IQRA IAS An institute for civil services

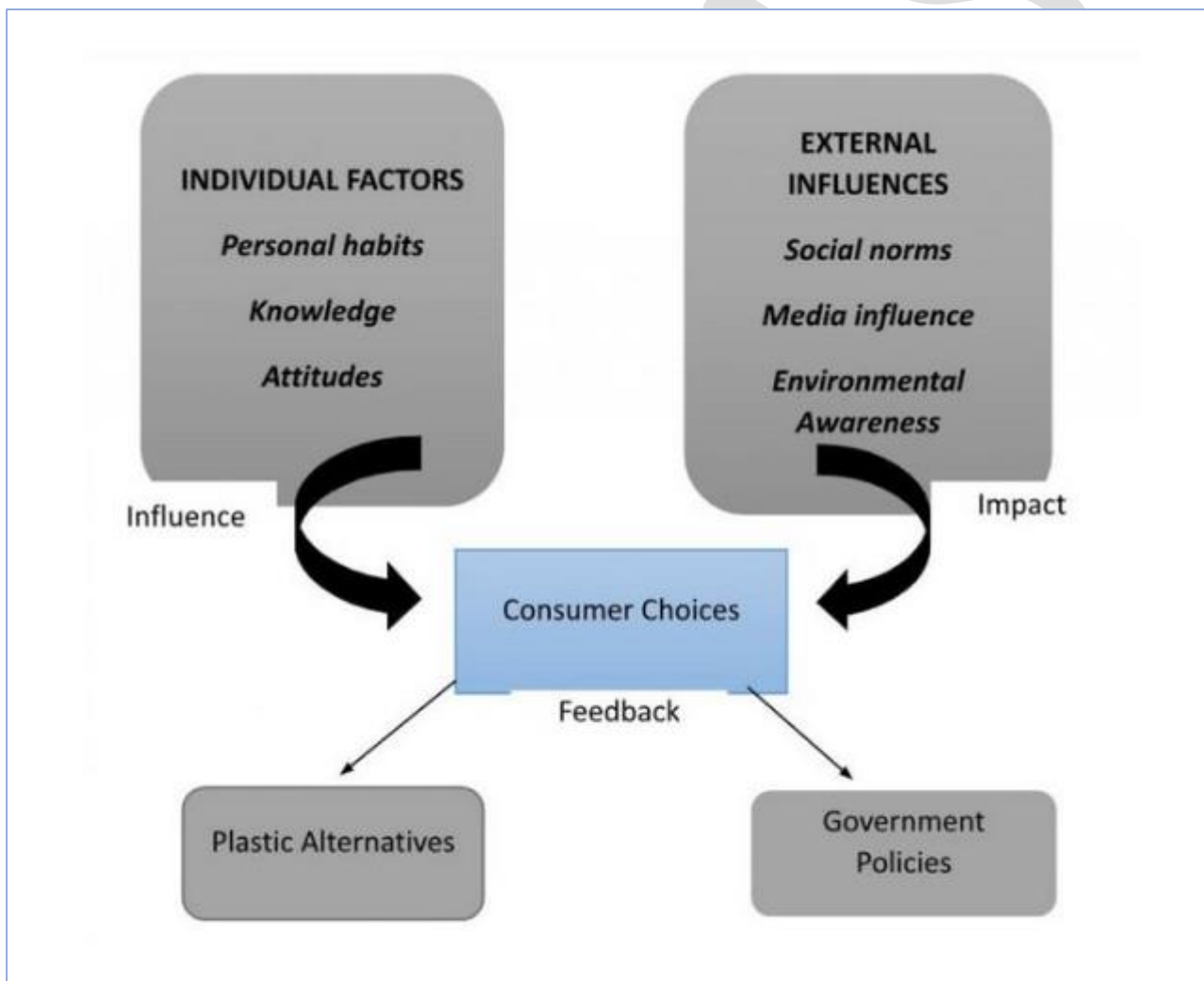IQRA
Wisdom Leads To Success

WEEKLY UPDATES – (24ᵗʰDec-30ᵗʰDec)

Contents

ENVIRONMENT

Understanding the Psychology and Impact of Plastic Consumption

Context:

- **Pervasiveness of Plastic**: Plastic, with its beneficial properties like durability, has become a ubiquitous part of modern life.
- **Environmental Impact**: Approximately 50% of plastic is used only once before being discarded, contributing to significant environmental issues, including ocean pollution.

Psychological Aspects of Plastic Use

- **Consumer Behavior Influence**: The omnipresence of plastic shapes consumer choices and behaviors, influenced by marketing strategies, packaging design, and product aesthetics.

- **Packaging and Brand Perception**: Packaging plays a crucial role in plastic use, with visual appeal and brand image significantly impacting consumer preferences.
- **Color Psychology in Packaging**: The use of color in packaging design evokes specific emotions and expectations, influencing purchasing decisions.

Convenience Factor and Limited Alternatives
- **Role of Convenience**: Plastic packaging's ability to keep products fresh and hygienic has been a key driver of its market dominance.
- **Lack of Economical Alternatives**: The absence of affordable alternatives for food packaging often leaves consumers with no choice but to opt for plastic-wrapped items.

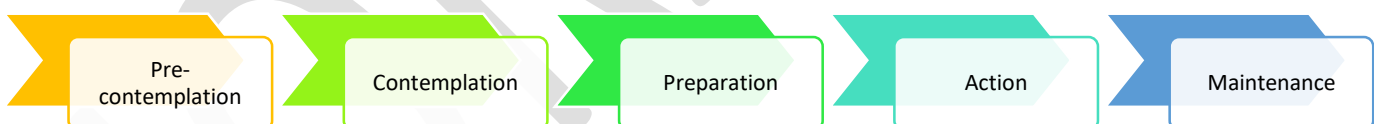**Pro-Environmental Behavior (PEB) and Plastic Use**
- **Understanding PEB**: Limiting plastic use and purchase is an example of pro-environmental behavior, influenced by awareness, knowledge, and values.
- **Factors Influencing PEB**: Concern about plastic, knowledge of its effects, and the perceived commitment of others to address its impact play roles in shaping PEB.

Market Trends and Social Influences
- **Impulsive Buying and Social Media**: The growth of social media and peer pressure have been linked to increased compulsive buying behaviors, often leading to increased plastic consumption.
- **Influence of Social Norms**: Social norms promoting consumption have led to an increase in plastic use, despite its environmental costs.

