concerns through revisiting and potential amendments is crucial to ensure the effectiveness and constitutionality of the criminal laws before their implementation.

CONTEXT: Amidst a severe water crisis affecting urban centres like Bengaluru and other southern states due to mismanagement, fragmented governance, and environmental degradation, experts discuss the urgent need for holistic water management, sustainable infrastructure, and long-term planning to ensure the viability and resilience of cities.

Urban Water Crisis in Bengaluru:

- Mismanagement of Water Resources:
- Unplanned urbanization leading to loss of green cover and increased paved surfaces.
- Over-Reliance on groundwater sources due to dwindling surface water bodies.
- Decline in forest cover and environmental degradation in the Cauvery watershed exacerbating water scarcity.

Fragmented Governance and Lack of Coordination:

- Multiple agencies responsible for water management leading to fragmented governance.
- Inadequate competence among agency heads contributing to ineffective water management.
- Lack of coordination between agencies overseeing piped water supply, surface water bodies, groundwater, and

wastewater management.

- Infrastructure Challenges and Urban Development:
- Concretization of surfaces hindering groundwater recharge and exacerbating floods.
- Poor construction of roads impeding hydrological flows and exacerbating flooding.
- Rapid urbanisation and population growth surpassing the city's carrying capacity.
- Proposed Solutions and Policy Implications:
- Adoption of cluster-based development to alleviate pressure on urban centres.
- Focus on reverse migration and decentralisation of industries to promote regional development.
- Importance of protecting ecosystems along river basins to ensure water security for urban centres.
- Need for robust governance frameworks to address environmental concerns and long-term water management strategies.
- Emphasis on accountability, anti-corruption measures, and election of competent officials to ensure effective planning and implementation.



India's urban population is set to grow massively over the next three decades-a major problem, since existing supplies of water are already insufficient to meet demand

of India's population is projected to live in urban areas by 2030, up from 34 per cent in 2011

1% of urban households lack

access to piped water or public tap water

of urban Indian households

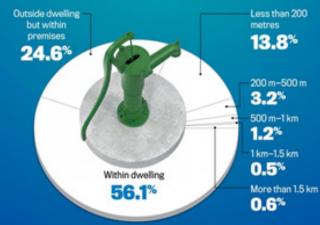
are not connected to a piped sewage discharge system

of the urban water supply In India comes from groundwater, according to the Centre for Science and Environment

Sources: United Nations Department of Economic and Social Affairs; National Family Health Survey, 2015-16; Census 2011; Central Public Health and Environmental Engineering Organisation; Centre for Science and Environment e and Environment

KEEPING IT FLOWING

While 80 per cent of households in India's cities have water sources within their premises, the challenge is to keep them recharged



THE SUPPLY THE 30 CITIES MOST AT RISK

GAP

Average quantity of water supplied by urban

local bodies in India

Required quantity

of water to be made

available in the cities

litres per person per day

A WWF-India report projects that the following cities will face a 'grave water risk" by 2050 due to sharp increases in population

1. Jaipur	9. Visakhapatnam
2. Indore	10. Bengaluru
3. Thane	11. Kolkata
4. Vadodara	12. Ahmedabad
5. Srinagar	13. Jabalpur
6. Rajkot	14. Mumbai
7. Kota	15. Lucknow
8. Nashik	16. Hubli-Dharwad



Role of Institutions and Public Awareness:

- Establishment of well-rounded institutions capable of framing sustainable solutions.
- Importance of public awareness and citizen engagement in advocating for environmental protection and sustainable water management.

Addressing knee-jerk reactions with long-term, holistic approaches to urban water crisis mitigation.

CONCLUSION:

Urgent need for coordinated governance, infrastructure improvements, and policy interventions to address the urban water crisis in Bengaluru and other urban centres across India.

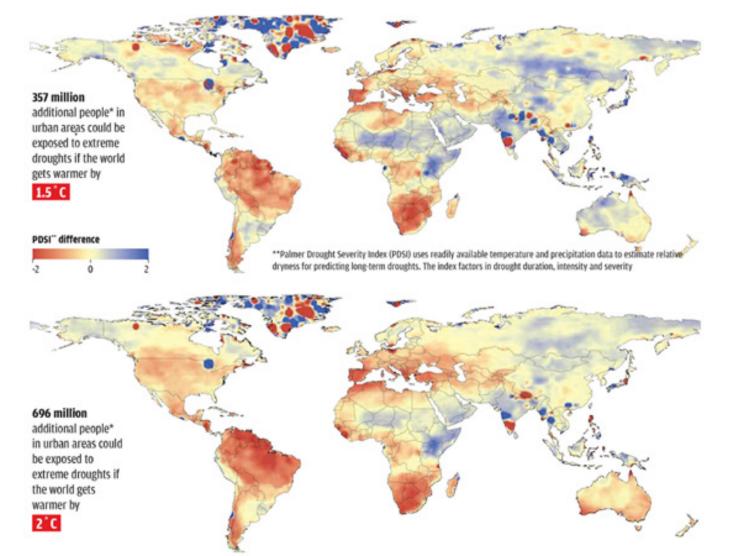




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SC STAYS HC ORDER STRIKING DOWN LAW REGULATING MADRASAS

CONTEXT: The Supreme Court of India stays a Allahabad High Court ruling that struck down a law regulating religious schools (Madrassas) in Uttar Pradesh while considering arguments on whether the law violates secularism.

BACKGROUND:

Law Regulating Madrasas in Uttar Pradesh

- A law existed in Uttar Pradesh since 2004 the Uttar Pradesh Board of Madrasa Education Act, 2004.
- This law aimed to regulate madrasas, which are religious schools, primarily focused on Islamic teachings.

Allahabad High Court's Decision

- In March 2024, the Allahabad High Court struck down this law.
- The High Court's reasoning was that the law violated the principle of secularism enshrined in the Indian Constitution.
- They argued the Act gives preferential treatment to religious education and questioned the quality of secular education provided in madrasas.
- The High Court also ordered the transfer of madrasa students to regular schools.
- Uttar Pradesh Government's Response
- Initially, the Uttar Pradesh government defended the law in the High Court.

However, after the High Court's decision, the government seemed to accept the verdict.

Arguments for Maintaining the Madrasa Board Act

- Supporters of the Act argue that it provides a way to regulate madrasas and ensure some minimum standards for education.
- They point out that without the Act, madrasa education could be unregulated and lack proper quality control.
- Arguments Against the Madrasa Board Act
- Opponents of the Act argue that it violates secularism by promoting religious education with state involvement.
- They believe the Act hinders providing a well-rounded education including subjects like maths, science, and social studies.
- Supreme Court's Intervention
- The Supreme Court has stayed the Allahabad High Court's decision, putting a hold on its implementation. The Supreme Court will hear arguments from both sides in July 2024.



- The Supreme Court seems to be questioning the High Court's reasoning of completely striking down the Act, suggesting there might be ways to regulate madrasas while upholding secularism.
- **Additional Points**
- The issue revolves around balancing the right to religious education with the right to quality secular education for all students.
- The case highlights the ongoing debate in India about the role of religion in education.

The Indian Constitution directly pertains to this case through several articles, particularly:

- Article 28(1): This article prohibits religious instruction in educational institutions wholly maintained by the state. This was a point raised by the Uttar Pradesh government while arguing against the Madrasa Board Act.
- Article 25-26: These articles guarantee the freedom of religion, including the right to establish and maintain educational institutions. This right is likely to be used by those arguing for the right to religious education in madrasas.
- Article 30(1): This article protects the rights of minorities to establish and administer educational institutions of

THE ADVENT OF A HOLISTIC APPROACH TO 'ONE HEALTH'

CONTEXT: The 'National One Health Mission' launched by India's cabinet represents a comprehensive approach involving multiple ministries, scientific agencies, and international coordination to address the interdependence between human health, animal health, and the environment, emphasizing pandemic preparedness, disease surveillance, research and development, and global cooperation in areas such as antimicrobial resistance and climate change impacts.

WHY A ONE HEALTH APPROACH?

- The emergence of pandemics like COVID-19 highlights the interdependence between humans, animals, and the environment.
- Diseases like lumpy skin disease in livestock demonstrate the impact on productivity and trade.
- A coordinated approach is crucial to be better prepared for future outbreaks, including those affecting wildlife.

ONE HEALTH MISSION: A UNITED FRONT FOR HEALTHIER TOMORROW

- Prime Minister's science advisors gave a green light (endorsed) to a major new initiative in July 2022: The National One Health Mission.
- This ambitious program brings together 13 government agencies (ministries and departments) to work as a team.
- Some of the big players involved include Science & Technology, Biotechnology, and the Council of Scientific and Industrial Research (CSIR).
- Their goal? To tackle health issues in a comprehensive way (holistic approach) that considers the health of people, animals, and the environment all together.
- This joined-up approach is also seen as crucial for preparing for future pandemics.
- A major step forward for the mission was the establishment of a central hub (National Institute for One

their choice. This right is also relevant for madrasas as a form of minority educational institution.

- Part III (Fundamental Rights): This entire part of the Constitution is relevant because the arguments revolve around balancing the rights mentioned above (religious freedom, minority rights) with the right to quality education (potentially implied under Article 21 - Right to Life and Liberty).
- These articles, particularly Articles 14 (Right to Equality), 15 (Prohibition of Discrimination) are also relevant to this case.
- Secularism: Though not an explicitly mentioned right, the concept of secularism is a basic structure of the Indian Constitution. This principle is at the heart of the debate, with arguments on both sides needing to demonstrate how their position aligns with a secular state.

CONCLUSION: The Supreme Court's intervention has put the issue of regulating madrasas in Uttar Pradesh on hold. The upcoming arguments in July 2024 will likely revolve around interpreting the Constitution's principles of secularism, minority rights, and the right to education. The Court's decision will be crucial in setting a precedent for balancing these rights within the Indian education system.

Health) in Nagpur. This institute, whose foundation stone was laid by the Prime Minister himself in December 2022, will coordinate activities (act as the coordinating body) on One Health both within India and with other countries.

MISSION GOALS:

- Develop strategies for integrated disease surveillance, joint outbreak response, and coordinated research and development.
- Ensure seamless information sharing for better control of both routine and pandemic diseases.
- Focus on strong R&D for diagnostics, vaccines, and therapeutics to combat emerging diseases.

KEY IMPLEMENTATION STRATEGIES:

- National Institute for One Health: Established in Nagpur to be the national anchor for coordinating activities and international collaboration.
- Network of Laboratories: Creation of a national network of high-risk pathogen laboratories for a unified disease outbreak response.
- Data and Analytics: Utilizing AI, machine learning, and . disease modelling to improve disease surveillance across sectors.
- Global Cooperation: Highlighting the One Health approach during India's G-20 presidency for international collaboration.

A BROADER PERSPECTIVE:

- One Health goes beyond disease control, encompassing issues like antimicrobial resistance, food safety, and climate change.
- Successful implementation requires collaboration among government agencies, NGOs, academia, the private sector, and citizens.



OVERALL, VISION:

The National One Health Mission is a journey towards achieving the goals of "One Earth, One Health" and "Health for All."

CONCLUSION: The National One Health Mission fosters a collaborative approach for a healthier planet and population.

SOUNDING THE GAVEL ON CURATIVE JURISDICTION

CONTEXT: The Supreme Court of India's recent reaffirmation of trust in Electronic Voting Machines (EVMs) and rejection of demands for extensive verification of paper trails underscores the judiciary's confidence in the electoral process, despite lingering apprehensions and suggestions for technological enhancements to ensure transparency and impartiality.



INTRODUCTION OF CURATIVE JURISDICTION:

 In 2002, the Supreme Court of India gained the power of "Curative Jurisdiction," allowing it to correct judgments post-finalization, distinct from the regular review process.

ROLE OF THE SUPREME COURT:

- Beyond being the highest court of appeal, the Supreme Court holds advisory jurisdiction and authority over the appointment and transfer of judges.
- It plays a constitutional role in declaring and shaping laws, reflecting societal changes and advancements in human knowledge.

DISTINCTIVENESS OF CURATIVE JURISDICTION:

- Unlike regular review processes, Curative Jurisdiction entails a reversal of the Court's own verdicts, going beyond mere adjustments in legal interpretation.
- It allows for rectifying errors beyond the scope of typical judicial review, demonstrating the Court's capacity for self-correction.

he New Learning Mantra

CASE STUDY: DELHI METRO RAIL JUDGMENT:

- Analysis of a curative petition in Delhi Metro Rail Corporation Ltd. vs. Delhi Airport Metro Express Pvt Ltd sheds light on the potential drawbacks of curative jurisdiction.
- The Court's intervention in setting aside an arbitral award raises concerns over increased interference in arbitration matters.

EXERCISE OF CURATIVE JURISDICTION:

- The Supreme Court's interference in the Delhi Metro Rail case was based on grounds of perceived misinterpretation of contractual clauses and disregarding vital evidence.
- This represents a departure from the Court's previous stance of minimal interference in arbitral awards, indicating a shift in its approach.

CHALLENGES AND CRITICISMS:

- The exercise of Curative Jurisdiction raises questions about the consistency and predictability of legal decisions.
- While correcting mistakes is essential, the Supreme Court's role as the final interpreter of law necessitates a broader perspective beyond individual cases.
- The Court's oscillation based on changing trends risks undermining its perceived constancy and gravitas as the apex judicial authority.

CONCLUSION:

- The Supreme Court's utilization of Curative Jurisdiction underscores the delicate balance between correcting errors and maintaining institutional integrity.
- Striking a balance between judicial oversight and minimal interference is crucial for upholding the Court's credibility and the rule of law.





THE PHYSICS AND MATHS OF KEEPING ELECTIONS FAIR AND REPRESENTATIVE

CONTEXT: Physics and math contribute to fair elections, including looking at historical election methods, critiquing the first-past-the-post system, exploring alternatives like Condorcet and Borda systems, and using math and physics to make elections fairer.



MAJOR POINTS

HISTORICAL PERSPECTIVE: In 2024, there are around 60 national elections involving two billion people globally, including major ones like India's national elections and the U.S. presidential election. Elections worldwide are a mix of emotions, ideas, and sometimes conflict, yet they are grounded in scientific processes.

The earliest known elections, dating back 2,500 years to ancient Athens, relied on luck as candidates were randomly chosen among suitable ones. Similarly, in tenth-century Chola society in Tamil Nadu, village representatives were selected through a random 'Kudavolai' system based on the people's votes.

THE 'FIRST PAST THE POST' SYSTEM?

- Social choice theorists and mathematicians criticize the approval voting system followed by a random choice for not accurately representing people's preferences.
- The first-past-the-post (FPTP) system, used in India, the U.S., the U.K., and other countries, has drawbacks such as disproportionate seat shares compared to popular votes and winners often securing less than 50% of the vote share.
- This has led to criticism of "minority" governments ruling despite lacking majority support.
- Despite criticisms, FPTP remains popular due to its simplicity, highlighting the complex nature of finding an ideal electoral system that truly reflects the will of the people.

CONDORCET AND BORDA SYSTEMS

Better alternatives to the first-past-the-post (FPTP) system include the Condorcet system and the Borda

electoral process.

- The Condorcet system, dating back to the 13th century, ensures that the winner, when compared against each contender, receives over 50% of the votes and is the most preferred candidate.
- However, it is complex and not widely used in national elections due to its potential to block specific candidates.
- On the other hand, the Borda process, proposed in 1784, involves ranking candidates on the ballot and redistributing votes until one candidate surpasses 50% support, ensuring a more representative outcome.
- This system is similar to rank-based voting in sporting events like the Indian Premier League.

PROBLEMS WITH RVS?

- The President of India was elected using a ranked voting system (RVS) in 1969 when no candidate secured 50% of first preference votes.
- After considering second preferences, V.V. Giri won with 50.8% support, despite having 48% first-preference votes, defeating Neelam Sanjeeva Reddy.
- However, like the Condorcet method, the original Borda method is complex and challenging for large elections like those in India.
- Kenneth Arrow's 1951 theorem showed that RVS can conflict with fairness criteria in elections, demonstrating that even popular candidates may not always win under such systems due to voting dynamics

HOW CAN MATHS, PHYSICS HELP?

- Mathematics brings clarity to the chaos of elections, while physics finds order in disorder, revealing universal patterns across different electoral systems.
- Just as molecules in a balloon create pressure despite their random movements, statistical physics teaches that order can emerge from electoral disorder.
- Analyzing two decades of election data shows consistent patterns crucial to fairness, highlighting the need to address electoral malpractices.
- Ultimately, combining mathematical precision with a physics perspective can diagnose and improve the fairness of election algorithms, giving hope to millions participating in the 2024 elections worldwide.

CONCLUSION: The intersection of mathematics and physics in electoral processes reveals the complexity of fairness and representation. Historical perspectives, critiques of existing systems like FPTP, and the exploration of alternatives like Condorcet and Borda highlight ongoing challenges. By leveraging these disciplines, we strive for more equitable and democratic elections globally.



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INTERNATIONA RELATIONS



AFRICA'S BALLOONING DEBT CRISIS NEEDS A POLITICAL FIX, CONTEND EXPERTS

ARMY BOOSTING INFRASTRUCTURE, AND CONNECTIVITY ALONG LAC IN ARUNACHAL

"EXPLOSIONS REPORTED IN ISFAHAN AMID TENSIONS BETWEEN IRAN AND ISRAEL; PRESIDENT RAISI HAILS RETALIATORY ATTACK"

INDIA DELIVERS FIRST BATCH OF BRAHMOS SUPERSONIC MISSILES TO PHILIPPINES

INDIA TO SEND NEW DEFENCE ATTACHÉS TO SEVERAL MISSIONS IN AFRICA

NO NEED FOR MORE TALKS ON 'RESOLVED' KATCHATHEEVU ISSUE, SAYS SRI LANKA

NO SANCTIONS AGAINST INDIA FOR BUYING, OR REFINING RUSSIAN OIL, SAY U.S. OFFICIALS

PERMANENT STATUS

RUSSIA WORKING TO REMOVE THE TALIBAN FROM THE TERRORIST LIST

THE INDIAN SEAFARER DESERVES BETTER IN CHOPPY HIGH SEAS

THE SIGNIFICANCE OF CARRIER AVIATION



AFRICA'S BALLOONING DEBT CRISIS NEEDS A POLITICAL FIX, CONTEND EXPERTS

CONTEXT: African countries are heavily in debt and experts believe a reform of the international financial system is needed to address the crisis.

AFRICAN DEBT CRISIS: A CALL FOR REFORM

- Ghana's Struggles
 - Ghanaian informal economy suffers due to national debt.
 - The country defaulted on most of its foreign debt in December 2022.
- Widespread Debt Burden
 - Many African countries are struggling with high debt and repayments.
 - External debt service payments for 16 African countries reached \$22.3 billion in 2023.
 - Loan interest payments for sub-Saharan African countries have doubled in a decade.
 - International Conference on African Debt Crisis
 - Held in Accra, Ghana in March 2024.
 - Experts discussed commonalities and differences in debt challenges faced by various regions.
 - A call for reform of the international financial system to ease the burden on developing countries.

Proposals for Change

- Increased UN role in debt negotiations, including debt reduction.
- More affordable credit options for low-income countries.
- Causes of the Crisis
 - Narratives of rapid economic growth in Africa may have encouraged excessive borrowing.
 - High-interest loans used for consumption rather than development.
 - Aggressive U.S. interest rate hikes in 2022 worsened the situation for developing countries.
 - Predatory private lenders targeting low-income countries.

Debunking Misconceptions

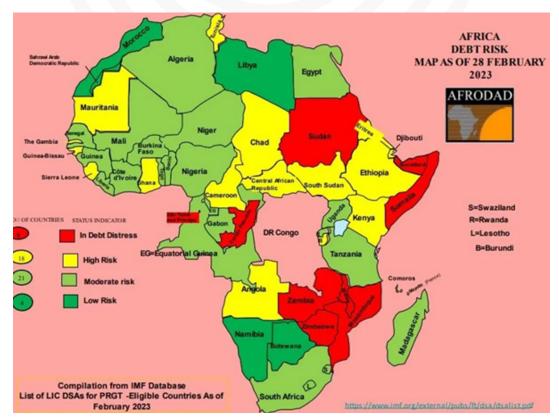
- The debt crisis is not solely due to African government mismanagement.
- Structural issues within the international financial system contribute to the problem.

Current Solutions and Challenges

- G20 Common Framework for debt treatment has shown limited success.
- Zambia's debt relief plan negotiations are ongoing.
- Multilateral banks and international tax cooperation are seen as potential solutions.

Long-Term Impacts

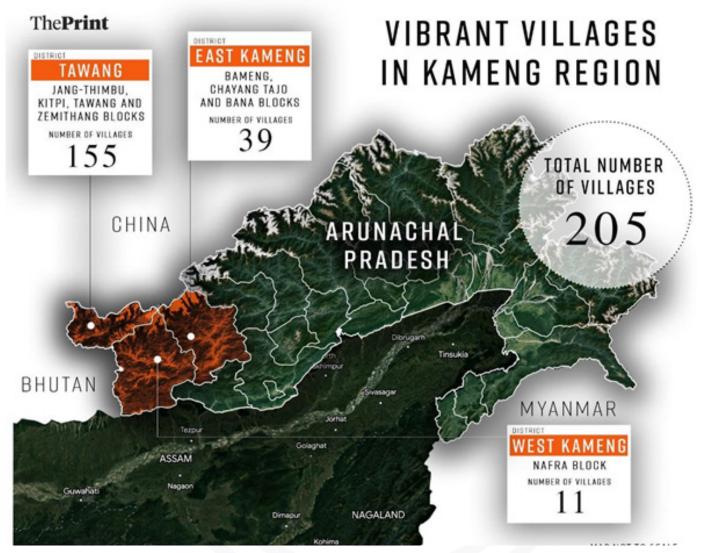
- Structural adjustment programs attached to loans may hinder economic growth.
- Lack of monetary sovereignty restricts access to affordable credit for African countries.
- Reform of the international financial architecture is needed for sustainable development.





ARMY BOOSTING INFRASTRUCTURE, AND CONNECTIVITY ALONG LAC IN ARUNACHAL

CONTEXT: The Army classifies Tawang district as part of the Kameng area, while the remaining part of the State is considered separate and was earlier referred to as the Rest of Arunachal Pradesh (RALP). While the Tawang and Kameng areas are under the Army's IV Corps, headquartered at Tezpur, RALP is under the III Corps, which is based at Dimapur.



THE VIBRANT VILLAGES PROGRAMME: A LOOK BEYOND THE BASICS

The Vibrant Villages Programme (VVP), launched by the Indian government in the 2022-23 budget, aims to address a critical issue: regional disparity and lagging development in villages along the northern border.

Goals:

- Improved Quality of Life: The program seeks to enhance living standards in these border villages, potentially stemming outward migration and strengthening border security.
- =Economic Development: The VVP focuses on identifying and fostering economic drivers unique to each village. This could involve leveraging local resources, promoting social entrepreneurship, and empowering youth and women through skill development.
- =Sustainable Practices: The initiative emphasizes ecofriendly agricultural businesses and the "one village-one product" concept, promoting sustainable practices and potentially creating niche markets.

=Tourism Potential: The program recognizes the potential of tourism in these regions. By promoting local culture, heritage, and traditional knowledge, the VVP aims to attract visitors and boost the local economy.

TARGETED AREAS:

The VVP concentrates on 2,963 villages across five northern states bordering China and Bhutan: Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Sikkim, and Ladakh. The initial phase covers 663 villages.

Implementation:

- Centralized Funding: The program is a centrally sponsored scheme, with the federal government providing financial backing.
- District & Local Collaboration: District administrations will work with Gram Panchayats (village councils) to create "Vibrant Village Action Plans." This collaborative approach is crucial for successful implementation, ensuring local needs and priorities are addressed.
- Avoiding Overlap: The VVP aims to complement, not replace, existing initiatives like the Border Area Development Programme.



Analysis and Considerations:

- Success Hinges on Implementation: The program's effectiveness heavily relies on efficient execution at the district and village levels. Transparency, community involvement, and corruption-free allocation of resources are essential.
- Sustainability Concerns: While the focus on sustainable practices is encouraging, long-term environmental impact assessments are crucial, particularly regarding water usage and potential strain on natural resources.
- Livelihood Diversification: The program should prioritize creating diverse livelihood options beyond tourism, as tourism can be seasonal and vulnerable to external factors.
- Monitoring and Evaluation: Regular monitoring and evaluation are necessary to assess the program's impact, identify areas for improvement, and ensure it meets its intended goals.

KIBITHU EXPERIMENT

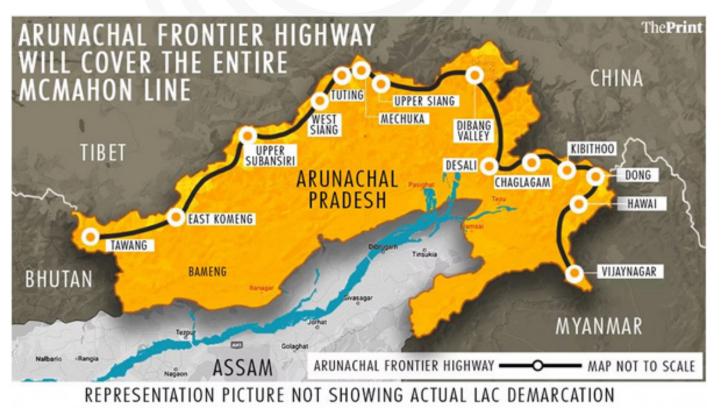
- The Army established Kibithu Bakery in 2022 with the help of the Pune-based Aseem Foundation, through funds under Operation Sadbhavna, a social welfare scheme spanning the areas of environment, education, and skilling. The Army has allocated []15 Cr under Operation Sadbhavna for developmental projects and outreach activities in the forward areas in III Corps area for 2022-23.
- Kibithoo is one of the easternmost villages in Anjaw district of Arunachal Pradesh. It is located about 7-8 km from the Line of Actual Control (LAC), the contested line that separates India and China. Over the past year, the village of about 130 residents has witnessed its Primary

Health Centre and residences of the school teachers being upgraded.

- The Universal Service Obligation Fund (USOF) was established to provide access to "basic telegraph services" to people in remote and rural areas at affordable and reasonable prices. As connectivity improves, efforts are on to promote tourism.
- Under the Seema Darshan project, the State government, with support from the Army, has approved 12 tourist circuits, including two foreign tourist ones, beyond the Kameng area. Religious tourism to Kepang La, Pasang Sonam Tso Lake, and Taksang Gompa is also being showcased and promoted, adding that passes for trekking are also being facilitated.

BREAKING BREAD

- Arunachal's topography resembles a wheel, with a flat plateau at the center and mountains and valleys extending outward like spokes.
- Travel between valleys often requires returning to the plains due to this geographical layout.
- About 92% of the 2,400-km trans-Arunachal highway along the border is completed and is expected to finish this year.
- Construction has started on the 1,800-km frontier highway, connecting Bomdila in the west to Vijayanagar near the Indo-Myanmar border, enhancing inter-valley travel.
- The new highway project addresses a critical gap and improves connectivity, benefiting areas like Nafra, Huri, Monigong villages, and the Indo-Myanmar border region.
- Three key bridges over the Lohit River will further enhance transportation links and connectivity in the area.





HOW SELA TUNNEL GIVES AN EDGE TO INDIAN ARMY AGAINST CHINA

Strategic Significance:

- Prime Minister Narendra Modi inaugurated the Sela Tunnel on March 8th, 2024.
- Constructed at a cost of Rs 800 crore, the tunnel cuts through the Sela-Charbela ridge at an altitude of 13,700 feet.
- It is the world's longest twin-tube tunnel at a height of 9,800 feet.
- This tunnel provides all-weather connectivity between Guwahati and Tawang, crucial for military movement.

Addressing Challenges:

- Previously, movement through the Sela Pass was difficult due to:
 - Heavy snowfall in winters (requiring snow removal)
 - Landslides in summers (causing frequent road closures)
- The Sela Tunnel project consists of two tunnels and a link road, addressing these issues.

Military Advantages:

- The tunnel allows for:
 - Faster troop movement and shorter travel times
 - Easier transportation of military equipment (tanks, artillery)
 - · Quicker mobilization and supply delivery to remote

border posts

Covert troop and equipment movement (hidden from Chinese observation)

Enhancing Border Infrastructure:

- The Sela Tunnel is part of a larger infrastructure development plan:
 - 1,700 km long Frontier Highway under construction
 - Trans-Arunachal Highway planned for deeper southern access
- These projects aim to improve troop mobility and match China's border infrastructure.

Overall Impact:

- The Sela Tunnel and planned highways significantly improve India's military preparedness in Arunachal Pradesh.
- This development helps to counter China's potential advantage in border accessibility.

CONCLUSION: The comprehensive infrastructural initiatives, strategic collaborations, and developmental projects undertaken in Arunachal Pradesh demonstrate India's commitment to bolstering connectivity, addressing regional disparities, and enhancing military preparedness along the Line of Actual Control (LAC). These efforts are pivotal in promoting socio-economic growth, ensuring border security, and strengthening national defense capabilities in the region.

"EXPLOSIONS REPORTED IN ISFAHAN AMID TENSIONS BETWEEN IRAN AND ISRAEL; PRESIDENT RAISI HAILS RETALIATORY ATTACK"

CONTEXT: The reported explosions in Isfahan, Iran, amid tensions with Israel, reflect retaliatory actions following Iran's missile and drone attack on Israel. Denials and speculations surround the source of the attacks, highlighting ongoing regional conflicts and concerns about escalation between Iran and Israel.



MAJOR POINTS

Explosions in Isfahan:

- Iran's state media reported explosions in Isfahan's central province.
- U.S. media quoted officials attributing these explosions to Israel's retaliatory strikes.

Background and Warning:

- Israel warned of retaliation after Iran launched missiles and drones at Israel a week earlier.
- This retaliation was in response to a strike in Syria that Iran blamed on Israel.

Activation of Air Defence Systems:

- Iran activated air defence systems in response to the reported explosions near Isfahan.
- No official reactions were immediately available from Israeli or Iranian authorities.

Denials and Speculations:

Iran's Tasnim news agency denied external attacks on Is-

fahan, citing "informed sources."

 Iranian officials suggested the possibility of small drones launched from within Iran.

Location and Impact:

- Reports mentioned explosions close to Isfahan airport and military installations.
- Despite the incidents, nuclear facilities in Isfahan were reported as secure with no major damage.

President Raisi's Response:

- Iran's President Raisi hailed Tehran's retaliatory attack on Israel but did not mention the explosions in Isfahan.
- He emphasized Iran's authority and unity but made no direct reference to the recent blasts.

Calls for De-escalation:

- World leaders called for de-escalation after reports of retaliatory strikes between Iran and Israel.
- No official reactions regarding the blasts were immediately provided by either country.

CONCLUSION: Iran attacked Israel with drones and missiles in retaliation to Israel's attack on its embassy in Syria. Israel was helped in defence by the U.S., U.K. Jordan etc. These countries had asked for significant de-escalation from Israel for Iran's attack. Therefore Israel had significantly scaled down its response while demonstrating its ability to strike Iran at will. This has allowed Iran to brush off the attack as drones which were shot down by defence forces allowing it a way out of spiralling conflict with Israel in West Asia.



INDIA DELIVERS FIRST BATCH OF BRAHMOS SUPERSONIC MISSILES TO PHILIPPINES

CONTEXT: India strengthens its defense ties with the Philippines by delivering the first batch of BrahMos supersonic cruise missiles in a deal that boosts both nations' military capabilities in the Indo-Pacific region.



INDIA STRENGTHENS DEFENSE TIES WITH PHILIPPINES THROUGH BRAHMOS DELIVERY

- Missile Delivery Marks Milestone in Partnership
- India delivers the first batch of BrahMos supersonic cruise missiles to the Philippines.
- The Philippines becomes the first export customer for the BrahMos missile system, a joint venture between India and Russia.
- This delivery signifies a growing defense relationship between the two nations.
- Boosting Philippines' Defensive Capabilities
- The Philippines aims to use the BrahMos missiles to deter threats in the South China Sea.
- The missiles will be integrated into the Philippine Marines' coastal defense regiment.
- · Philippine military personnel received training in India to

operate and maintain the BrahMos systems.

- BrahMos: A Powerful Deterrent
- BrahMos missiles are known for their supersonic speed, enhancing the Philippines' defense capabilities.
- The missiles can be launched from various platforms including land, sea, sub-sea, and air.
- Several other countries have expressed interest in acquiring BrahMos systems.

