# DAILY CURRENT AFFAIRS ANALYSIS LARSHYA J.C.ADEMY

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# 1 - Cloudbursts in Himachal Pradesh: A Crisis in the Himalayas:

# **GS III**

# **Disaster Management**

#### • Introduction:

• A cloudburst is an intense and sudden rainstorm where more than 10 cm of rain falls within an hour over a localized area of approximately 10 square kilometers. Such events are particularly common in mountainous regions like the Himalayas. This phenomenon has gained prominence due to its devastating impacts on infrastructure and human lives. Recently, cloudbursts in Himachal Pradesh have highlighted the urgent need for improved disaster management and mitigation strategies.

#### What is a Cloudburst?

# • Definition and Characteristics:

- Cloudbursts are extreme rainstorms where over 10 cm of rain falls within less than an hour in a small area.
- These events typically occur in mountainous regions, especially in the Himalayas.
- In the Indian subcontinent, cloudbursts are often triggered when monsoon clouds move northward from the Bay of Bengal or the Arabian Sea, bringing intense rainfall, sometimes up to 75 mm per hour.

#### • Causes:

- Cloudbursts occur due to strong upward currents of hot air that prevent raindrops from falling, allowing them to grow larger.
- When these upward currents weaken, accumulated water in the atmosphere is released abruptly.
- The complex topography of the Indian subcontinent, especially its mountainous terrain, facilitates orographic lifting—a process where air rises and cools over mountains, enhancing cloud development and rainfall.

#### • Cloudbursts vs. Rainfall:

- Rain is the gradual condensation of water from clouds, while a cloudburst is an abrupt, heavy rainstorm.
- Rainfall exceeding 10 cm per hour is categorized as a cloudburst.

• Cloudbursts are characterized by their sudden onset and intense precipitation, unlike regular rainfall.

#### **Prediction Challenges:**

- Predicting cloudbursts is difficult due to their small-scale and sudden nature.
- Effective prediction would require an extensive network of radars, which is costly.
- While short-range forecasting can identify areas at risk for heavy rainfall, predicting the precise occurrence of cloudbursts remains challenging.

## **Examples of Cloudbursts:**

# **Uttarakhand Cloudburst (July 2021):**

Devastating cloudbursts in Chamoli, Uttarkashi, and Pithoragarh led to flash floods, landslides, and significant infrastructure damage.

#### **Himachal Pradesh Cloudburst (August 2020):**

Cloudbursts in Kullu, Lahaul-Spiti, and Kinnaur triggered landslides and flash floods, severely impacting roads, bridges, and homes.

Consequences of Cloudbursts:

#### Flash Floods:

- Flash floods are sudden surges in water levels during or after intense rainfall.
- They typically start within 6 hours of heavy rain and can be caused by intense thunderstorms, dam breaches, or mudslides.
- Factors influencing flash floods include rainfall intensity, location, land use, topography, and soil type.

#### Landslides:

- Landslides involve the mass movement of rock, earth, or debris down slopes.
- They can occur suddenly or gradually due to heavy rainfall, erosion, or weathering.
- India accounts for about 8% of global landslide fatalities, with 847 deaths and thousands displaced between 2001 and 2021.
- Approximately 13.17% of India's land is susceptible to landslides, with 4.75% categorized as "very highly susceptible." Sikkim is the most prone state, while Kerala has over 14% of its land in this category.

#### **Mudflows:**

- Mudflows are dense water flows with significant suspended particles and silt.
- They transport coarse materials and usually do not travel as far as regular streams.

# • Impact of Climate Change on Cloudbursts:

#### • Increased Atmospheric Moisture:

• Rising global temperatures enhance the atmosphere's capacity to hold moisture, leading to more intense cloud formation and increased cloudburst potential.

# • Changes in Precipitation Patterns:

• Climate change shifts precipitation patterns, causing some regions to experience prolonged dry spells while others face extreme rainfall.

#### • Altered Atmospheric Stability:

• Higher temperatures can destabilize the atmosphere, increasing convective activity and the frequency of thunderstorms linked to cloudbursts.

#### • Glacier Retreat and Snowmelt:

• Melting glaciers in the Himalayas, driven by rising temperatures, release water more quickly, potentially contributing to cloudburst events.

#### • Land Use Changes:

• Human activities like deforestation and urbanization alter local climates and precipitation patterns, affecting microclimates in mountainous regions and potentially influencing cloudburst occurrences.

# • Mitigation Strategies for Cloudbursts:

# • Early Warning Systems:

• Develop and implement effective early warning systems to predict cloudbursts and provide timely alerts for preparation and evacuation.