Stages of Behavioral Readiness in Plastic Consumption

Five Stages of Readiness include-

Pre-contemplation	Contemplation	Preparation	Action	Maintenance

Role of Storytelling and Marketing in Plastic Awareness
- **Emotional Engagement**: Storytelling in marketing can emotionally engage customers with the lifecycle of plastic items, enhancing environmental awareness.
- **Positive and Negative Impacts**: Marketing power can influence consumer behavior both positively and negatively in the context of plastic use.
- **Objective vs. Subjective Knowledge**: Understanding the specifics of an issue (objective knowledge) versus personal belief or awareness (subjective knowledge) influences behavior.
- **Barriers to Action**: Lack of personal connection, gradual environmental impact, moral disengagement, and immediacy issues are barriers to taking action against plastic pollution.

Way forward

- **Role of Education and Design**: Knowledge is crucial, but behavioural change also depends on product design that encourages environmentally friendly choices.
- **Supplier and Retailer Responsibility**: Minimizing packaging, using recyclable materials, and clear recycling instructions are key steps.
- **Policy Initiatives**: Policies raising awareness of plastic pollution's effects can facilitate a sustainability-focused behavioural shift.
- **Emergence of Sustainable Brands**: As consumers increasingly look to brands for sustainable options, there is a growing market for environmentally conscious products.

Conclusion

- **Critical Role of Habit Change**: Altering consumer habits is essential for environmental protection, requiring a multifaceted approach involving education, policy, and market innovation.
- **Sources**: Insights drawn from the Sustainability and Consumer Behaviour Report 2022 by Deloitte United Kingdom and research by Mittali Tyagi, PhD Scholar at Manav Rachna International Institute of Research and Studies.

Self-pollination in Field Pansy Flower

Context: Researchers have found that a flower species in Paris, the field pansy (Viola arvensis), is evolving rapidly, exhibiting reduced nectar production and smaller flower sizes.

This study aims to understand the impact of these evolutionary changes on plant-pollinator interactions.

Changing Nature of Field Pansy

Decreased Nectar and Size: The wild pansy variety in Paris showed a 20% reduction in nectar production and a 10% decrease in flower size.

Comparative Analysis: Scientists compared current flower growth with seeds from 20-30 years ago, observing notable changes.

Adaptation to Pollinator Decline: The evolution towards self-pollination in field pansies is attributed to the decreasing availability of insect pollinators.

Experimental Design: The study employed the "resurrection ecology" method, planting seeds from the 1990s and 2000s alongside their 2021 descendants.

Implications of Self-Pollination and Evolutionary Shifts

- **Contrast with Angiosperm Convention**: The move towards self-pollination deviates from the typical reliance of angiosperms on insects for pollination.

- **Long-Term Coevolution**: The traditional plant-insect relationship, involving nectar production for pollination, has evolved over 100 million years.

- **Genetic Analysis**: Population genetics analysis revealed a 27% increase in selfing rates, with consistent trait shifts across studied populations.

Concerns and Potential Consequences

- **Short-Term Benefits, Long-Term Risks**: While self-pollination may offer short-term advantages, it poses long-term survival threats to plants amid environmental changes.

- **Feedback Loop Risks**: Reduced nectar production could lead to further declines in pollinator populations, creating a detrimental eco-evolutionary feedback loop.

- **Network Degradation**: The study highlights the degradation of plant-pollinator networks, as observed in previous research.

POLITY

Tribunals cannot direct Government to frame policy: SC

Context: The Supreme Court clarified that tribunals, bound by their governing legislations, cannot compel the government to formulate policy.It emphasized the separation of powers, stating that policy-making is outside the judiciary's domain, including quasi-judicial bodies like tribunals.

What are Tribunals?

	Details
Nature	Judicial or quasi-judicial institutions established by law
Purpose	Provide faster adjudication compared to traditional courts Offer expertise on specific subject matters
Functions	Adjudicating disputes Determining rights between parties Making administrative decisions Reviewing existing administrative decisions
Constitutional Recognition	42nd Amendment Act, 1976 introduced Articles 323-A and 323-B in the Constitution
Article 323A	Empowers Parliament to constitute administrative Tribunals for public service matters
Article 323B	Allows Parliament or state legislatures to constitute tribunals for specific subjects like taxation, land reforms
Composition	Comprises expert (technical) members and judicial members
Expert Members	Selected from various fields, including central government departments
Judicial Members	Persons with a judicial background, such as High Court judges or eligible lawyers

Supreme Court's Stance	Technical members not required if tribunal's aim is expeditious disposal of matters

Case in Focus: Armed Forces Tribunal (AFT) and Policy Direction
- **Specific Case Reviewed**: The Bench addressed whether the AFT could direct the government to create a policy for appointing the Judge Advocate General (Air).
- **General Observation**: It has been consistently observed that courts cannot mandate the government to enact legislation or develop a policy.

Judicial Analysis and Reasoning
- **Justice Karol's Observations**: Justice Sanjay Karol noted that the AFT, with powers akin to a civil court, lacks the authority of the Supreme Court or High Courts.
- **High Courts' Limitations**: Even High Courts, under Article 226 of the Constitution, cannot order the government or its departments to establish specific policies.
- **Government's Prerogative**: The judgment reinforced that policy creation, especially concerning defense personnel services or their regularization, is exclusively the government's responsibility.

Implications of the Judgment
- **Tribunals' Restricted Powers**: Tribunals must operate within the confines of their governing legislation and lack the jurisdiction to influence policy formation.
- **Judiciary's Role in Policy Matters**: The judgment highlights the judiciary's limited role in policy-making, even in cases where fundamental rights might be at stake.
- **Separation of Powers**: This ruling underscores the principle of separation of powers, delineating the distinct functions of the legislative, executive, and judicial branches.

Conclusion
- **Respecting Institutional Boundaries**: The judgment serves as a reminder of the importance of respecting the boundaries and roles of different government institutions in a democratic setup.
- **Broader Implications**: This decision has significant implications for how tribunals and courts interact with policy-making processes, emphasizing judicial restraint and adherence to the constitutional framework.

Legal and Ethical Dimensions of Polygraph Tests in India

Context: In the ongoing investigation of the Parliament security breach, Delhi Police sought court permission for polygraph tests on six accused to uncover their motives.

A polygraph test, commonly known as a lie detector test, measures physiological responses believed to differ when a person lies.