ABOUT BRAHMOS

- BrahMos is a joint venture between DRDO and Russia's NPO Mashinostroyeniya, named after the Brahmaputra and Moskva rivers.
- It is a versatile missile capable of launch from land, sea, sub-sea, and air, targeting both surface and sea-based targets.
- The missile has been inducted into the Indian armed forces for an extended period.
- Initially, its range was limited to 290 km due to Missile Technology Control Regime (MTCR) restrictions.
- After India's entry into the MTCR in 2016, the range was extended to 450 km, and efforts are ongoing to increase it to 600 km and beyond.
- BRAHMOS is a Two-Stage Missile with a solid-propellant booster engine as its first stage and a liquid ramjet as its second stage.
- It incorporates stealth technology and an advanced guidance system with embedded software for special features.
- The missile can achieve speeds of up to 3 Mach during its cruise phase.
- It can cruise at altitudes of up to 15 km, with a terminal altitude as low as 10 meters.
- BRAHMOS is equipped to carry a conventional warhead with a capacity ranging from 200 to 300 kgs.







MISSILE TECHNOLOGY CONTROL REGIME (MTCR)

- **Introduction:** The MTCR is an informal and voluntary political understanding among states aimed at limiting the proliferation of missiles and missile technology.
- **Scope:** It encompasses unmanned aerial vehicle (UAV) technology capable of carrying payloads greater than 500 kg for distances exceeding 300 km.
- **Members:** Currently, the MTCR consists of 35 member countries.
- **Establishment:** It was founded in April 1987 by the Group of Seven (G-7) countries.
- Prohibitions: Members are prohibited from supplying

missiles and UAV systems covered by the MTCR to nonmember states.

CONCLUSION: The delivery of BrahMos supersonic cruise missiles to the Philippines marks a significant milestone in India's defense cooperation with the nation. This strategic move not only strengthens the Philippines' defensive capabilities, especially in the South China Sea, but also showcases the BrahMos system's prowess as a powerful deterrent. As India continues to expand its defense partnerships globally, the successful delivery of BrahMos missiles underscores the technology's versatility and the growing interest from other countries in acquiring this advanced missile system.

INDIA TO SEND NEW DEFENCE ATTACHÉS TO SEVERAL MISSIONS IN AFRICA

CONTEXT: India is sending new defense attachés to various missions around the world, including several African countries for the first time, to strengthen its military diplomacy in a strategically complex world.



Expansion of Military Diplomacy

- India to send defence attachés (DA) to several missions in Africa for the first time, reflecting a broader focus on military diplomacy.
- This move is part of a larger adjustment of DA positions across continents due to dynamic situations in Indo-Pacific, Red Sea-Indian Ocean, and Eurasia.

Focus on Africa

 Four new DA expected to be deployed in Africa, with one in Francophone western Africa and three in eastern and southeastern Africa. Indian missions in Ivory Coast, Mozambique, Ethiopia, and Djibouti are under consideration for new DA placements.

- Training and Deployments
- DA posted abroad underwent pre-deployment training at the Sushma Swaraj Institute of Foreign Service.
- Indian embassy in Poland to receive a new DA, while the Indian mission in Warsaw is currently served by the DA in the Czech Republic.

Strategic Adjustments

- Readjustments in DA positions align with India's evolving defence requirements, including defence production, cooperation, and crisis management.
- Recent crises in Gaza and Ukraine underscore the importance of effective DA management in East Europe, Eurasia, and East Africa for safeguarding Indian interests.

Operational Successes

- Indian marine commandos captured 35 Somalian pirates, highlighting the need for a ready defence posture in the Red Sea-western Indian Ocean region.
- Similar adjustments expected in Indian missions in the United Kingdom, Russia, Philippines, and Armenia, reflecting rationalization and strategic recalibration.

CONCLUSION: India is expanding its military diplomacy by deploying defense attachés (DAs) to African missions for the first time, focusing on Francophone and eastern/southeastern Africa. This strategic move aligns with India's evolving defense needs, underscored by recent crises, and includes operational successes like countering piracy in the Red Sea region.



NO NEED FOR MORE TALKS ON 'RESOLVED' KATCHATHEEVU ISSUE, SAYS SRI LANKA

CONTEXT: Sri Lanka dismisses the need for further discussions on the Katchatheevu issue, following recent remarks by Indian officials, while historical documents reveal India's strategic reasoning behind ceding the islet in 1974 amid renewed scrutiny over the territorial dispute.

BACKGROUND: Sri Lanka and India have a history of dispute



over Katchatheevu, a small island. Sri Lanka claims ownership, while India once did but ceded the island in 1974. Recently, Indian politicians have made remarks about Katchatheevu, prompting Sri Lanka to remind India that the issue is settled. Documents released in India show the Indian government worried about a weak legal case and security interests when giving up the island.

Sri Lanka Rejects Calls to Reopen Discussion on Katchatheevu

- Sri Lanka says there is no need to revisit the settled issue of Katchatheevu, an island ceded by India in 1974.
- This statement comes after recent remarks by Indian Prime Minister Narendra Modi and External Affairs Minister S. Jaishankar.
- Sri Lankan Foreign Minister Ali Sabry believes the issue



was resolved 50 years ago and further discussions are unnecessary.

SRI LANKA CLAIMS STRONG CASE FOR KATCHATHEEVU OWNERSHIP

- Historical documents reveal India's rationale behind giving up the island.
- Documents released under Right to Information Act show the Indian government believed they had a weak legal case.
- Sri Lanka reportedly had stronger historical evidence to claim Katchatheevu.

INDIA FEARED INTERNATIONAL COURT AND CHINA'S IN-FLUENCE

- Documents show Indian Foreign Secretary Kewal Singh briefed Tamil Nadu Chief Minister M. Karunanidhi in 1974.
- Singh expressed concerns about a potential loss at the International Court of Justice.
- He also cited a "pro-China lobby" in Sri Lanka that could exploit the dispute.

CONCLUSION: While the resurgence of comments from Indian officials reignited tensions, Sri Lanka maintains a firm stance. They believe the 1974 agreement settled the matter and that historical documents support their claim to Katchatheevu. India's decision back then, influenced by a weak legal case, security interests, and potential foreign influence, seems unlikely to be revisited. The future of Katchatheevu hinges on whether both nations can prioritise regional cooperation over historical disputes.

NO SANCTIONS AGAINST INDIA FOR BUYING, OR REFINING RUSSIAN OIL, SAY U.S. OFFICIALS

CONTEXT: U.S. officials visiting Delhi state that there will be no sanctions against India for purchasing and refining Russian oil, emphasizing that they aim to limit revenue to Russia rather than restrict trade in Russian oil, amid concerns over rising prices and narrowing discounts.

BACKGROUND: Since the outbreak of the Ukraine war in 2022, India and China have emerged as significant purchasers of Russian oil, despite pressure from the West to reduce ties with Moscow. The U.S. has imposed sanctions aiming to limit Kremlin revenue, but officials clarify that the goal isn't to restrict Russian oil trade. India emphasizes its need-based oil purchases, while recent U.S. measures have led to heavy discounts on Russian oil exports, impacting global markets.

U.S. TREASURY DEPARTMENT'S POSITION:

Officials visiting Delhi clarified that U.S. sanctions and the oil price cap aim to limit revenues to the Kremlin, not to



restrict the purchase of Russian 'Ural' oil.

- They asserted that the measures, including a second phase of sanctions against oil shipping companies, are having some impact.
- However, they dismissed concerns about the rising price



of Ural oil and the narrowing of Russian discounts to Indian refiners.

Clarification on Refined Oil:

- Anna Morris, Acting Assistant Secretary for Terrorist Financing, stated that once Russian oil is refined in a country and then exported, it is no longer considered Russian oil from a sanctions perspective.
- She addressed allegations of "oil laundering" by India for European markets, calling them misleading.

Sanctions and Indian Companies:

- U.S. officials confirmed that no Indian company has been sanctioned by the U.S. for oil purchases from Russia.
- However, a Mumbai-based company has faced sanctions over Iranian oil purchases, while a Bengaluru-based high-tech company was listed for engaging in dual-use technology trade with Russia.

India's Response:

- The External Affairs Ministry emphasised that all oil purchases are guided by India's energy security requirements and commercial interests.
- India seeks to buy oil from wherever it receives the cheapest available supplies.

Importance of India and China:

• Since the start of the Ukraine war, India and China have

become major purchasers of Russian oil.

 Russian President Vladimir Putin praised India for its independent foreign policy despite pressure from the West.

Effect of U.S. Price Cap:

- The U.S. announced a price cap on Ural oil to limit purchases below \$60 per barrel, resulting in heavy discounts offered by Russian exporters.
- Officials claimed success in ensuring stable export volumes and discounts ranging from \$12 to \$19 over the past year.

Russian Response:

• The Russian Foreign Ministry stated that Russian oil supplies to India remain at a steadily high level.

CONCLUSION: amidst rising global concerns over Russia's actions and consequent sanctions, U.S. officials visiting Delhi have clarified that India will not face sanctions for purchasing and refining Russian oil. Emphasizing India's need-based oil procurement and commercial interests, the dialogue highlights the delicate balance between geopolitical pressures and energy security. As major purchasers of Russian oil, India's stance underscores its strategic autonomy, while ongoing discussions aim to mitigate the impact of international sanctions on global energy markets.

PERMANENT STATUS

CONTEXT: The US veto of a UN resolution granting Palestine full-member status reignites debate over the future of Palestine and the role of the US in the Israeli-Palestinian conflict.



PALESTINE SEEKS FULL UN MEMBERSHIP AMID US OBJECTIONS

UNSC Resolution and Veto

- The United Nations Security Council (UNSC) resolution proposing full-member status for Palestine was vetoed by the United States.
- The resolution aimed to fulfil the 1947 UN General Assembly promise of partitioning Palestine into two states, one Jewish and one Arab.

Historical Background

- In 1949, only Israel became a full member of the UN, leaving the "Question of Palestine" unresolved for decades.
- Palestine received permanent observer status in 2012 and temporary powers of a full member during its G-77 and China chairmanship in 2019.

Reasons for Veto

- The US vetoed the resolution, advocating for Palestine's statehood through direct negotiations between the parties.
- Israeli officials argued against granting full member status to Palestine, citing recent terrorist attacks by Hamas as a reason for delay.

Timing and Arguments for Recognition

- Despite recent conflicts, there's a case for recognizing Palestine's right to full UN membership, providing a stronger voice on the global stage.
- Critics argue against conflating Palestinian statehood with Hamas terrorism, emphasizing the need for distinctions between combatants and non-combatants.

Call for Reconsideration

- The US's blanket support for Israeli positions is questioned, especially considering Prime Minister Netanyahu's stance against a Palestinian state.
- A UN-member Palestine would be bound by international obligations, promoting peace and accountability within the region.

International Diplomacy and Principles

- The US's veto is seen as counter to the UN's principle of sovereign equality among nations, highlighting concerns about favouritism over consensus-building.
- In a fractured international order, there's a call for global leadership to prioritize building consensus and upholding fundamental principles of justice and equality.

CONCLUSION: The US's veto of Palestine's full UN membership resolution reflects ongoing complexities in the Israeli-Palestinian conflict. It underscores the challenges of balancing sovereignty aspirations with security concerns, highlighting the need for renewed diplomatic efforts and a holistic approach toward achieving lasting peace in the region.



RUSSIA WORKING TO REMOVE THE TALIBAN FROM THE TERRORIST LIST

CONTEXT: Russia's Shifting Stance on Afghanistan: From • Adversary to Potential Partner?



BACKGROUND: As Russia's relationship with the Taliban in Afghanistan transforms, its recent move to delist the group from its terrorist organization designation raises questions about the wider ramifications of this decision.

- In 2021, the Taliban regained control of Afghanistan following the withdrawal of U.S.-led forces BBC News, "Afghanistan: Taliban take control of Kabul as Ghani flees":
- Historically, tensions existed between Russia and the Taliban due to the Soviet occupation of Afghanistan in the 1980s Council on Foreign Relations, "Russia and Afghanistan":.

Russia's Strategic Shift:

 Security Concerns: Russia seeks cooperation with the Taliban to address shared security threats like the Islamic State in Afghanistan (ISIS-K) Reuters, "Russia says it is working on removing Taliban from its terrorist organization list"

- Delisting the Taliban: Russia's move to potentially remove the Taliban from its terrorist list signifies a normalization of relations The Hindu, "Russia says it is working on removing Taliban from its terrorist organization list": [invalid URL removed]. This could lead to increased trade and diplomatic engagement.
- Regional Influence: Russia aims to maintain its influence and stability in Central Asia, a region bordering Afghanistan Crisis Group, "Afghanistan's Security Challenges under the Taliban":

India's Stake:

- Regional Dynamics: India's position on Russia's engagement with the Taliban could influence the power balance in South Asia
- Security Concerns: Sharing a border with Afghanistan, India has security interests that could be impacted by changes regarding the Taliban regime.
- Diplomatic Relations: India's interaction with both Russia and Afghanistan might be affected by Russia's new approach.
- Counterterrorism: India's counterterrorism strategies and collaboration with other countries might be influenced depending on the Taliban's actions.

CONCLUSION: Russia's engagement with the Taliban reflects a strategic shift driven by security concerns. India's response will be crucial, shaping regional dynamics and security measures. This situation highlights the complexities of regional geopolitics and the interplay between global security interests.

THE INDIAN SEAFARER DESERVES BETTER IN CHOPPY HIGH SEAS

CONTEXT: In light of rising piracy, exploitation, and contractual issues, India is pushing for better international cooperation and improved protections for its vast seafaring workforce.

BACKGROUND: The global shipping industry relies heavily on Indian seafarers, who comprise a significant portion of the workforce (around 9.35%). However, these seafarers face numerous challenges and risks, threatening their safety and well-being. Recent incidents of piracy, exploitation by foreign recruiters, and unfair contractual terms have heightened concerns.



CHALLENGES FACED BY INDIAN SEAFARERS

Piracy on the Rise:

o Recent attacks off the coast of Somalia highlight a resurgence of piracy.

- o India calls for vigilance, proactive measures, and international cooperation to combat piracy.
- Exploitation by Unethical Recruiters:
- o Over 200 cases of seafarer exploitation reported since 2020.
- o Indian seafarers lured with false promises and subjected to unfair treatment.
- o International coordination needed to address these issues.
- Unfair Contractual Terms:
- o Many Indian seafarers lack legal representation and are unaware of their rights.
- o India advocates for improved contractual conditions for seafarers.

Lack of Legal Representation and Awareness

- o Most Indian seafarers lack legal representation and are unaware of their rights.
- o This leaves them vulnerable to exploitation and unfair treatment, hindering their ability to navigate legal processes effectively.
- Unfair Treatment and Exploitation
- Indian seafarers often report feeling unfairly treated and exploited, especially concerning unlawful recruitment practices and contract violations.
- o Such situations not only impact their physical and mental well-being but also diminish trust in the maritime industry and their career prospects.



- Disruption to Employment and Livelihoods
- o Vessel seizures and detentions can result in extended disruptions to seafarers' employment and incomes.
- o These disruptions can lead to financial strain and uncertainty, affecting both seafarers and their families.
- Psychological Impact
- Seafarers face constant threats like piracy and maritime security challenges, leading to heightened stress, anxiety, and trauma.
- Recent incidents, such as kidnappings in the Gulf of Guinea and the MT Duke case, underscore the psychological toll of such dangers on seafarers.

GEOPOLITICAL TENSIONS AND THEIR IMPACT

- Increased Risk of Attacks:
- Incidents like the seizure of MSC Aries and the detention of MT Heroic Idun highlight vulnerabilities.
- o Rising geopolitical tensions further complicate maritime security.
- Kidnappings and Violence:
- o The Maritime Union of India reported a 40% increase in kidnappings in the Gulf of Guinea.
- o Indian seafarers face dangers like assault, injury, and threats.

INITIATIVES TO IMPROVE SEAFARER SAFETY

- India's "Human Rights at Sea" Program:
- o Launched by the Indian government and the National Human Rights Commission (NHRC).
- o Aims to address issues like illegal detentions and stranded seafarers.

- International Cooperation:
- o India pushes for broader collaboration through the International Maritime Organization (IMO).
- Focuses on tackling piracy, armed robbery, and other maritime threats.

THE NEED FOR CHANGE

- Support for Indian Seafarers:
- o Despite the risks, many remain committed to their careers.
- o Improved rights and protection are crucial to retain manpower.
- India's Growing Role in the Maritime Industry:
- o India aims to increase its share of the global seafaring population to 20%.
- o Recent events highlight the need for enhanced security measures.

CONCLUSION: The Indian government's efforts to improve the lives of seafarers through the "Human Rights at Sea" program and international cooperation via the IMO are a positive step in the right direction. However, addressing these challenges requires a multi-pronged approach. Stronger enforcement mechanisms are needed to hold rogue recruiters and ship owners accountable. Additionally, investing in training and education for seafarers on their rights and safety measures will empower them to navigate these challenges more effectively. By prioritizing seafarer well-being and working collaboratively with the international community, India can ensure a safer and more just future for its vast seafaring workforce, who are vital to the continued success of the global shipping industry.

THE SIGNIFICANCE OF CARRIER AVIATION

CONTEXT: INS Vikrant, India's first domestically built aircraft carrier, marks a milestone in its naval development.

BACKGROUND: India's first domestically built aircraft carrier, INS Vikrant, marks a leap in its naval power. The technical aspects and historical significance of Vikrant, along with its role in India's strategy to have a strong carrier fleet for regional dominance is an important aspect of India's naval strategy in the Indian Ocean and beyond. Experts have commented on global trends in carrier development and the ongoing debate between carriers and submarines in naval warfare.



THE GIST

The design work on the Indigenous Aircraft Carrier (IAC)-I, later christened Vikrant, began in 1999. One of the crucial decisions concerning Vikrant was on the warshipgrade steel, which till then was procured from Russia. After much brainstorming, it was decided that it would be developed and produced in India. Vikrant can operate an air wing of 30 aircraft comprising MiG-29K fighter jets, Kamov-31, and MH-60R multi-role helicopters, in addition to indigenous Advanced Light Helicopters and Light Combat Aircraft (Navy).

The Navy has already moved a case for a second Indigenous Aircraft Carrier (IAC-II), a repeat of a Vikrant-like carrier.

INS VIKRANT: A SYMBOL OF INDIA'S GROWING NAVAL POWER

1. A Milestone in Domestic Aircraft Carrier Development

- Conception and Challenges: Design work for the Indigenous Aircraft Carrier (IAC)-I, later christened Vikrant, began in 1999.
- Steel Innovation: A critical decision involved developing DMR-249 warship grade steel domestically, marking a shift from reliance on foreign imports. This decision by the Steel Authority of India, Defence Research and Development Organisation (DRDO), and the Indian Navy had significant commercial and technological benefits.
- Construction and Innovation: The project ushered in new processes like 3D modelling for warship design in India. Construction began in 2009, with the keel laying, launch in 2013, and extensive user trials before commissioning in September 2022.

2. Technical Marvel and Operational Prowess

Size and Power: Vikrant boasts a total area exceeding 12,450 square meters, equivalent to roughly two and a half hockey fields. The 262-meter-long and 62-meterwide carrier is powered by four General Electric LM2500



engines, generating 88 MW of power and a maximum speed of 28 knots.

- Endurance and Capacity: With an endurance of 7,500 nautical miles and a crew of around 1,600, Vikrant is a selfcontained floating city with specialized cabins for women officers and sailors. It houses two large galleys capable of preparing up to 4,500-5,000 meals daily, showcasing its logistical capabilities.
- Aircraft Wing and Operations: Vikrant can operate an air wing of 30 aircraft, including MiG-29K fighter jets, Kamov-31 and MH-60R multi-role helicopters, along with future integration of indigenous Advanced Light Helicopters and Light Combat Aircraft (Navy). It utilizes the STOBAR (Short Take-Off but Arrested Recovery) system for launching and recovering aircraft, employing a ski-jump for launch and three arresting wires for recovery.
- 3. Strategic Significance and Future Vision
- Force Structure and Regional Dominance: The Indian Navy envisions a three-carrier force structure for maintaining a credible presence on both the western and eastern seaboards. Vikrant is a crucial step towards achieving this strategic goal.
- Maintaining Expertise and IAC-II: The Navy is actively pursuing the construction of a second Indigenous Aircraft Carrier (IAC-II), aiming to replicate the success of Vikrant while incorporating newer technologies. Delays in project approval could risk losing the expertise gained in Vikrant's

construction.

Global Context and Carrier Aviation: Despite advancements in anti-ship missiles and drones, carrier aviation remains a significant force in modern naval warfare. Several countries, including the US, UK, France, Russia, and China, are actively building or modernizing their carrier fleets, highlighting its continued relevance. Carriers provide opportunities for sea dominance

4. Beyond Carriers: A Balanced Naval Force

- The debate between carriers and submarines continues. While Vikrant signifies India's growing reliance on carrier aviation, both platforms offer distinct advantages in naval warfare. Submarines are highly stealthy, especially the nuclear submarines which provide for long endurance. But they are highly vulnerable if they are detected.
- The current global trend suggests that both carriers and submarines will likely play crucial roles in the foreseeable future.

CONCLUSION: INS Vikrant marks a significant milestone in India's journey towards naval self-reliance. It represents not only a technological leap but also a strategic ambition to maintain a strong naval presence in the Indian Ocean Region. The success of Vikrant paves the way for future advancements in indigenous aircraft carrier development and underscores the importance of a balanced naval force equipped with both carriers and submarines.

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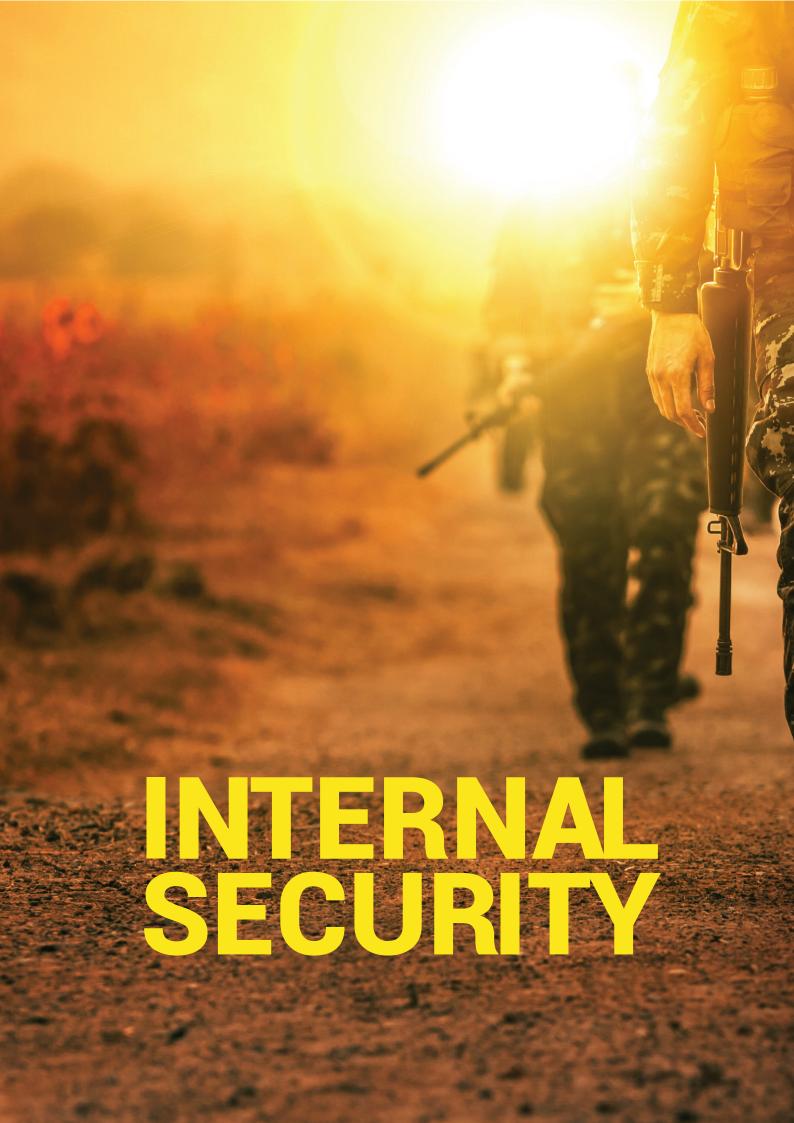


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EXTENSION OF AFSPA IN ARUNACHAL PRADESH AND NAGALAND

FIRST FLIGHT OF LCA TEJAS MARK 1A FIGHTER AIRCRAFT

INDIA, MOZAMBIQUE, AND TANZANIA CONCLUDE TRILATERAL NAVAL EXERCISE IMT TRILAT 24

INDIAN ARMY'S TRISHAKTI CORPS CONDUCTS MISSILE FIRING EXERCISE IN SIKKIM

JUICE JACKING SCAM

TIGER TRIUMPH-24: INDIA-US BILATERAL HADR EXERCISE



Extension of AFSPA in Arunachal Pradesh and Nagaland

The Ministry of Home Affairs (MHA) has extended the Armed Forces (Special Powers) Act (AFSPA) in certain districts of Arunachal Pradesh and Nagaland for an additional six months, effective from April 1, 2024. The decision follows a review of the law-and-order situation in these north-eastern states.

ARUNACHAL PRADESH

In Arunachal Pradesh, the AFSPA has been extended for six months in the following areas:

- Tirap, Changlang, and Longding districts
- Areas under the jurisdiction of Namsai, Mahadevpur, and Chowkham police stations in Namsai district, bordering Assam

NAGALAND

- In Nagaland, the AFSPA has been extended for six months in the following districts and police station areas:
- Dimapur, Niuland, Chumukedima, Mon, Kiphire, Noklak, Phek, and Peren
- 21 police station areas in five other districts of Nagaland, which has a total of 16 districts

POWERS UNDER AFSPA

The Armed Forces (Special Powers) Act, 1958, grants sweeping powers to security forces in areas deemed as "disturbed". Under the AFSPA, armed forces personnel are authorized to search, arrest, and open fire if deemed necessary for maintaining public order.

REDUCED APPLICATION OF AFSPA

 In April 2022, the Centre reduced the number of disturbed areas under AFSPA in many parts of Nagaland, Assam, and Manipur. The Act was lifted from Tripura in 2015, Meghalaya in 2018, and Mizoram in the 1980s. Despite these reductions, the AFSPA remains in force in Jammu and Kashmir.

DEMANDS FOR REPEAL

 Several political parties, NGOs, and civil society organisations in the north-eastern region have been demanding the complete repeal of the AFSPA. Critics argue that AFSPA has led to human rights violations, while supporters claim it is necessary to maintain order in conflict-ridden areas.

FIRST FLIGHT OF LCA TEJAS MARK 1A FIGHTER AIRCRAFT



On March 28, 2024, the Hindustan Aeronautics Limited (HAL) successfully completed the first flight of the indigenous light combat aircraft (LCA) Tejas Mark 1A fighter jet in Bengaluru. The aircraft was airborne for 15 minutes during its maiden flight.

ABOUT LCA TEJAS

The Light Combat Aircraft (LCA) Tejas is a singleengine, multirole light fighter aircraft designed and developed by the Aeronautical Development Agency (ADA) and Hindustan Aeronautics Limited (HAL) for the Indian Air Force and Indian Navy.

It is the smallest and lightest in its class of contemporary supersonic combat aircraft. The Tejas is designed to carry airto-air, air-to-surface, precision-guided, and standoff weaponry, and has a maximum payload capacity of 3,500 kg.

DIFFERENT VERSIONS OF LCA TEJAS

The LCA Tejas has several variants, each with specific enhancements and capabilities. The main versions of the LCA Tejas are:

- **Tejas Mark 1:** The initial operational clearance (IOC) version, with limited capabilities and weaponry.
- Tejas Mark 1A: An enhanced version of the Mark 1, featuring improved avionics, radar, electronic warfare

capabilities, and the ability to carry a wider range of weapons.

- Tejas Mark 2 (Medium Weight Fighter): A significantly improved version with a more powerful engine, increased payload capacity, and advanced avionics. It is currently under development.
- **Tejas Navy (LCA Navy):** A naval variant of the Tejas, designed for carrier operations. It has a strengthened airframe, arrester hook, and other necessary modifications for naval use.
- Tejas Trainer: A two-seat training variant of the LCA Tejas, designed for pilot training and familiarization.

These variants represent the evolution of the LCA Tejas program, with each version incorporating lessons learned and advancements in technology to enhance the aircraft's capabilities.

LCA TEJAS MARK 1A

As mentioned above, the LCA Tejas Mark 1A is an enhanced version of Tajas Mark 1. It features improved avionics, radar, and electronic warfare capabilities compared to the previous Mark 1 variant. The Mark 1A is equipped with an advanced AESA radar, a self-protection jammer, and can carry a wider variety of weapons. The Indian Air Force has ordered 83 Tejas Mark 1A aircraft to bolster its fleet.

DEPLOYMENT PLANS

According to reports, the LCA Tejas Mark 1A fighter aircraft is likely to be deployed at the Nal airbase in Rajasthan's Bikaner, near the Pakistan border. The first squadron of the aircraft is planned to be stationed at the Nal airbase, allowing it to monitor and respond to potential threats from the western adversary.

HAL'S EFFORTS

The state-owned public sector unit, HAL, is working towards delivering the first twin-seater trainer version of the LCA Tejas to the Indian Air Force (IAF) as soon as possible. The company aims to meet the delivery deadline by March 31, 2024.



IAF'S COMMITMENT

The IAF has already signed a contract worth over ₹48,000 crore with HAL for the supply of 83 LCA Tejas planes. Additionally, the IAF has clearance to purchase 97 more LCA Mark 1A fighter jets at a cost of ₹65,000 crore.

Previous Inductions In 2016, the LCA Mark 1 aircraft were inducted into the IAF. Currently, two IAF squadrons (45 Squadron and 18 Squadron) operate the light combat aircraft Tejas.

INDIA, MOZAMBIQUE, AND TANZANIA CONCLUDE TRILATERAL NAVAL EXERCISE IMT TRILAT



The second edition of the India-Mozambique-Tanzania Trilateral Exercise (IMT TRILAT 24) concluded at Nacala, Mozambique, on March 28, 2024. The week-long exercise, which took place from March 21 to 28, aimed to enhance maritime cooperation and interoperability between the navies of India, Mozambique, and Tanzania.

Indian Naval Ships Tir and Sujata participated in the exercise, engaging in joint exercises, training sessions, and collaborative activities to exchange knowledge, enhance capabilities, and bolster maritime security in the region. **EXERCISE PHASES**

IMT TRILAT 24 was conducted in two phases:

- Harbour Phase (March 21-24, 2024):
- Intensive training sessions were held concurrently onboard INS Tir at Zanzibar and INS Sujata at Maputo.
- Activities included training on Visit, Board, Search and Seizure (VBSS), Damage Control and Firefighting Drills, communication procedures, and medical lectures with CPR demonstration and casualty evacuation (CASEVAC).

Sea Phase (March 24-28, 2024):

- INS Tir and INS Sujata embarked sea riders from the Tanzanian and Mozambique Navies, respectively.
- Joint operations with Mozambique Naval ship Namatili and Tanzanian naval ship Fatundu showcased synergy and sustained efforts with regional navies, in line with the vision of SAGAR (Security & Growth for All in the Region).
- Evolutions at sea involved simulated VBSS exercises and night manoeuvres.
- Sea riders received training on bridge watch keeping, damage control, and firefighting.

Joint surveillance of Exclusive Economic Zones (EEZ) off Tanzania and Mozambigue was conducted in the area of operation.

CLOSING CEREMONY AND HIGHLIGHTS

The closing ceremony held onboard INS Tir and INS Sujata at Nacala, Mozambique, featured representatives from all three navies. The closing remarks emphasized the successful collaboration, understanding of maritime capabilities, and shared objectives achieved during the exercise. The event also highlighted continued collaboration towards maritime security and regional stability, underlining India's commitment as the preferred security partner.

ADDITIONAL ENGAGEMENTS

In addition to IMT TRILAT 24, various official and training exchanges, cross-deck visits, sport fixtures, and Yoga sessions were held as part of the long-range training deployment of the ships. The ships were open to visitors at Zanzibar, Maputo, and Nacala, attracting more than 1,500 people, including school children, the Indian diaspora, and the local populace. Outreach activities were also conducted at Mizzizini orphanage center in Zanzibar and Obra Dom Orio Reception Centre in Maputo, fostering bonds of friendship.

ABOUT MOZAMBIQUE

Mozambigue, a country in Southeast Africa, gained independence from Portugal in 1975. Its capital is Maputo, and the official language is Portuguese. Mozambique is known for its diverse wildlife, including elephants, lions, and dolphins. The country faced a devastating civil war from 1977 to 1992. Mozambique's economy heavily relies on agriculture, aluminium and petroleum production, and tourism. The Zambezi River flows through the country, and the Cahora Bassa Dam is one of the largest in Africa.

ABOUT TANZANIA

Tanzania, located in East Africa, is known for its diverse landscapes, including the Serengeti National Park, Mount Kilimanjaro (Africa's highest mountain), and the Zanzibar archipelago. The country gained independence from British colonial rule in 1961. Tanzania's capital is Dodoma, while Dar es Salaam is the largest city and a major commercial hub. Swahili and English are the official languages. The economy largely depends on agriculture, tourism, and mining. Tanzania is also home to the Maasai, an indigenous ethnic group known for their distinctive culture and traditions.