#### • Urban Planning and Infrastructure:

• Invest in resilient infrastructure, such as stormwater drainage systems, retention ponds, and green spaces, to manage excess water and reduce flooding.

#### • Watershed Management:

• Implement watershed management practices, such as reducing soil erosion and increasing soil infiltration, to control water flow and minimize cloudburst impacts.

#### • Reforestation and Green Infrastructure:

 Promote reforestation and maintain green areas to absorb excess water, reduce soil erosion, and stabilize slopes.

#### • Awareness and Education:

• Educate communities about cloudburst risks and train them on response and evacuation procedures.

#### • Sustainable Land Use Practices:

• Encourage land use practices that reduce vulnerability to cloudbursts, such as avoiding construction in flood-prone areas and implementing soil conservation measures.

# • International Cooperation:

• Collaborate with neighboring countries and international organizations to share best practices, technology, and resources for managing cloudbursts, especially in shared river basins.

# • Conclusion: Way Forward:

• Addressing the challenges posed by cloudbursts requires a multi-faceted approach involving early warning systems, resilient infrastructure, effective watershed management, and community education. As climate change continues to influence weather patterns, proactive measures and international cooperation will be crucial in mitigating the impacts of cloudbursts and enhancing disaster preparedness. By adopting these strategies, we can better manage the risks associated with cloudbursts and protect vulnerable communities from their devastating effects.

# • Source → The Hindu

# 2 - Judicial Audit of Law: Supreme Court's Landmark Ruling:

# **GS II**

# **Constitutional Bodies: Finance Commission**

Context: Why in News?

• Recently, the Supreme Court of India has upheld the judiciary's authority to mandate a "performance audit" of statutory laws. This significant ruling emerged from an appeal concerning the Maharashtra Slum Areas (Improvement, Clearance, and Redevelopment) Act, 1971. The appeal highlighted concerns about the Act's effectiveness in improving conditions for its intended beneficiaries, amid a backlog of over 1,600 pending cases.

#### • Introduction:

• The Supreme Court of India has taken a proactive step in ensuring the effectiveness of legislation by directing the Bombay High Court to conduct a performance audit of the Maharashtra Slum Areas Act. This decision reflects a growing judicial inclination towards overseeing the practical implementation and impact of laws to ensure they fulfill their intended objectives.

# • Supreme Court's Ruling:

- **Directive for Performance Audit**: The Supreme Court has instructed the Bombay High Court to assess the performance of the Maharashtra Slum Areas Act, 1971. This Act was initially designed to provide housing and dignity to marginalized individuals in slum areas.
- **Implementation Issues**: The Court noted that despite the Act's noble intent, its execution has led to extensive litigation, indicating a failure in achieving its goals effectively.
- **Judicial Oversight**: The ruling affirms the judiciary's role in ensuring laws are not just enacted but also effectively implemented. If a law does not benefit its intended recipients, a performance audit is justified.
- **Institutional Memory**: The Court stressed the need for maintaining institutional memory to evaluate the long-term impact of legislation.

#### • Implications of the Judgment:

• **Judicial Activism**: This ruling signifies a shift towards proactive judicial involvement in governance. The judiciary's role extends beyond mere interpretation to actively facilitating justice by addressing bureaucratic delays in enforcing statutory provisions.

- **Performance Audit**: The audit aims to assess the Act's effectiveness and uncover systemic issues contributing to its litigation. This could drive necessary reforms to enhance the Act's efficacy.
- **Legislative Scrutiny**: The possibility of performance audits may prompt legislatures to scrutinize laws more thoroughly during their drafting and implementation phases to avoid inconsistencies and inefficacies.
- **Accountability**: The ruling reinforces the constitutional responsibility of the legislature and executive to oversee and evaluate legislation. This may lead to heightened accountability and responsiveness in implementing welfare laws.
- **Focus on Marginalised Groups**: The Court's emphasis on the law's intent to benefit marginalized communities underscores the need for policies that genuinely address their needs. This could lead to new legal and policy initiatives aimed at protecting vulnerable populations.

#### • Previous Supreme Court Rulings on Judicial Activism:

- Anun Dhawan & Ors. vs. Union of India, 2024: Activists petitioned for community kitchens to tackle hunger and malnutrition. The Supreme Court, however, refrained from mandating a specific scheme and highlighted the limitations of judicial review in government policy matters. It upheld the existing frameworks under the National Food Security Act (NFSA) and left the exploration of alternative welfare schemes to states and union territories.
- Vishaka vs. State of Rajasthan, 1997: This landmark judgment established guidelines for preventing sexual harassment in the workplace. The Vishakha guidelines led to the enactment of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, enhancing workplace safety for women.