Mechanics of a Polygraph Test
- **Physiological Monitoring**: The test involves attaching instruments like cardio-cuffs or sensitive electrodes to monitor blood pressure, pulse, and other variables.

- **Response Analysis**: As questions are asked, responses are numerically evaluated to determine truthfulness, deception, or uncertainty.
- **Historical Origin**: First conducted in the 19th century by Cesare Lombroso, an Italian criminologist, to measure blood pressure changes in suspects during interrogation.

Constitutional and Legal Provisions
- **Article 20(3) of the Indian Constitution**: This article protects against self-incrimination, stating that no accused shall be compelled to be a witness against themselves.
- **Infringement Concerns**: Forcing an accused to undergo polygraph or narcoanalysis tests is seen as a violation of Article 20(3), making consent essential.
- **Article 21 and Human Rights**: Polygraph tests are criticized for mental torture, potentially violating the right to life and privacy under Article 21.

Limitations and Challenges
- **Scientific Reliability**: Neither polygraph nor narco tests are scientifically proven to be 100% accurate, raising questions about their reliability.
- **Impact on Vulnerable Individuals**: These tests can adversely affect those unaware of their rights or unable to access legal advice, leading to potential abuse and media exploitation.

Legal and Constitutional Rulings
- **Selvi vs State of Karnataka & Anr (2010)**: The Supreme Court ruled that lie detector tests should be voluntary, with legal implications explained to the accused.
- **D.K. Basu vs. State of West Bengal (1997)**: The Court deemed involuntary administration of these tests as potentially violating the Right to Life and Liberty and the Right to Privacy.

- **Indian Evidence Act, 1871**: The results of these tests are not admissible as evidence in court.
- **National Human Rights Commission Guidelines (1999)**: Established consent and procedural guidelines for administering polygraph tests.

Way Forward
- **Role as Investigative Tools**: While not reliable for conclusive evidence, polygraph tests can aid in complex investigations.
- **Balancing Scientific Techniques and Rights**: The government should promote scientific methods in investigations while ensuring strict adherence to ethical and legal standards.
- **Consent and Decency**: The administration of these tests must be consensual, respecting the dignity and rights of the individuals involved.

GOVERNANCE

Tavleen Singh writes: A caste census is casteism

Context: The central idea revolves around the author's proposition to reevaluate the effectiveness of caste reservations, questioning whether they have genuinely uplifted the marginalized communities. The author highlights the venomous backlash faced for this stance, prompting a call for a new kind of affirmative action that goes beyond existing policies and involves addressing root causes.

Highlights:
- The author faced severe backlash, including threats and demands for arrest, after suggesting an end to caste reservations instead of a caste census.
- The attack was led by individuals associated with advocacy and sympathy for Dalits, raising questions about their effectiveness in addressing fundamental issues.

Challenges:
- The author questions the efficacy of reservations, emphasizing the need to examine if they have truly worked for the intended beneficiaries.
- The plight of Dalit communities, particularly the musahar community, living in extreme poverty and squalor, highlights the persistent challenges despite reservation policies.

Terms:
- Caste census: A survey to gather information about the distribution of different castes in a population.
- Affirmative action: Policies and initiatives aimed at providing opportunities to marginalized groups, often through reservations.

Phrases:
- "The time has come to examine how well reservations have worked."
- "Reservations have benefited politicians and Dalit advocacy groups more than the people for whom they were created."

Examples and References:
- Reference to a Bhumihaar dominant village in Jehanabad district, highlighting the stark contrast between clean prosperity and the squalor of the musahar quarter.
- Mention of a challenge from a Dalit advocate based in the United States, raising questions about the commitment to the cause on the ground.

Facts:
- The Chief Minister of Bihar has already ordered a caste census.
- Dalit communities continue to face challenges such as lack of access to decent schools, healthcare, and living in squalid conditions.

Critical Analysis:
- The author questions the impact of reservations, arguing that they have benefited politicians and advocacy groups more than the marginalized communities.
- The focus on the need for a new kind of affirmative action suggests a call for innovative solutions beyond existing reservation policies.

Way Forward:
- Emphasize the importance of addressing the root causes of Dalit marginalization, such as poverty and lack of access to education and healthcare.
- Advocate for comprehensive solutions that go beyond reservations, involving community development, education, and healthcare initiatives.
- Encourage a constructive debate on the effectiveness of existing policies and the exploration of new approaches to uplift marginalized communities.

Creating new Districts

Context: Amid reports that Odisha may create a few more districts before the end of the year, the Orissa High Court has directed the government not to issue any final order in this regard without its permission.

Districts in India

- **Historical Background**: Districts, as local administrative units, are a legacy from the British Raj era.

- **Administrative Hierarchy**: Positioned below the state and territory level, districts are crucial in India's local governance structure.

- **Leadership and Responsibilities**: A Deputy Commissioner or Collector, often from the Indian Administrative Service (IAS), heads a district, overseeing administration and maintaining law and order.

- **Subdivision of Districts**: Districts are further divided into smaller units like tehsils, talukas, or mandals, varying by region.

Mechanics of Creating New Districts

- **State Government's Prerogative**: The authority to create, modify, or abolish districts lies with State governments, executed via executive orders or state assembly legislation.

- **Preferred Methodology**: States typically opt for the executive route, issuing official gazette notifications for these changes.

Central Government's Role in District Reconfiguration

- **Limited Involvement**: The Central government's role is minimal in district reformation, primarily concerning name changes.

- **Procedure for Name Changes**: For renaming districts or railway stations, State governments seek clearances from central entities like the Home Ministry, Ministry of Earth Sciences, Intelligence Bureau, Department of Posts, Geographical Survey of India, and the Railway Ministry.

Trends in District Formation

- **Increase in Numbers**: India's district count has risen from 593 in 2011 to 718, as per the Government of India's Know India website.

- **Factors Influencing Growth**: This increase includes new districts formed between 2001-2011 and the bifurcation of Andhra Pradesh into Andhra Pradesh and Telangana in 2014.

Rationale behind Creating New Districts

Benefits: Districts gain from government investments in local administration and development.

Infrastructure and Economic Development: New districts see enhanced infrastructure, attracting investments and boosting economic activities and employment.

Challenges in District Formation

- **Limitations and Costs**: The financial burden of establishing administrative infrastructure restricts rampant district creation.

- **Resource Allocation**: The process involves setting up offices and deploying officers and public servants, impacting the state's budget.