INDIAN ARMY'S TRISHAKTI CORPS CONDUCTS MISSILE FIRING EXERCISE IN SIKKIM



The Trishakti Corps of the Indian Army recently conducted a training exercise on Anti-Tank Guided Missile (ATGM) firing at a Super High-Altitude Area of 17,000 Feet in Sikkim.

The exercise involved Missile Firing Detachments from Mechanized and Infantry Units of the entire Eastern Command, showcasing the capability to neutralize armoured threats with high lethality in treacherous mountainous terrains. The training included continuity training and live firing from different platforms on both moving and static targets to simulate battlefield conditions.

The exercise was conducted with the aim of "Ek Missile Ek Tank" and highlighted the accuracy and effectiveness of the ATGM system in high-altitude environments.

The successful demonstration of the ATGM system's performance in Super High-Altitude terrain further strengthens the Indian Army's readiness and preparedness in dealing with potential threats in challenging terrains.

ABOUT TRISHAKTI CORPS

Trishakti Corps is a key military formation of the Indian Army, comprising three divisions – 17th Mountain Division, 27th Mountain Division, and 72nd Mountain Division. It is headquartered at Sukna in West Bengal and operates along the eastern borders of India.

ergency Response Team login c

Recently, the Computer Emergency Response Team (CERT-In) has issued a warning regarding the potential misuse of public charging ports found in locations such as cafes, hotels, and airports. The agency has alerted users about the risk of "juice jacking attacks," where cybercriminals can exploit USB ports to compromise devices when they are connected for charging.

WHAT IS JUICE JACKING?

Juice jacking is a type of cyber attack in which malicious actors use public charging stations or compromised USB ports to install malware or steal data from smartphones, tablets, or other electronic devices. When users connect their devices to these charging ports, they unknowingly allow hackers to access their devices data or even install malicious software without their knowledge.

POTENTIAL RISKS

- Juice jacking attacks can lead to several risks, including:
- **Personal Information Theft:** Cybercriminals can access and steal personal information such as contact details,

Trishakti Corps plays a crucial role in ensuring the security of the Siliguri Corridor, also known as the Chicken's Neck, which is a narrow strip of land connecting the northeastern states of India to the mainland. This strategic location makes Trishakti Corps a critical component of India's defense strategy.

ANTI-TANK GUIDED MISSILE

An Anti-Tank Guided Missile (ATGM) is a precision weapon designed to destroy enemy tanks and armoured vehicles. It typically consists of a missile, a guidance system, and launch platform such as a vehicle or portable launcher. ATGMs use sophisticated technology to accurately strike targets at long ranges. They are highly effective against armoured vehicles due to their ability to penetrate thick armour with a shaped charge or explosive warhead. ATGMs are widely used by military forces around the world to counter armoured threats on the battlefield.

Here are some of India's ATGMs

- Nag: Nag is a third-generation, fire-and-forget, topattack ATGM with a range of 4-7 km. It is developed by India's Defence Research and Development Organisation (DRDO).
- HELINA (Helicopter-launched Nag): A variant of the Nag missile designed to be launched from helicopters, with a range of 7-8 km.
- MPATGM (Man Portable Anti-Tank Guided Missile): A third-generation, fire-and-forget, infantry-operated ATGM with a range of 2.5 km, also developed by DRDO.
- SANT (Stand-off Anti-Tank): A missile system designed to be launched from the air, with a range of 15-20 km.
- SAMHO (Semi-Active Homing): A second-generation ATGM with a range of 4-5 km, developed by Bharat Dynamics Limited (BDL).
- MILAN 2T: A second-generation, wire-guided ATGM with a range of 2 km. It is a licensed version of the French MILAN missile, manufactured by BDL.
- Konkurs-M: A second-generation, wire-guided ATGM with a range of 4 km. It is a licensed version of the Russian 9M113 Konkurs, manufactured by BDL.

JUICE JACKING SCAM

login credentials, messages, photos, and other sensitive data stored on the device.

 Malware Installation: Hackers may install malware on the device, which can then be used to spy on the users activity, steal financial information, or even damage the device.

PREVENTION TIPS

- To protect themselves from juice jacking attacks, users can follow these prevention tips:
- Avoid Public USB Ports: Whenever possible, users should prioritize using a regular wall outlet with their own power adapter to charge their devices, eliminating the risk of data transfer or malware installation.
- **Carry a Power Bank:** Users can carry a portable power bank that they can keep charged beforehand, reducing their reliance on public charging stations.
- Use a Charging-Only Cable: Some companies sell special USB cables that only allow charging and block data transfer. While not foolproof, these cables can add



a layer of protection.

- Only Charge in Trusted Locations: If users must use a public USB port, they should try to do so in a well-lit, populated area with security cameras.
- Be Wary of Unfamiliar Ports: Users should look for any signs of physical tampering with the charging port before plugging in their devices.
- Monitor Your Device: Users should stay vigilant while their device is charging and be mindful of any unusual activity or pop-up messages.

GLOBAL INSTANCES OF JUICE JACKING

Juice jacking attacks have been reported in various

parts of the world, highlighting the global nature of this threat:

- In 2019, the Los Angeles County District Attorneys Office issued a warning about the risks of juice jacking, particularly in public places like airports, hotels, and shopping centres.
- In 2020, the Federal Bureau of Investigation (FBI) warned travellers about the dangers of using public USB charging stations, advising them to carry their own chargers and power banks.

Security researchers have demonstrated the ease with which juice jacking attacks can be carried out using inexpensive hardware and readily available software tools.

TIGER TRIUMPH-24: INDIA-US BILATERAL HADR EXERCISE



The Indian and United States (US) navies have commenced a bilateral Humanitarian Assistance and Disaster Relief (HADR) exercise called "Tiger Triumph-24" on India's eastern seaboard. The week-long exercise, which began on March 18, 2024, will involve various assets from the Indian Navy, Indian Army, and Indian Air Force, as well as warships and troops from the US Navy, US Marine Corps, and US Army. **ORIGINS OF THE INDIA-US MARITIME RELATIONSHIP:**

The close maritime relationship between the US and Indian navies can be traced back to the Indian Ocean tsunami on December 26, 2004. The devastating disaster, triggered by an undersea earthquake, resulted in the loss of approximately 250,000 lives across 14 countries in the Indian Ocean region. In response to the catastrophe, the Indian Navy swiftly mobilized its ships on humanitarian missions to aid the affected countries, while the US Navy dispatched naval flotillas to link up with the Indian Navy in HADR efforts.

LESSONS LEARNED FROM THE 2004 TSUNAMI:

The 2004 tsunami response highlighted the importance of specialized HADR equipment and capabilities. While the Indian Navy demonstrated remarkable courage and resourcefulness in deploying its available assets, including destroyers and frigates, for humanitarian aid missions, the US Navy showcased its advanced HADR capabilities. These included desalination plants, rapid action medical teams (RAMT), floating hospitals, and foreign language and cultural experts.

TIGER TRIUMPH-24 EXERCISE:

The Tiger Triumph-24 exercise aims to develop interoperability between the US and Indian forces for

conducting HADR operations and refine Standard Operating Procedures (SOPs) to enable rapid and smooth coordination between the two countries. The exercise is divided into two phases:

- Harbour Phase (March 18-25, 2024): During this phase, personnel from both navies engage in training visits, subject matter expert exchanges, sports events, and social interactions.
- Sea Phase: Following the Harbour Phase, the ships, with troops embarked, will sail for the Sea Phase to undertake maritime, amphibious, and HADR operations. The joint exercise will conclude with a closing ceremony upon completion of the Sea Phase.

ASSETS INVOLVED:

The Indian Navy's participation in Tiger Triumph-24 includes ships with integral helicopters and landing crafts, while the Indian Army contributes personnel and vehicles. The Indian Air Force will also deploy aircraft for the exercise.

The US military is represented by US Navy warships, with embarked troops from the US Marine Corps and the US Army. INDIA-US DEFENCE COOPERATION:

Leading up to the exercise, Indian Defence Minister Rajnath Singh held a telephonic conversation with his US counterpart, Secretary of Defence Lloyd Austin, on March 18, 2024. Secretary Austin appreciated the Indian Navy's crucial role in anti-piracy operations in the Indian Ocean. The two leaders discussed ways to implement the India-US Defence Cooperation Roadmap, which was concluded in the previous year, and explored other defence industrial cooperation issues, such as the repair of US naval ships in Indian shipyards.





200 MORE GATI SHAKTI CARGO TERMINALS: INDIAN RAILWAYS

2024 GLOBAL REPORT ON FOOD CRISIS (GRFC)

BIMA SUGAM MARKETPLACE

CBDT SIGNS RECORD NUMBER OF 125 ADVANCE PRICING AGREEMENTS IN FY24

CURRENT FOREX RESERVES OF INDIA

DRDO AND INDIAN ARMY SUCCESSFULLY TRIAL

MPATGM WEAPON SYSTEM

INDIA EMPLOYMENT REPORT 2024

INDIA REQUIRES 8-10% ANNUAL GROWTH TO HARNESS DEMOGRAPHIC DIVIDEND: RBI'S

REPORT

INDIA'S RISING PULSES IMPORTS

INDIANS PERMITTED TO HEDGE GOLD PRICE RISK OVERSEAS MARKETS

NEW DIGITAL MARKETS ACT (DMA) LAW

RBI RELEASES DIGITAL LENDING – TRANSPARENCY IN AGGREGATION OF LOAN PRODUCTS FROM MULTIPLE LENDERS

SEBI'S PROPOSED FRAMEWORK FOR UNDERVALUED COMPANIES

SELF-REGULATORY ORGANISATIONS (SROS) FOR REGULATED ENTITIES

T+0 TRADING SETTLEMENT CYCLE

WORLD HAPPINESS REPORT 2024



200 More Gati Shakti Cargo Terminals: Indian Railways

The Indian Railways plans to set up an additional 200 Gati Shakti Cargo Terminals (GCTs) to boost freight revenue, decongest rail networks, and enable faster passenger train movement. This expansion follows the successful implementation of the first 100 GCTs announced in the Union Budget 2022-23.

- GCTs are multi-modal terminals used by corporates to handle bulk cargo that is transported via rail.
- They are established under a policy that allows monetization of vacant Railway land through public-private partnerships (PPP).
- The first 100 GCTs were to be set up over 5 years from 2022-23.

Progress of Phase 1

- 77 out of the initial 100 GCTs have already been commissioned at a cost of around ₹5,400 crore.
- These terminals are located in states like West Bengal, Jharkhand, Odisha, Telangana, Tamil Nadu, and Uttar Pradesh.
- Major operators include Concor, Reliance, Adani, JSW, IOCL, and BPCL, among others.
- The remaining terminals are expected to be operational by the end of FY 2024-25.

Expansion Plans

- Buoyed by the positive response, Railways will tender for 200 more GCTs once the first 100 are completed.
- The additional terminals are estimated to require ₹12,000-14,000 crore in private investment.
- Each terminal is expected to cost an average of ₹65-70 crore, with some ranging from ₹50 crore to higher amounts.

Development Models

GCTs can be developed through two models:

- 1. On non-Railway land: Private players identify the location and construct the terminal after obtaining necessary approvals.
- 2. On Railway land (fully/partially): Railways identifies land

2024 Global Report on Food Crisis (GRFC)

CH Phase 5

Drivers of Food Crises

food insecurity:

people)

people)

people)

The 2024 Global Report on Food Crisis (GRFC) reveals that nearly 282 million people across 59 countries and territories experienced high levels of acute hunger in 2023. This study shows a global increase of 24 million from the previous year, with 1 in 5 people assessed requiring critical urgent action.

Key Findings

- 36 million children under 5 years of age are acutely malnourished across 32 countries
- Acute malnutrition worsened in 2023, particularly among displaced populations
- 36 countries have been consistently featured in GRFC analyses since 2016, representing 80% of the world's most hungry
- 705,000 people were at risk of starvation (IPC/CH Phase 5) in 2023, the highest number in GRFC's reporting history
- The Gaza Strip accounts for 80% of those facing imminent famine, along with South Sudan, Burkina Faso, Somalia, and Mali
- By July 2024, 1.1 million people in the Gaza Strip and

parcels, and the operator for construction and operation is selected through open tendering.

Boosting Freight Share & Complementary Initiatives

- Railways aims to increase its share in India's freight traffic from the current 29% to 35% by 2030.
- In FY24, Railways carried around 1,600 million tonnes (mt) of the total 5,500 mt cargo moved across the country.
- Major commodities transported include coal (787.6 mt), iron ore (181 mt), cement (154 mt), and other volumebased items like white goods.
- The development of GCTs is expected to lead to faster goods movement and decongestion of tracks for passenger trains.
- Railways also plans to add 5,000 km of new tracks every year for the next 3-5 years to support the increased freight capacity.

About Gati Shakti Cargo Terminals

Gati Shakti Cargo Terminals are a key initiative of the Indian Railways to boost its freight business and attract private investment.

- Launched: 2022, as part of the PM Gati Shakti National Master Plan
- Aim: To develop multimodal logistics facilities and reduce logistics costs
- Target: 100 terminals to be developed in 5 years (2022-2027)
- Model: Public-Private Partnership (PPP) and private sector investment
- Location: On railway land or private land near railway facilities
- Facilities: Warehousing, cold storage, customs clearance, and value-added services
- Benefits: Reduced handling time, improved efficiency, and increased railway's modal share in freight transport

Gati Shakti Cargo Terminals are expected to transform India's logistics landscape and contribute to the country's economic growth.

79,000 people in South Sudan are projected to be in IPC/

Conflict and insecurity (affecting 20 countries, 135 million

Extreme weather events (affecting 18 countries, 77 million

Economic shocks (affecting 21 countries, 75 million

fragility, rural marginalization, poor governance, and inequality,

transformative approach that integrates peace, prevention,

and development action alongside emergency efforts to break the cycle of acute hunger. Long-term national and international

investments are needed to transform food systems and boost

leading to massive population displacement.

Breaking the Cycle of Food Crises

These interlinked drivers exacerbate food system

The Global Network Against Food Crises calls for a

The report identifies three primary drivers of acute



agricultural and rural development, along with greater crisis preparedness and critical lifesaving assistance. The Way Forward

The international community has made bold commitments to address the food crisis, including recent G7 and G20 initiatives. The Global Network Against Food Crises offers to leverage its knowledge of hunger in the most fragile countries to strengthen linkages and build coherence between these global initiatives to ensure innovative and concrete impact for those affected by food crises.

About the Global Report on Food Crises (GRFC)

Produced annually by the Food Security Information Network.

Bima Sugam Marketplace

The Insurance Regulatory and Development Authority of India (IRDAI) has approved eight principle-based regulations, including the highly anticipated Bima Sugam marketplace, in its recent board meeting. The regulatory changes cover various aspects of the insurance industry, such as rural and social sector obligations, motor Third-Party (TP) insurance, corporate governance, and foreign reinsurers' operations in India.

Bima Sugam Marketplace

The IRDAI (Bima Sugam - Insurance Electronic Marketplace) Regulations, 2024, aim to establish a digital public infrastructure named Bima Sugam. The primary objectives of this marketplace are:

- Universalization and democratization of insurance
- Empowering and safeguarding policyholders' interests
- Achieving the vision of "Insurance for all by 2047"

Bima Sugam will serve as a one-stop solution for all insurance stakeholders, including customers, insurers, intermediaries, and agents.

Rural and Social Sector Obligations

Under the new regulations, the unit of measurement for rural obligations will now be the gram panchayat. The scope of the social sector has been extended to cover cardholders and beneficiaries under various schemes, ensuring a wider reach of insurance services to the underprivileged sections of society.

Motor Third-Party Insurance

For Motor TP insurance, the unit of measurement will be the renewal of coverage for goods and passenger-carrying vehicles, as well as tractors. This change is expected to streamline the process of measuring compliance with Motor TP insurance requirements.

Corporate Governance for Insurers

The IRDAI (Corporate Governance for Insurers)

- Launched by the Global Network Against Food Crises.
- Highlights acute food insecurity and malnutrition globally.
- Identifies main drivers like conflict, extreme weather, economic shocks.
- Calls for long-term investments to transform food sys-. tems.

The Global Report on Food Crises is produced annually by the Food Security Information Network and launched by the Global Network Against Food Crises, a multistakeholder initiative that includes United Nations organizations, the European Union, the United States Agency for International Development, and non-governmental agencies working together to tackle food crises.

Regulations, 2024, aim to establish a robust governance framework for insurers by defining the roles and responsibilities of the board and management. This is the first time that governance aspects under the existing guidelines have been notified in the form of regulations, highlighting the importance of governance in the functioning of an insurance company. **Insurance Products Regulations**

The IRDAI (Insurance Products) Regulations, 2024, merge six existing regulations into a unified framework. The objectives of these regulations are:

- Enabling insurers to swiftly respond to evolving market demands
- Enhancing the ease of conducting business
- Boosting insurance penetration
- Foreign Reinsurers and Lloyd's India

The IRDAI (Registration and Operations of Foreign Reinsurers Branches & Lloyd's India) Regulations, 2024, consolidate two existing regulations. These regulations aim to foster the systematic development of the reinsurance sector in India by promoting orderly growth and harmonizing the existing legal and regulatory framework.

Important Facts for Exams

- IRDAI was established in 1999 as an autonomous, statutory body to regulate and promote the insurance industry in India.
- The Bima Sugam marketplace is expected to revolutionize the way insurance is bought and sold in India, making it more accessible and transparent for consumers.
- The new regulations replace 34 existing regulations, streamlining the regulatory framework for the insurance industry.
- The emphasis on corporate governance in the new regulations underscores the importance of transparency and accountability in the insurance sector.





CBDT Signs Record Number of 125 Advance Pricing Agreements in FY24

The Central Board of Direct Taxes (CBDT) has achieved a significant milestone by entering into a record number of 125 Advance Pricing Agreements (APAs) with Indian taxpayers in the financial year 2023-24. This includes 86 Unilateral APAs (UAPAs) and 39 Bilateral APAs (BAPAs), marking the highest ever APA signings in any financial year since the launch of the APA programme.

What is Advance Pricing Agreements (APAs):

APAs are agreements between taxpayers and tax authorities that determine the transfer pricing methodology for pricing the taxpayer's international transactions for future years. The APA programme aims to provide certainty to taxpayers in the domain of transfer pricing by specifying the methods of pricing and determining the arm's length price of international transactions in advance for a maximum of five future years. Taxpayers also have the option to roll back the APA for four preceding years, providing tax certainty for a total of nine years.

Growth in APA Signings

The number of APAs signed in FY24 represents a substantial 31% increase compared to the 95 APAs signed in the preceding financial year, FY23. This growth demonstrates the increasing popularity and effectiveness of the APA programme in providing tax certainty to businesses operating in India.

With the addition of 125 APAs in FY24, the total number of APAs signed since the launch of the APA programme has reached 641. This includes 506 UAPAs and 135 BAPAs. The consistent growth in the number of APAs signed each year highlights the success of the programme in addressing transfer pricing disputes and providing a stable tax environment for multinational enterprises.

International Collaborations with various Partners

The CBDT has successfully signed BAPAs with several of India's treaty partners, including Australia,



According to the latest report released, India's foreign exchange reserves fell by \$5.4 billion to \$643.16 billion. This decline comes after the reserves reached an all-time high of \$648.56 billion, following a seven-week gaining streak.

Breakdown of the Decline

The decrease in the forex reserves was primarily due to a decline in foreign currency assets (FCAs), which fell by \$6.51 billion to \$564.65 billion. FCAs, the largest component of the forex reserves, include the effect of appreciation or Canada, Denmark, Japan, Singapore, the United Kingdom, and the United States. These agreements are a result of mutual understanding and collaboration between the Indian tax authorities and their foreign counterparts, ensuring a coordinated approach to transfer pricing and the avoidance of double taxation.

Benefits of the APA Programme

- The APA programme offers several benefits to taxpayers, most importantly, providing tax certainty and avoiding double taxation.
- By entering into an APA, taxpayers can have a clear understanding of the pricing methods and the arm's length price for their international transactions, reducing the risk of transfer pricing disputes. BAPAs provide an additional layer of protection by ensuring that the taxpayer is not subjected to double taxation in the event of a transfer pricing dispute.
- The programme has also contributed significantly to the Indian government's efforts to promote ease of doing business, especially for multinational enterprises with numerous cross-border transactions within their group entities.

Contribution to Ease of Doing Business

The APA programme has been instrumental in supporting the Government of India's efforts to promote ease of doing business in the country. By providing a transparent and predictable tax environment, the programme has helped attract foreign investment and encouraged multinational enterprises to expand their operations in India.

The success of the APA programme in India has been recognized globally, with many countries seeking to emulate its model. The CBDT's commitment to the programme and its continuous efforts to streamline the APA process have been widely appreciated by the international business community.

Current Forex Reserves of India

depreciation of non-US currencies like the euro, pound, and yen held in the reserves.

Gold reserves, on the other hand, expanded by \$1.24 billion to \$55.8 billion during the same week. Special Drawing Rights (SDRs) decreased by \$93 million to \$18.08 billion, while the reserve position in the International Monetary Fund (IMF) dipped by \$35 million to \$4.63 billion.

Recent Trends in India's Forex Reserves

- In the calendar year 2023, the RBI added about \$58 billion to its foreign exchange kitty.
- However, in 2022, India's forex reserves slumped by \$71 billion cumulatively.
- So far in 2024, the reserves have risen by approximately \$23 billion on a cumulative basis.
- The country's foreign exchange reserves last touched their all-time high in October 2021.
- The decline after that can be attributed to factors such as the rise in the cost of imported goods in 2022 and the RBI's intervention in the market to defend the rupee against a surging US dollar.

RBI's Role in Managing Forex Reserves

The RBI closely monitors the foreign exchange markets and intervenes from time to time to maintain orderly

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market conditions by containing excessive volatility in the exchange rate. This intervention is done without reference to any pre-determined target level or band.

Typically, the RBI intervenes in the market through liquidity management, including the selling of dollars, to prevent a steep depreciation in the rupee.

The central bank's actions help in maintaining stability in the foreign exchange market and managing the country's forex reserves effectively.

About Forex Reserves

India's foreign exchange reserves are the foreign assets held or controlled by the Reserve Bank of India (RBI). These reserves comprise:

Foreign currency assets

DRDO and Indian Army Successfully Trial MPATGM weapon system

The Defence Research and Development Organisation (DRDO) and the Indian Army have successfully conducted trials of the Man-Portable Anti-Tank Guided Missile (MPATGM) Weapon System at PFFR in Rajasthan. The MPATGM Weapon System was indigenously designed and developed by DRDO and consists of the MPATGM, the Man Portable Launcher, the Target Acquisition System (TAS), and the Fire Control Unit (FCU).

The missile performance, warhead performance, and the Tandem Warhead System were found to be remarkable during the trials, with the capability to defeat modern armourprotected Main Battle Tanks.

The successful completion of penetration trials and the inclusion of a dual-mode seeker functionality are considered valuable additions to the missile's capabilities for Tank Warfare.

The technology development and successful demonstrations have now set the system ready for final user evaluation trials leading to its induction into the Indian Army. Defence Minister Rajnath Singh praised DRDO and the Indian Army for the successful trials and highlighted the significance of the achievement for 'Aatmanirbhar Bharat'.

About MPATGM Weapon System

The MPATGM (Man Portable Anti-Tank Guided Missile) Weapon System is a portable missile launcher that can be used by infantry units to engage and destroy enemy tanks and armoured vehicles. It is designed to be lightweight and easily transportable by a single person, making it highly effective for mobile infantry units.

- Gold reserves
- Special Drawing Rights (SDRs)
- Reserve position with the International Monetary Fund (IMF)

Forex reserves are assets held by a nation's central bank or monetary authority, usually in reserve currencies like the US dollar, euro, Japanese yen, and pound sterling. These reserves play a crucial role in ensuring the stability of the domestic currency, managing the country's external trade, and providing a buffer against economic shocks.

Adequate forex reserves help in maintaining investor confidence in the country's economy and provide the central bank with the necessary ammunition to intervene in the market during times of volatility.

The MPATGM system is equipped with a powerful guided missile that can accurately target and destroy armoured targets from a safe distance. This weapon system provides infantry units with a valuable anti-tank capability on the battlefield.

About DRDO

DRDO (Defense Research and Development Organization) is the primary research and development agency for the Indian Ministry of Defence. It was established in 1958 to enhance military capabilities and technological advancements in various defence sectors. DRDO is responsible for developing cutting-edge weapon systems, missiles, electronic warfare systems, and communication technologies for the Indian armed forces. It also collaborates with various domestic and international organizations to achieve its objectives. DRDO plays a crucial role in ensuring national security and strengthening India's defence capabilities.

What are Tandem Warhead

A tandem warhead is an explosive device designed to defeat armoured vehicles by using two explosive charges in sequence. The first charge is used to penetrate the vehicle's armour, while the second charge is used to cause internal damage. This two-stage detonation increases the warhead's penetration capabilities, making it more effective against heavily armoured targets. Tandem warheads are commonly used in anti-tank missiles and rocket-propelled grenades to enhance their armour-piercing capabilities and increase the likelihood of a successful mission.

INTERNATIONAL AND NATIONAL LARSHIP GUIDANCE GRAMME (INSGP)

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IMF to disburse \$1.1 billion to Pakistan



Pakistan has reached a staff-level agreement with the International Monetary Fund (IMF) for the release of \$1.1 billion from a \$3 billion bailout package. The funds, which are crucial for the indebted country to avoid a sovereign default, will be disbursed after approval by the IMF's executive board before the current deal expires on April 11, 2023. The announcement comes after five days of talks between the IMF and the newly elected government of Prime Minister Shehbaz Sharif in Islamabad.

Pakistan's Economic Challenges:

Pakistan's \$350 billion economy has been under severe strain for the past two years, with the country desperately seeking financial assistance from global lenders and bilateral partners. The nation is burdened by debt obligations, amounting to more than \$130 billion in external debt, while its foreign reserves stand at a meagre \$8 billion, sufficient to cover only eight weeks of imports. Furthermore, despite a gradual decline, inflation remains high at 23 percent, and the currency has lost more than 50 percent of its value against the US dollar in the last two years.

IMF's Assessment and Recommendations:

The IMF acknowledged that Pakistan's "economic and financial position has improved" in recent months but cautioned that growth is expected to be modest this year, and inflation remains well above target. The lender emphasized the need for more policy reforms to address "deep-seated

India Employment Report 2024

The recently released India Employment Report 2024, the third in a series by the Institute for Human Development in partnership with the International Labour Organization (ILO), examines youth employment challenges in the context of India's evolving economic, labour market, educational, and skills scenarios over the past two decades. Here are the key highlights of the report:

India's Labour Market Conditions

There have been "paradoxical improvements" in labour market indicators in India in recent years after longterm deterioration from 2000-2019, coinciding with periods of economic distress. Key concerns include:

- Reversal of the slow transition to non-farm employment
- Increase in self-employment and unpaid family work, especially for women
- Lower quality youth employment compared to adults
- Stagnant or declining wages and earnings

Unemployment Rates

The unemployment rate fell between 2019-2022 after

economic vulnerabilities." The IMF called for broadening the tax base and adjusting power and gas tariffs to generate revenue and cut down expenditure.

Government's Efforts and Future Plans:

Finance Minister Muhammad Aurangzeb recently stated that the government is seeking a "longer, larger" IMF bailout package once the current deal expires. The successful completion of the IMF programme indicates that the government is seriously attempting to implement policy reforms requested by the IMF. However, economist Safiya Aftab warned that a new bailout package could be tough, given the conditions put forward by the lender, and the short-term effects may lead to more inflation and burden on the public.

Privatization of State-Owned Enterprises:

As part of the IMF's recommendations, the government is looking towards privatizing state-owned enterprises to generate revenue and reduce expenditure. The cabinet has approved setting up a holding company to park the debt and liabilities of Pakistan International Airline (PIA), terming it an important milestone towards its privatization.

Bond Market Reaction:

Following the announcement of the IMF agreement, Pakistan's sovereign dollar bonds rallied, with several gaining more than 1 percent. All of its sovereign dollar bonds were trading above 75 cents on the dollar after a remarkable rally so far this year, with the 2026 maturity bid at 88.53 cents, 21 cents higher than in January and more than 50 cents above its level a year ago.

Important Facts for Exams:

- Pakistan has a history of seeking IMF bailouts, with the current agreement being the 23rd since 1958.
- ٠ The IMF has previously criticized Pakistan for its slow progress on structural reforms and its inability to meet revenue collection targets.
- Pakistan's economy has been hit hard by the COVID-19 pandemic, with the country experiencing a sharp contraction in GDP growth and a significant increase in poverty levels.

rising from 2000-2019

Bihar, Odisha, Jharkhand, and UP have remained at the bottom of the 'employment condition index', while Delhi, Himachal Pradesh, Telangana, Uttarakhand, and Gujarat have stayed at the top.

Employment Quality

- Informal employment has risen, with around half of formal sector jobs being informal in nature
- Self-employment remains the primary source of work at 55.8% in 2022, up from ~52% in 2000-2019
- Regular employment, associated with better job quality, • declined to 21.5% in 2022 after increasing to 23.8% in 2019 from 14.2% in 2000
- Casual employment, linked to poorer job quality, fell to 22.7% in 2022 from 33.3% in 2000

Women's Labor Force Participation

India's female labour force participation rate (LFPR) remains among the world's lowest at 32.8% in 2022, 2.3 times lower than men's



- Female LFPR declined 14.4 percentage points from 2000-2019 but rose 8.3 points from 2019-2022
- India's female LFPR in 2022 was lower than the global average of 47.3% but higher than South Asia's 24.8%

Sectoral Employment Shifts

- The share of agriculture in total employment fell from 60% in 2000 to ~42% in 2019, largely absorbed by construction and services
- This slow transition has stagnated or reversed since 2018-19
- Manufacturing's share of employment has remained around 12-14%

Youth Employment

- Youth employment and underemployment rose from 2000-2019 but fell during the pandemic
- Unemployment is much higher among educated youth, especially graduates
- The unemployment rate for secondary educated youth was 18.4% in 2022 vs 3.4% for those who cannot read or write

- Graduate unemployment was 29.1% overall, 34.5% for women and 26.4% for men
- Educated youth unemployment rose from 23.9% in 2000 to 30.8% in 2019 before falling to 18.4% in 2022

Policy Recommendations

- Promote job creation, especially in manufacturing •
- Improve employment quality and address inequalities
- Strengthen skills development and active labour policies
- Support MSMEs with digitalization, AI and cluster-based approaches
- Boost productive employment in emerging care and digital economies
- Provide job security and wage protections for gig/platform workers
- Bridge knowledge gaps on labour market patterns and youth employment

The report aims to provide timely and constructive input for policymakers, social partners, civil society, and researchers in the coming years.



According to the recent report, the Indian economy must grow at a rate of 8-10% per annum over the next decade to reap the benefits of its demographic dividend. The RBI emphasizes that India's developmental strategy for the coming decades should focus on maximizing the contribution of its young and growing labour force to the growth of gross value added (GVA).

What is Demographic Dividend in India?

Demographic Dividend in India:

- Working-age population expanding rapidly
- 7 million per year (2021-2031)
- 2 million per year (2031-2041)
- Opportunity for accelerated economic growth
- Requires focus on labor quality, employability, and formalization
- India's demographic dividend started accruing from 2018 and is expected to last until 2055.
- The working-age population in India is projected to expand at a rate of about 9.7 million per year during 2021-2031 and 4.2 million per annum during 2031-2041.

Growth Trajectory

- In the past 10 years, the average annual real GDP growth in India has been less than 6%.
- However, in the post-pandemic years, the economic growth has been above 7%, with capital deepening

powering the step-up in the growth trajectory.

The RBI notes that conditions are shaping up for an extension of the trend upshift that took the average real GDP growth above 8% during 2021-2024.

Development Strategy

- The RBI emphasizes that the cutting edge of the growth strategy will be provided by a focus on labour quality.
- Raising employability, with a focus on the formalization of employment opportunities for the youth and women, should continue to be the hallmark of the strategy.
- While labour quality has grown slowly in the past, there is growing evidence that the growth rate of aggregate labour quality has improved since 2017-2018.

Inflation Risks

- The RBI warns that extreme weather events, along with prolonged geopolitical tensions, pose a risk to inflation.
- Food inflation, despite some signs of moderation, remains elevated and a potential source of risk to the disinflation trajectory.
- The impact of food shock on core inflation has reduced over time, while that of fuel shock has increased recently.

About RBI (Reserve Bank of India)

- India's central bank and monetary authority, established in 1935
- Responsible for monetary policy, currency management, and financial stability
- Regulates and supervises banks and non-banking financial companies (NBFCs)
- Manages foreign exchange reserves and governs foreign exchange market
- Promotes financial inclusion and development
- Publishes monthly bulletins and annual reports on the state of the economy
- Emphasizes the need for 8-10% annual growth to harness India's demographic dividend

Additional Facts related to Indian Economy

India's annual retail inflation based on the Consumer Price Index (CPI) eased to 4.9% in March 2024, after averaging 5.1% in the preceding two months and a high of 5.7% in



December 2023.