# • Reasons for Ineffective Legislation:

- **Complexity of Issues**: India's diverse social, economic, and environmental issues complicate the drafting of universally effective laws.
- Lack of Research and Data: Inadequate empirical evidence and impact assessments often result in ineffective laws. For instance, the lack of scrutiny by the Joint Parliamentary Committee (JPC) on certain farm laws led to limited opportunities for public input.
- **Political Pressures**: Short-term political considerations can overshadow the public interest, leading to poorly designed legislation.
- **Bureaucratic Challenges**: Resistance to change and limited resources can hinder effective law implementation.
- **Inadequate Stakeholder Consultation**: Limited engagement with civil society and marginalized groups can result in laws that fail to address real needs. For example, the Forest Rights Act (FRA) of 2006 has struggled with implementation due to inadequate consultation with local communities.
- Overlapping Jurisdictions: Conflicting laws and jurisdictional disputes create confusion and inefficiencies. Land acquisition laws at both central and state levels, for example, can lead to conflicting practices.

• **Drafting Quality**: Ambiguous language and technical complexity can lead to misinterpretation. For instance, while the POCSO Act criminalizes possession of child pornography, the IPC only addresses creation and distribution, leaving gaps in legal protection.

# • Way Forward:

- Enhanced Stakeholder Engagement: Involve civil society, experts, and affected communities in the lawmaking process to ensure laws are practical and effective. For example, the UK's Citizen Space platform facilitates public consultation on proposed legislation, reflecting diverse viewpoints.
- **Data-Driven Legislation**: Invest in research and data collection to inform policy decisions, ensuring laws address root causes and are based on empirical evidence.
- **Streamlined Bureaucratic Processes**: Simplify administrative procedures to reduce bureaucratic delays and ensure timely rule-making for effective law implementation.
- Clear Drafting Standards: Establish guidelines for clear and unambiguous legal drafting to minimize misinterpretation. The Plain Language Commission in the UK promotes clear legal writing, a practice India could adopt.
- Robust Monitoring and Evaluation: Implement comprehensive mechanisms to assess the effectiveness of laws post-enactment. Australia's Regulatory Impact Analysis (RIA) system, for example, evaluates proposed regulations' potential costs and benefits before implementation.

• Source → The Hindu

# 3 - Strengthening India-Vietnam Ties: A New Chapter in Comprehensive Strategic Partnership:

# **GS II**

# **International Relations**

#### • Introduction:

• The robust and multifaceted relationship between India and Vietnam has witnessed a major boost with the recent agreement to extend their comprehensive strategic partnership. Established in 2016, this partnership now enters a crucial phase as both nations outline ambitious goals and cooperative ventures for 2024-2028. This new plan underscores a mutual commitment to strengthening bilateral ties, enhancing economic exchanges, and deepening collaboration in technology and defense.

#### • Key Highlights of the Bilateral Meeting:

#### • New Plan of Action:

- India and Vietnam have agreed on an updated plan for their comprehensive strategic partnership, which will guide interactions between 2024 and 2028.
- The plan focuses on boosting bilateral trade, fostering economic cooperation, advancing technology, and enhancing defense and security collaboration.

#### • Digital Payment Connectivity:

- Both nations' central banks have agreed to implement digital payment connectivity, facilitating smoother financial transactions between India and Vietnam.
- This initiative aligns with Vietnam's push towards digital payments and aims to improve crossborder retail transactions with ASEAN countries.

#### • Credit Line Extension:

- India will extend a USD 300 million credit line to Vietnam to support military security and development projects.
- Significant developments include the inauguration of an Army Software Park in Nayachang, funded by an Indian grant, and increased cooperation on terrorism and cybersecurity.

#### MoUs Signed:

• Six Memorandums of Understanding (MoUs) have been signed, covering diverse areas such as Agricultural Research, Customs capacity building, Law and Justice, Radio & Television, and Traditional Medicines.

#### • Trade and Economic Goals:

- Vietnam aims to increase annual bilateral trade to USD 20 billion from the current USD 14.8 billion.
- The two countries plan to expedite the review of the ASEAN-India Trade in Goods Agreement to enhance trade.
- Vietnam has welcomed Indian investments in IT, manufacturing, textiles, semiconductors, and renewable energy.

#### • Strategic Alignment:

- Both countries are committed to bolstering cooperation in the Indo-Pacific region, focusing on maintaining freedom of navigation and overflight in the South China Sea.
- They emphasized the peaceful resolution of disputes in accordance with international law, specifically the United Nations Convention on the Law of the Sea (UNCLOS) of 1982.