Way Forward

- **Community Engagement**: Involving local populations in the decision-making process is vital to align district formation with their aspirations and needs.

- **Conflict Resolution and Inclusive Growth**: This approach can help mitigate conflicts and ensure decisions contribute to the inclusive growth of the state and nation.

History of Districts in India

	Details
Early Administration	Initiated by the British East India Company post-Battle of Plassey (1757) and Battle of Buxar (1764)
Collectorate System	Introduced by Warren Hastings in 1772; District Collector as key revenue, judicial, and administrative authority
Transition to Crown Rule	Post-1857 Revolt, direct British Crown rule led to formalization of district system
Role of District Collector	Central figure in district administration, responsible for revenue, law, and order

Revenue Systems	Implementation of Zamindari, Ryotwari, and Mahalwari systems for land revenue collection
Survey and Settlement	Extensive land surveys for revenue assessment
Judicial Functions	Initially, Collectors (District Magistrate) handled judicial roles; later, separate judicial offices were established
Law Enforcement	Establishment of modern police system with districts as key units
Impact on Indian Society	Centralized control, introduction of bureaucracy
Post-Independence Legacy	Retained district system with evolved role of District Collector

Why terrorist activity has shifted from Kashmir to Poonch-Rajouri

Context: The recent surge in terrorist activity in the Poonch-Rajouri sector challenges the Indian Army's historical success in counter-terrorism operations. This shift is attributed to the path of least resistance as Kashmir becomes less conducive, prompting a need for a strategic reassessment and adaptation of deployment and operational strategies to address emerging challenges. Transparent investigations into civilian deaths and a balanced approach in public statements are crucial to maintaining public trust and stability in the region.

Highlights:
- Recent encounters in the Poonch-Rajouri sector challenge the Indian Army's historical success in counter-terrorism operations.
- Shift of terrorist activity to Poonch-Rajouri is due to the path of least resistance, with Kashmir facing strong counter-terrorism measures.
- Dilution of local support, abrogation of Article 370, and focus on Pir Panjal (South) indicate a strategic shift in the region's dynamics.
- Questions arise about the redeployment of formations and potential dilution of optimum deployment in the sector.

Challenges:
- Losses for the Indian Army in recent encounters raise concerns about the effectiveness of current strategies and the need for potential adjustments.
- Shift in terrorist activity to Poonch-Rajouri poses a challenge to the Army's counter-terrorism efforts.
- Allegations surrounding the deaths of three local civilians in suspicious circumstances require thorough investigations and pose a challenge to maintaining public trust.

Terms/Phrases:
- Poonch-Rajouri sector
- Counter-terrorism operations
- Proxy hybrid war
- Counter-infiltration (CI) and counter-terrorism (CT) grid
- Article 370
- Pir Panjal (South)

- Redeployment
- Rashtriya Rifles troops

Statements:
- Recent encounters challenge the Indian Army's historical success in counter-terrorism operations.
- The strategic shift of terrorist activity to the Poonch-Rajouri sector necessitates a reassessment of deployment and operational strategies.

Examples/References:
- Shift in terrorist tactics and focus from Kashmir to the Poonch-Rajouri sector.
- Allegations surrounding the deaths of three local civilians.

Critical Analysis:
- Losses in recent encounters raise questions about the effectiveness of the Army's current strategies.
- Shift in terrorist activity indicates the need for adaptability in response strategies.
- Allegations surrounding civilian deaths require transparent investigations to maintain public trust.

Way Forward:
- Conduct a thorough review of identified weaknesses in convoy security, vehicle hardening, and reinforcement movements.
- Adapt drills, Standard Operating Procedures (SOPs), and minor tactics to address current challenges.
- Ensure transparent investigations into civilian deaths, with suitable disciplinary action if mistakes are identified.
- Conduct brigade-sized operations in Pir Panjal with drone support, reinforced by strong public outreach to address local sentiments.
- Maintain a balanced approach in public statements to prevent speculation and unrest, and continue precautionary measures in the Kashmir Valley.

Century of Change in Indian Villages: Insights from Longitudinal Studies

Context: Historical Surveys: Starting in 1916-17, Gilbert Slater initiated a series of surveys in five Tamil Nadu villages, marking the beginning of a century-long study of rural India.

Unique Village Studies: Palakurichi and Palanpur stand out as unique Indian villages extensively studied over a century and decades, respectively.

Methodology and Evolution of Village Studies
- **Initial Approach**: Slater's students, natives of the surveyed villages, used questionnaires to understand the socioeconomic conditions of rural households.
- **Subsequent Surveys**: These villages were revisited for studies in subsequent years, including 1936-37, 1964, 1983, 2004, and 2019, providing a longitudinal perspective.

Significance of Longitudinal Studies
- **Contrast with Cross-Sectional Surveys**: Unlike the National Sample Survey Office's cross-sectional surveys, village studies are longitudinal, focusing on in-depth analysis over time.

- **Objective**: The aim is to trace changes in the specific village over time, providing micro-level insights that complement macro-level data.

Findings from Recent Surveys
- **Economic Shifts**: The 2019 survey of Palakurichi revealed a decline in agriculture's dominance, with only 43.3% of the workforce engaged in farming, down from 85% in 1983.
- **Diversification of Workforce**: Similar trends were observed in Palanpur, with a significant shift from agriculture to non-farm jobs over the decades.

Changing Social Dynamics

Diminished Dominance of Traditional Landholders: In both Palakurichi and Palanpur, traditional upper caste landholders' power has declined, with middle castes and Dalits gaining more land ownership.

Economic and Social Mobility: These changes reflect broader social and economic mobility within these rural communities.

Policy Implications and Challenges
- **Land Leasing Practices**: As some communities move away from agriculture, land leasing becomes common, often based on oral agreements to avoid legal complications.
- **Need for Policy Reforms**: There's a need for policies that balance the interests of landowners and tenant farmers, encouraging investment in land improvement.
- **Sustaining Agricultural Productivity**: With rural India becoming less dependent on agriculture, ensuring continued or improved farming practices on existing agricultural lands is crucial.

Conclusion
- **Insights from Micro-Level Studies**: Longitudinal village studies offer valuable insights into the patterns of change in rural India, informing policy and understanding of rural dynamics.
- **Balancing Agricultural and Non-Agricultural Growth**: These studies highlight the need for balanced development policies that support both agricultural sustainability and non-farm employment opportunities.