- The RBI has sharply increased the policy reported during 2022 to control inflation and has kept it unchanged since February 2023.
- India's GDP growth for the current financial year (FY25) is pegged at 7% by the RBI's monetary policy committee.

India's ability to achieve and sustain high economic growth is crucial for harnessing its demographic dividend and improving the living standards of its population.



India, despite being a major producer and consumer of pulses, has seen a significant increase in pulses imports in the 2023-24 fiscal year. Imports have nearly doubled to USD 3.74 billion, with shipments have surpassed 45 lakh tonnes, compared to 24.5 lakh tonnes in the previous year. The government is taking various measures to meet domestic demand and keep prices in check, including negotiating with new markets like Brazil and Argentina for long-term import contracts.

Government Initiatives and Import Sources

To ensure a stable supply of pulses and control prices, the Government of India has allowed duty-free imports of yellow peas until June 2024 and duty-free imports of arhar and urad until March 31, 2025. Additionally, the government has contracted with Mozambique, Tanzania, and Myanmar to import pulses. Over 20,000 tonnes of urad will be imported from Brazil, and negotiations are in the final stages to import arhar from Argentina.

Inflation Concerns and Government Actions

With the ongoing election process, pulses inflation is a major concern for the government. Recent figures suggest

India's Rising Pulses Imports

pulses inflation at 17% in March and 19% in February 2024. To keep prices in check, the government imposed stock limits on pulses on April 15, 2024, and has asked states to be vigilant against hoarding.

Domestic Production Challenges

Despite various incentives provided by the government, such as guaranteed purchases and higher Minimum Support Prices (MSP), domestic production of pulses has declined in the last 2-3 years. The Agriculture Ministry estimates suggest that pulses production in 2023-24 will be 234 lakh tonnes, down from 261 lakh tonnes in the previous year. Pulses production had increased from 230.25 lakh tonnes in 2019-20 to 273.02 lakh tonnes in 2021-22 due to government incentives but declined to 260.58 lakh tonnes in 2022-23.

Factors Affecting Domestic Production

Several factors have contributed to the decline in domestic pulses production, including:

- Erratic weather conditions in major pulses-producing states
- Shift in cropping patterns due to better returns from other crops
- Pest and disease outbreaks affecting yield and quality
- Inadequate post-harvest storage and processing infrastructure

Government is working towards improving domestic production through various initiatives such as promoting the adoption of high-yielding varieties, expanding irrigation facilities, and strengthening the pulses value chain. However, the country is likely to remain a significant importer of pulses in the near future, given the challenges faced by the domestic pulses sector.



Reserve Bank of India (RBI) has allowed Indian residents to hedge their gold price risk on recognised exchanges in the International Financial Services Centre (IFSC). Governor Shaktikanta Das announced the decision

Indians Permitted to Hedge Gold Price Risk Overseas Markets

during the Monetary Policy Committee (MPC) meeting where the repo rate was increased by 35 basis points to 6.25 per cent.

What is Gold Hedging?

In the context of business, particularly in the gold industry, hedging is a strategy used to minimize the risk of potential losses due to fluctuations in the market price of gold. Gold producers, traders, and investors may employ various hedging techniques to protect themselves against adverse price movements and ensure a more stable cash flow.

Examples of hedging strategies in the gold business include: Forward contracts

A gold mining company might enter into a forward contract, agreeing to sell a specific amount of gold at a predetermined price on a future date. This locks in the selling price, providing protection against a potential drop in gold prices.



Options

Gold traders can purchase put options, giving them the right, but not the obligation, to sell gold at a specific price (strike price) by a certain date. This helps limit potential losses if gold prices fall below the strike price.

Futures contracts

Gold investors can buy or sell gold futures contracts, which are agreements to purchase or sell a specific amount of gold at a predetermined price on a future date. Futures can be used to hedge against price volatility and manage risk.

Current Rule on Gold Hedging

Prior to this approval, resident entities in India were not permitted to hedge their exposure to gold price risk

New Digital Markets Act (DMA) Law

The European Union (EU) announced the launch of investigations into Apple, Alphabet, and Meta, marking the first probe under the new Digital Markets Act (DMA) tech legislation. The investigations aim to determine whether these tech giants have violated the DMA, which seeks to regulate the behaviour of large technology companies and promote fair competition in the digital market.

Investigations into Apple and Alphabet

The first two probes focus on Alphabet and Apple, specifically targeting their anti-steering rules. Under the DMA, tech firms are prohibited from preventing businesses from informing their users about cheaper options for their products or subscriptions outside of an app store. The EU's competition chief, Margrethe Vestager, stated that the way Apple and Alphabet have implemented the DMA rules on anti-steering appears to be at odds with the letter of the law, as they continue to charge various recurring fees and limit steering. **Apple's Compliance with DMA Obligations**

The third inquiry investigates whether Apple has complied with its DMA obligations to ensure that users can easily uninstall apps on iOS and change default settings. The probe also examines whether Apple is actively prompting users with choices to allow them to change default services on iOS, such as the web browser or search engine. The European Commission expressed concern that Apple's measures, including the design of the web browser choice screen, may be preventing users from truly exercising their choice of services within the Apple ecosystem.

Alphabet's Search Result Display

The fourth probe targets Alphabet, focusing on whether the firm's display of Google search results may lead to self-preferencing of Google's other services, such as Google Shopping, over similar rival offerings. Alphabet has stated that they have made significant changes to the way their services operate in Europe to comply with the DMA and will continue to

in overseas markets. This new decision by the RBI opens opportunities for Indian residents to hedge their positions against price fluctuations in global markets.

Benefits of Gold Hedging for Indian Residents

The approval to hedge gold on recognised exchanges in the IFSC will benefit Indian residents, particularly those involved in the gold import and export industry. By being able to hedge their gold price risk, players in the industry can protect themselves against unfavourable price movements and currency fluctuations. This approval is also expected to increase price competitiveness in the Indian jewellery industry, as it enables businesses to manage their exposure to gold prices more effectively.

defend their approach in the coming months. Meta's Pay and Consent Model

The fifth and final investigation focuses on Meta and its so-called pay and consent model. The commission is examining whether offering a subscription model without ads or requiring users to consent to terms and conditions for the free service violates the DMA. The European Commission is concerned that the binary choice imposed by Meta's model may not provide a real alternative for users who do not consent, thereby failing to achieve the objective of preventing the accumulation of personal data by gatekeepers.

Potential Fines and Consequences

If any company is found to have infringed the DMA, the European Commission can impose fines of up to 10% of the tech firms' total worldwide turnover. These penalties can increase to 20% in case of repeated infringement. The commission intends to conclude its probes within 12 months but has stressed that the DMA does not dictate a hard deadline for the timeline of the inquiry.

Important Facts for Exams

- The Digital Markets Act (DMA) was proposed by the European Commission in December 2020 and entered into force on November 1, 2022.
- The DMA aims to create a level playing field for businesses operating in the digital sector and to prevent large platforms from abusing their market power.
- The term "gatekeepers" in the DMA refers to large tech firms that are required to comply with the legislation in the EU.
- The European Commission is also looking into facts and information to clarify whether Amazon may be preferencing its own brand products on its e-commerce platform over rivals, as well as studying Apple's new fee structure and other terms and conditions for alternative app stores.





RBI CURBS ON KOTAK BANK

The Reserve Bank of India (RBI) directed Kotak Mahindra Bank to immediately stop onboarding new customers through online and mobile banking channels. The central bank also barred the private lender from issuing fresh credit cards, citing significant concerns observed during its IT examination of the bank for the years 2022 and 2023.

- The RBI's action was taken under Section 35A of the Banking Regulation Act, 1949, which empowers the regulator to issue directives to banks to prevent their affairs from being conducted in a manner detrimental to the interests of depositors or the bank itself.
- As of now, Kotak Mahindra Bank had issued 59.54 lakh credit cards.

Reasons for RBI's Decision

The RBI's IT examination revealed serious deficiencies and non-compliances in several areas, including:

- IT inventory management
- Patch and change management
- User access management
- Vendor risk management
- Data security and data leak prevention strategy
- Business continuity and disaster recovery rigour and drill
 The bank was found to be significantly non-compliant

with the Corrective Action Plans issued by the RBI for 2022 and 2023, with inadequate, incorrect, or unsustained compliance submissions.

Impact on Customer Service

The RBI noted that due to the absence of a robust IT infrastructure and risk management framework, Kotak



The Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI), which met recently, decided to keep the repo rate – the main policy rate – unchanged at 6.5 per cent and maintain the policy stance of 'withdrawal of accommodation'. Both the decisions were taken in a majority 5:1 voting by the six-member MPC, headed by RBI Governor Shaktikanta Das.

Reasons for keeping rates unchanged

The RBI Governor cited several reasons for keeping the policy rates unchanged:

Economic outlook: The overall economic outlook remains upbeat despite some challenges in specific sectors. While there has been broad-based moderation in inflation, higher food inflation keeps headline numbers elevated. However, Mahindra Bank's Core Banking System (CBS), online, and digital banking channels experienced frequent and significant outages in the last two years, causing serious customer inconvenience. The most recent outage occurred on April 15, 2024.

Impact on Existing Customers

- Kotak Mahindra Bank will continue to provide services to its existing customers, including credit card holders.
- The bank clarified that its branches would continue to onboard new customers and provide them with all services, except for the issuance of new credit cards.

About Reserve Bank of India (RBI)

- RBI is India's central banking institution, established in 1935 under the RBI Act, 1934.
- It formulates and implements monetary policy with objectives like price stability and economic growth.
- RBI acts as the banker to the government and banks, manages foreign exchange reserves, and issues currency.
- It supervises and regulates commercial banks and nonbanking financial institutions.
- RBI has the power to issue directions to banks under Section 35A of the Banking Regulation Act, 1949.
- Important functions include maintaining financial stability, managing government borrowings, and promoting credit and banking habits.

As digital transactions continue to grow, banks must ensure their systems are capable of handling the increased load while providing seamless customer service and safeguarding sensitive data.

RBI DECIDES TO KEEP POLICY RATES UNCHANGED

benign core inflation will comfort RBI as strong growth has mainly remained non-inflationary.

- Inflation concerns: Governor Das emphasized that uncertainties in food prices continue to pose challenges, and the MPC remains vigilant to the upside risks to inflation that might derail the path of disinflation. He expressed the need for CPI inflation to continue to moderate and align to the target on a durable basis.
- GDP growth forecast: The RBI has retained the GDP growth forecast at 7 per cent in FY25 as against 7.6 per cent growth projected by the NSO for FY24. It has projected a growth of 7.1 per cent in the first quarter of FY25, 6.9 per cent in Q2 and 7 per cent each in Q3 and Q4. Headwinds from geopolitical tensions, volatility in international financial markets and geo-economic fragmentation pose risks to the outlook.

Inflation forecast

The RBI has projected a retail inflation of 4.5 per cent in fiscal 2024-25. It has projected an inflation of 4.9 per cent in Q1, 3.8 per cent in Q2, 4.6 per cent in Q3 and 4.5 per cent in Q4 of FY25. Frequent and overlapping adverse climate shocks pose key upside risks to the outlook on international and domestic food prices. Sustained inflationary trend in nonperishable food categories, such as pulses and spices, raises concerns about the potential broadening of price pressures due to their inherent stickiness.

Impact on lending and deposit rates

Interest rates on loans and deposits are largely likely to remain unchanged as of now. All external benchmark lending rates that are linked to the repo rate will not rise. It will provide some relief to borrowers as their equated monthly instalments (EMIs) will not increase. However, as banks are under pressure on the deposit growth front due to competition from mutual funds for funds, deposit rates are likely to rise in certain buckets. Additional facts

- The repo rate is the rate at which the RBI lends money to commercial banks in the event of any shortfall of funds. It is used by the RBI to control inflation.
- The current repo rate of 6.5% is the highest since August 2018, when it was at 6.5%.
- The RBI has raised the repo rate by a cumulative 250 basis points since May 2022 in the fight against inflation.

- 6
- The consumer price index (CPI) based retail inflation, which the RBI factors in while arriving at its monetary policy, is showing signs of moderation but still remains above the central bank's upper tolerance level of 6%.
- In February 2023, retail inflation stood at 6.44%, compared to 6.52% in January.

About Monetary Policy Committee

The Monetary Policy Committee (MPC) is a sixmember committee within the Reserve Bank of India (RBI) responsible for formulating monetary policy. Established in 1998, the MPC aims to maintain price stability while supporting economic growth. The committee meets at least four times a year and consists of the RBI Governor, Deputy Governor, one official nominated by the RBI Board, and three external members appointed by the Government of India. The MPC's decisions are based on a majority vote.

RBI PROPOSES NEW RULES FOR ELECTRONIC TRADING PLATFORMS

The Reserve Bank of India (RBI) has proposed a revised regulatory framework for Electronic Trading Platforms (ETPs) in response to increased integration of the onshore forex market with offshore markets and requests from market makers to access offshore ETPs offering Indian Rupee (INR) products.

- In October 2018, the RBI introduced a regulatory framework for ETPs to ensure fair access, transparency, safety, efficiency, and prevention of market abuse
- Since then, 13 ETPs operated by 5 operators have been authorized under this framework
- In recent years, there has been increased integration of the onshore forex market with offshore markets, developments in technology, and increased product diversity

About Electronic Trading Platforms

Electronic Trading Platforms (ETPs) are digital systems that facilitate the trading of various financial instruments, such as securities, derivatives, and foreign exchange products. ETPs operate outside of traditional stock exchanges and provide a platform for buyers and sellers to trade directly with each other.

- Enable faster and more efficient trading compared to traditional methods
- Offer increased transparency and liquidity in the market
- Provide access to a wide range of financial instruments
- Regulated by financial authorities to ensure fair and orderly trading
- Examples include Alternative Trading Systems (ATS) and Electronic Communication Networks (ECNs)

Proposed Requirements for ETP Operators

- Entities seeking authorization as ETP operators must maintain a minimum net worth of Rs 5 crore at all times
- The entity must be a company incorporated in India
- Non-resident shareholding in the entity must comply with all applicable laws and regulations, including the Foreign Exchange Management Act, 1999
- The entity must maintain robust technology infrastructure with high reliability, availability, scalability, and security to support operations and manage associated risks

Eligible Instruments and Authorization

ETP operators authorized by or registered with the RBI must ensure that only transactions in instruments approved by the central bank are contracted on their platform. No entity, whether resident or non-resident, can operate an ETP without obtaining prior authorization from or registering with the RBI. The RBI has invited comments on the draft directions from ETP operators, banks, market participants, and other interested parties by May 31, 2024.

The proposed revised regulatory framework for ETPs aims to address the evolving landscape of the forex market and the increasing integration of onshore and offshore markets. By setting clear requirements for ETP operators and ensuring that only approved instruments are traded on these platforms, the RBI seeks to promote fair access, transparency, and efficiency while managing the associated risks. The invitation for comments from stakeholders demonstrates the central bank's commitment to a consultative approach in developing this framework.





RBI Releases Digital Lending – Transparency in Aggregation of Loan Products from Multiple Lenders

The Reserve Bank of India (RBI) has issued draft guidelines titled "Digital Lending – Transparency in Aggregation of Loan Products from Multiple Lenders" to promote transparency in the digital lending space. The guidelines propose that Lending Service Providers (LSPs) should provide borrowers with a digital view of all loan offers available from willing lenders with whom the LSP has arrangements.

- Many LSPs offer aggregation services for loan products, wherein they have outsourcing arrangements with several lenders.
- In such cases, particularly where an LSP has arrangements with multiple lenders, the identity of the potential lender may not be known upfront to the borrower.
- The RBI has observed instances of some fintechs gaming the system, leading to the need for enhanced transparency.

Key Proposals

- LSPs shall provide a digital view of all loan offers available to the borrower, as per their requirements, from all willing lenders with whom the LSP has arrangements.
- LSPs should adopt a consistent approach in ascertaining the willingness of lenders to offer a loan and disclose this approach on their website.
- The digital view shall include the name(s) of the Regulated Entity (RE) extending the loan offer, amount and tenor of the loan, Annual Percentage Rate (APR), and other key terms and conditions to enable the borrower to make a fair comparison between various offers.

- A link to the Key Facts Statement (KFS) shall be provided for each RE.
- The content displayed by the LSP shall be unbiased and shall not directly or indirectly promote or push a product of a particular RE, including using any deceptive patterns or "dark patterns" designed to mislead borrowers.

Objectives

- Enable borrowers to have prior information about potential lenders to make an informed decision.
- Promote fair competition among lenders and prevent any bias or deceptive practices by LSPs.
- Enhance overall transparency in the digital lending ecosystem.

About Digital Lending in India

- Digital lending has grown rapidly in India, with the market expected to reach \$350 billion by 2023.
- The growth has been driven by factors such as increasing internet and smartphone penetration, digital payments adoption, and the availability of alternative credit scoring models.
- However, the sector has also seen instances of malpractices, such as excessive interest rates, hidden charges, and aggressive recovery practices, leading to customer distress and even tragedies.

By empowering borrowers with clear information and preventing any bias or deception by LSPs, the guidelines aim to foster a more trustworthy and responsible digital lending ecosystem in India.

SEBI'S PROPOSED FRAMEWORK FOR UNDERVALUED COMPANIES



The Securities and Exchange Board of India (SEBI) has proposed a framework for price discovery of shares of listed Investment Companies (ICs) and Investment Holding Companies (IHCs) whose market price is trading at a significant discount to their book value.

Proposed Special Call-Auction Mechanism

SEBI has suggested a special call-auction mechanism without price bands for listed ICs and IHCs whose shares are

trading at a substantial discount to their book value.

The regulator has proposed that stock exchanges coordinate among themselves to provide this mechanism once a year for eligible companies.

SEBI proposed a special call-auction for listed investment companies (ICs) and investment holding companies (IHCs) whose shares trade at a significant discount to book value. **Key points**

- Special annual call-auction without price bands
- Aims to improve liquidity and fair price discovery
- Eligibility: Over 50% assets in other listed firms, 6-month VWAP <50% of book value
- Auction considered successful if 5+ unique buyers/sellers
 participate
- 28 out of 70 ICs/IHCs potentially eligible under proposed criteria

Rationale Behind the Proposal

Some market observers believe that the significant difference between the market price and book value of these companies negatively impacts liquidity, fair price discovery, and investor interest. SEBI received presentations from market participants suggesting unrestricted price discovery

You have to dream before your dreams can come true..

- A. P. J. ABDUL KALAM



for these shares, as the existing circuit filters prevent market prices from reflecting the true investment value, resulting in wide variances from book value and low liquidity.

Current Situation

Presently, shares of some listed ICs and IHCs are traded infrequently at prices significantly lower than their disclosed book value. These companies typically lack dayto-day operations and primarily hold investments, including shares of other listed companies. Despite holding high-value investments, the market value of an IC or IHC can differ significantly from its book value, possibly due to growth in investments in other listed companies. The proposal aims to address liquidity issues and improve fair price discovery for these companies.

SELF-REGULATORY ORGANISATIONS (SROS) FOR REGULATED ENTITIES

Self-Regulatory Organisations (SROs) are industryled bodies that play a crucial role in promoting and maintaining standards within a specific sector. In India, the Reserve Bank of India (RBI) has released an omnibus framework for recognising SROs for its regulated entities. This framework outlines the objectives, responsibilities, eligibility criteria, and governance standards for SROs in the financial sector.

Objectives of SROs

The primary objectives of SROs, as per the RBI framework, include:

- Promoting a culture of compliance among members by implementing a comprehensive code of conduct
- Acting as a collective voice for members in engagements with the RBI, government authorities, and other regulatory bodies
- Collecting and sharing relevant sectoral information with the RBI to aid in policymaking
- Encouraging research and development within the sector to foster innovation

Responsibilities of SROs

- SROs have several key responsibilities towards their members and the regulator. These include:
- Framing and enforcing a code of conduct for members
- Monitoring adherence to the code and compliance with regulatory instructions
- Developing a uniform, reasonable, and non-discriminatory membership fee structure
- Establishing a grievance redress, dispute resolution, and arbitration framework for members
- Offering counselling on restrictive, unhealthy, and detrimental practices
- Promptly informing the regulator about any violations by members
- Submitting an annual report to the RBI within three months of the completion of the accounting year

Eligibility Criteria for SROs

VEDHIK

- To qualify as an SRO, an entity must meet the following criteria:
- Be a not-for-profit company registered under Section
 8 of the Companies Act, 2013
- Have sufficiently diversified shareholding, with no entity holding 10% or more of its paid-up share capital
- Represent the sector and be fit and proper for the grant of recognition as an SRO
- • Possess or have the ability to create infrastructure to

discharge SRO responsibilities on a continuing basis Governance Standards for SROs

The RBI framework emphasizes the importance of strong governance mechanisms for SROs. Key governance standards include:

- Focus on an independent board, transparency, and adherence to well-defined processes
- Putting in place well-defined and transparent processes for overseeing members' activities
- Establishing clear standards of conduct and consequences for violations (excluding monetary penalties)
- Developing standards for improving compliance culture and adherence to RBI rules and regulations
- Implementing suitable surveillance methods for effective sector monitoring
- Devising standardised procedures for handling disputes among members transparently

Membership Criteria

Membership in SROs is voluntary for all regulated entities. The RBI prescribes the membership criteria for each category/class of regulated entities at the time of inviting applications. The SRO should have a good mix of members at all levels to represent the sector holistically. The minimum membership prescribed by the RBI should be attained ideally at the time of application or within a timeline not exceeding two years from the date of recognition.

Relationship with the Regulator

SROs are expected to act as allies of the RBI in ensuring better compliance with regulatory guidelines, sector development, stakeholder protection, and early warning signal detection. They should keep the RBI informed of sector developments, carry out assigned work, and submit annual reports. The RBI reserves the right to order an audit of the SRO's books and inspect them if deemed necessary.

Sector-Specific Guidelines

While the omnibus framework provides broad parameters for SROs, sector-specific guidelines, such as the number of SROs and membership details, will be issued separately by the respective departments of the RBI wherever a sectoral SRO is intended to be set up.

Existing SROs

Existing SROs already recognised by the RBI will continue to be governed by the terms and conditions under which they were recognised, unless the new framework is specifically extended to such SROs.

INDIA'S LARGEST ONLINE IAS COACHING ACADEMY



T+0 TRADING SETTLEMENT CYCLE



Recently, the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) have introduced trading in the T+O rolling settlement cycle in the equity segment on an optional basis. This new settlement cycle allows for same-day settlement of trades, in addition to the existing T+1 settlement cycle.

The Securities and Exchange Board of India (SEBI) has issued operational guidelines for the launch of this shorter tenure settlement cycle.

What is the T+0 Trading Settlement Cycle?

The T+0 trading settlement cycle, also known as same-day settlement, is a facility for clearing and settlement of funds and securities on the same day as the trade. Under this cycle, the settlement of trades will happen on the same day after the closure of the T+0 market. If investors sell a share, they will get the money credited to their account the same day, and the buyer will also get the shares in their demat account on the very day of the transaction.

Benefits of T+0 Trade Settlement

The T+0 trade cycle is expected to bring several benefits to investors and the securities market ecosystem:

- Cost and time efficiency: The shortened settlement cycle will reduce the time and cost associated with settling trades.
- Transparency in charges: Investors will have better

WORLD HAPPINESS REPORT 2024

The World Happiness Report is an annual publication that ranks countries based on their happiness levels. The report evaluates various factors such as social support, income, health, freedom, generosity, and the absence of corruption to determine the overall happiness of a nation. The 2024 edition marks the seventh consecutive year that Finland has been crowned the happiest country in the world.

Methodology

The World Happiness Report sources its data from various outlets, including the Gallup World Poll. The report is a collaborative effort between the UN Sustainable Development Solutions Network, Gallup, and the Oxford Wellbeing Research Centre. It is published annually on March 20, coinciding with the International Day of Happiness.

India's Ranking and Comparison

India ranked 126th out of 143 nations in the World Happiness Report 2024, trailing behind several countries visibility of the charges associated with their trades.

- Stronger risk management: The T+0 cycle will strengthen risk management at clearing corporations and the overall securities market ecosystem.
- Flexibility for investors: Investors will have faster payout of funds against securities for sellers and faster payout of securities against funds for buyers, allowing better control over their investments.
- Enhanced market efficiency: The shorter settlement cycle will free up capital in the securities market, enhancing overall market efficiency.

Securities Available for Trading in T+0 Settlement Cycle

The stock exchanges have announced a set of 25 scrips which are allowed for trading on the T+0 settlement cycle. These include Ambuja Cements Ltd, Ashok Leyland Ltd, Bajaj Auto Ltd, Bank of Baroda, Bharat Petroleum Corporation Ltd, Birlasoft Ltd, Cipla Ltd, Coforge Ltd, Divi'S Laboratories, Hindalco Industries, The Indian Hotels Company Ltd, JSW Steel Ltd, LIC Housing Finance, LTIMindtree Ltd, Samvardhana Motherson International Ltd, MRF Ltd, Nestle India, NMDC Ltd, Oil & Natural Gas Corporation Ltd, Petronet LNG Ltd, State Bank of India, Tata Communications Ltd, Trent Ltd, Union Bank of India, and Vedanta Ltd.

Eligibility for Participation in T+0 Settlement Cycle

All investors are eligible to participate in the T+0 trade settlement cycle if they can meet the timelines, process, and risk requirements as prescribed by the Market Infrastructure Institutions (MIIs).

Trade Timings and Price Band

For the optional T+0 settlement cycle, there will be one continuous trading session from 09:15 AM to 1:30 PM. The settlement of funds and securities will be completed on the same day by 4:30 PM. The price band in the T+0 segment will operate with a price band of +100 basis points from the price in the regular T+1 market. This band will be recalibrated after every 50-basis points movement in the underlying T+1 market. **Future Plans**

SEBI has also proposed to introduce optional instant settlement at a later stage, further reducing the settlement cycle and enhancing market efficiency.

including Pakistan, Libya, Iraq, Palestine, and Niger. This ranking highlights the need for India to focus on improving various aspects of its citizens' well-being. Interestingly, all of India's neighbouring countries fared better in the rankings, with China securing the 60th spot, followed by Nepal (93), Pakistan (108), Myanmar (118), Sri Lanka (128), and Bangladesh (129). Happiness and Age in India

The report revealed that older age is associated with higher life satisfaction in India, challenging the notion that this positive association only exists in high-income nations. However, gender disparities were observed, with older men reporting higher life satisfaction compared to older women on average. When considering all other factors, older women reported higher life satisfaction than their male counterparts. **Education and Caste Disparities**

The study also highlighted the impact of education and social caste on life satisfaction among older adults



in India. Those with secondary or higher education and those belonging to higher social castes reported higher life satisfaction compared to those without formal education and those from scheduled castes and scheduled tribes.

India's Growing Older Population

India is home to the second-largest older population worldwide, with 140 million Indians aged 60 and above. The average growth rate for this demographic is three times higher than the overall population growth rate of the country. This underscores the importance of addressing the well-being and satisfaction of India's aging population.

Factors Influencing Life Satisfaction

The report identified several factors associated with low life satisfaction among older Indians, including lower satisfaction with living arrangements, perceived discrimination, and poor self-rated health. These findings emphasize the need for targeted interventions and policies to improve the quality

The New Learning Mantra

of life for India's older population.

Nordic Countries Continue to Dominate

As in previous years, Nordic countries continue to dominate the top positions in the World Happiness Report. Denmark and Iceland secured the second and third spots, respectively, while Sweden followed closely at fourth place. This consistent performance highlights the strong social support systems, high levels of trust, and well-being that characterize these nations.

New Entries and Notable Changes

The 2024 report witnessed some notable changes in the rankings. Costa Rica and Lithuania made their debut appearances in the top 20, securing the 12th and 19th positions, respectively. This achievement underscores the growing recognition of these countries' efforts in promoting the well-being of their citizens. On the other hand, Afghanistan remained at the bottom of the list as the least happy country.

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"CLe not afraid of greatness. Some are born great, some achieve greatness, and others have greatness thrust upon them."

ECOLOGY





PLASTIC WASTE MANAGEMENT (AMENDMENT) RULES 2024

GREAT INDIAN BUSTARD: FACING EXTINCTION'S GRIP

ENVIRONMENT PROTECTION CHARGE (EPC)

DECISION SUPPORT SYSTEM (DSS) FOR AIR QUALITY

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IREDA'S GIFT CITY PUSH FOR GREEN ENERGY

50 YEARS OF CHIPKO MOVEMENT

INSIGHTS FROM WMO: ASIA'S CLIMATE CRISIS

TIGER CONSERVATION COALITION

ISRO STUDY: GROWING GLACIAL LAKES



PLASTIC WASTE MANAGEMENT (AMENDMENT) RULES 2024

CONTEXT: The Environment Ministry has issued amendments to the 2016 Plastic Waste Management Rules with the introduction of the Plastic Waste Management (Amendment) Rules 2024.

HIGHLIGHTS: New regulations tighten labelling standards for disposable plastic products, restricting the use of "biodegradable" claims. Manufacturers are now required to ensure their products leave no microplastics behind, aiming to curb environmental harm and promote responsible disposal practices.

Plastic Waste Management Rules 2016

- Minimum Thickness Increase: Plastic Waste Management Rules 2016 raise minimum thickness of carry bags and sheets to 50 microns.
- Expanded Jurisdiction: Rules now apply to rural areas to address plastic waste proliferation beyond municipal boundaries.
- Producer Responsibility: Producers and generators now share responsibility for plastic waste management under the rules.
- Collect Back System: Introduction of a collect-back system mandates producers/brand owners to manage plastic waste as per extended producer responsibility.
- Plastic Waste Utilization: Rules encourage utilization of plastic waste for road construction, energy recovery, or waste-to-oil processes following specific guidelines.

Plastic Waste Management (Amendment) Rules 2024

Definition Expansion: Plastic Waste Management (Amendment) Rules 2024 broaden the definition of biodegradable plastics to include microplastics

GREAT INDIAN BUSTARD: FACING EXTINCTION'S GRIP

CONTEXT: The Supreme Court plans to reassess its April 2021 directive to bury power lines in Great Indian Bustard habitats due to implementation challenges.

BACKGROUND: A 2020 study by the Wildlife Institute of India found that power lines in Rajasthan's Desert National Park area pose a significant threat to flying birds, causing an estimated 84,000 bird deaths annually. The Ministry of Power noted in a March 2021 affidavit that birds struggle to detect and manoeuvre around these lines due to their weight.

HIGHLIGHTS

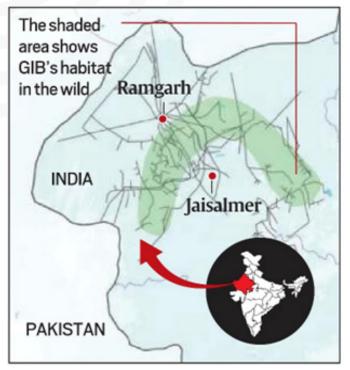
- Feasibility Concerns: Centre highlights challenges in undergrounding high-voltage power lines, citing transmission losses, maintenance issues, and safety concerns.
- Cost Implications: Undergrounding all power lines entails heavy costs, running into thousands of crores, with significant burden on the nation's finances.
- Renewable Energy Importance: Emphasizes the necessity of harnessing renewable power from Rajasthan and Gujarat to meet growing demand and fulfill international climate change commitments.
- Threats to Great Indian Bustard (GIB): Apart from power lines, concerns include proliferation of free-ranging dogs, sporadic hunting, pesticide use, loss of grassland, and erosion of community support.
- Conservation Challenges: Addressing threats to GIB requires comprehensive strategies to mitigate risks posed

elimination.

- Testing Caveat: Amendments lack specification on chemical tests for microplastics absence or extent of reduction for elimination determination.
- Material Permitted: Manufacturers allowed to use compostable or biodegradable plastics for carry bags and commodities under certain conditions.
- Mandatory Marking: Use of such plastics requires • mandatory marking and labelling complying with FSSAI regulations for food contact applications.
- Certification Requirement: Manufacturers must obtain a certificate from the CPCB before marketing or selling commodities made from these plastics.
- Pre-consumer Waste Processing: Manufacturers obligated to process pre-consumer plastic waste generated during manufacturing and report to relevant Pollution Control Boards.
- Regulatory Compliance: Compliance with rules and regulations ensures responsible management of plastic waste and minimizes environmental impact.
- Enforcement: Stringent enforcement mechanisms necessary to ensure adherence to rules and promote sustainable practices in plastic waste management.

India's Plastic Waste Management Rules require immediate amendment to clarify the criteria for certifying biodegradable plastics. Despite the government's ban on single-use plastic and endorsement of biodegradable alternatives, ambiguity persists, leaving businesses uncertain and hindering effective waste management efforts.

by power infrastructure, wildlife depredation, habitat loss, and community engagement.