#### • Economic Diplomacy Dialogue:

• A new economic diplomacy dialogue will be established at the deputy foreign minister level to address trade and investment issues.

#### • Key Facts About Vietnam:

- Capital: Hanoi
- Official Language: Vietnamese
- Major Mountain Range: Annam Cordillera
- Major Rivers: Mekong River (south) and Red River (north)
- **Notable Wildlife:** Giant catfish, Indochinese tigers, Saola antelopes, and Sumatran rhinos. Notably, deforestation has reduced forest cover to about 19%, with ongoing replanting efforts.

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- **Government Structure:** Socialist state governed by the Communist Party of Vietnam; the president is the head of state, while the prime minister oversees the government.
- **Economy:** Major exports include crude oil, seafood, rice, shoes, wooden products, machinery, electronics, coffee, and clothing.

#### • Historical and Current Relations between India and Vietnam:

#### Historical Ties and Diplomatic Relations:

- India and Vietnam share a deep-rooted Comprehensive Strategic Partnership, with historical exchanges between Mahatma Gandhi and President Ho Chi Minh during their independence movements.
- Diplomatic relations were established in 1972 and elevated to a Comprehensive Strategic Partnership in 2016.
- Guided by the "Joint Vision for Peace, Prosperity, and People" adopted in 2020, both countries are working actively to strengthen their multi-dimensional cooperation.

#### • Institutional Mechanisms:

- The 18th Joint Commission Meeting (JCM) on Economic, Trade, Scientific, and Technological Cooperation was held on October 16, 2023, in Hanoi.
- Previous JCM meetings, Foreign Office Consultations, and Strategic Dialogues at the Secretary level have facilitated the review of bilateral cooperation.

#### • Trade, Economic, and Development Cooperation:

- **Trade Statistics:** From April 2023 to March 2024, India-Vietnam trade reached USD 14.82 billion. India's exports were USD 5.47 billion, while imports were USD 9.35 billion.
- **Key Exports and Imports:** India exports engineering goods, agricultural products, chemicals, pharmaceuticals, electronic goods, minerals, textiles, and plastics to Vietnam, whereas imports include computer and electronic goods, mobile phones, machinery, steel, chemicals, footwear, garments, and wooden products.

#### • Investments:

- Indian investments in Vietnam amount to approximately USD 2 billion, spanning sectors like energy, mineral processing, agro-processing, IT, auto components, pharmaceuticals, hospitality, and infrastructure.
- Vietnam's investments in India are around USD 28.55 million, mainly in consumer goods, electronics, construction, IT, and pharmaceuticals.

# • Development Partnership:

- Under the Mekong-Ganga Cooperation framework, India has completed about 45 Quick Impact Projects in over 35 provinces of Vietnam, with another 10 projects underway.
- Mekong-Ganga Cooperation (MGC), established in 2000, involves Cambodia, Laos, Myanmar, Thailand, Vietnam, and India, focusing on tourism, culture, education, IT, telecommunications, and transport.
- India has supported the conservation of the UNESCO World Heritage site 'My Son' in Quang Nam Province, with the Archaeological Survey of India completing conservation of specific temple groups in 2022.

# Defence Cooperation:

- India and Vietnam have a robust defense relationship, guided by a 2009 MoU on Defence Cooperation and a 2015 Joint Vision on Defence Cooperation.
- A new "Joint Vision Statement on India-Vietnam Defence Partnership towards 2030" and a "Memorandum of Understanding on Mutual Logistics Support" were signed in 2022.
- In 2023, Vietnam received the indigenously built missile corvette INS Kirpan from India.
- Military-to-military cooperation includes staff talks, exercises, training, visits, and exchanges, such as the VINBAX-2023 military exercise.
- In February 2024, a Vietnamese navy ship participated in the MILAN international maritime exercise held in India.

# • Cultural Exchanges:

- MoUs between Indian and Vietnamese institutions foster academic and cultural exchanges.
- Events like the Northeast India Festival in Ho Chi Minh City enhance bilateral cultural ties.
- Buddhist links and the popularity of yoga in Vietnam further enrich the cultural relationship, with Indian yoga teachers contributing to the vibrant yoga community.

#### • Conclusion/Way Forward:

• The enhanced India-Vietnam Comprehensive Strategic Partnership marks a significant step towards solidifying bilateral relations. By focusing on key areas such as trade, technology, defense, and cultural exchange, both nations aim to foster deeper cooperation and mutual growth. As they implement the new action plan, it is expected that their collaboration will yield substantial benefits, reinforcing their strategic alignment in the Indo-Pacific region and contributing to regional stability and prosperity. The continued engagement through institutional mechanisms and development initiatives will be crucial in achieving the shared goals outlined in this ambitious partnership.