Loneliness in India: A Deepening Public Health Concern

Context: The World Health Organization (WHO) recently declared loneliness a significant global health threat, with an estimated 10% of adolescents and 25% of older people affected worldwide.

Despite being a collectivistic society with over 140 billion people, loneliness in India remains relatively understudied and unacknowledged as a public health and social issue.

Understanding Loneliness

- **Definition**: Loneliness is defined as the unpleasant experience due to a deficiency in one's network of social relations, either quantitatively or qualitatively.
- **Health Impact**: Comparable to smoking 15 cigarettes a day, loneliness can lead to severe mental and physical health issues, including heart disease, depression, and decreased longevity.

Data and Trends in India

Historical Data: Studies from the early 1990s to recent years show varying rates of loneliness, with a notable increase in loneliness among the elderly and the highly educated.

Pandemic Effect: COVID-19 and subsequent lockdowns have exacerbated loneliness, particularly among young people and those living alone.

Disparities and Challenges

- **Higher Among Educated Youth**: Young, highly educated individuals face disproportionately higher rates of unemployment and loneliness, indicating a structural issue in the Indian economy.
- **Cultural Stigma**: In India, loneliness is often dismissed as a phase or a state of mind, and discussing mental health is stigmatized, making it challenging to address the issue effectively.

Public Health Implications

- **Rising Disease Burden**: Loneliness contributes to an increased risk of various diseases, potentially inflaming India's already rising communicable and non-communicable disease burden.
- **Inadequate Healthcare Infrastructure**: India's healthcare system struggles with inadequate staff, infrastructure, and budgetary allocation, further complicating the response to the loneliness epidemic.

The Indian Experience of Loneliness

- **Cultural Differences**: Unlike Western countries, India's collectivistic culture and socioeconomic barriers present unique challenges in understanding and addressing loneliness.
- **Marginalized Communities**: Loneliness disproportionately affects marginalized identities, and addressing it requires understanding the intersection of social inequity and mental health.

Addressing Loneliness as a Structural Problem
- **Need for Targeted Interventions**: Recognizing loneliness as a distinct condition can help develop interventions tailored to India's cultural context.
- **Community-Based Solutions**: Addressing loneliness may require community-focused strategies that respond to structural inequities rather than solely clinical approaches.

Conclusion
- **National-Level Surveys**: Conducting comprehensive surveys in local languages can help understand the true scale of loneliness in India's diverse population.
- **Holistic Approach**: Combating loneliness in India requires a multifaceted approach that includes improving mental health literacy, enhancing healthcare infrastructure, and addressing social inequalities.
- **Continuous Engagement**: As loneliness gains recognition as a public health issue, India must continuously adapt its strategies to effectively support those affected by this silent epidemic.

The quest for 'happiness' in the Viksit Bharat odyssey

Context: The article calls for a reimagining of India's development strategy, shifting from an economic-centric model to prioritizing happiness and well-being. It critiques the current focus on GDP, highlighting the need for comprehensive social indicators in the development narrative. The central idea is to envision a "Happy India-Developed India" by 2047, where happiness becomes the central pursuit, transcending conventional economic measures.

Highlights:

Viksit Bharat Launch: The launch of Viksit Bharat aims to make India a developed nation by its 100th Independence year in 2047.

Economic Overemphasis: Critics argue that Viksit Bharat places excessive emphasis on economic development, overlooking other crucial aspects.

Happiness as Central Pursuit: The author suggests reimagining the theme as 'Happy India-Developed India,' focusing on happiness as a central pursuit for meaningful development.

Happiness Metrics: The World Happiness Report measures happiness through variables like GDP per capita, life expectancy, generosity, social support, freedom, and perception of corruption.

Social Connections and Well-being: Countries like Finland and Denmark, ranked highest in happiness, emphasize social connections and support systems, contributing to well-being

Challenges:
- **Economic-Centric Development:** The challenge lies in shifting the development narrative from an economic-centric model to one that prioritizes happiness and well-being.
- **Social Disruption:** The current economic-focused development model may lead to social disruption, imbalances, and contradictions.
- **Disregard for Social Indicators:** The conventional focus on GDP fails to consider crucial social indicators, neglecting human and social aspects of development.

Terms and Phrases:
- **Viksit Bharat:** The development initiative launched with the goal of making India a developed nation by 2047.
- **World Happiness Report:** An annual report measuring happiness using multiple variables and indicators.
- **Human Development Index (HDI):** An index considering life expectancy, educational attainment, and income level.

- **Green Index:** A World Bank-developed index measuring a nation's wealth based on produced assets, natural resources, and human resources.
- **Social Development Index:** Introduced by the UN Research Institute for Social Development, it includes 16 core indicators.
- **Global Innovation Index, Rule of Law Index, Poverty Index, Corruption Perceptions Index, Gender Equality Index, and World Press Freedom Index:** Various indices significant for comprehensive national development.

Critical Analysis: The article critically examines the conventional economic-focused development model and advocates for a paradigm shift towards happiness-centric development. It emphasizes the inadequacy of GDP-centric measures and highlights the importance of considering social indicators for a more inclusive and balanced development approach.

Way Forward: The way forward involves reimagining the development narrative, giving importance to happiness metrics, and incorporating a broader set of indicators such as the Human Development Index, Green Index, and others. Prioritizing social connections, well-being, and happiness in development strategies will contribute to a more holistic and sustainable vision for Viksit Bharat@2047.

INTERNATIONAL RELATIONS

Bab El-Mandeb: A Strategic Choke Point

Context: The war between Israel and Hamas in October raised concerns about Hezbollah's involvement, but the focus shifted when the Houthis in Yemen expanded the conflict to the Red Sea.
Despite tensions, Hezbollah and Israel avoided full-scale war, with Israel concentrating on Gaza.

Houthi Involvement and Shift in Tactics
- **Initial Actions**: The Houthis, aligned with Iran, initially targeted Israel in solidarity with Palestinians, using drones and missiles, which were intercepted.
- **Change in Strategy**: Later, they shifted focus to attacking commercial ships in the Red Sea, threatening global shipping routes.

Understanding the Houthis
- **Background**: The Houthis, known formally as Ansar Allah, are a Shia militia group in Yemen, named after their late leaders Badr al-Din al-Houthi and Hussein al-Houthi.
- **Iranian Support**: They receive direct support from Iran and have significant military capabilities, including drones and ballistic missiles.