Perils Facing the Great Indian Bustard



- Threats to GIB: High-tension power lines, habitat loss, hunting, pesticide use, and free-ranging dogs endanger the Great Indian Bustard (GIB).
- Power Lines Hazard: GIBs' large size and limited vision make them vulnerable to collisions with power lines, leading to fatalities.
- Habitat Loss: Conversion of grasslands for agriculture and industrial projects fragments GIB habitat, reducing

their available living space.

- Illegal Hunting: Despite legal protection, sporadic poaching incidents persist, further endangering the already threatened GIB population.
- Pesticide Exposure and Predation: Pesticide accumulation from nearby fields and predation by free-ranging dogs during breeding season pose additional risks to GIBs.

THE GREAT

Critically Endangered Bird: The Great Indian Bustard (GIB), India's most critically endangered bird, faces severe risk of extinction.

- Flagship Grassland Species: GIB serves as a flagship species, indicating the ecological health of grasslands.
- Habitat and Distribution: Predominantly found in Rajasthan and Gujarat, with smaller populations in Maharashtra, Karnataka, and Andhra Pradesh.
- State Bird of Rajasthan: Designated as the State bird of Rajasthan, GIB holds cultural and symbolic significance in the region.
- Conservation Concern: Urgent conservation efforts are needed to safeguard the remaining GIB population and their grassland habitats.



Protection Status

- IUCN Red List: Great Indian Bustard (GIB) listed as Critically Endangered, indicating high risk of extinction in the wild.
- CITES: GIB listed in Appendix I, prohibiting international trade to prevent further decline in population.
- CMS: Listed in Appendix I, highlighting the need for international cooperation in conserving migratory species like GIB.
- Wildlife Act: GIB classified under Schedule I, granting highest level of protection against hunting and trade in India.





ENVIRONMENT PROTECTION CHARGE (EPC)

CONTEXT: The Central Pollution Control Board's report to the National Green Tribunal reveals that up to 80% of collected Environment Protection Charge and Environmental Compensation remains unused.

BACKGROUND: CPCB, the pollution control authority under the union environment ministry, disclosed that out of Rs 777.69 crore collected from EPC and EC, only 20% (Rs 156.33 crore) has been utilized. This information was submitted to the National Green Tribunal in compliance with its December 2023 order.

HIGHLIGHTS

- NGT Inquiry: NGT sought expenditure details from CP-CB's Environment Protection Charge (EPC) and environment compensation (EC) funds, particularly questioning CPCB's involvement in road projects.
- CPCB Expenditure: CPCB spent Rs 95.4 crore from EPC funds, with over half allocated to scientific and technical studies to mitigate air pollution in Delhi-NCR.
- EPC Utilization: CPCB disbursed Rs 95.4 crore from EPC funds for laboratory upgrades, field visits, air quality monitoring, and paddy straw management.
- EC Funds: Out of Rs 393.8 crore EC funds, CPCB spent Rs 61.13 crore on air quality mitigation, environmental remediation, and ground surveys in various cities.
- Financial Status: As of January 3, 2024, CPCB collected Rs 383.39 crore in the EPC account, disbursing Rs 95.4 crore and retaining a balance of Rs 288.49 crore.

National Green Tribunal (NGT)

- National Green Tribunal (NGT): Established under the NGT Act (2010), it expeditiously resolves environmental protection and conservation cases.
- Composition: The Tribunal includes the Chairperson, Judicial Members, and Expert Members serving five-year terms without reappointment.
- Appointment: The Central Government appoints the Chairperson in consultation with the Chief Justice of India (CJI).
- Procedural Independence: NGT isn't bound by the Civil Procedure Code but follows principles of natural justice.

Principles Applied: NGT decisions adhere to sustainable development, the precautionary principle, and the polluter pays principle for environmental conservation.



Central Pollution Control Board

- CPCB Establishment: Established in 1974 under the Water Act, 1974, CPCB is a statutory organization entrusted with environmental regulatory functions.
- Mandate Expansion: Under the Air Act, 1981, CPCB was granted additional powers and responsibilities related to air pollution control.
- Technical Support: CPCB provides technical services to the Ministry of Environment and Forests under the Environment Act, 1986.
- Primary Functions: CPCB's core functions include promoting cleanliness of water bodies and controlling water pollution, as per the Water Act, 1974.
- Air Quality Management: CPCB is also tasked with improving air quality and combating air pollution across the country, in line with the Air Act, 1981.







DECISION SUPPORT SYSTEM (DSS) FOR AIR QUALITY

CONTEXT: After initially restricting access, the Indian Institute of Tropical Meteorology has resumed providing data on Delhi's PM2.5 pollution sources via its Decision Support System.

BACKGROUND: Despite stubble burning not yet reaching its peak in upwind agrarian states like Punjab, Delhi's air quality deteriorated further. Data from DSS indicates that pollution from the city's transport sector and neighbouring regions in the NCR contributes more to the air pollution than stubble burning. The AQI surged to 325, the season's worst, classified as "very poor" by CPCB.



HIGHLIGHTS OF THE SYSTEM

- Decision Support System (DSS): Offers quantitative insights into emissions contributions from Delhi, surrounding districts, sectors, and biomass-burning activities in neighboring states.
- Contribution Analysis: Identifies emissions from 8 sectors in Delhi and biomass burning in nearby regions.
- Impact Assessment: Evaluates potential interventions' effects on forecasted emissions.
- Operational Period: Operates solely during winter, ceasing operations from March to August.
- Models: Utilizes System of Air Quality and Weather Forecasting And Research (Safar) alongside DSS.
- Data Sharing: Safar and DSS temporarily halted data sharing due to discrepancies in forecasts and emissions source contribution.
- Scope: Focuses on air pollution management and forecasting in Delhi and surrounding areas.
- Purpose: Aims to support informed decision-making and policy formulation for mitigating air pollution impacts.

The implementation of Decision Support Systems (DSS) for air quality in Delhi is imperative. Such systems offer real-time data analysis, aiding authorities in making informed decisions to mitigate pollution. With Delhi's persistent air quality challenges, DSS can play a pivotal role in safeguarding public health and facilitating targeted interventions for cleaner air.



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GLOBAL FOREST WATCH 2023

CONTEXT: India's tree cover has decreased by 2.33 million hectares since 2000, marking a six percent decline, as per the recent Global Forest Watch data.

BACKGROUND: According to Global Forest Watch, India witnessed a loss of 2.33 million hectares of tree cover since 2000. From 2002 to 2023, 414,000 hectares of humid primary forest were lost, constituting 18% of the total tree cover loss during that period, as tracked by satellite data and other sources. News Highlights

- Tree Cover Loss: India has experienced a significant loss of 2.33 million hectares of tree cover since 2000, constituting a six per cent decrease.
- Primary Forest Loss: A substantial portion, 4, 14,000 hectares, of humid primary forest was lost, comprising 18% of total tree cover loss.
- Carbon Emissions: Forests emitted 51 million tons of CO2 equivalent annually, while removing 141 million tons, resulting in a net carbon sink.
- Annual Average: The average annual release of carbon dioxide equivalent from tree cover loss in India is 51.0 million tons.
- Total Emissions: Over the period, a total of 1.12 gigatons of carbon dioxide equivalent was emitted due to tree cover loss.

Tree Cover Loss Trends in India

- Significant Loss: From 2013 to 2023, 95% of India's tree cover loss occurred within natural forests, with 2017 experiencing the highest loss.
- State Contributions: Five states, including Assam, Mizoram, and Arunachal Pradesh, accounted for 60% of all tree cover loss from 2001 to 2023.

- Top Losses: Assam recorded the highest tree cover loss at 324,000 hectares, followed by Mizoram, Arunachal Pradesh, Nagaland, and Manipur.
- GFW Data: Global Forest Watch provides essential spatial data on forest changes, cautioning against comparing old and new data due to algorithm adjustments.
- Temporal Changes: The GFW data has evolved over time with algorithm adjustments and improved satellite data, influencing the accuracy of comparisons.

Deforestation and Tree Cover Loss in India

- Deforestation Rate: India's deforestation rate from 2015 to 2020 was 668,000 hectares per year, the second highest globally.
- Fire-induced Loss: India lost 35,900 hectares of tree cover due to fires from 2002 to 2022, with the highest loss in 2008.
- State-specific Loss: Odisha, Arunachal Pradesh, Nagaland, Assam, and Meghalaya experienced notable tree cover loss due to fires.
- Odisha's Rate: Odisha had the highest annual average tree cover loss due to fires at 238 hectares per year from 2001 to 2022.
- Regional Patterns: Different states in India exhibited varying degrees of tree cover loss, highlighting the diverse nature of deforestation challenges.

Global Forest Watch emphasizes tree cover as a crucial metric for tracking forest changes due to its easy measurement via satellite imagery. However, tree cover alone doesn't define forests, and distinguishing between tree cover losses, forest loss, and land use change remains a challenge for accurate monitoring.



Trend of forest loss in India (Credit: Global Forest Watch)



Biorock Technology: Invented by Wolf Hilbertz, involves

passing low electrical currents to encourage the formation

Formation Process: Current attracts dissolved minerals,

facilitating the growth of calcium carbonate similar to

Ecological Benefits: Provide surfaces for attachment

of marine organisms like corals, algae, and oysters,

Environmental Impact: Artificial reefs contribute to carbon

dioxide absorption and serve as essential habitats,

enhancing biodiversity and supporting local fisheries.

fostering marine ecosystem health and resilience.

of calcium carbonate layers.

natural reefs.

MUMBAI'S INSTALLATION OF ARTIFICIAL REEFS

CONTEXT: India's second artificial reef installation near Worli Koliwada, Mumbai, aims to enhance marine life using 210 recycled concrete and steel units, showing ecosystem progress in three months.

BACKGROUND: Mumbai prepares for the installation of 210 artificial reefs near Worli Koliwada, a first in the Arabian Sea. Following Pondicherry's lead, RPG Foundation supports the project, aiming to enhance marine biodiversity and serve as a carbon sink. Kuddle Life Foundation assists with baseline surveys and installations.

Artificial Reefs

 Artificial Reefs: Human-built structures using biorock technology, placed underwater to mimic natural coral reefs and provide habitats for marine life.

Working of Biorock Technology

1 Installation: Metal structures submerged, acting as substrate. 2 Electrolysis: Low-voltage current passed through to form mineral accretion. 7 Sustainability: Low impact, fostering long-term reef health and restoration. 3 Mineral Deposition: Calcium carbonate forms, replicating natural coral growth. 5 Reef Formation: Gradual 4 Coral Attachment: Corals 6 Biodiversity Boost: Attracts buildup of coral structures, transplanted onto structures, marine life, enhancing aided by growth. mimicking natural reefs. ecosystem resilience.

GLOBAL ALLIANCE FOR INCINERATOR ALTERNATIVES (GAIA)

CONTEXT: GAIA Asia Pacific and allied environmental groups urge ASEAN to address plastic pollution with decisive action, highlighting the need for intervention.

BACKGROUND: Ahead of the fourth session of the Intergovernmental Negotiating Committee (INC-4) in Ottawa,

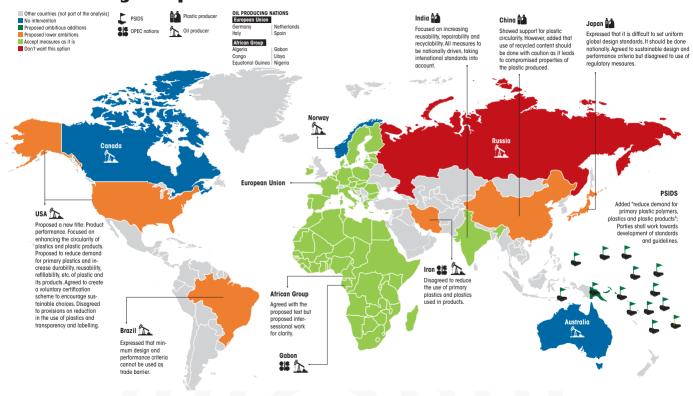


Canada, from April 23-30, 2024, over 100 civil society organizations (CSOs) sent a letter to the ASEAN Secretariat urging ASEAN to lead global efforts in developing a binding instrument on plastic pollution, with ASEAN delegates set to attend.

About Global Alliance for Incinerator Alternatives (GAIA)

- Global Alliance for Incinerator Alternatives (GAIA): Worldwide alliance of 1,000+ grassroots groups and NGOs advocating for a transition to a circular economy.
- Mission: Shift from linear to circular economy, ensuring people's right to a safe environment, and advocating for zero waste solutions.
- Vision: Just, zero-waste world respecting ecological limits, free from toxic pollution, and conserving resources sustainably.
- Approach: Local campaigns, policy shifts, research, and movement building to fight pollution and promote regenerative solutions in cities.
- Intervention Points: Focus on incineration, zero waste, plastic, and climate issues to address environmental challenges globally.
 - 81

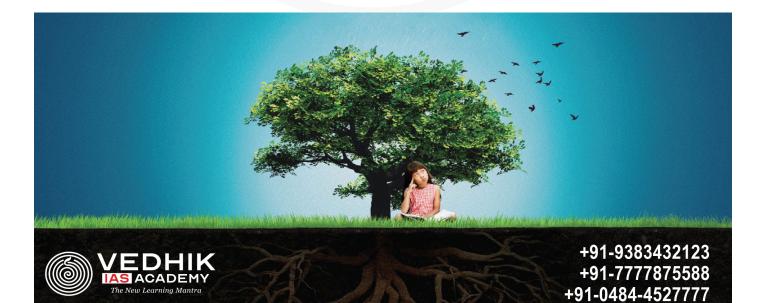




Product design and performance

Understanding Incineration: Hazardous Waste Treatment Process

- Incineration Definition: Process of burning hazardous materials at high temperatures to eliminate contaminants and reduce harmful chemicals.
- Incinerator Furnace: Specialized furnace designed for burning hazardous materials in a controlled combustion chamber.
- Types of Materials: Various hazardous materials like soil, sludge, liquids, and gases can undergo treatment through incineration.
- Effectiveness: While it destroys solvents, PCBs, and pesticides, incineration does not eliminate metals such as lead and chromium.
- Pollution Control: Modern incinerators are equipped with air pollution control devices to remove fly ash and gaseous contaminants effectively.





GREEN CREDIT PROGRAM

CONTEXT: The Ministry of Environment, Forest, and Climate Change emphasizes prioritizing ecosystem restoration over tree planting in the Green Credit Program.

BACKGROUND: The Green Credit program operates separately from the Carbon Credit Trading Scheme, 2023, regulated by the Energy Conservation Act of 2001. Carbon credits authorize emissions of 1 ton of carbon dioxide or its equivalent. Activities under Green Credits may yield climate co-benefits, potentially earning additional carbon credits alongside Green Credits by reducing or eliminating carbon emissions.



Green Credit Program: Incentivizing Environmental Actions

- Innovative Mechanism: Green Credit Program (GCP) incentivizes voluntary environmental actions across sectors. fostering sustainable practices among individuals, communities, and industries.
- LiFE Initiative: Part of the 'LiFE' initiative announced at COP26, GCP aims to promote a sustainable lifestyle and environmental conservation.
- Covered Activities: GCP encompasses activities like tree plantation, water management, sustainable agriculture, waste management, air pollution reduction, and mangrove conservation.
- Environmental Sustainability: GCP focuses on enhancing environmental sustainability through diverse initiatives targeting key areas like deforestation, water conservation, and air quality improvement.
- Market-Based Approach: GCP adopts a marketbased approach to incentivize environmental actions.

STUDY: CLIMATE CHANGE'S \$38 TRILLION IMPACT

CONTEXT: A study by the Potsdam Institute for Climate Impact Research predicts that by 2050, climate change will annually cost the global economy \$38 trillion, particularly impacting South Asia and Africa.



encouraging stakeholders to participate in efforts to mitigate climate change and conserve natural resources.

Green Credit Programme: Restoration and Compliance

- Operational Framework: The Green Credit Programme • allows individuals and corporations to financially contribute to forest restoration efforts for degraded areas.
- Facilitation Process: Applications are submitted to the Indian Council of Forestry Research and Education (ICFRE), overseen by the Environment Ministry.
- Execution: State forest departments execute the restoration efforts using the financial contributions received.
- Assessment and Credits: After two years, ICFRE assesses the planted trees, assigning one 'green credit' per tree upon successful evaluation.
- Utilization: Green credits can be used for compliance with forest laws or as a metric for reporting adherence to ESG standards and fulfilling CSR obligations.

Green Credit Program: Earning and Trading

- Earning Process: Participants register environmental activities online and undergo verification by a designated agency to earn Green Credits.
- Calculation Factors: Green Credit calculation considers resource requirements, scale, scope, and other parameters crucial for achieving environmental outcomes.
- Registry Establishment: A Green Credit Registry is established to track and manage earned credits efficiently.
- Trading Platform: An online platform is created for trading Green Credits domestically, enhancing liquidity and participation in the market.
- Administrator's Role: The administrator grants Green Credit certificates based on verified environmental activities and manages the trading platform.

The Global Conservation Plan (GCP) harmonizes with India's environmental policies, fortifying frameworks established by acts like the Environment Protection Act and the National Environment Policy. It further aligns with the nation's climate objectives, bolstering commitments made at COP26 and extending the scope of tradable credits to embrace diverse sustainable practices beyond CO2 reductions.

BACKGROUND: A recent study by scientists at Germany's Potsdam Institute for Climate Impact Research predicts a 19% global income loss over the next 25 years due to climate change. South Asia and Africa are projected to be hardest hit, with significant GDP reductions. Even highly developed countries like Germany, France, and the United States will face substantial economic damages, as highlighted by lead scientist Leonie Wenz in the journal Nature.

Economic Impact and Urgent Action on Climate Change

- Predicted Loss: Economic damages from climate change are six times higher than the cost of reducing carbon emissions to limit temperature rise.
- Regional Variances: Damage projections increase by 50% when considering factors like storms, with varied impacts across regions.
- Inequity Highlighted: Tropical countries face the most se-



vere impacts due to already warmer climates, exacerbating existing inequalities.

- Income Disparity: Countries least responsible for emissions are predicted to suffer income loss disproportionately, with limited adaptation resources.
- Immediate Action Needed: Drastic emissions reduction is necessary to mitigate escalating economic losses, with renewable energy adoption crucial for stabilization.
- Long-Term Projections: Failure to act will lead to even greater economic losses by 2100, amounting to 60% of the global average.
- Call for Structural Change: Transitioning to renewable energy systems is essential to avoid catastrophic

CONTEXT: IREDA's new office in GIFT City, Gandhinagar, will offer foreign currency-denominated debt options, aiming to lower financing costs for Green Hydrogen and Renewable Energy Manufacturing projects.

BACKGROUND: IREDA inaugurated an office in GIFT City, Gandhinagar, specializing in foreign currency debt options. This move aims to facilitate natural hedging and reduce financing costs for Green Hydrogen and Renewable Energy Manufacturing projects. Chairperson and Managing Director, emphasized this strategic initiative during a panel discussion at the World Future Energy Summit 2024, underscoring its contribution to India's greener future journey.

HIGHLIGHTS Advancing Energy Storage for Green Hydrogen Mission

Critical Role: Energy storage crucial for achieving National Green Hydrogen Mission's ambitious target of 5 million consequences and ensure security.

Temperature Rise: Global temperatures have risen by over 1.1 degrees Celsius since 1850, largely due to fossil fuel emissions.

Urgent action is imperative to mitigate climate change's devastating impacts. Past emissions have already triggered near-term damages, necessitating enhanced adaptation efforts. Drastic and immediate cuts in emissions are crucial to curbing economic losses, with a shift to renewable energy systems pivotal for global security and financial savings. Failure to act will lead to catastrophic consequences, emphasizing the urgent need to cease the burning of fossil fuels and stabilize global temperatures.

IREDA'S GIFT CITY PUSH FOR GREEN ENERGY

metric tons per annum by 2030.

- Research and Development: Focus on reducing cost and improving performance of storage solutions through enhanced R&D efforts.
- Policy Implementation: Strengthening supply chain network and implementing supportive policies essential for successful deployment of energy storage technologies.
- Financial Solutions: Providing competitive and tailored financial solutions to encourage investment in energy storage projects.
- Government Initiatives: India's efforts include storage requirement roadmap, technology-agnostic tenders, and supportive interventions for battery manufacturing and pumped storage projects.

Indian Renewable Energy Development Agency Limited

- IREDA Overview: Indian Renewable Energy Development Agency Limited (IREDA) is a Mini Ratna Government of India Enterprise under the Ministry of New and Renewable Energy (MNRE).
- Establishment and Focus: Established in 1987, IREDA promotes and finances projects related to renewable energy, energy efficiency, and conservation.
- Legal Status: IREDA is designated as a "Public Financial Institution" under the Companies Act and registered as a Non-Banking Financial Company (NBFC) by RBI.
- Mission: IREDA's mission is to facilitate self-sustaining investments in renewable energy, energy efficiency, and environmental technologies for sustainable development.
- Motto: IREDA operates with the motto "ENERGY FOR EVER", emphasizing its commitment to perpetual energy solutions.



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50 YEARS OF CHIPKO MOVEMENT

CONTEXT: The Chipko Movement, a significant environmental campaign originating in Uttarakhand in 1973, commemorates its 50th anniversary.

BACKGROUND: The Chipko Movement emerged in the 1970s in Chamoli, Uttarakhand, amidst extensive deforestation driven by external contractors. Triggered by women from villages like Reni and Mandal, it involved tree-hugging to thwart commercial loggers and preserve the region's forests.



About the Movement

- Origin of Chipko Movement: Derived from "embrace," Chipko involved villagers hugging trees to prevent their felling, symbolizing unity with nature.
- Non-violent Protest: Chipko was a non-violent agitation aimed at protecting forests and promoting grassroots activism for ecological preservation.

Impact and Victory: Chipko

raised awareness about forest rights and influenced policy-making, leading to a ban on commercial tree felling in certain areas.

 Chandi Prasad Bhatt: A Gandhian activist, Bhatt founded Dasholi Gram Swarajya Mandal, a pivotal organization in shaping and mobilizing the Chipko movement. Policy Influence: Chipko's success demonstrated the power of grassroots activism in environmental conservation and contributed to sustainable forest management policies.

Legacy and Impact of Chipko Movement

- Inspiring Movements: Chipko inspired similar movements like Narmada Bachao Andolan, Appiko Movement, and Silent Valley Movement across India.
- International Symbol: Internationally, Chipko became a symbol of resistance against environmental destruction and inspired global conservation efforts.
- Policy Influence: It influenced policy changes in India, leading to stricter regulations against illegal deforestation and recognition of indigenous community rights.
- Women's Mobilization: Notably, Chipko showcased collective mobilization of women, catalyzing a shift in societal perceptions about their status.
- Environmental Preservation: Chipko's legacy lies in its advocacy for forest preservation, highlighting the importance of grassroots activism and community engagement.

This ongoing movement serves as a beacon of inspiration, highlighting the potency of unified efforts in addressing environmental crises. Upholding principles of sustainability, community engagement, and nonviolent resistance, it continues to resonate in combating climate change and safeguarding ecosystems. Furthermore, it inspires grassroots initiatives, promotes women's involvement, and fosters inclusive community planning processes.

INSIGHTS FROM WMO: ASIA'S CLIMATE CRISIS

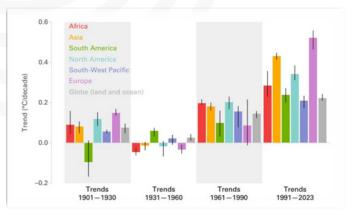
CONTEXT: The World Meteorological Organization's recent report highlights Asia's accelerated warming compared to the global average, providing insights into the region's climate crisis.

BACKGROUND: Asia, experiencing accelerated warming compared to the global average, encounters a surge in extreme weather and water-related incidents. In 2023 alone, 79 such events, predominantly floods and storms, affected over nine million individuals and caused 2,000 fatalities. The World Meteorological Organisation's report highlights escalating extreme heat conditions alongside hydro meteorological hazards in the region.

Accelerating Warming Trends in Asia

- Temperature Increase: In 2023, Asia experienced a temperature rise of 1.87 degrees Celsius above the 1961– 1990 average, and 0.91 degrees Celsius above the 1991– 2020 average.
- Pre-Industrial Comparison: The world is now at least 1.1 degrees Celsius warmer than the pre-industrial average (1850-1900), with Asia having different reference periods.
- Worrying Trend: Asia's warming rate is accelerating, with a nearly double warming trend in 1991–2023 compared to 1961–1990, exceeding other regions except Europe.
- Comparison with Other Regions: Asia's recent warming surpasses that of Africa, South America, North America, and the South-West Pacific, highlighting its significant temperature increase.

 Report Findings: The World Meteorological Organization (WMO) report underscores the alarming rate of temperature rise in Asia, urging attention to climate change mitigation.

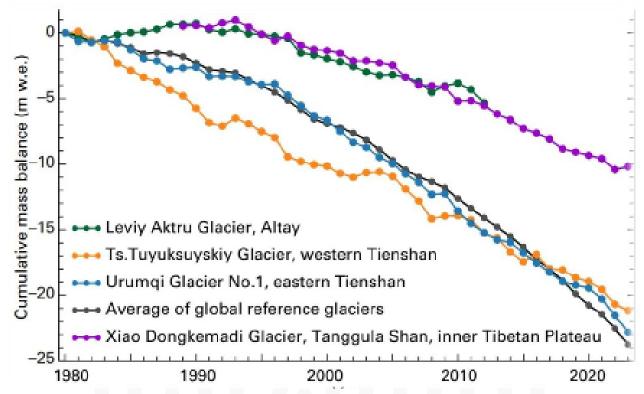


Glacial Mass Loss in High Mountain Asia

- Glacier Observations: In the glaciological year 2022-2023,
 20 out of 22 observed glaciers in the High Mountain Asia
 (HMA) region experienced continued mass loss.
- Reason for Loss: Record-breaking high temperatures and dry conditions in the East Himalayas primarily contributed to the mass loss, as stated by the WMO report.
- Mass Balance: Chart 3 depicts the mass balance of four glaciers in the HMA region, measured in metres of water equivalent (m w.e.).

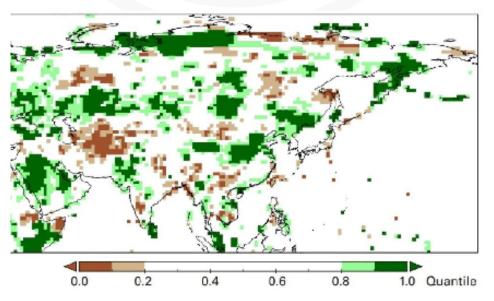


- Long-Term Trends: Over the past 40 years, these glaciers have consistently recorded significant mass losses, with an accelerated rate since the mid-1990s.
- Implications: The findings underscore the concerning trend of glacial melt in the HMA region, emphasizing the need for climate change mitigation efforts.



Rainfall Patterns in 2023

- Below Normal Rainfall: In 2023, Turkmenistan, Pakistan, and Myanmar experienced below-normal rainfall, while India saw a 6% deficit in summer monsoon rainfall.
- Indian Monsoon: India's summer monsoon rainfall was 6% below the 1971–2000 average, with certain regions experiencing consecutive deficits.
- Regional Variability: South-west India, the Ganges catchment, and the lower Brahmaputra course received less precipitation for the second consecutive year.
- Excess Rainfall: Conversely, excess rainfall was observed in areas like the lower Indus River (Pakistan), Tenasserim Range (Myanmar), and parts of Russia.
- Impact: These rainfall patterns highlight the regional variability in precipitation, emphasizing the need for adaptive strategies to manage water resources effectively.

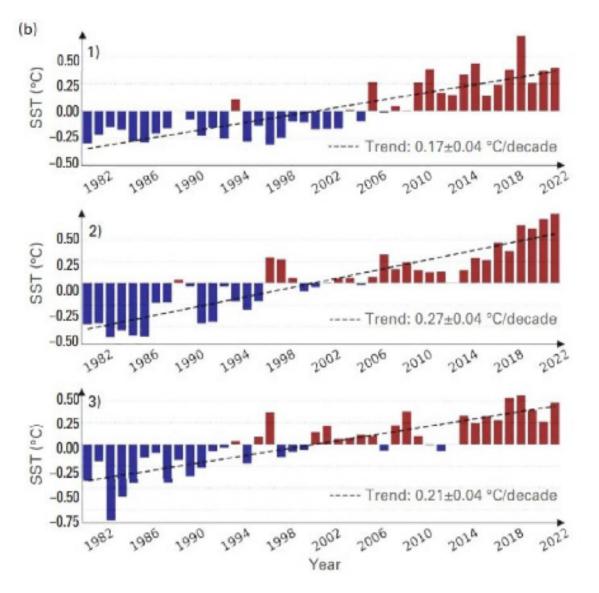


(Source: GPCC, Deutscher Wetterdienst, Germany)



Unprecedented Ocean Warming

- Off the Charts: Since mid-March 2023, global average sea surface temperatures (SST) have surged, with Asian ocean temperatures experiencing similar trends.
- Record Anomalies: The North-west Pacific Ocean witnessed its warmest sea surface temperature anomalies on record last year.
- Regional Hotspots: Strong upper-ocean warming is observed in the North-Western Arabian Sea, the Philippine Sea, and seas east of Japan.
- Acceleration: Warming rates in these regions exceed three times the global average, indicating a rapid increase in ocean temperatures.
- Implications: These unprecedented ocean warming trends have significant implications for marine ecosystems, weather patterns, and climate stability.



(Source: Copernicus Marine Service)

He not afraid of greatness. Some are born great, some achieve greatness, and others have greatness thrust upon them." - WILLIAM SHAKESPEARE





TIGER CONSERVATION COALITION

CONTEXT: Bhutan and the Tiger Conservation Coalition pledge to mobilize \$1 billion for tiger conservation during the Sustainable Finance for Tiger Landscapes Conference.

BACKGROUND: Bhutan's Earth Day Initiative, the Sustainable Finance for Tiger Landscapes Conference, is jointly organized by the Bhutanese government and the Tiger Conservation Coalition. Led by Queen Jetsun Pema Wangchuck, the twoday event aims to raise \$1 billion over a decade to safeguard tiger habitats in Asia. Expert panels will discuss sustainable finance, UN's Global Biodiversity Framework, and publicprivate partnerships.

Collaborative Tiger Conservation Initiative

- Tiger Conservation Coalition: Group of NGOs dedicated to conserving tigers, aiming for long-term presence of viable populations in protected habitats across their range.
- Expert Collaboration: Leading tiger biologists and experts across various fields align efforts for effective conservation at scale.
- Key NGOs: Eight prominent organizations, including EIA, IUCN, UNDP, and WWF, collaborate on tiger conservation initiatives.
- Innovative Tool: Developed Tiger Conservation

Landscapes 3.0 for real-time monitoring of tiger habitats at various scales.

- Model for Monitoring: Serves as a model for objective habitat monitoring to achieve goals outlined in global biodiversity frameworks and Sustainable Development Goals.
- Integrated System: Tiger Conservation Landscapes 3.0 measures and monitors changes in tiger habitat across multiple levels, from local to global.
- Alignment with Goals: Supports countries in achieving targets set by the 30x30 agenda and the Kunming-Montreal Global Biodiversity Framework.
- Comprehensive Approach: Addresses wildlife crime, human-wildlife coexistence, policy, finance, development, and communications for holistic tiger conservation.

Bhutan's commitment, alongside the Tiger Conservation Coalition, to mobilize \$1 billion for tiger conservation at the Sustainable Finance for Tiger Landscapes Conference underscores a critical step towards safeguarding this endangered species and their habitats, emphasizing the importance of international collaboration in conservation efforts.

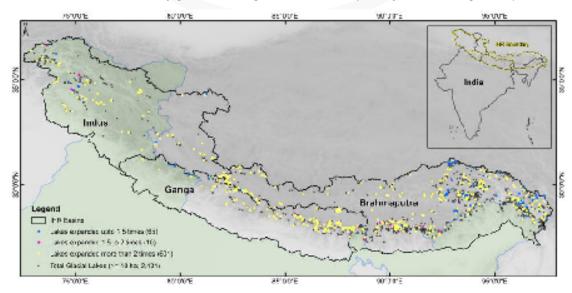
ISRO STUDY: GROWING GLACIAL LAKES

CONTEXT: ISRO's recent satellite analysis tracks the growth of glacial lakes in Indian Himalayan river basins, echoing concerns about potential glacial lake outburst floods.

HIGHLIGHTS: The Himalayan Mountains, dubbed the Third Pole, are highly vulnerable to climate change, evidenced by unprecedented glacier retreat since the 18th century. This retreat forms glacial lakes, vital freshwater sources but also risks Glacial Lake Outburst Floods (GLOFs). Satellite remote sensing aids in monitoring these lakes, crucial for assessing glacier retreat, GLOF risks, and understanding climate change impacts.