#### • Source $\rightarrow$ The Hindu

# 4 - Strategic Implications of China's New Bridge on Pangong Lake:

GS II

# **International Relations**

# • Context/Why in News:

 China has recently completed and operationalized a significant bridge that connects the north and south banks of Pangong Tso Lake in Eastern Ladakh. This development is crucial as it enhances China's ability to mobilize its troops and military equipment swiftly, raising strategic concerns for India.

#### • Introduction:

• Pangong Tso Lake, located at over 14,000 feet in Ladakh, is a high-altitude endorheic lake that has been a focal point of tension between India and China. The newly completed bridge on this lake has considerable implications for military logistics and strategic dynamics in the region. This development underscores the ongoing friction along the Line of Actual Control (LAC) and highlights the broader border dispute between the two nations.

# • Key Points:

#### • Pangong Lake Overview:

- Pangong Tso is a long, narrow, and deep lake situated at a high altitude in Ladakh.
- India and China control different portions of the lake, with India holding about one-third and China controlling approximately two-thirds.
- The eastern end of the lake extends into Tibet.
- The lake was formed tectonically when India moved out of Gondwanaland and collided with Asia, contributing to the Himalayan mountain range's formation.

# • Disputed "Fingers" Area:

- The northern bank of Pangong Tso features spurs referred to as "fingers."
- India asserts that the LAC runs through Finger 8 but controls up to Finger 4.
- China claims the LAC is located at Finger 2.
- Recent tensions have seen Chinese forces obstructing Indian movement beyond Finger 2.

#### • Strategic Significance:

- Pangong Tso lies along the Chushul approach, a potential route for Chinese military offensives.
- During the 1962 war, China launched a major offensive in this area, with Indian forces displaying significant resistance at Rezang La.
- China has developed extensive infrastructure along the lake's banks and maintains a large-scale model of the area at its Huangyangtan base.

# • Indian Concerns Regarding the New Bridge:

- The bridge facilitates faster Chinese military access to the lake's southern banks, including strategic locations like Rezang La, where Indian forces achieved a tactical advantage in 2020.
- The bridge is likely to bolster the PLA's Moldo Garrison on the southern bank of Pangong Tso.
- It will enhance the PLA's capability to rapidly reinforce the Moldo Garrison using motorized brigades from the Rutog base.

# • India-China Border Dispute:

- The India-China border stretches 3,488 kilometers and lacks a clear mutual agreement on the Line of Actual Control (LAC) in several areas.
- The LAC was established following the 1962 Sino-Indian War.
- The border is divided into three sectors: Western (Ladakh), Middle (Himachal Pradesh and Uttarakhand), and Eastern (Arunachal Pradesh and Sikkim).

 Major disputes include Aksai Chin in the western sector, administered by China but claimed by India, and Arunachal Pradesh, which China refers to as "South Tibet."

#### • Chinese Military Infrastructure Along the LAC:

- Connectivity: Roads from Samzungling to the Galwan Valley.
- **Underground Bunkers:** Construction of bunkers, camps, shelters, artillery positions, radar sites, and ammunition dumps.
- Air Combat: Increased deployment of fighters, bombers, reconnaissance aircraft, and drones.
- Border Villages: Development of new dual-use 'Xiaokang' border villages.
- **Rear Area Infrastructure:** Enhancements to military and transport infrastructure on both banks of Pangong Tso.

# • India's Response:

- **Road Construction:** Nearly 6,000 km of roads built in border areas over the past five years, including 2,100 km along northern borders (e.g., Darbuk-Shyok-Daulat Beg Oldie road).
- **Tunnels:** Advancement in all-weather connectivity projects such as the Zojila and Z-Morh tunnels in Ladakh, and the Sela tunnel and Nechiphu bridge in Arunachal Pradesh.
- **Troop Habitat:** Rs 1,300 crore allocated for infrastructure and habitat improvements in Ladakh, incorporating green solutions like Sheela shelters and fuel cells.
- Air Power Infrastructure: Enhancement of heavy lift and logistics capabilities with the deployment of C-17 Globemaster and C-130J Super Hercules aircraft.

#### Conclusion/Way Forward:

• The completion of the Chinese bridge on Pangong Lake represents a strategic maneuver that enhances China's military mobility in the region. This development exacerbates existing tensions and poses challenges for India's border security and military preparedness. In response, India's ongoing infrastructure projects and enhancements to its military capabilities are crucial for maintaining strategic balance. As the situation evolves, continued vigilance and strategic adaptations will be necessary to address the shifting dynamics in this critical region.

#### • Source $\rightarrow$ The Hindu