Strategic Importance of Bab el-Mandeb Strait
- **Geographical Significance**: The Strait of Bab el-Mandeb is a crucial maritime chokepoint, connecting the Red Sea with the Gulf of Aden and the Indian Ocean.
- **Impact on Global Shipping**: Houthi actions near the strait have led to a significant decrease in Red Sea traffic and increased shipping costs.

Global and Regional Consequences

Effect on Israel: Israel's southern port traffic, particularly in Eilat, has been severely impacted.	**Broader Trade Implications**: Approximately 12% of global maritime trade passes through the strait. Disruptions here could exacerbate inflationary pressures worldwide.	**Alternative Routes**: Shipping companies are rerouting around Africa, significantly increasing travel time and costs.

International Response
- **US Naval Task Force**: The U.S. has established a naval force to counter the Houthi threat.
- **Arab World's Stance**: Many Red Sea countries, including Egypt, have not joined the U.S. task force, reflecting regional discontent with U.S. policies.
- **Potential Offensive Measures**: The U.S. has not ruled out bombing Houthi targets in response to continued attacks on shipping lanes.

Conclusion
- **Continued Houthi Threat**: The Houthis vow to persist in their actions as long as Israel's conflict with Gaza continues.
- **Challenges for Global Trade**: The situation underscores the fragility of global shipping routes and the potential for regional conflicts to have far-reaching economic impacts.
- **Need for Diplomatic Solutions**: This complex scenario highlights the importance of diplomatic efforts to resolve regional tensions and protect vital maritime trade routes.

Project PRAYAS to help Indian youth migrate abroad

Context: The International Organisation for Migration (IOM) introduced Project PRAYAS (Promoting Regular & Assisted Migration for Youth and Skilled Professionals) to facilitate secure and regular migration for Indian workers and students.

What is Project PRAYAS?

	Details
Project Name	Project PRAYAS
Introduced By	International Organization for Migration (IOM)
Partnership	Ministry of External Affairs, India
Objective	To facilitate secure and regular migration for Indian workers and students
Key Focus	Enhancing coordination between state and central governments Addressing India's growing role in international migration Providing policy recommendations for migration governance
IOM's Role	Promoting humane and orderly migration as a United Nations agency
Significance	Represents a consolidation of state-level efforts for well-managed international migration
Focus Areas and Activities	Conducting comprehensive studies on migration trends Launching awareness programs for safe and orderly migration processes

International Organisation for Migration (IOM)

	Details
Establishment	1951
Initial Purpose	To assist in the resettlement of people displaced by World War II
Current Role	Providing services and advice on migration to governments and migrants, including various displaced persons
Type	Intergovernmental Organization
Membership	173 member states, 8 observer states
Headquarters	Geneva, Switzerland
Key Objectives	Promote humane and orderly migration Emergency response Link migration with development Health and support for migrants Facilitate managed labor migration Counter human trafficking
UN Relationship	Became a related organization of the United Nations in 2016
India and IOM	India has been a member of IOM since 1992.

Strategy and Foreign Affairs for India in 2024

Context: Contradiction in Global Aspirations: Despite calls for peace, 2023 witnessed the continuation and emergence of significant conflicts, notably between Russia and Ukraine, and in the Gaza Strip.

China's Stance: Amidst its economic challenges, China's aggressive posture remains a concern for the West and India, adding to the global tension.

2023: Strategic Realities and Challenges

Crisis in the Middle East: The Hamas attack disrupted efforts to normalize Israel-Arab relations, leading to a devastating response from Israel and derailing the reconciliation process.

1. **Stress in India-US Ties**: Allegations of an Indian official's involvement in an assassination plot have strained relations, with India promising to investigate if provided with information.
2. **Russia-Ukraine War Fatigue**: The prolonged conflict sees the West grappling with funding challenges, while Russia, despite sanctions, maintains resilience, partly due to its closeness with China.
3. **India's Maldives Challenge**: The new government's request for India to withdraw military personnel and terminate agreements reflects its proximity to China, complicating India's strategic position.
4. **China, the Biggest Worry**: The ongoing border standoff and China's influence in the region, including its ties with Russia and the Maldives, continue to be India's primary strategic concerns.
5. **G20 and Global South Positioning**: India's leadership in the G20 and its role in uniting the Global South reflect its aspiration to continue the legacy of Non-Alignment adapted to modern realities.
6. **Engagement in Kabul**: India's cautious engagement with the Taliban and coordination for consular services indicate a nuanced approach to Afghanistan, balancing security and diplomatic needs.

2024: Anticipating Challenges and Opportunities

Impact of Lok Sabha Elections: The election outcome will significantly influence India's foreign policy, with a stronger mandate potentially leading to more assertive stances, while a weaker mandate might reflect coalition compulsions.

US & Canada Relationships: Navigating the complexities arising from the assassination plot allegations and maintaining robust ties with both nations will be crucial for India.

New Government in Pakistan: The post-election scenario in Pakistan might offer a window for re-engagement, depending on the political dynamics and India's strategic choices.

Outcome in Bangladesh: India's interest in the continuation of Sheikh Hasina's government reflects security and connectivity priorities, with the opposition viewed with caution.

Continuing Deadlock with China: The border standoff and its potential escalation will be a critical factor in India's security and diplomatic strategy, especially in an election year.

Conclusion
- **Balancing Act**: India's foreign policy in the coming years will involve navigating a complex array of global conflicts, bilateral tensions, and internal political dynamics.

- **Strategic Posture**: The outcomes of various global and regional conflicts, along with India's own electoral politics, will shape its strategic and foreign policy posture, reflecting a blend of continuity and change.

Indian Society

Jats in the modern world

Context: The historical journey of the Jat community in India.

Highlights:

- The article explores the historical journey of the Jat community in India over the past 500 years, tracing their nomadic origins to settled agrarian lifestyles.

- Jats, divided into various sub-castes and known for their traditional practices, have faced historical battles and conversions, contributing significantly to agriculture and politics.

- Despite internal divisions and religious differences, the Jat community unites on national issues such as farmers' rights and land legislation, producing prominent leaders like Chaudhary Charan Singh.

Challenges:

The Jat community grapples with stereotypes and mockery, facing challenges in reconciling their pride in the past with a desire to assert their qualities in contemporary contexts.

The article highlights the internal divisions among Jats based on religion, turning former clansmen into archrivals despite presenting a united front on national issues.