ISRO Study: Glacial Lake Expansion

- ISRO Analysis: Utilized satellite data spanning four decades to assess changes in glacial environments, focusing on Indian Himalayan river basins.
- Significant Expansion: Data indicates notable growth in size of glacial lakes, with 676 lakes expanding significantly since 1984.
- Expansion Trends: 601 lakes doubled, 10 grew 1.5 to 2 times, and 65 expanded by 1.5 times.
- Geographical Distribution: Out of the expanded lakes, 130 are in India, primarily in the Indus, Ganga, and Brahmaputra river basins.
- Cause: Glacial retreat, accelerated by global warming, identified as the primary factor driving the expansion of these lakes.

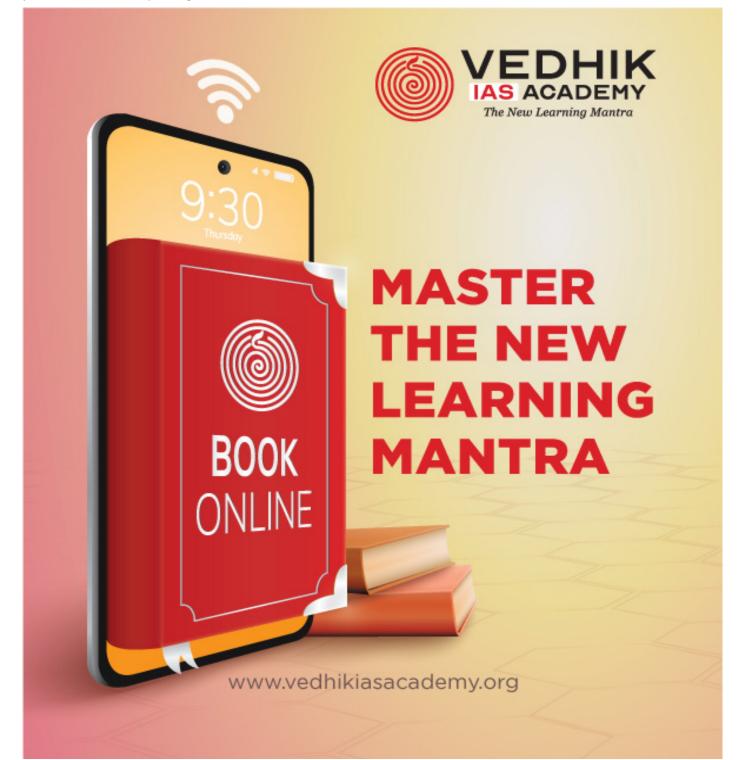




Glacial Lake Expansion Study

- Satellite Data Archives: Provide insights into changes in glaciated environments over 3 to 4 decades, focusing on Indian Himalayan river basins.
- Significant Expansion: Long-term imagery indicates notable growth in glacial lakes, with 676 expanding since 1984.
- Categorical Analysis: Glacial lakes classified into four categories based on formation process, with moraine-dammed lakes predominating among expanding ones.
- Elevation-Based Trends: Majority of expanding lakes located at elevations between 4,000 to 5,000 m, and above 5,000 m.
- Case Study: Ghepang Ghat glacial lake in the Indus River Basin exhibits substantial size increase, reflecting ongoing glacier retreat.

2023 study in the Journal of Geophysical Research assessed the threat of Ghepan Gath lake in Himachal Pradesh to Sissu in Lahaul valley. It suggests that lowering the lake's water levels by 10 to 30 meters can mitigate risks to Sissu, albeit not entirely eliminating the threat of a GLOF event. The use of long HDPE pipes, demonstrated previously in Sikkim, offers a potential method for siphoning off lake water.



SCIENCE AND TECHNOLOGY



INDRA APP

MADHYA PRADESH'S FIRST SMALL-SCALE LNG

SMALL LANGUAGE MODELS (SLMS)

ATOMIC CLOCKS FOR ONE-NATION, ONE-TIME

SKY'S 'MOTHER OF DRAGONS' COMET

PRATUSH TELESCOPE

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GREEN STEEL POLICY

SHALLOWFAKES

GLOBAL HEPATITIS REPORT 2024

KODAIKANAL SOLAR OBSERVATORY: 125-YEAR MILESTONE

WIGNER CRYSTAL

MUST-KNOW UPI RULES: NEW UPDATES

JUICE JACKING SCAM



INDRA APP

CONTEXT: The INDRA app, introduced during World Meteorological Day by the School of Naval Oceanology & Meteorology and Indian Naval Meteorological Analysis Centre, aids weather information sharing.

BACKGROUND: The INDRA app, created by BISAG and the Directorate of Naval Oceanology and Meteorology, aids in distributing weather information and forecasts for enhanced decision-making. Designed for the Indian Navy, it facilitates swift and informed decision-making processes by providing timely weather updates and analysis.

BHASKARACHARYA NATIONAL INSTITUTE FOR SPACE APPLICATIONS AND GEO-INFORMATICS

- BISAG is registered under the Societies Registration Act, 1860, focusing on technology development, research, and capacity building in geo-spatial technology.
- Domain Areas: Its key focus areas include Satellite Communication, Geo-informatics, and Geo-spatial technology, enabling diverse applications in these fields.
- Technology Development: BISAG undertakes research, facilitates national and international cooperation, and supports technology transfer and entrepreneurship development in its domain.
- Nodal Ministry: It operates under the Ministry of Electronics & Information Technology (MeitY), Government of India, aligning with national priorities and policies.
- Capacity Building: Apart from technology development, BISAG emphasizes capacity building to enhance skills and expertise in geo-spatial technology.

MADHYA PRADESH'S FIRST SMALL-SCALE LNG

CONTEXT: India's first small-scale liquefied natural gas (SSLNG) unit was inaugurated at GAIL (India) Ltd's Vijaipur complex in Madhya Pradesh by the Union Minister for Petroleum and Natural Gas.

BACKGROUND: India's inaugural small-scale liquefied natural gas (SSLNG) unit, launched by the Union Minister for Petroleum and Natural Gas at GAIL (India) Ltd's Vijaipur complex in Madhya Pradesh, aligns with the government's aim to boost natural gas usage. This initiative seeks to elevate natural gas's contribution to 15% of the country's primary energy mix by 2030.



LIQUEFIED NATURAL GAS

- Natural gas cooled to -260°F (-161°C) becomes LNG, reducing its volume for efficient transportation where pipelines are unavailable.
- Composition: Predominantly methane (CH4), natural gas contains various compounds, making it a versatile fossil energy source.
- Energy Efficiency: LNG is prized for its high calorific value, outperforming other fossil fuels in energy production.
- Environmental Benefits: Cleaner and safer than coal or liquid fuels, natural gas aligns with emission reduction commitments, such as those made at COP-21.
- Emission Reduction Commitments: India aims to decrease carbon emissions by 33%-35% of 2005 levels by 2030,

emphasizing the importance of cleaner fuels like LNG.

- Versatile Applications: From domestic kitchens to transportation and industrial sectors, natural gas serves diverse purposes, including fueling fertilizer industries and commercial units.
- Transportation and Storage: LNG facilitates transportation to areas beyond pipeline reach, offering a compact solution for energy distribution.
- Economic and Environmental Advantages: LNG's economic viability and environmental benefits position it as a crucial component of India's energy strategy.

SMALL-SCALE LNG

 Involves liquefying natural gas for transportation via specialized trucks and vessels, catering to areas lacking



pipeline connections.

- Direct Supply: SSLNG enables direct supply from large-scale LNG terminals to consumers using cryogenic road tankers or small vessels.
- Reduced Dependency: SSLNG reduces reliance on costly gas imports, especially if it substitutes diesel consumption, leading to significant foreign exchange savings.
- Cleaner Energy: SSLNG promotes cleaner energy, facilitating India's shift towards sustainable fuel sources and reducing environmental impact.
- Transportation Applications: In marine transport, LNG offers lower emissions of sulphur oxides (SOx) and particulate matter, while in road transport, it reduces nitrogen oxides (NOx) and greenhouse gases.
- Emission Reduction: LNG usage in transportation contributes to emission reduction, benefiting both marine and road sectors with lower environmental impact.

Aspect	Compressed Natural Gas (CNG)	Liquefied Natural Gas (LNG)
Form	 Gaseous form stored at high pressure. 	 Liquid form achieved by cooling to extremely low temperatures.
Storage	 Requires high-pressure storage tanks. 	 Stored in cryogenic tanks at very low temperatures.
Energy Density	 Lower energy density compared to LNG. 	 Higher energy density, enabling more efficient storage and transportation.
Transportation	 Mostly used for short- distance vehicles like buses and cars. 	 Suitable for long-distance transportation, including marine and heavy-duty vehicles.
Environmental Impact	 Cleaner burning, emits fewer pollutants. 	 Lower greenhouse gas emissions due to efficient transportation and combustion.

SMALL LANGUAGE MODELS (SLMS)

CONTEXT: Microsoft introduces Phi-3, a series of open AI models touted as the most proficient and economical small language models (SLMs) to date.

BACKGROUND: Following Meta's unveiling of the Llama 3 Large Language Model (LLM), Microsoft introduced its latest 'lightweight' AI model, the Phi-3-Mini, on Tuesday. Described as part of the Phi-3 family, these open AI models are touted as the most capable and cost-effective small language models (SLMs) in the market.

ABOUT PHI-3

- Microsoft's latest small model outperforms others in language, reasoning, coding, and maths, expanding options for generative AI applications.
- Model Performance: It excels in benchmarks, offering

high-quality language models for diverse AI development needs.

- Availability: Phi-3-Mini, a 3.8B language model, is accessible on platforms like Microsoft Azure AI Studio and HuggingFace.
- Context Window: The model's conversation capability is determined by its context window, measured in tokens, with variants offering 4K or 128K tokens.
- Versatility: Users can leverage Phi-3-Mini for various tasks, benefiting from its enhanced performance and broader context window options.
- Practical Choices: Microsoft's release provides developers with more practical options for building AI applications, enhancing flexibility and efficiency in development processes.



You have to dream before your dreams can come true..

- A. P. J. ABDUL KALAM





STREAMLINED LANGUAGE MODELS (SLMS)

- Definition: SLMs are simplified versions of large language models, offering better performance on smaller devices and cost-effective development and operation.
- Benefits: Ideal for resource-constrained environments. SLMs excel in fast-response scenarios like chatbots and virtual assistants, and cost-constrained use cases.

- Specialization: Unlike LLMs, SLMs are tailored for specific tasks through fine-tuning, achieving accuracy and efficiency with less computing power.
- Training: SLMs undergo targeted training, requiring significantly less computing power and energy compared to LLMs, making them more accessible.
- Inference Speed: SLMs boast guicker processing speeds and lower latency due to their compact size, appealing to smaller organizations and research groups.
- Versatility: Their affordability and efficiency make SLMs an attractive option for various applications, particularly in scenarios with limited resources or budget constraints.

Microsoft's Phi-3 models have showcased superior performance compared to similar or larger models like Gemma 7B and Mistral 7B, as per the company's performance results. Microsoft highlights Phi-3-mini's robust reasoning and logic capabilities. Additionally, ITC in India is utilizing Phi-3 as part of their collaboration with Microsoft for Krishi Mitra, a farmerfocused app benefiting over a million farmers.

ATOMIC CLOCKS FOR ONE-NATION, ONE-TIME

CONTEXT: India plans to install indigenous atomic clocks nationwide to bolster its timekeeping system and fortify national defence capabilities.

BACKGROUND: India plans to install atomic clocks nationwide to bolster its timekeeping infrastructure and defence capabilities. This initiative, led by the National Physical Laboratory (NPL) under the Ministry of Science and Technology and the Ministry of Consumer Affairs, aims to synchronize all digital devices with Indian Standard Time (IST), ensuring consistency and uniformity across the country.

ATOMIC CLOCKS

- An atomic clock utilizes atomic vibrations for highly accurate time measurement, crucial for precise timing applications like GPS and telecommunications.
- Accuracy: It's the most precise time-keeping device available, with an error margin of just a few billionths of a second per dav.
- Mechanism: Atomic clocks rely on the oscillations of electrons within atoms to maintain accurate timekeeping.
- Applications: Widely used in GPS systems, telecommunications networks, and scientific research where precise timing is essential.
- Significance: Understanding atomic clocks' operation is crucial for comprehending their role in various technologies requiring meticulous time synchronization.





HOW DOES AN ATOMIC CLOCK WORK?

- Atomic clocks measure time by detecting the natural vibrations of atoms, typically caesium or rubidium. These atoms oscillate at specific frequencies, serving as precise timekeepers.
- A fundamental principle is atomic resonance, where atoms absorb and emit electromagnetic radiation at precise frequencies, akin to a pendulum's swing.
- The clock's heart is a microwave cavity, resonating at the same frequency as the atoms. A feedback loop adjusts the cavity's frequency to match the atoms'.
- By counting the oscillations of the microwave signal, atomic clocks maintain extraordinary accuracy, losing only a few billionths of a second per day.
- Used extensively in GPS systems, telecommunications, and scientific research, atomic clocks define our global timekeeping standards with unparalleled precision.

APPLICATIONS OF ATOMIC CLOCK

Global Navigation: Atomic clocks synchronize GPS

SKY'S 'MOTHER OF DRAGONS' COMET

CONTEXT: Comet 12P/Pons-Brooks, nicknamed the 'Mother of Dragons,' is currently observable in the Northern Hemisphere sky as it approaches Earth.

BACKGROUND: Named the 'Mother of Dragons,' Comet 12P/ Pons-Brooks is currently visible in the Northern Hemisphere. This 'Halley-type' comet, with a 71-year orbital period, boasts a nucleus around 30 kilometers wide. Stargazers can observe its periodic journey through the inner solar system as it passes near Earth.

Jupiter-Family Comet: Comet 12P/Pons-Brooks

 Classification: Comet 12P/Pons-Brooks is categorized as a Jupiter-family comet, indicating its orbit is influenced by Jupiter's gravitational pull.

he New Learning Montro

satellites, enabling precise positioning for navigation systems relied upon in aviation, maritime, and terrestrial applications.

- Telecommunications: Network synchronization ensures reliable communication by coordinating signals between distant locations with nanosecond accuracy, vital for modern telecommunication networks.
- Scientific Research: Atomic clocks facilitate experiments in fundamental physics, including testing theories like relativity and measuring gravitational waves, advancing our understanding of the universe.
- Financial Transactions: High-frequency trading relies on atomic clock precision for accurate time stamping of transactions, crucial in global financial markets operating at lightning speeds.
- Space Exploration: Deep space missions utilize atomic clocks to navigate vast distances, ensuring spacecraft reach their destinations with pinpoint accuracy, enhancing the success of interplanetary exploration missions.
- Perihelion: It typically reaches perihelion around the orbit of Mars, becoming visible to Earth observers during its
 - close approach.
 Alias: Dubbed the "devil comet," it's also associated with the pop culture show "Game of Thrones," forming the parent body of "kappa-Draconids" meteor shower.
 - Composition: Comprised of ice, dust, and rocky material, heat from the Sun transforms the comet's solid ice into gas, forming a distinctive tail.
 - Solar Wind: The tail is pushed away from the Sun by the solar wind, creating a visible cloud and tail phenomenon observable from Earth.

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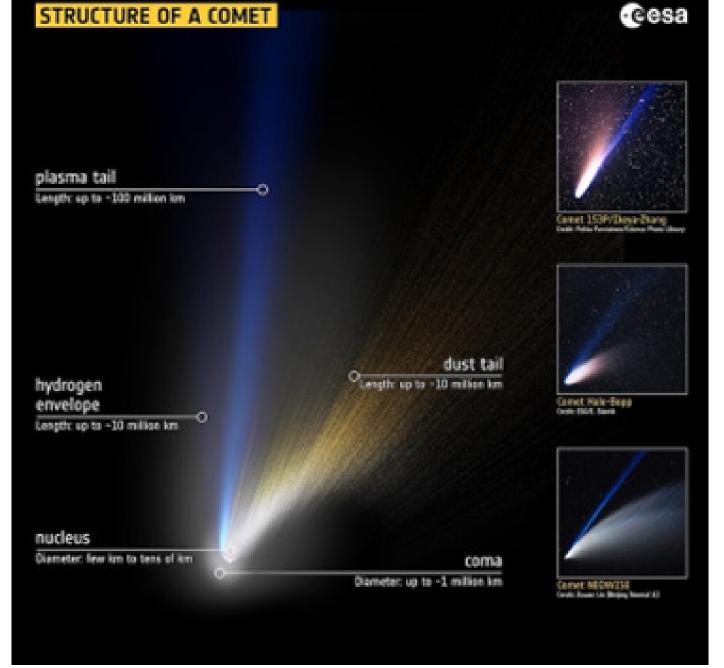


Image Credit: European Space Agency

Comet 12P/Pons-Brooks displays variable visibility, shining brightly at peak activity near Earth but potentially faint at other times. Its closest approach will be in June 2024, though optimal viewing is in late March and early April. Utilizing binoculars or a small telescope enhances visibility, enabling astronomers to study its periodic nature and glean insights into comet dynamics and solar system evolution.





PRATUSH TELESCOPE

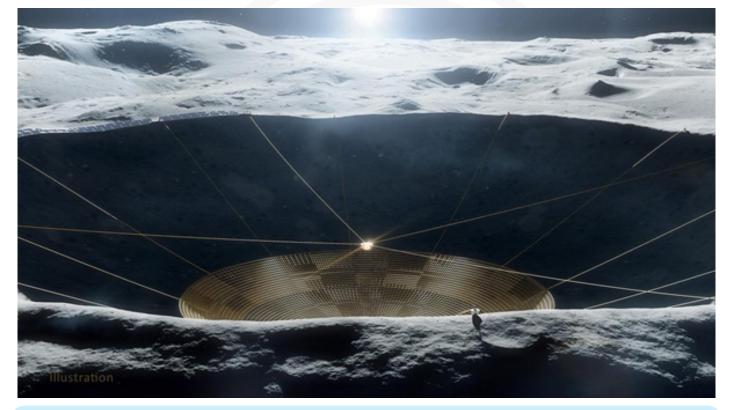
CONTEXT: Astronomers worldwide await a transformative phase in exploration, leveraging high-resolution telescopes to be stationed on or around the moon, including India's PRA-TUSH project.

BACKGROUND: Astronomers are exploring new avenues to advance space observation by deploying high-resolution telescopes on the moon and in lunar orbit. Proposals from global astronomers, including India's PRATUSH initiative, aim to overcome atmospheric interference faced by Earth-based optical and radio telescopes. Pollution and electromagnetic interference hinder Earth-based observation, prompting the search for alternative celestial observation platforms.

PRATUSH: RADIO TELESCOPE FOR COSMIC DAWN

 Objective: PRATUSH, built by RRI and ISRO, aims to uncover the timing and characteristics of the first stars' formation during Cosmic Dawn.

- Evolution: It will reveal the universe's evolution from cold gas to star and galaxy formation post-Big Bang.
- Cosmic Dawn: Marks the era when the first radiation sources, like stars and galaxies, emerged in the universe.
- Capabilities: PRATUSH features advanced radio equipment covering a wide frequency range and observes large sky areas continuously.
- Spectral Analysis: It records detailed radio spectra with a resolution of 100 kHz using custom-designed antenna and digital correlator.
- Sensitivity: Goal to achieve a sensitivity level of a few millikelvin for precise temperature measurements.
- Mission Duration: Planned for a two-year mission in a circumlunar orbit to avoid interference and optimize radio sky measurements.
- Unit of Measurement: Millikelvins (mK) used to express temperature, with 1 mK equal to 1000th of a Kelvin.



LUNAR EXPLORATION AND ASTRONOMICAL PROJECTS

- LuSEE Night Project: NASA and Berkeley Lab collaboration aims to land on the moon's far side, launching in December 2025.
- NASA's Long-Baseline Optical Imaging Interferometer: To study magnetic activity in stars and galaxies using visible and ultraviolet wavelengths.
- ESA's Argonaut: European Space Agency plans to launch a Radio Telescope aboard its lunar lander by 2030.
- China's Moon-Orbiting Radio Telescope: Set to launch in 2026, positioning China at the forefront of lunar exploration and astronomical research.
- Queqiao-2 Satellite: Carries a 4.2-meter antenna for radio astronomy, deployed in lunar orbit for advanced astronomical observations.



INDIA'S LARGEST ONLINE IAS COACHING ACADEMY



myCGHS APP

CONTEXT: The Ministry of Health and Family Welfare unveiled the myCGHS app for iOS, aimed at providing Central Government Health Scheme (CGHS) beneficiaries with improved access to Electronic Health Records and resources.

BACKGROUND: The Union Health Ministry has introduced the myCGHS iOS app, marking a significant advancement in CGHS healthcare services. This app provides CGHS beneficiaries with easy access to essential healthcare features, aligning with the government's vision to improve healthcare accessibility through technology. The Union Health Secretary expressed enthusiasm for the initiative, emphasizing its potential to enhance healthcare quality and accessibility.



MYCGHS MOBILE APP FOR CGHS BENEFICIARIES

- Developed by NIC: The myCGHS app, developed by NIC Himachal Pradesh and NIC Health Team, offers enhanced accessibility for CGHS beneficiaries.
- Wide Range of Services: Features include appointment booking, downloading CGHS card, accessing lab reports, checking reimbursement status, and more.
- Security Features: Includes 2-factor authentication and mPIN functionality to ensure confidentiality and integrity of user data.
- Digital Healthcare Milestone: Marks a significant step in digital healthcare services for the Department of CGHS.
- Available on iOS and Android: The app is free to download on both iOS and Android platforms, providing a seamless healthcare experience for beneficiaries.

GREEN STEEL POLICY

CONTEXT: The Steel Ministry is formulating a holistic green steel policy, covering manufacturing, skill requirements, and financial backing, as part of a decarbonisation strategy.

BACKGROUND: As per India's Biennial Update Reports to UNFCCC, emissions from the iron and steel sector were 95.998, 154.678, and 135.420 million tonnes CO2 for 2010, 2014, and 2016 respectively. The Ministry of Steel aims for a Net-Zero target by 2070, focusing on short-term energy efficiency measures, medium-term utilization of Green Hydrogen and Carbon Capture, and long-term technological innovations for transition to net-zero emissions.





GREEN STEEL: ECO-FRIENDLY STEEL PRODUCTION

- Eco-Friendly Production: Green steel aims to produce steel with lower greenhouse gas emissions, potentially reducing costs and improving quality.
- High Carbon Emissions: Traditional steel manufacturing processes, especially blast furnaces, contribute significantly to global carbon emissions.
- Incentive for Alternatives: With rising steel demand, there's a strong motivation to explore low greenhouse gas emission methods.
- Indian Steel Sector: India's steel industry contributes 12% of the country's greenhouse gas emissions, with higher emission intensity compared to the global average.
- Need for Innovation: Green steel offers a sustainable solution to mitigate environmental impact while meeting growing steel demand.

DECARBONISATION INITIATIVES IN STEEL INDUSTRY

Steel Scrap Recycling Policy, 2019: Encourages domestic

scrap availability to reduce coal consumption in steel production.

- National Green Hydrogen Mission: Aims for green hydrogen production, involving the steel sector as a stakeholder.
- Motor Vehicles Scrapping Rules, 2021: Boosts scrap availability for steel industry use.
- National Solar Mission: Promotes solar energy adoption, aiding in steel industry emissions reduction.
- Perform, Achieve and Trade (PAT) Scheme: Incentivizes energy consumption reduction in steel industry.
- Best Available Technologies Adoption: Modernization projects incorporate globally available best technologies for efficiency.
- NEDO Model Projects: Japanese initiatives for energy efficiency improvement have been implemented in steel plants.

SHALLOWFAKES

CONTEXT: As the Lok Sabha elections approach on April 19, social media is rampant with misinformation, primarily shallow fakes.

BACKGROUND: In 2024, a historic number of voters globally will engage in elections across over 50 nations, representing half the world's population. This year's elections face an unprecedented challenge of combating misinformation, exacerbated by the emergence of deepfakes and generative artificial intelligence. Of particular concern are shallow fakes, which pose a significant threat alongside traditional misinformation.

UNDERSTANDING SHALLOWFAKE THREAT

- Shallowfake vs. Deepfake: Shallowfakes, unlike deepfakes, are created with basic editing software, relying on mis-captioning
 or mis-contextualizing images or videos.
- Threat Level: Experts deem shallowfakes as more significant threats due to their easier creation process compared to deepfakes.
- Quality Implication: The term "shallow" refers to the lower quality of these fakes compared to deepfakes, making them
 easier to identify.
- False Proof: Shallowfakes are used to produce false proof of identity, including fake photo ID documents like passports and driving licenses.
- Fake Evidence: They also create fake supporting evidence for transactions, such as contracts, invoices, and certificates, to support fraudulent claims.

Aspect	Deepfakes	Shallow Fakes
Creation Method	 Al-driven manipulation of images, videos, and audio to create realistic but false content. 	Utilizes conventional editing techniques or misrepresentation of existing content to deceive.
Realism	 Photorealistic and audio- realistic, often indistinguishable from genuine content. 	 Less realistic, noticeable alterations or misrepresentations may be apparent upon closer inspection.
Technology	 Relies heavily on advanced artificial intelligence algorithms for content generation. 	 Uses existing technologies like basic editing software or mis-captioning to create deceptive content.
Detection	 Difficult to detect due to high fidelity and sophistication of Al- generated content. 	 Detection may be easier due to less sophisticated alterations or misrepresentations.
Potential Harm	 Poses significant risks to individuals, organizations, and society due to its convincing nature. 	 Can still cause harm but may be less severe compared to deepfakes; undermines trust and spreads misinformation.



GLOBAL HEPATITIS REPORT 2024

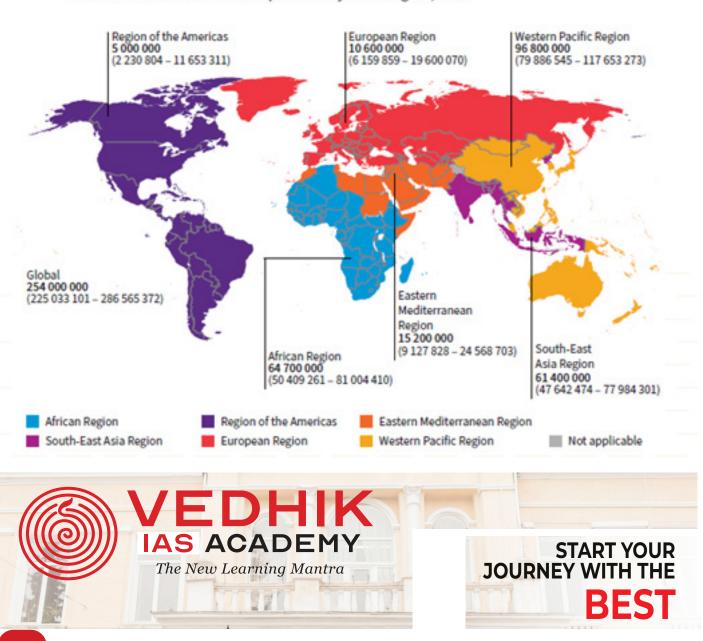
CONTEXT: India ranks among the countries with the highest burdens of viral hepatitis, on par with tuberculosis, as per the WHO's Global Hepatitis Report 2024.

BACKGROUND: India carries a significant burden of viral hepatitis, with 2.9 crore individuals affected by Hepatitis B and 0.55 crore by Hepatitis C, as per the 2024 Global Hepatitis Report by WHO. Viral hepatitis poses risks of liver inflammation, damage, and cancer. This highlights the urgent need for awareness and intervention to address the prevalence of these infections in the country.

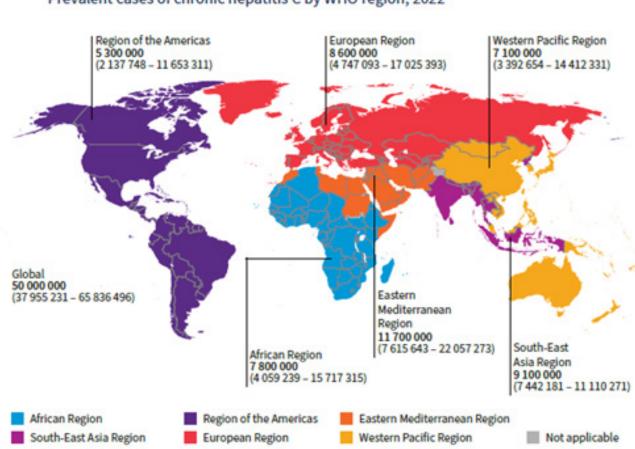
GLOBAL HEPATITIS CRISIS CONTINUES

- Rising Death Toll: Viral hepatitis is now the second leading infectious cause of death globally, claiming 1.3 million lives annually, paralleling tuberculosis.
- Stalled Progress: Despite advancements in diagnosis and treatment, testing and treatment coverage rates have plateaued, exacerbating the crisis.
- Urgent Action Needed: Reaching the WHO elimination goal by 2030 is still feasible with immediate and decisive interventions to reverse the upward trend.
- Prevalence Data: In 2022, 254 million people live with hepatitis B and 50 million with hepatitis C, with significant burdens among adults aged 30–54.
- Incidence Trends: While new infections have slightly decreased, with 2.2 million cases in 2022, the overall incidence of viral hepatitis remains alarmingly high.

Prevalent cases of chronic hepatitis B by WHO region, 2022







Prevalent cases of chronic hepatitis C by WHO region, 2022

INDIA'S VIRAL HEPATITIS BURDEN

- High Prevalence: India bears a significant burden of viral hepatitis, with 2.9 crore people living with Hepatitis B and 0.55 crore with Hepatitis C.
- New Cases: In 2022, over 50,000 new cases of Hepatitis B and 1.4 lakh new cases of Hepatitis C were reported.
- Fatalities: These infections resulted in 1.23 lakh deaths in India in 2022, underscoring the urgency of effective prevention and treatment measures.
- Transmission Routes: Both infections are transmitted through various means, including mother-to-child transmission, blood transfusion, and needle sharing among drug users.
- Prevention and Treatment: While Hepatitis B can be prevented through vaccination, Hepatitis C is curable with medication, emphasizing the importance of comprehensive healthcare strategies.

UNDERSTANDING HEPATITIS: TYPES AND IMPACT

- Definition: Hepatitis is liver inflammation caused by various infectious and non-infectious agents, with different strains identified as types A, B, C, D, and E.
- Variability: These strains differ in transmission modes, severity, geographic prevalence, and prevention methods, with types B and C causing chronic disease.
- Global Impact: Types B and C are major contributors to liver cirrhosis, liver cancer, and hepatitis-related deaths, affecting an estimated 354 million people globally.
- Preventive Measures: Some forms of hepatitis are preventable through vaccination, with potential to prevent 4.5 million premature deaths by 2030 through comprehensive strategies.
- WHO Strategy: The WHO aims to significantly reduce new hepatitis infections and related deaths by 2030 through global vaccination, diagnostics, treatment, and education initiatives.



"Education is the ability to listen to almost anything without losing your temper or your self-confidence." - Robert Frost



KODAIKANAL SOLAR OBSERVATORY: 125-YEAR MILESTONE

CONTEXT: Kodaikanal Solar Observatory celebrates 125 years since its establishment, tracing back to its origins during the 1876 Great Drought.

BACLGROUND: Throughout history, scholars across various disciplines have studied the Sun and its phenomena. In 1792, the British East India Company established the Madras Observatory, pioneering astronomical research in the region. Astronomical observations spanning 1812-1825 were meticulously recorded, with dedicated solar observations commencing in 1878 at the Trigonometrically Survey Office in Dehradun.



KODAIKANAL SOLAR OBSERVATORY: A HISTORIC INSTI-TUTION

- Establishment: Founded on 1 April 1899 by the British, Kodaikanal Solar Observatory (KSO) boasts one of the world's longest continuous daily records of the Sun.
- Rich History: Originating from the Madras Observatory of 1792, KSO's legacy is marked by diverse achievements and ongoing research endeavours.
- Celebrations: In honour of its legacy, the Indian Institute of Astrophysics (IIA) has planned events to highlight KSO's history and achievements.
- Operational Status: Currently, KSO functions as a field station under the Indian Institute of Astrophysics, an autonomous institution under the Department of Science and Technology.
- Global Access: The unique database of solar observations from KSO has been digitized and is publicly available for astronomers worldwide.

The Kodaikanal Solar Observatory symbolizes over a century and a half of Indian solar research, from early eclipse studies to ground-breaking discoveries like Helium detection in 1868. Current endeavours, including the Visible Emission Line Coronagraph on Aditya-L1 and the proposed National Large Solar Telescope in Ladakh, uphold this esteemed legacy, advancing our understanding of the Sun's phenomena.

WIGNER CRYSTAL

CONTEXT: For the first time, scientists have managed to visualize the enigmatic Wigner crystal, a unique form of matter composed solely of electrons.