Modernization of land-related occupations poses concerns about the future of Jats, leading to efforts to reinvent their identities in the face of changing socio-economic dynamics.

Terms:

- Khap panchayats: Controversial local bodies involved in delivering justice and making decisions on social matters, often criticized for endorsing conservative practices.

- Arya Samaj: A reform movement within Hinduism advocating for the worship of the uncreated Supreme Being and rejecting idol worship.

- Subaltern: Referring to marginalized or oppressed groups within a society.

Examples and References:

- Reference to historical figures like Suraj Mal, Chaudhary Charan Singh, Sir Chhotu Ram, and Raja Mahendra Pratap Singh as notable Jat icons.

- Mention of Sikh and Muslim Jats driving a conservative agenda within the regional political landscape.

- Olympic athletes Sakshi Malik, Bajrang Punia, and Vinesh Phogat representing the Jat community and holding the government accountable.

Critical Analysis:

- The article critically examines the challenges faced by the Jat community, including stereotypes, internal divisions, and concerns about the future in the context of changing socio-economic dynamics.

- It highlights the tension between the community's pride in its history and the desire to assert itself in contemporary contexts.

Way Forward:

- Encourage open dialogues within the Jat community to address internal divisions and promote unity.

- Advocate for educational initiatives to challenge stereotypes and promote a nuanced understanding of the Jat community's contributions.

- Support initiatives that help the Jat community adapt to modernization while preserving its cultural identity and historical pride.

FACTS:

- Jats trace their origins to diverse geographies, from Eastern Europe and Central Asia to sea-adjacent plain fields.

- Jats have a history of adopting religions en masse, including Buddhism during the spread of the religion.

- The Jat community is predominantly found in North India, with diverse sub-castes and internal religious divisions.

P Chidambaram writes: How are the four 'castes' doing?

Context: The article examines the current status of four societal groups poor, youth, women, and farmers coined as 'castes' by Prime Minister Modi. Despite government policies, challenges such as poverty, unemployment, gender discrimination, and farmer issues persist, leading to discontent among these groups.

Challenges:

- Widespread poverty is evident, with UNDP estimating 16% of the population (228 million) living below low poverty bars, facing malnutrition and hunger.
- Youth unemployment, particularly among graduates, remains high, leading to internal migration, rising crime, and drug use.
- Women face various challenges, including crimes against them, gender disparity in income, and significant workforce exits between 2004-05 and 2011-12.
- Farmers continue to grapple with issues such as suicides, small holdings, rising input costs, insufficient MSP, and uncertain market prices.

Highlights:
The article discusses the impact of India's traditional caste system and welcomes Prime Minister Modi's formulation of four 'castes' poor, youth, women, and farmers focusing on their current status.

It highlights the persisting challenges faced by these groups, including poverty, unemployment, gender discrimination, and the plight of farmers, despite government policies.

Terms:
- Varnas: The four traditional social classes in Hindu society—Brahmin, Kshatriya, Vaishya, and Sudra.
- MSP (Minimum Support Price): The price at which the government purchases crops from farmers to support their income.
- Caste system: The social hierarchy in India traditionally divided into varnas and numerous castes.

Examples and References:
- Reference to UNDP's poverty estimation, NCRB data on crimes against women, and statistics on farmer suicides.
- Mention of the government's claim to create 2 crore jobs a year and the subsequent revelation of vacancies.

FACTS:

16% of the population, approximately 228 million people, are estimated to be living below the poverty line.
- Youth unemployment rate is 10%, and among young graduates, it reaches 42.3%.
- Crimes against women rose by 4% in 2022, with 4,45,000 cases registered.
- Farmer suicides remained high between 2014 and 2022.

Critical Analysis:
- The article critiques the government's policies, emphasizing the disparity between its favoring the rich and the continued challenges faced by the poor, youth, women, and farmers.
- It questions the efficacy of measures like job creation claims and suggests that the silence of these groups is more a result of powerlessness and fear than approval.

Way Forward:
- Advocate for policies addressing the root causes of poverty, unemployment, gender discrimination, and farmer issues.
- Call for inclusive measures that empower and uplift marginalized sections.
- Encourage a more consultative approach by the government, especially in formulating policies that directly impact the livelihoods of these groups.

Sci & Tech

Nematocysts in Aquatic Ecosystems

Context: Evolution has crafted unique defense mechanisms in the animal kingdom, one of which is the nematocyst.

Understanding Nematocysts

- **Structural Composition**: A nematocyst comprises a capsule with a coiled tubule and a toxin-filled bulbous structure.

- **Rapid Deployment**: Upon stimulation, the nematocyst ejects its tubule at an incredibly high acceleration, comparable to a bullet's speed.

- **Fastest Biological Mechanisms**: This ejection process is among the quickest in the animal kingdom.

- **Found in:** Nematocysts are particularly prevalent in jellyfish, corals, sea anemones, and hydras, serving as effective tools for hunting and protection.

Role in Cnidarians' Survival

Cnidarians and Cnidocytes: Cnidarians, a group of animals characterized by cnidocytes (specialized cells), heavily rely on nematocysts for feeding and defense.

Activation Process: Contact with potential prey triggers sensory structures on cnidocytes, leading to the nematocyst's release and subsequent prey immobilization or toxin injection.

Diversity of Toxins in Nematocysts

- **Variety of Effects**: Nematocyst toxins can be paralytic, halting prey movement, or cytolytic, breaking down cells.

- **Strategic Use**: Cnidarians often employ a mix of toxins to enhance the effectiveness of their predatory and defensive actions.

- **Contribution to Cnidarians' Success**: The complexity and efficiency of nematocysts play a vital role in the survival and dominance of cnidarians in aquatic habitats.

- **Formidable Aquatic Predators**: The presence of nematocysts makes cnidarians formidable entities in their ecosystems.

Space Exploration in 2024: Key Missions and Scientific Endeavors

Context: The year 2024 is set to be a landmark year in space exploration, following significant achievements in 2023, including NASA's OSIRIS-REx and India's Chandrayaan-3 missions.

Upcoming Missions
- The year will feature several key missions under NASA's Artemis plan and Commercial Lunar Payload Services, along with other international endeavors.

[1] Europa Clipper Mission
- **Objective**: NASA's Europa Clipper will explore Jupiter's moon, Europa, known for its icy surface and potential subsurface saltwater ocean.

- **Significance**: The mission aims to assess Europa's habitability for extraterrestrial life by studying its icy shell, geology, and ocean.
- **Launch Details**: Scheduled for launch on October 10, 2024, aboard a SpaceX Falcon Heavy rocket, with arrival at Jupiter set for 2030.

[2] Artemis II Mission
- **Program Goals**: Part of NASA's Artemis program to return humans to the Moon, including plans for a sustained presence and future Mars missions.
- **Mission Specifics**: Artemis II, following the uncrewed Artemis I, will be the first crewed mission orbiting the Moon since 1972, planned for November 2024.

[3] VIPER Lunar Mission
- **Mission Overview**: VIPER (Volatiles Investigating Polar Exploration Rover) aims to explore the Moon's south pole for volatiles like water and carbon dioxide.
- **Technology and Schedule**: Equipped to handle extreme lunar temperatures, VIPER's launch is scheduled for November 2024, focusing on resources for future human exploration.

[4] Lunar Trailblazer and PRIME-1 Missions
- **SIMPLEx Program**: These missions are part of NASA's Small, Innovative Missions for Planetary Exploration (SIMPLEx), offering cost-effective, rideshare opportunities.
- **Objectives**: Lunar Trailblazer will orbit the Moon to map water locations, while PRIME-1 will test drilling technology, both scheduled for mid-2024.

[5] JAXA's Martian Moon eXploration (MMX) Mission
- **Mission Focus**: JAXA's MMX mission aims to study Mars' moons, Phobos and Deimos, to determine their origin.
- **Science Operations**: The spacecraft will conduct a three-year mission, including landing on Phobos and returning a sample to Earth, with a launch planned around September 2024.

[6] ESA's Hera Mission
- **Mission Purpose**: Hera, by the European Space Agency, will study the Didymos-Dimorphos asteroid system, following NASA's DART mission's kinetic impact in 2022.
- **Planetary Defense**: Hera will assess the impact of DART's collision and study the asteroids' physical properties, with a launch set for October 2024.

Huntington's Disease: Insights from Medical Genetics and Fruit Fly Research

Context: The Nizam's Institute of Medical Sciences in Hyderabad reports three to four cases of Huntington's disease monthly, with each case impacting entire families.

Understanding Huntington's Disease

	Details

Nature of Disorder	Genetic, progressive brain disorder
Genetic Cause	Mutation in the huntingtin gene on chromosome 4
Inheritance Pattern	Autosomal dominant disorder (only one copy of the defective gene, from either parent, is enough for disease onset)
Symptoms	**Movement Disorders**: Involuntary movements (chorea), muscle problems (dystonia), abnormal eye movements. **Cognitive Disorders**: Difficulty in organizing and focusing, lack of flexibility, impulse control issues. **Psychiatric Disorders**: Depression, mood swings, changes in personality
Age of Onset	Typically between 30 and 50 years of age, but can vary widely Gradual onset, worsening over 10-25 years, leading to severe disabilities
Diagnosis	Genetic testing to detect the presence of the defective gene
Treatment	No cure; treatment focuses on managing symptoms, including medication for movement and psychiatric disorders, and therapy
Impact on Life Expectancy	Can shorten life expectancy, particularly if onset is at a younger age

Role of the HTT Gene and Glutamine Repeats

- **Genetic Mutation**: Huntington's disease is caused by a mutation in the HTT gene, leading to abnormal huntingtin (Htt) proteins that damage neurons.

- **Polyglutamine Tracts**: The severity of the disease correlates with the length of glutamine repeats in the Htt protein; longer repeats result in earlier and more severe symptoms.

- **Inheritance Pattern**: The disease manifests even if only one copy of the HTT gene is mutated, demonstrating its dominant nature.

- **Similar Proteins and Diseases**: Other proteins with polyglutamine tracts, when mutated, can also cause neuronal degeneration, leading to disorders like spinocerebellar ataxia.

Fruit Fly Study: A Model for Understanding Huntington's

- **Genetic Engineering in Flies**: Researchers engineered fruit flies to express the human HTT gene with extended polyglutamine tracts in their neurons.

- **Gal4/UAS System**: Utilizing the Gal4 gene from baker's yeast, the study induced expression of mutated HTT in fly neurons.

- **Symptoms in Flies**: Flies with longer glutamine tracts exhibited symptoms similar to Huntington's disease, unlike those with shorter, normal tracts.

Yod1 Gene Discovery

- **Gene Expression Experiment**: The study explored the effects of altering the expression of 32 genes on disease-like symptoms in fruit flies.

- **Yod1's Protective Role**: Overexpression of the Yod1 gene eliminated neurodegeneration and other disease-like effects in flies with longer glutamine tracts.

Broader Implications and Future Research

- **Potential in Human Treatment**: If overexpression of the human version of Yod1 shows similar benefits in fruit flies, it could be a promising avenue for treating Huntington's in humans.

- **Value of Model Organisms**: Studies in fruit flies and yeasts are pivotal for understanding molecular mechanisms of diseases like Huntington's.

Art & Culture

Goa's Konsachem Festival and St. Bartholomew's Feast

Context: In Goa, August marks the formation of new rice grains, celebrated through the festival of Konsachem.

Konsachem Festival and Its Traditions

- **Background**: Konsachem, observed by Goan Hindus and Catholics, honors the new rice grains, known as konxeo in Konkani.

- **Shared Rituals**: The first harvested rice sheaves are taken for blessings – to deities by Hindus and to saints by Catholics.

- **Catholic Celebrations**: For Goan Catholics, the festival peaks on August 24, the Feast Day of St. Bartholomew, one of Jesus Christ's 12 Apostles.

- **Observances**: The celebration includes a procession, ritual cutting of grain, and a thanksgiving mass, with offerings made to St. Bartholomew.

Bartholomew's Legacy and Christian Faith in India

- **Missionary Journey**: Bartholomew is believed to have landed in Kallianpur and preached along the Konkan coast, reaching as far as Karachi.

- **Lesser-Known Apostles**: While St. Thomas's mission in Kerala and Tamil Nadu is well-documented, St. Bartholomew's contributions in India are less known but significant.

- **Martyrdom and Influence**: He is revered for his martyrdom in Azerbaijan and his role in the Christianization of Armenia and Georgia.

- **Pre-Portuguese Christian Origins**: Research by scholars underscores Christianity's roots in India dating back to the Apostles, reinforcing its integral place in Indian faith traditions.