BACKGROUND: The physics community is abuzz with the ground-breaking confirmation of Wigner Crystals, a phenomenon envisioned by physicist Eugene Wigner in 1934. These structures, representing a crystalline phase of electrons, have intrigued scientists for nearly a century. Their recent validation marks a significant milestone in understanding electron behavior under extreme conditions.

UNDERSTANDING WIGNER CRYSTAL FORMATION

- Definition: A Wigner crystal is the solid phase of electrons, predicted by Eugene Wigner in 1934, stabilized by electron-electron interaction.
- Formation Mechanism: Electron-electron interaction induces spontaneous arrangement into a crystal-like lattice at low densities and extremely cold temperatures.
- Quantum Behavior: Electrons in a Wigner crystal follow the laws of quantum physics, behaving more like a single wave than individual particles.
- Stability: Stable at low densities, the crystal melts as density increases, with kinetic energy becoming predominant

over potential energy.

Experimental Challenges: Wigner crystal observation is challenging due to its fragility in the environment, making experimental verification difficult.

APPLICATIONS OF WIGNER CRYSTALS

- Quantum Computing: Wigner crystals show promise as stable qubit platforms in quantum computing, leveraging their well-defined electronic states.
- Nano electronics: Insights into electron behavior in lowdimensional systems provided by Wigner crystals inform the development of novel Nano electronic devices.
- Quantum Hall Effect: Understanding Wigner crystals enhances comprehension of the quantum Hall effect, vital for precise electrical measurements in semiconductor physics.
- High-Energy Physics: Studying Wigner crystals aids in investigating exotic states of matter and fundamental particle interactions in high-energy physics experiments.
- Condensed Matter Physics: Wigner crystals serve as model systems for exploring emergent phenomena and phase transitions in condensed matter physics research.





MUST-KNOW UPI RULES: NEW UPDATES

CONTEXT: The UPI payment limit has increased from ₹1 lakh to ₹5 lakh, promoting its usage for transactions in hospitals and educational institutions.

BACKGROUND: UPI has revolutionized digital payments in India, offering enhanced convenience, inclusivity, and security. Mehul Mistry of Wibmo predicts UPI will grow by 60% in 2024 compared to 2023, with Peer-to-Merchant (P2M) transactions surpassing Peer-to-Peer (P2P). P2M transactions are expected to comprise 60% of total UPI volume, driving continued growth and adoption in the digital payments landscape.

ENHANCEMENTS IN UPI TRANSACTIONS

- Increased Transaction Limit: The RBI raises UPI transaction limit from ₹1 lakh to ₹5 lakh, focusing on payments involving hospitals and educational institutions.
- Pre-sanctioned Credit Line: Easebuzz introduces presanctioned Credit Line on UPI, expanding access to loans for individuals and businesses, enhancing financial inclusion.
- UPI for Secondary Market: NPCI initiates 'UPI for Secondary Market' to facilitate faster trading settlements, offering streamlined investing environment and transparency for customers.
- UPI ATMs with QR Codes: Pilot phase introduces UPI ATMs using QR codes, enabling cash withdrawals without

CONTEXT: CERT-In under the Ministry of Electronics and Information Technology alerts about cyber threats from public charging ports, highlighting risks of "juice-jacking" attacks.

BACKGROUND: Amid concerns about the "USB charger scam," cybercriminals exploit unsuspecting users through a tactic known as "juice-jacking." This deceptive technique allows hackers to steal data or install malware on devices connected to compromised charging ports. Users, unaware of the risk, expose themselves to potential data theft or device compromise when using these convenient but compromised ports.



BEWARE OF JUICE JACKING: PROTECT YOUR DEVICES

- Juice Jacking Definition: Cybercriminals exploit public charging stations or compromised USB ports to install malware or steal data from connected devices.
- Cybersecurity Threat: Users inadvertently expose their devices to hackers, risking theft of personal information or installation of malicious software.

physical debit cards, enhancing convenience and financial inclusion.

Four-Hour Cooling Period: RBI proposes a four-hour cooling period for first payments exceeding ₹2,000 to new recipients, enhancing safety by allowing transaction reversals or modifications.

UNIFIED PAYMENTS INTERFACE (UPI): A SEAMLESS BANKING SOLUTION

- System Integration: UPI integrates multiple bank accounts into a single mobile application, facilitating seamless fund routing and merchant payments.
- Peer to Peer Transactions: UPI enables "Peer to Peer" collect requests, allowing scheduled payments as per convenience.
- Bank Integration: Each bank provides its own UPI app for Android, Windows, and iOS platforms, ensuring accessibility across different devices.
- Prerequisites: Users need a linked bank account, a mobile number, a smartphone with internet access, and a debit card for resetting MPIN.
- Convenience and Efficiency: UPI streamlines banking features, offering convenience and efficiency in fund transfers and merchant payments through a single platform.

JUICE JACKING SCAM

- Data at Risk: Personal details, login credentials, messages, photos, and other sensitive data stored on devices are vulnerable to theft.
- Preventive Measures: To stay safe, avoid using public charging stations or unknown USB ports, and consider using portable power banks instead.
- Awareness and Vigilance: Stay informed about juice jacking risks and adopt Cybersecurity best practices to safeguard your devices and data.
- Secure Charging Practices for Devices
- Avoid Public USB Ports: Prioritize using wall outlets with personal adapters to prevent data transfer or malware risks.
- Carry a Power Bank: Have a charged power bank for reliable charging without relying on public stations.
- Charging-Only Cable: Consider using cables that only allow charging to add an extra layer of protection.
- Use Trusted Locations: If using public ports, choose well-lit, populated areas with security cameras for added security.
- Monitor Devices: Stay vigilant while charging, avoiding leaving devices unattended and watching for unusual activity or messages.

The concept of "Juice Jacking" underscores the risk posed by public charging stations, where cybercriminals can potentially access users' devices and steal sensitive information. Awareness and caution are paramount, prompting the need for safer charging practices or the use of personal power sources to mitigate this security threat.





LOGICAL REASONING

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LOGICAL REASONING

1. If 'ZERO' is written as 'CHUR', then how is 'PLAYER' written?

(a) SOCACT

(b) SODBGT

(c) SODBHT

(d) SODBHU

SOLUTION

1. Identify the Coding Pattern:

We are given that "ZERO" is written as "CHUR". Let's analyze this:

Z --> C (Move 3 letters forward in the alphabet)

E --> H (Move 3 letters forward)

R --> U (Move 3 letters forward)

O --> R (Move 3 letters forward)

This pattern suggests a Caesar Cipher with a shift of +3. In a Caesar Cipher, each letter in the original word is replaced by the letter that is a certain number of positions ahead in the alphabet. Here, the shift is +3.

2. Apply the Pattern to "PLAYER":

Now, let's apply this +3 shift to each letter in "PLAYER":

P --> S (Move 3 letters forward)

L --> O (Move 3 letters forward)

A --> D (Move 3 letters forward)

Y --> B (Move 3 letters forward)

E --> H (Move 3 letters forward)

Therefore, "PLAYER" written in this code becomes "SODBHU".

3. Analyze the Answer Choices:

Based on our solution, the correct answer should be (d) SODBHU.

(a) SOCACT: This option has a mismatch in the third letter (C instead of D).

(b) SODBGT: This option has a mismatch in the last letter (T instead of U).

(c) SODBHT: This option has an extra letter (T) at the end.

Answer: (d) SODBHU

2. Consider the following statements:

1. A is older than B.

- 2. C and D are of the same age.
- 3. E is the youngest.

4. F is younger than D.

5. F is older than A.

How many statements given above are required to determine the oldest person/persons?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five

SOLUTION

Analyzing the Statements:

- A is older than B: This tells us the relative age of A and B, but not about anyone else.
- C and D are of the same age: This eliminates the possibility of either C or D being the oldest (alone).
- E is the youngest: This identifies E as the youngest person in the group.
- F is younger than D: This tells us D is older than F, but doesn't clarify D's position relative to others.

• F is older than A: This creates a loop: F > A and A > B. It doesn't directly point to the oldest person.

Why All Five Statements are Needed:

- Without statement 2, we wouldn't know if C or D could be the oldest (alone).
- Without statement 3, E could have been a contender for the oldest.
- Without statement 4, D's position wouldn't be clear relative to the loop created by statements 1 and 5. Reasoning through the Statements:
- From statement 2, we know C and D are the same age.
- From statement 3, we know E is the youngest.
- Now, combining statement 4 (F < D) with statement 1 (A < B) and statement 5 (F > A), we create a loop (F > A > B > ... > F).



• This loop eliminates the possibility of anyone apart from C and D being the oldest (alone). However, it doesn't tell us if they are the absolute oldest.

Conclusion:

We need all five statements to definitively determine that C and D are the oldest people (since they are the same age and no one else can be older than both).

Therefore, the answer is (d) All five.

3. Consider the sequence ABC__ABC_DABBCD_ABCD that follows a certain pattern.

Which of the following completes the sequence?

(a) DACB(b) CDAB(c) DCCA(d) DDCA

SOLUTION Pattern Recognition:

Observe the repeating pattern in the sequence:

- ABC__: The first three letters (ABC) repeat, with a blank space in between.
- ABC_: The first three letters (ABC) repeat again.
- DABBCD: Here, the pattern changes. We see the first letter (D) repeated twice, followed by the remaining letters (ABC) in reverse order.
- ABCD: This reverts to the original pattern, with all four letters (ABCD) appearing in sequence.

Applying the Pattern:

Following the established pattern, the next sequence should start with a double letter, followed by the remaining letters in reverse order.

Since the previous sequence ended with "D", the next sequence should begin with:

DD (Double D) Now, reversing the remaining letters (CBA): DD + CBA Therefore, the complete sequence becomes: ABC__ABC_DABBCD_ABCD DDCBA Matching the Answer Choices: Out of the options provided, only (d) DDCA matches the derived sequence. Conclusion: The answer is (d) DDCA.















"INTEGRITY WITHOUT KNOWLEDGE IS WEAK AND USELESS, AND KNOWLEDGE WITHOUT IN-TEGRITY IS DANGEROUS AND DREADFUL."

Integrity and knowledge are two pillars that uphold human character and behavior. When these pillars stand in harmony, they create a foundation of trustworthiness, competence, and ethical conduct. However, when one is lacking or misaligned with the other, the consequences can be detrimental. This essay delves into the significance of integrity and knowledge, their interdependence, and the repercussions of their absence or imbalance.

Integrity, often defined as the adherence to moral and ethical principles, is the cornerstone of trustworthy behavior. It encompasses honesty, sincerity, and consistency in one's actions and decisions. Integrity is not merely about following rules but about staying true to one's values and principles even in challenging situations. It is the moral compass that guides individuals to do what is right, regardless of external pressures or temptations.

On the other hand, knowledge refers to the information, skills, and understanding acquired through learning and experience. It encompasses expertise, competence, and critical thinking abilities. Knowledge empowers individuals to make informed decisions, solve complex problems, and contribute meaningfully to society. However, knowledge alone, without integrity, can be dangerous.

When integrity is absent despite possessing knowledge, individuals may misuse their expertise for personal gain or unethical purposes. We see numerous examples throughout history and in contemporary times where knowledgeable individuals lacking integrity have caused harm, whether through deceitful practices in business, corruption in politics, or unethical conduct in professions like medicine or law. In such cases, knowledge becomes a tool for manipulation and exploitation rather than a force for good. Conversely, integrity without knowledge can lead to wellintentioned but misguided actions. While moral principles are essential, they must be informed by knowledge and understanding. Without a solid foundation of knowledge, integrity alone may result in decisions based on subjective beliefs or emotions rather than objective facts and analysis. This can be particularly risky in fields that require expertise and rational judgment, such as science, engineering, or policymaking.

The synergy between integrity and knowledge is where their true strength lies. When individuals possess both qualities in equal measure, they become beacons of trustworthiness and competence. Integrity ensures that knowledge is used responsibly and ethically, while knowledge empowers integrity with informed decision-making and problem-solving capabilities.

Furthermore, the combination of integrity and knowledge fosters a culture of accountability, transparency, and ethical leadership. In organizations, leaders who exemplify integrity and possess deep knowledge inspire trust and loyalty among their teams. They lead by example, demonstrating that ethical conduct and competence go hand in hand, creating a positive impact on their organizations and society at large.

In conclusion, integrity without knowledge is like a compass without a map – well-intentioned but lacking direction and effectiveness. Similarly, knowledge without integrity is like a sharp tool in the wrong hands – capable of causing harm instead of creating value. It is the harmonious integration of integrity and knowledge that paves the way for ethical behavior, responsible decision-making, and positive contributions to the world.

"RELATIVITY APPLIES TO PHYSICS, NOT ETHICS"

Relativity, as elucidated by Albert Einstein in the realm of physics, has revolutionized our understanding of the universe. It has brought to light the dynamic nature of space, time, and matter, revealing that what may seem absolute from one perspective can be relative from another. However, when it comes to ethics, the principles that govern human conduct and morality, relativity finds limited applicability. Ethics, unlike physics, operates on a foundation of immutable constants that transcend the relativistic nature of the world.

Ethics, at its core, is concerned with fundamental principles of right and wrong, fairness, justice, and human dignity. These principles are not contingent upon perspective or context but are rooted in universal truths that guide human behavior and interactions. While circumstances may vary, ethical principles remain constant and provide a moral compass for individuals and societies.

One of the key aspects that distinguishes ethics from relativity is the concept of moral absolutes. Certain actions, such as murder, theft, or deceit, are universally condemned as unethical regardless of cultural norms or personal beliefs. These moral absolutes serve as foundational pillars that uphold the fabric of a just and civilized society, ensuring respect for life, property, honesty, and integrity.

Moreover, ethics is not merely about individual perspectives or subjective opinions. It encompasses objective standards of behavior that promote the well-being and flourishing of individuals and communities. For example, the principle of fairness dictates that people should be treated with equity and justice, irrespective of their background, status, or identity. This principle remains constant across diverse cultures and contexts, reflecting its universal relevance.

Another fundamental aspect of ethics is the consideration of consequences and intentions. Ethical decision-making involves not only assessing the outcomes of actions but also the motives and intentions behind them. This holistic approach to ethics acknowledges the complexity of human behavior and the interconnectedness of actions and their impact on others.

Furthermore, ethics is inherently linked to values such



as empathy, compassion, honesty, and respect. These values form the basis of ethical conduct and guide individuals in their interactions with others. While perspectives on specific ethical dilemmas may vary, the underlying values that inform ethical decision-making remain consistent and non-negotiable.

It is essential to recognize that relativity, as applied in physics, deals with observable phenomena and measurable quantities in the physical world. In contrast, ethics deals with intangible concepts of morality, virtue, and human dignity that transcend empirical observation. While relativity allows for flexibility and adaptation in scientific theories, ethics provides a stable framework of principles that stand the test of time and circumstance.

In conclusion, relativity applies aptly to the realm of physics, where phenomena are subject to change based on perspective and context. However, when it comes to ethics, the principles that guide human behavior and moral conduct are rooted in universal truths and moral absolutes. Ethics transcends relativity, offering a timeless and steadfast framework for individuals and societies to navigate the complexities of human existence with integrity, compassion, and justice.



TOPICS OF THE MONTH



"THE MOST DANGEROUS KIND OF WASTE IS THE WASTE WE DO NOT RECOGNIZE" - DR. Alexander Jacob IPS

PATH TO SUCCESS OF OFTEN EMBRACING FAILURE WITH ENDURING ENTHUSIASM

-DR. Babu Sebastian

A SOCIETY THAT HAS MORE JUSTICE IS A SOCIETY THAT NEED LESS CHARITY

-DR. G. Prasanna Kumar IAS

MANAGEMENT OF INDIAN BORDER DISPUTES - A COMPLEX TASK

- DR. Muhammed Basheer



'THE MOST DANGEROUS KIND OF WASTE IS THE WASTE WE DO NOT RECOGNIZE"

The concept of unrecognized waste encompasses a wide array of phenomena that often evade immediate notice or consideration but nonetheless wield significant impact. Unlike visible waste such as discarded materials or inefficient processes that are tangible and quantifiable, unrecognized waste operates subtly, eroding productivity, sustainability, and well-being in ways that may not be immediately apparent. This essay delves into the depths of unrecognized waste, exploring its manifestations, implications, and strategies for mitigation.

Unrecognized waste manifests in various forms across different domains of human activity. In organizational settings, it may lurk in inefficient workflows, redundant procedures, and bureaucratic hurdles that lead to wasted time, effort, and resources. Manufacturing industries grapple with mismanagement of materials, overproduction, and inadequate inventory control, resulting in squandered resources and increased costs. Government institutions often struggle with bureaucratic inefficiencies, delayed decisionmaking processes, and ineffective policies that squander opportunities and erode public trust.

The mismanagement of human capital represents another facet of unrecognized waste. Underutilization of talents, lack of training and development opportunities, and disengagement contribute to diminished productivity and innovation in workplaces. Discrimination, bias, and inequality not only squander human potential but also perpetuate systemic inefficiencies that hinder organizational success and societal progress.

Environmental neglect is a critical dimension of unrecognized waste, as it encompasses practices that disregard sustainability and ecological responsibilities. Failure to adopt environmentally friendly practices, address climate change, or mitigate pollution leads to the depletion of natural resources, environmental degradation, and long-term ecological crises with far-reaching consequences.

Moreover, social and cultural blind spots contribute to unrecognized waste by overlooking societal issues such as poverty, inequality, and marginalization. Cultural heritage and traditional knowledge, when neglected or disregarded, result in the loss of valuable insights and practices that are integral to societal cohesion and identity.

The implications of unrecognized waste are profound and multifaceted. Economically, it imposes substantial

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costs on businesses, governments, and societies, affecting competitiveness, profitability, and long-term sustainability. Environmental consequences include resource depletion, pollution, and ecological damage that undermine planetary health and resilience. Socially, unrecognized waste exacerbates inequalities, fosters social unrest, and hampers collective well-being, while culturally, it erodes identity, heritage, and the richness of human diversity.

Addressing unrecognized waste requires a multifaceted approach that encompasses awarenessbuilding, accountability, efficiency measures, human capital empowerment, sustainability initiatives, and social and cultural interventions. Raising awareness about the concept of unrecognized waste and its implications is crucial for fostering a culture of responsibility and proactive problem-solving. Holding individuals, organizations, and institutions accountable for their actions and decisions is essential for promoting transparency, ethical practices, and good governance.

Efficiency measures such as lean management principles, process optimization, and technological innovations play a vital role in reducing waste and enhancing productivity. Empowering human capital through training, skill development, and inclusive practices fosters a culture of engagement, creativity, and collaboration that minimizes wasted potential. Embracing sustainability across sectors promotes responsible resource management, environmental stewardship, and resilience to climate change and ecological challenges.

Furthermore, addressing social and cultural challenges requires comprehensive policies, community engagement, and initiatives that promote equity, inclusion, and diversity. Preserving cultural heritage, traditional knowledge, and indigenous practices safeguards against cultural waste and ensures the continuity of valuable insights and practices across generations.

In conclusion, unrecognized waste represents a hidden but potent threat to individuals, organizations, and societies at large. By recognizing its manifestations, understanding its implications, and implementing proactive strategies for mitigation, we can minimize its harmful effects and pave the way for a more sustainable, equitable, and resilient future.

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PATH TO SUCCESS OF OFTEN EMBRACING FAILURE WITH ENDURING ENTHUSIASM

The human spirit yearns for the summit, the triumphant roar of the crowd, the validation of a life well-lived. Yet, etched into the very fabric of our existence is a truth often shrouded in shadow: the potent alchemy of failure. Imagine a sculptor, his chisel striking only flawless blows, forever replicating a single form. His sculptures might be technically perfect, but devoid of the depth and character that comes from wrestling with imperfections. Similarly, our journeys towards success, whether personal or professional, are not linear ascents, but expeditions riddled with detours, missteps, and moments of humbling defeat.

These setbacks, however, are not harbingers of doom, but rather hidden teachers, their voices whispering wisdom only the discerning ear can hear. Consider the tenacious scientist on the cusp of a breakthrough. Countless experiments yield inconclusive results, each failure a potential dead end. But within these failures lie the seeds of discovery, the patterns that reveal the flaw in the hypothesis, the nudge towards a bolder, more refined approach. This is the essence of embracing failure – not as a terminal point, but as a transformative crucible, forging resilience, adaptability, and a relentless pursuit of knowledge.

The fear of failure, however, is a cunning serpent, its grip insidious. It whispers doubts, paralyzes action, and stifles the audacious dreams that propel us forward. This fear has turned countless promising ventures into stillborn ideas, stifled the voices of budding artists, and left a trail of unfulfilled potential in its wake. But what if we could dismantle this fear, brick by brick? What if we could see failure not as a mark of shame, but as a badge of courage, a testament to the willingness to venture beyond the safe harbour of the known? By reframing our perception of failure, we unlock a potent fuel for enduring enthusiasm. Each stumble becomes a stepping stone, each setback a lesson learned. This essay delves into the power of this transformation, exploring the strategies for cultivating a growth mindset, building a supportive network, and fostering a culture of experimentation. We will navigate inspiring examples of those who embraced failure, from the tenacious scientist to the audacious entrepreneur, drawing lessons from their triumphs and tribulations. Ultimately, we will unveil the path towards success, not as a solitary peak, but as a vibrant landscape shaped by both the brilliance of victories and the wisdom gleaned from failures.

The human spirit, in its relentless pursuit of ambition, often constructs a towering edifice of success in its mind's eye. But the path to that gleaming pinnacle is rarely a smooth ascent. It's a treacherous climb riddled with jagged rocks of setbacks and shrouded in the chilling mist of uncertainty. Yet, the most crippling obstacle on this ascent isn't the sheer face of the climb itself, but the paralyzing fear that grips us at the base – the fear of failure.

This fear is a cunning serpent, its venom insidious. It coils around our ambitions, whispering insidious doubts that slowly suffocate the embers of creativity and innovation. It transforms calculated risks into reckless plunges, and stifles the audacity to dream beyond the confines of the familiar. Imagine a sculptor, his chisel trembling at the thought of a misplaced strike, forever replicating a single form. His sculptures might be technically perfect, but devoid of the depth and character that comes from wrestling with imperfections. The fear of failure, in its suffocating grip, condemns us to a life of mediocrity, a pale imitation of our true potential.

History, however, stands as a defiant counterpoint, a testament to the transformative power of embracing failure. Take Thomas Edison, the man who illuminated the world. His journey to invent the light bulb wasn't a singular stroke of brilliance, but a relentless pursuit against the odds. He famously remarked, "I have not failed. I've just found 10,000 ways that won't work." Each unsuccessful attempt wasn't a dead end, but a stepping stone, a piece of the puzzle revealed. This unwavering spirit in the face of countless failures exemplifies the grit required to build empires out of ashes.

J.K. Rowling's saga mirrors this tenacity. The now-iconic Harry Potter series, a universe that enthralled generations, was initially rejected by a staggering twelve publishers. But Rowling, refusing to succumb to despair, persevered. She saw rejection not as a final verdict, but as a redirection, a nudge towards a path yet to be discovered. Her unwavering belief in her story, fuelled by the lessons gleaned from each rejection, ultimately led to a global phenomenon.

These are not isolated anecdotes, but testaments to a universal truth – resilience is forged in the fires of failure. Consider Abraham Lincoln, a man who embodied the spirit of unwavering resolve. His path to the presidency was paved with agonizing defeats. He lost eight elections before finally ascending to the highest office in the land. Yet, with each loss, Lincoln honed his leadership skills, refined his message, and ultimately, became the man who steered the nation through its darkest hour.

Not on a gilded carriage, but on a path forged in defiance, rose Jawaharlal Nehru, India's first Prime Minister. British jails couldn't extinguish the fire in his heart. Each incarceration became a crucible, tempering his resolve for an independent India. Emerging, not broken, but steeled, his voice, honed in countless arguments with captors, transformed into a clarion call for freedom. Nehru, the lawyer who once argued cases, now championed a nation's liberation, captivating millions with his unwavering demand for self-rule.

Nehru wasn't just Gandhi's disciple; he was the megaphone and his bridge to the world. His Western education bridged the gap to global audiences, while his fiery spirit ignited the restless Indian youth. Together, they transformed Gandhi's message from ashram whispers to a roar that shook the British Raj.

His journey wasn't without challenges. He navigated a tapestry of diverse cultures with unwavering commitment to democracy, laying the foundation for India's nascent republic. Nehru's rise wasn't a solo feat, but a testament to resilience, a beacon for all who dare to dream in the face of adversity.

These titans of human achievement didn't shy away from failure; they embraced it as a crucible, a forge that tempered their resolve and sharpened their focus. They understood that the path to success is not a pristine, uninterrupted ascent, but a meandering journey marked by both triumphs and tribulations. By dismantling the fear of failure, we unlock the potential for enduring enthusiasm, transforming each misstep into a valuable lesson, and every setback into a springboard that propels us further towards our



goals.

Imagine scaling a mountain shrouded in mist. The summit, your goal, seems impossibly distant. With each misstep, a voice whispers doubts, urging you to retreat. This, in essence, is the battle between a fixed mindset and a growth mindset.

Carol Dweck, a renowned psychologist, identified these two contrasting belief systems. Those with a fixed mindset believe intelligence and talent are innate, unchangeable traits. Failure, for them, is a crushing blow, a confirmation of inadequacy. The fear of failure then becomes a paralyzing force, hindering them from taking risks or pushing their boundaries.

On the other hand, individuals with a growth mindset view challenges as opportunities for learning and development. They believe that intelligence and abilities can be cultivated through effort and dedication. Failure, instead of a dead end, becomes a stepping stone, a chance to identify weaknesses and refine strategies.

Consider a young artist who struggles to master a new painting technique. A fixed mindset might lead them to believe they lack artistic talent and abandon the pursuit altogether. However, a growth mindset artist sees this struggle as a learning experience. They analyse their mistakes, seek guidance, and practice diligently. Through this process, their skills improve, and their artistic journey continues.

The power of a growth mindset extends beyond artistic endeavours. It fuels success in every aspect of life. An entrepreneur facing a failed business venture can use the experience to identify flaws in the product or marketing strategy, leading to a stronger, more successful second attempt. An athlete facing a crushing defeat can analyse their performance, train harder, and emerge a more formidable competitor.

By cultivating a growth mindset, we unlock the potential for boundless learning and enduring enthusiasm. We transform setbacks from roadblocks into springboards, propelling us further on the path to achieving our goals.

Perfectionism, a cunning foe, can masquerade as ambition. It lulls us into setting impossibly high standards, only to leave us deflated and paralyzed by the fear of falling short. Imagine a sculptor, forever frozen, his chisel trembling at the thought of a single imperfect stroke. By embracing a growth mindset, we can shatter this illusion. We learn to celebrate the messy middle, the stumbles and struggles that are the hallmarks of progress. A writer can learn to see a rejected manuscript not as a failure, but as a stepping stone to a masterpiece. With each imperfect attempt, we inch closer to our true potential.

Transforming failure into a springboard for growth hinges on the power of constructive feedback. This feedback can come from trusted mentors, supportive peers, or even a period of self-reflection.

Take the legendary Indian cricketer Sachin Tendulkar. Even the "Master Blaster" wasn't immune to failures. During a particularly challenging phase in his career, he actively sought guidance from legendary coach Dennis Lillee. Lillee's insightful feedback helped Tendulkar identify technical flaws in his batting stance. By incorporating this feedback and relentlessly practicing, Tendulkar not only overcame this slump but emerged as a stronger, more versatile batsman. Failure, in the Indian tradition, isn't seen as a curse, but as a divine nudge, a "guru dakshina" – a teacher's fee paid through experience. Take the legend of Arjuna, the famed warrior in the Mahabharata. Despite his exceptional skills, he faltered on the battlefield, consumed by doubt. It was his charioteer and mentor, Krishna, who provided the crucial feedback. Krishna's words, the Bhagavad Gita, served as a turning point for Arjuna. He learned to detach from the outcome and focus on fulfilling his duty. This introspective journey, fuelled by the "failure" of his initial hesitation, transformed him into a legendary hero.

Similarly, in today's world, constructive feedback is instrumental in transforming failure into growth. Whether from a seasoned mentor, a supportive peer, or even the sting of a public critique, feedback offers valuable insights into areas for improvement. By actively seeking and incorporating this feedback, individuals can accelerate their learning and development, emerging stronger and more resilient from each setback.

Organizational cultures play a significant role in shaping attitudes toward failure. Companies that encourage experimentation and risk-taking create fertile ground for innovation. Google's "20% time" policy and Pixar's "Braintrust" sessions exemplify how fostering a culture of experimentation can yield groundbreaking results. Like Silicon Valley giants, Indian organizations are embracing the power of learning from failure. Take Infosys, known for its culture of experimentation. Their "Fail Fast, Fail Forward" initiative encourages calculated risks, leading to quicker innovation cycles. Similarly, Flipkart's "Learning Labs" allow teams to test new ideas without fear of repercussions.

This focus on learning extends beyond tech. Mahindra & Mahindra's "War Room" sessions openly analyse project shortcomings, fostering a growth mindset across the organization. By embracing "intelligent failure," Indian companies are not just avoiding mistakes, they're turning them into springboards for success.

ISRO's "Learn from Failures" Policy is an example in the often criticised public sector. The Indian Space Research Organisation (ISRO) is renowned for its costeffective space missions. While not explicitly promoting failure, they have a strong focus on learning from setbacks. After the Chandrayaan-2 Vikram lander mission faced a hard landing, ISRO formed an independent inquiry committee to analyse the cause and improve future missions. This emphasis on learning from experience demonstrates a move towards a culture that can benefit from "intelligent failure."

Resilience is admirable, but what if we dared for more? Indian wisdom reframes failure, not as a foe, but as a transformative fire. In the Bhagavad Gita, Arjuna, a mighty warrior, faces a moral crisis. Lord Krishna urges him to fulfill his duty, but to detach from the outcome. This powerful message – action without attachment – teaches us that failure recedes when we focus on learning's journey. Every attempt, success or not, fuels our growth.

The Mahabharata reinforces this with Yudhishthira's tale. Stripped of everything in a game of dice, he doesn't wallow. He learns, adapts, and ultimately triumphs.

King Shibi exemplifies "nishkama karma" – selfless action. He offered his own flesh, not for success, but for the act itself. This detachment from results allows us to detach



self-worth from achievements. The ancient concept of "Atman" reminds us - our true value lies within, not in external outcomes.

Embrace "intelligent failure" – the fire that forges resilience and wisdom. Let's shed the fear of falling and step into the dance with failure, a dance that unlocks our true potential.

Embracing failure requires embracing vulnerability. Just as a seed cracks open to take root, we too must expose our shortcomings for growth. Indian spiritual texts guide us here. The Yoga Sutras of Patanjali advocate for **"Aparigraha" – non-attachment –** which extends to our selfimage. By acknowledging imperfections openly, we cultivate psychological safety, a space where risk-taking and admitting failures become stepping stones to innovation, not roadblocks.

Failure's lessons extend beyond work. Stepping outside our comfort zones, even if it leads to stumbles, fuels personal growth. Viewing these as learning experiences unlocks passions and a deeper sense of fulfillment. A "growth mindset" helps us see challenges as opportunities, fostering perseverance in hobbies, skills, or personal projects. Even relationships benefit from embracing failure. By practicing empathy, communication, and forgiveness after misunderstandings, we build stronger connections.

In the tapestry of societal evolution, the threads of justice and charity are intricately woven, each influencing the other in profound ways. It is said that a society abundant in justice requires less charity, for where justice thrives, inequality withers and the need for benevolence diminishes.

Consider the story of Kanta, a widow living in rural India. Bereaved by tragedy and burdened by societal neglect, she found herself trapped in a cycle of poverty, her dreams stifled by the heavy hand of injustice. However, amidst her despair, justice intervened. Legal reforms empowered her with land rights, access to education, and economic opportunities previously denied. As the tendrils of justice reached her, the need for charity dwindled, replaced by a newfound sense of agency and dignity. Kanta's tale is not isolated but emblematic of a broader truth – where justice reigns, charity becomes a supplement rather than a necessity.

Through a prism of real-life experiences and philosophical reflections, it elucidates how a society enriched in justice paves the path towards collective prosperity, rendering charity a gesture of compassion rather than a systemic necessity.

Justice as Structural Foundation

In the mosaic of societal development, justice stands as the cornerstone, shaping the very foundation upon which equitable progress is built. In India, where economic disparities and social injustices have long plagued communities, the call for justice echoes with poignant urgency. Consider the case of the Dalit community, historically marginalized and deprived of basic rights. Through legal and policy reforms, the structural injustices that once bound them have begun to unravel. Land rights, educational opportunities, and access to public services have become tangible realities, transforming their plight from one of oppression to one of empowerment.

Yet, the journey towards a just society is perpetual, requiring continual vigilance and reform. As we witness

Self-compassion is the engine that propels us forward after failure. Harsh self-criticism is like trying to start a fire with wet wood. Instead, the Bhagavad Gita teaches us the importance of "Samatva" – equanimity. Just as Arjuna, the warrior, is urged to act without clinging to victory or defeat, we must extend kindness and understanding to ourselves. This self-compassion fuels resilience, allowing us to bounce back from setbacks with renewed determination.

The summit may be shrouded in mist, but the path to success is paved not with flawless strides, but with the grit gleaned from each misstep. Let us dismantle the serpent of fear, replacing it with the unwavering spirit of a growth mindset. Embrace the "guru dakshina" of experience, the transformative fire that tempers resilience and wisdom. Together, fueled by self-compassion and a culture of experimentation, we can transform failures from stumbling blocks into stepping stones, propelling ourselves, and those around us, towards a future brimming with innovation and boundless potential. The summit may still seem distant, but with each transformed failure, the view from the top grows ever clearer.

As we embark on this journey, let us remember the words of Nelson Mandela: "Our greatest glory is not in never falling, but in rising every time we fall."

the transformative power of justice in dismantling systemic barriers, the need for charity diminishes organically. When individuals are afforded equal opportunities and rights, reliance on external aid wanes, replaced by a sense of self-sufficiency and dignity.

Indeed, justice serves as the bedrock upon which the edifice of societal well-being is erected, laying the groundwork for a future where charity becomes a gesture of compassion rather than a crutch. As we delve deeper into this narrative, the nexus between justice and empowerment emerges, beckoning us to explore the paradigm shift from dependency to autonomy.

Empowerment over Dependency

In the tapestry of societal transformation, the shift from dependency to empowerment marks a profound evolution in the quest for justice and equality. Nowhere is this transition more palpable than in the Indian context, where communities once relegated to the margins are reclaiming their agency and forging paths to self-sufficiency.

Consider the story of Rani, a woman from a remote village, whose life was transformed through skill development programs. Empowered with vocational training, she not only gained financial independence but also became a beacon of hope for her community. Her journey epitomizes the transformative potential of empowerment initiatives, where individuals transcend the shackles of dependency to chart their destinies.

As we celebrate these triumphs of empowerment, we confront the imperative to shift our focus from reactive charity to proactive measures. Preventative interventions, such as education and healthcare access, hold the promise of breaking cycles of poverty and injustice at their roots. By investing in these foundational pillars of societal well-being, we pave the way for a future where charity becomes a gesture of solidarity rather than a necessity.



In our exploration of empowerment over dependency, we are beckoned to examine the dichotomy between reactive aid and preventative measures, illuminating pathways towards a more just and equitable society.

Preventative Measures vs Reactive Aid

In the intricate tapestry of societal welfare, the debate between preventative measures and reactive aid occupies a central stage. In India, where disparities abound, this discourse takes on a profound significance, shaping policies and interventions aimed at fostering justice and equality.

Consider the case of public health initiatives. While reactive aid, such as medical camps and relief efforts, provides immediate relief to communities in distress, preventative measures, such as vaccination drives and sanitation campaigns, offer long-term solutions to endemic health issues. By addressing root causes and promoting holistic well-being, these initiatives not only alleviate suffering but also mitigate the need for charity in the first place.

Similarly, in the realm of education, investing in preventative measures like inclusive curriculum development and teacher training holds the key to bridging educational divides. By ensuring equitable access to quality education from the outset, we empower individuals to break free from cycles of poverty and dependency, thus fostering a society where charity is supplanted by opportunity.

As we navigate the terrain of preventative measures versus reactive aid, we are compelled to recognize the transformative potential of education as a catalyst for equity and justice. Let us delve deeper into this pivotal realm, exploring how education serves as a beacon of hope in the quest for a fairer, more compassionate society.

Education as a Path to Equity

In the tapestry of societal progress, education emerges as a luminous thread weaving paths to equity and justice. Nowhere is this more evident than in India, where education has the transformative power to break chains of inequality and pave avenues towards a more just society.

Consider the story of Mohan, a child from a lowincome family in rural India. Through government initiatives promoting universal education and scholarships, Mohan gained access to quality schooling. Empowered with knowledge, he transcended socio-economic barriers, ultimately becoming a catalyst for change in his community. Mohan's journey underscores the pivotal role of education in levelling the playing field and fostering social mobility.

Education not only equips individuals with skills and opportunities but also nurtures critical thinking and empathy, essential ingredients for a just society. By investing in education as a fundamental right, rather than a privilege, we lay the groundwork for a future where every child has the chance to realize their full potential, regardless of background or circumstance.

As we celebrate the transformative power of education, we are reminded of its symbiotic relationship with healthcare. Just as education serves as a pathway to equity, healthcare emerges as a fundamental right, not to be reserved for the privileged few. Let us delve deeper into this nexus, exploring how access to healthcare contributes to the fabric of justice and compassion in society.

Healthcare as a Right, Not a Privilege

In the mosaic of societal progress, healthcare emerges not as a luxury but as an inalienable right, fundamental to the fabric of justice and equity. Nowhere is this truer than in India, where the battle for healthcare access is waged daily by millions.

Consider the plight of Shanti, a woman in a remote village, who, for years, suffered from preventable illnesses due to lack of basic healthcare services. However, through government initiatives aimed at universal healthcare, Shanti and others like her gained access to essential medical care. As a result, not only did their health improve, but the burden on charitable organizations to provide emergency aid lessened.

Healthcare as a right transcends the realm of charity, offering dignity and autonomy to individuals irrespective of their socio-economic status. It embodies the principle that every life is inherently valuable and deserving of care.

As we champion healthcare as a right, not a privilege, we confront the imperative of fair distribution of resources. Let us explore how equitable allocation of resources ensures that no one is left behind, weaving a tapestry of justice and compassion across society.

Fair Distribution of Resources

In the symphony of societal harmony, fair distribution of resources emerges as a fundamental melody, resonating with the principles of justice and equity. In India, where disparities often starkly divide communities, the pursuit of equitable resource allocation becomes imperative for fostering a more just society.

Consider the case of water resources in droughtprone regions. Through community-driven initiatives and government interventions, equitable distribution of water is ensured, mitigating conflicts and addressing the needs of the most vulnerable. Similarly, in urban centers, access to basic amenities like healthcare and education is facilitated through policies aimed at bridging gaps between affluent and marginalized neighbourhoods.

Fair distribution of resources transcends mere charity; it embodies the ethos of justice, ensuring that every individual has access to the essentials for a dignified life. When resources are distributed equitably, the need for charitable interventions diminishes, replaced by systemic measures that uphold the inherent worth and rights of all citizens.

As we navigate the terrain of fair resource distribution, we are reminded of the importance of social safety nets and welfare policies. Let us delve deeper into how these mechanisms serve as pillars of support, fostering resilience and inclusivity in our quest for a more equitable society.

Social Safety Nets and Welfare Policies

In the tapestry of societal well-being, social safety nets and welfare policies emerge as threads of compassion, weaving a safety net to catch those who may otherwise fall through the cracks of injustice. In India, where economic disparities and social vulnerabilities persist, these policies serve as lifelines for the marginalized and disenfranchised.

Consider the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which guarantees the right to work and provides social security to millions of rural households. Through this initiative, individuals are empowered with employment opportunities, reducing dependency on



charity and fostering economic autonomy. Similarly, schemes like the National Food Security Act ensure access to essential food grains, shielding vulnerable populations from hunger and destitution.

Social safety nets and welfare policies epitomize the principle of justice in action, offering a tangible expression of solidarity and support. When individuals are safeguarded by robust social welfare mechanisms, the need for charitable interventions is diminished, paving the way for a more resilient and equitable society.

As we reflect on the significance of social safety nets, we are compelled to explore the nexus between welfare policies and legal reforms. Let us unravel how access to justice serves as a cornerstone of societal justice, empowering individuals to assert their rights and reclaim their dignity.

Legal Reforms and Access to Justice

In the quest for a just society, legal reforms and access to justice emerge as potent tools for dismantling barriers and empowering the marginalized. In India, where centuries-old inequities persist, these reforms serve as beacons of hope, illuminating pathways to fairness and equality.

Consider the historic verdict of the Supreme Court of India in the case of Navtej Singh Johar v. Union of India, which decriminalized consensual same-sex relations. This landmark judgment not only affirmed the rights of the LGBTQ+ community but also paved the way for greater inclusivity and acceptance. Similarly, legal aid initiatives like the National Legal Services Authority (NALSA) provide free legal assistance to the socio-economically disadvantaged, ensuring that justice is not a privilege but a right for all.

Legal reforms and access to justice form the bedrock upon which the edifice of societal fairness is built. When individuals are empowered to seek recourse for injustices, the need for charitable interventions diminishes, as systemic inequalities are addressed at their roots.

As we reflect on the transformative power of legal reforms, we are compelled to explore their role in promoting inclusive economic growth. Let us delve deeper into how equitable access to economic opportunities serves as a cornerstone of societal justice, fostering a future where charity becomes a gesture of compassion rather than a systemic necessity.

Promoting Inclusive Economic Growth

In India, where economic disparities have long hindered the realization of justice, initiatives aimed at inclusivity are imperative for fostering a fairer and more equitable future. Consider the success story of SEWA (Self-Employed Women's Association), a trade union that empowers women in the informal sector by providing access to financial services, skill development, and market linkages. Through SEWA's interventions, women artisans and workers have been able to break free from cycles of poverty, contributing to both their own economic well-being and the broader economy.

Inclusive economic growth goes beyond mere charity; it embodies the principle that every individual, regardless of background or circumstance, should have the opportunity to thrive. When marginalized communities are uplifted through targeted policies and initiatives, the need for charitable aid diminishes organically, replaced by self-sustaining economic empowerment. As we celebrate the strides made towards inclusive economic growth, we are reminded of the importance of community empowerment and participation. Let us explore how fostering a sense of agency and collective action serves as a catalyst for societal transformation, paving the way for a future where justice reigns supreme, and charity becomes a gesture of solidarity rather than a systemic necessity.

Community Empowerment and Participation

In the mosaic of societal transformation, community empowerment and participation stand as pillars of progress, embodying the principle that sustainable change is rooted in collective action. In India, where diverse communities grapple with systemic inequalities, initiatives aimed at empowering grassroots movements have become catalysts for meaningful societal change.

Take, for instance, the Chipko Movement, where villagers in the Himalayan region rallied together to protect their forests from deforestation. Through peaceful protests and grassroots organizing, they not only safeguarded their natural resources but also asserted their right to a sustainable livelihood.

Similarly, initiatives like the National Rural Livelihoods Mission (NRLM) empower marginalized communities by providing them with training, resources, and support to develop their own enterprises. By fostering a sense of ownership and agency, these programs enable communities to chart their own paths to prosperity.

Community empowerment and participation redefine the narrative of charity, transforming it into a collaborative endeavour where individuals are active agents of change rather than passive recipients of aid. As communities are empowered to address their own needs and challenges, the reliance on external charity diminishes, paving the way for a society where justice flourishes and solidarity abounds.

The symbiotic relationship between justice and charity illuminates the path towards a more equitable society. As justice prevails, systemic inequalities are dismantled, reducing the need for charity as a remedy for social injustices. Through legal reforms, inclusive economic growth, and community empowerment, we sow the seeds of a future where every individual enjoys equal rights and opportunities. In this vision, charity transforms from a mere palliative to a gesture of compassion, bolstered by a foundation of justice and solidarity. Let us continue to strive for a society where justice reigns supreme, ensuring that charity becomes a choice rather than a necessity.





MANAGEMENT OF INDIAN BORDER DISPUTES - A COMPLEX TASK

"Force is all conquering, but its victories are short lived."

— Abraham Lincoln

Border disputes have been a longstanding challenge for nations worldwide, often fuelling tensions and conflicts. In the case of India, managing border disputes presents a multifaceted challenge due to its diverse geography, complex history, and intricate relationships with neighbouring countries.

Understanding the historical context of Indian border disputes is crucial for comprehending their complexities. Many of these disputes stem from colonial legacies, arbitrary border demarcations, and unresolved territorial claims. For instance, the India-China border dispute traces back to the McMahon Line drawn by the British in 1914, which China has never recognized. Similarly, the India-Pakistan border disputes, notably over Kashmir, have roots in the partition of British India in 1947 and subsequent wars between the two nations.

The geopolitical landscape significantly influences Indian border disputes, with regional powers vying for strategic advantages and territorial control. China's assertive territorial claims in the strategically significant Indian states/UTs pose a significant challenge to its security and territorial integrity. The Doklam standoff in 2017 exemplifies the geopolitical tensions between India and China, with both sides engaging in a standoff over territory claimed by Bhutan. Similarly, Pakistan's support for insurgent groups in Kashmir adds another layer of complexity to the India-Pakistan border dispute, exacerbating tensions and hindering peaceful resolution efforts.

International law and established legal frameworks play a crucial role in managing border disputes. India has sought to rely on legal mechanisms such as arbitration, mediation, and international tribunals to resolve disputes with its neighbours. For instance, India and Bangladesh successfully resolved their maritime boundary dispute over territorial waters in Bay of Bengal through arbitration by the Permanent Court of Arbitration in 2014. However, legal mechanisms are often limited by the willingness of parties to abide by their rulings and the complexities of enforcing decisions on the ground.

Diplomacy serves as a primary tool for managing Indian border disputes, requiring tact, patience, and strategic engagement with neighbouring countries. India has pursued various diplomatic strategies, including bilateral negotiations, track-two dialogues, and confidence-building measures, to address border issues. The signing of agreements such as the Indo-China Border Peace and Tranquillity Agreement in 1993 and the Line of Actual Control (LAC) Confidence-Building Measures in 2005 reflects India's commitment to diplomatic engagement with China. Similarly, the Shimla Agreement of 1972 and Lahore Declaration of 1999 signify India's diplomatic efforts to manage border disputes with Pakistan.

Despite diplomatic efforts and legal mechanisms, managing Indian border disputes faces several challenges and obstacles. Historical animosities, nationalist sentiments, domestic politics, and military posturing often impede progress towards peaceful resolutions. Moreover, the asymmetry of power between India and its neighbours, particularly China and Pakistan, complicates efforts to find

mutually acceptable solutions.

The lack of trust, transparency, and communication exacerbates tensions and increases the risk of escalation, as evidenced by periodic border skirmishes and standoffs.

Examining specific case studies provides insights into the complexities of managing Indian border disputes. The Siachen Glacier conflict between India and Pakistan exemplifies the human and environmental costs of unresolved territorial disputes. Similarly, the India-China border standoff in Ladakh in 2020 underscored the fragility of peace along the LAC and the roadblocks in de-escalating tensions amidst competing territorial claims.

Border management of India requires sustained dialogue, confidence-building measures, and adherence to existing agreements. Prioritize diplomacy over military posturing to reduce the risk of escalation. People-topeople exchanges and cultural diplomacy can foster mutual understanding. Enhance transparency and communication channels to build trust and prevent misunderstandings. Engage in multilateral forums to address regional security concerns and promote cooperation. Pursue innovative solutions, such as joint development projects, to transform border regions into zones of peace and prosperity.

India shares a long border with Myanmar, much of which is mountainous and densely forested, making border demarcation challenging. Disputes have arisen over issues such as boundary pillars, illegal crossings, and insurgent activities along the border. Myanmar serves as a land bridge connecting South Asia to Southeast Asia. The proximity of Myanmar to India's north-eastern states establishes a strategic link and facilitates regional connectivity.

The Free Movement Regime (FMR) agreement between India and Myanmar indeed has security concerns, particularly in addressing issues related to cross-border movement of insurgents, illegal immigrants, and criminals. The FMR is a mutually agreed arrangement between the two countries that allows tribes living along the border on either side to travel up to 16 km inside the other country without a visa. It was implemented in 2018 as part of the Indian government's Act East policy. It can raise concerns about territorial integrity.

India and Bhutan have a unique relationship, with India providing significant economic and military assistance to Bhutan. While the border between the two countries is largely settled, some minor disputes exist over boundary demarcations and riverine territories. The Doklam standoff in 2017 involved a disputed area claimed by Bhutan, where Indian and Chinese troops were engaged in a tense standoff. India and Bhutan share a 699 km long border, which has been largely peaceful.

Tensions between India and Nepal escalated when Nepal unveiled a new political map in 2020, laying claim to territories including Kalapani, Limpiyadhura, and Lipulekh in Uttarakhand, as well as Susta in the West Champaran district of Bihar. India objected to the map, stating that Nepal's claims were not grounded in historical evidence and amounted to an artificial expansion of its territory. This move reignited border disputes, particularly concerning the Kalapani-Limpiyadhura-



Lipulekh trijunction shared by India, Nepal, and China, as well as the Susta area.

Kalapani is a valley that is administered by India as a part of the Pithoragarh district of Uttarakhand. It is situated on the Kailash Mansarovar route. Kalapani is advantageously located at a height of over 20,000 ft and serves as an observation post for that area. The Kali River in the Kalapani region demarcates the border between India and Nepal. The Treaty of Sugauli signed by the Kingdom of Nepal and British India (after Anglo-Nepalese War, 1814-16) in 1816 located the Kali River as Nepal's western boundary with India. The discrepancy in locating the source of the Kali river led to boundary disputes between India and Nepal, with each country producing maps supporting their own claims. Despite the open border between both countries and the people to people contact, the levels of distrust in Nepal about India have only increased.

Managing Indian border disputes is a complex and multifaceted task that requires a combination of historical understanding, geopolitical awareness, legal frameworks, and diplomatic strategies. Despite the challenges and obstacles, India has demonstrated a commitment to peaceful resolution through dialogue, negotiation, and engagement with its neighbours. However, sustained efforts are needed to address the root causes of these disputes and build trust and confidence for lasting peace and stability in the region. Only through constructive engagement and cooperation can India navigate the complexities of its border disputes and secure its territorial integrity and national interests.

When Diplomacy Ends, War Begins.

Adolf Hitler



MODEL QUESTION PAPER-MCQ





Q1. The 'INDRA App', often seen in the news, is related to:

- A. Agricultural marketing
- B. Defence communication
- C. Weather forecasting
- D. Financial transactions

Q2. India's first small-scale liquefied natural gas (SSLNG) unit was inaugurated at:

A. Reliance Industries Ltd's Jamnagar complex in Gujarat

B. Indian Oil Corporation Ltd's refinery in Mathura, Uttar Pradesh

C. Oil and Natural Gas Corporation Ltd's Uran plant in Maharashtra

D. GAIL (India) Ltd's Vijaipur complex in Madhya Pradesh

Q3. With reference to small-scale liquefied natural gas (SSLNG) often seen in news, consider the following statements.

1. It facilities produce LNG in smaller quantities, catering to localized demand and remote areas.

2. It enables efficient transportation of LNG to off-grid locations or regions lacking access to traditional gas infrastructure.

3. It offers cost-effective solutions for energy access in remote communities, industries, and maritime applications.

How many of the above statement/s is/ are correct?

- A. Only One
- B. Only Two
- C. All the Three
- D. None of the above

Q4. Which among the following best explains the concept of Small Language Models (SLMS) AI often seen in news?

A. It is designed to optimize energy consumption in electronic devices, promoting sustainability and reducing environmental impact.

B. It refers to an initiative aimed at promoting linguistic diversity by preserving endangered languages through digital documentation and analysis.

C. It focuses on enhancing the efficiency and accuracy of natural language processing tasks using machine learning algorithms.

D. It advocates for the development of compact language models to improve computational performance and memory usage in AI systems.

Q5. Consider the following statements regarding 'Atomic Clocks' frequently seen in news.

1. These locks rely solely on mechanical mechanisms for timekeeping accuracy.

2.Microwave Cavity resonance synchronised with atomic frequencies ensures stable oscillations for accurate time measurement in these clocks.

Identify the correct statement/s.

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

Q6. What does 'Mother of Dragons' signify in recent news?

A. It designates a comet, Comet 12P/Pons-Brooks, currently observable in the Northern Hemisphere sky as it approaches Earth.

B. It is a nickname for a newly discovered species of ancient reptile found in archaeological excavations.

C. It refers to a space mission aimed at exploring the possibility

of life on other planets, particularly those with dragon-like creatures.

D. It denotes a conservation project focused on protecting endangered species of dragons in their natural habitats.

Q7. Consider the following statements regarding 'Green Steel' often seen in news.

1. It refers to steel produced using low-carbon or carbonneutral methods, reducing greenhouse gas emissions and environmental impact in steel production.

2. Green steel overlooks recycling initiatives, leading to increased resource depletion and waste accumulation.

3. It involves replacing traditional blast furnaces with hydrogen-based processes, resulting in water vapour as the only emission.

How many of the above statement/s is/ are correct?

A. Only One

B. Only Two

C. All the Three

D. None of the above

Q8. Which among the following statements best explains 'deepfakes' and 'Shallowfakes' sometimes seen in news?

A. Deepfakes are manipulated media using advanced artificial intelligence, while shallowfakes involve basic editing techniques to distort content.

B. Deepfakes refer to misleading information spread through social media, whereas shallowfakes are authentic news reports misrepresented by media outlets.

C. Both deepfakes and shallowfakes are terms used interchangeably to describe digitally altered images or videos for deceptive purposes.

D. Deepfakes involve simple modifications to media content, while shallowfakes utilize complex algorithms to create realistic but misleading videos.

Q9. Consider the following statements:

Statement-I: Sodium-ion batteries are preferred over lithiumion batteries once fully developed.

Statement-II: Sodium is abundant and cheaper than lithium, offering cost-effective and sustainable energy storage solutions for various applications.

Which one of the following is correct in respect of the above statements?

A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.

B. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I.

- C. Statement-I is correct but Statement-II is incorrect.
- D. Statement-I is incorrect but Statement-II is correct.

Q10. With reference to 'Plastic Waste Management (Amendment) Rules 2024' often seen in news, consider the following statements.

1. The amendment rules broaden the definition of biodegradable plastics to include microplastics elimination, enhancing environmental protection.

2. Amendments provide detailed specifications on chemical tests for microplastics absence, simplifying determination of elimination effectiveness and regulatory compliance assessment.

3.Manufacturers must obtain CPCB certification before marketing or selling commodities made from biodegradable plastics, ensuring quality and regulatory compliance.



How many of the above statement/s is/ are correct?

- A. Only One
- B. Only Two
- C. All the Three
- D. None of the above

Q11. What does the term Environment Protection Charge (EPC) signify?

A. It is a government initiative to incentivize industries adopting eco-friendly practices by providing tax exemptions and subsidies.

B. It refers to a levy imposed on businesses for environmental violations, aiming to deter pollution and promote sustainable development.

C. It is a financial aid program supporting grassroots environmental organizations in their conservation efforts.

D. It designates a national campaign to raise public awareness about environmental issues and encourage community participation in conservation activities.

Q12. How is the National Green Tribunal (NGT) different from the Central Pollution Control Board (CPCB)? (UPSC PYQ)

1. The NGT has been established by an Act whereas the CPCB has been created by the executive order of the Government.

2. The NGT provides environmental justice and helps reduce the burden of litigation in the higher courts whereas the CPCB promotes cleanliness of streams and wells, and aims to improve the quality of air in the country.

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

Q13. With reference to 'Biorock' technology often seen in news, consider the following statements.

1. It relies on high-voltage current to stimulate coral growth.

2. It enhances coral resilience by promoting calcium carbonate deposition.

3. It mitigates coral bleaching contributing to ecosystem restoration and climate change adaptation.

How many of the above statement/s is/ are correct?

- A. Only One
- B. Only Two
- C. All the Three
- D. None of the above

Q14. Which among the following statements best explains 'Carbon Offsetting' sometimes seen in news?

A. It is a carbon trading mechanism allowing industries to exceed emissions limits by purchasing carbon credits from eco-friendly projects.

B. It involves reducing carbon emissions through technological innovations and energy-efficient practices to combat climate change.

C. It refers to the practice of offsetting carbon emissions by planting trees or investing in renewable energy projects.

D. It signifies a government initiative to impose taxes on carbon-intensive industries to discourage pollution and encourage sustainability.

Q15. The Tiger Conservation Coalition, recently seen in the news, is an initiative of which country?

A. India

- B. Nepal
- C. Bhutan
- D. Bangladesh

Q16. Consider the following statements with reference to India- Myanmar Relations

1) Myanmar is the Only ASEAN Country adjoining India.

2) Both India & Myanmar are members of ASEAN Regional Forum (ARF)

Which of the Above Statements are Incorrect?

- a) 1 Only
- b) 2 Only
- c) Both 1 & 2
- d) Neither 1 nor 2

Q17. In Context of India Israel relations consider the following statements

1. India is the largest buyer of Military Equipment from Israel

2. India formally established relations with Israel when it opened an embassy in Tel Aviv in January 1992.

Which of the above statements are correct?

- a) 1 only
- b) 2 Only
- c) Both 1 & 2
- d) Neither 1 Nor 2

Q18. Which of the Following Pair of Countries are NOT members of European Union?

- a) Norway, Denmark, Portugal, Greece
- b) Netherlands, Poland, Germany , France
- c) Finland, Latvia, Estonia, Lithuania

d) Bulgaria, Croatia, Hungary, Czech Republic

Q19. Which of the Following Countries are not a MNNA (Major Non NATO Ally) ?

- a) Pakistan
- b) Argentina
- c) Japan
- d) Mexico

Q19. Where is the India-Sri Lanka Friendship Auditorium being set up?

- a) Mumbai
- b) Chennai
- c) Rameshwaram
- d) Trincomalee

Q20. What is Havana Syndrome, recently seen in news?

[A] Set of mental health symptoms that are said to be experienced by United States intelligence

[B] Abnormal fall in temperature leading to anti cyclone in Havana

[C] Neglected tropical disease caused due to undernourishment

[D] It is a psychological disorder

Q21. Peter Pellegrini recently became the new president of which country?

- [A] Bolivia
- [B] Slovakia
- [C] Ireland
- [D] Holland

Q22. What is 'Juice jacking', recently mentioned in the news? [A] Smuggling of gold

[B] Al tool



[C] Cyber attack [D] Fusion reactor

- Q23. Which country has recently declared a federal emergency in Orenburg region due to the Ural River flooding Orsk?
- [A] Croatia
- [B] Kazakhstan
- [C] Russia
- [D] Armenia

Q24. Paharia Tribe, recently seen in the news, mainly speaks which language?

- [A] Magh
- [B] Malto
- [C] Kui
- [D] Megam

Q25. Nagorno-Karabakh Region, recently seen in the news, is located in which mountainous region?

- [A] South Caucasus Range
- [B] Sayans Range
- [C] Verkhoyansk Range
- [D] Chersky Range

Q26. Recently, which organization has been conferred the Outstanding Public Sector Undertaking (PSU) of the Year award?

[A] BHEL

- [B] ONGC
- [C] HAL
- [D] IOCL

Q27. Consider the following statements about National Centre for Good Governance

1. It is an autonomous institute under the aegis of Department of Administrative Reforms and Public Grievances, Government of India.

2. It functions as a national repository on information on best practices, initiatives and methodologies that promote Good Governance.

Which of the following is / are true about the above?

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2

Q28. Consider the following statements

1) Intimidating or threatening any elector and preventing him from going to the polling station constitutes to offence Booth Capturing.

2) Booth capturing is not defined in any of the India statute and there is no legal provision to penalize it.

Choose the incorrect statements:

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

Q29. Consider the following statements

1) Intimidating or threatening any elector and preventing him from going to the polling station constitutes to offence Booth Capturing.

2) Booth capturing is not defined in any of the India statute and there is no legal provision to penalize it.

Choose the correct statements:

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

Q30. Consider the following countries

- 1. Eritrea
- 2. Djibouti
- 3. Democratic Republic of the Congo
- 4. Zambia
- 5. Mozambique

The Great African Rift Valley runs through which of the above mentioned countries?

- a) 1, 2 and 5
- b) 2, 3 and 4
- c) 1, 2, 4 and 5
- d) 1, 2, 3, 4 and 5

Q31. With reference to the Competition Commission of India (CCI), consider the following statements:

1. The Competition Commission of India (CCI) is a statutory, quasi-judicial body constituted under the Companies Act, 1952.

2. The Competition Commission of India (CCI) consists of 1 Chairperson and 6 Members appointed by the Central Government.

Which among the above statement(s) regarding the Competition Commission of India (CCI) is / are true?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q32. Consider the following organisations:

- 1. Competition Commission of India.
- 2. National Financial Reporting Authority.
- 3. National Anti-Profiteering Authority.

Which among the above serve as a body subordinate to the National Company Law Appellate Tribunal (NCLAT) with regard to disposal of appeals?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Q33. With reference to the 'Scheme for Capacity Building in Textiles Sector', consider the following statements:

1. The Union Ministry of Skill Development and Entrepreneurship launched the Scheme for Capacity Building in Textiles Sector.

2. Samarth is a demand-driven and placement-oriented umbrella skilling programme formulated under the broad skilling policy framework.

Which among the above statement(s) regarding the Scheme for Capacity Building in Textiles Sector is / are true?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q34. With reference to foreign-owned e-commerce firms operating in India, consider the following statements:

1. The foreign-owned e-commerce; firms, operating in India can sell their own goods in addition to offering their



platforms as marketplaces.

2. The degree of ownership foreign-owned e-commerce firms operating in India on big sellers selling on their platforms is limited.

Which of the above statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q35. With reference to the Unified Payments Interface (UPI), consider the following statements:

1. Public-Private Partnership (PPP) initiative led by the Union Ministry for Finance.

2. Interoperable platform to facilitate direct payments linked to a bank account.

3. Manages multiple bank accounts into a single mobile application of any participating bank.

4. Merge several banking features, facilitating seamless fund routing & merchant payments.

Which among the above statement(s) is / are features of the Unified Payments Interface (UPI)?

- a. 1, 2 and 3 only
- b. 1, 3 and 4 only
- c. 2, 3 and 4 only
- d. 1, 2, 3 and 4

Q36. With reference to the National Payments Corporation of India (NPCI), consider the following statements:

1. The National Payments Corporation of India (NPCI) is a for-profit company founded in 2008 under the Payment and Settlement Systems Act, 2007.

2. The National Payments Corporation of India (NPCI) is an initiative by the RBI and the Indian Bank's Association (IBA) to operate retail payments and settlement systems in India.

3. The NPCI International Private Ltd (NIPL) is the subsidiary of NPCI to popularise domestic payment technologies such as UPI and RuPay abroad and co-create payment technologies with other countries.

Which among the above statement(s) is / are true?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Q37. Which of the following is the most likely consequence of implementing the 'Unified Payments Interface (UPI)'?

a. Mobile wallets will not be necessary for online payments.

b. Digital currency will totally replace physical currency in about two decades.

c. FDI inflows will drastically increase.

d. Direct transfer of subsidies to poor people will become very effective.

Q38. According to India's National Policy on Biofuels, which of the following can be used as raw materials for the production of biofuels? (UPSC 2020)

- 1. Cassava
- 2. Damaged wheat grains
- 3. Groundnut seeds
- 4. Horse gram
- 5. Rotten potatoes

6. Sugar beet

Select the correct answer using the code given below:

- a. 1, 2, 5 and 6 only
- b. 1, 3, 4 and 6 only
- c. 2, 3, 4 and 5 only
- d. 1, 2, 3, 4, 5 and 6

Q39. Consider the following statements:

1. India is the second largest exporter of sugar after Brazil.

2. India is the world's largest producer and consumer of sugar.

Which among the above statement(s) is / are true?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q40. With reference to the current trends in the cultivation of sugarcane in India, consider the following statements: (UPSC 2020)

1. A substantial saving in seed material is made when 'bud chip settlings' are raised in a nurse and transplanted in the main field.

2. When direct planting of setts is done, the germination percentage is better with single-budded setts as compared to setts with many buds.

3. If bad weather conditions prevail when setts are directly planted, single-budded setts have better survival as compared to large setts.

4. Sugarcane can be cultivated using settlings prepared from tissue culture.

Which of the statements given above is/are correct?

- a. 1 and 2 only
- b. 3 only
- c. 1 and 4 only
- d. 2, 3 and 4 only

Q41. The Union Ministry for Petroleum and Natural Gas has constituted the Kirit Parikh committee in 2022 to

a. review the export profile of natural gas to India.

b. recommend measures regarding the feasibility of blending of Hydrogen to Compressed Natural Gas

c. recommend measures regarding the feasibility of introduction of piped natural gas for households

d. review the existing pricing formula for domestically produced natural gas in India.

42. Since May last year, RBI has been pursuing a policy of 'monetary tightening'. With reference to the monetary tightening, consider the following statements:

1. Increase in existing EMIs for home/car/business loans.

2. Prevent the "second-order effects" of high inflation.

Improve the supply of those goods and services.

Which among the above is / are likely to be a consequence of a policy of 'monetary tightening'?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

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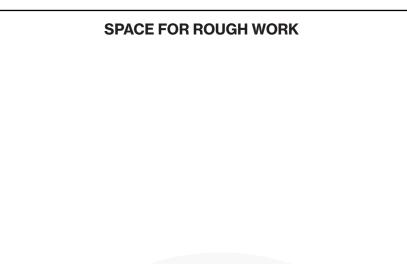


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SAMKALP VEDHIK CURRENT AFFAIRS APRIL 2024



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