

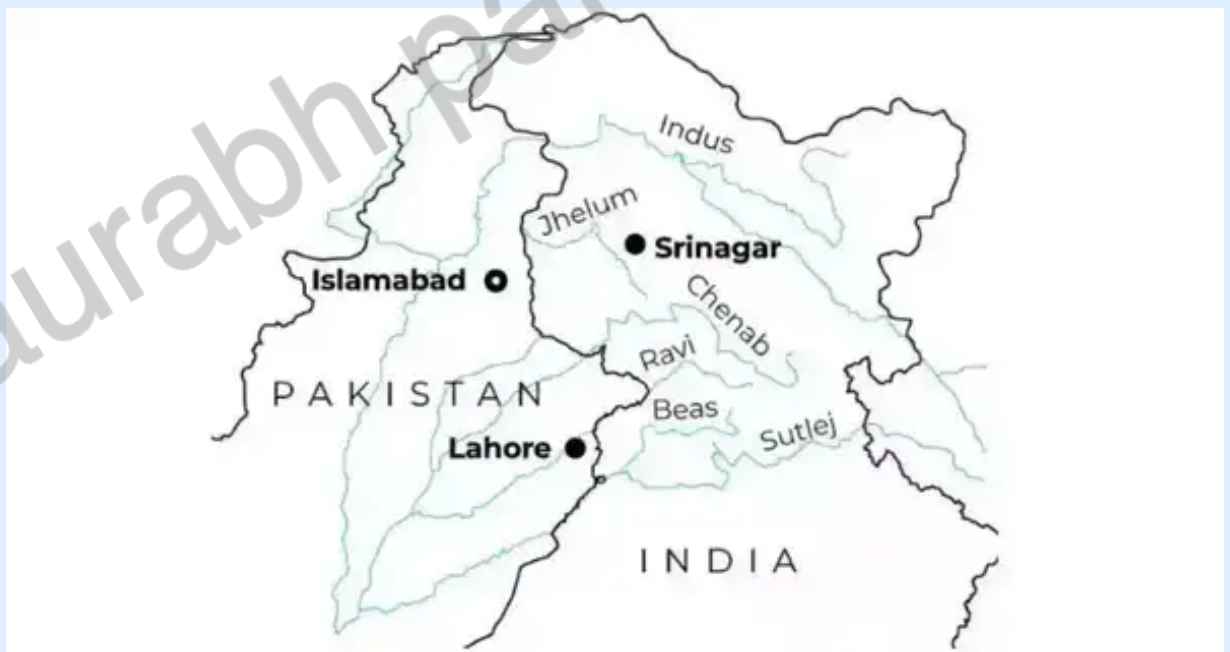
## □ What is Indus Waters Treaty?

The Indus Water Treaty (IWT), signed on September 19, 1960, between India and Pakistan, is seen as a key example of cross-border water-sharing. It was brokered by the World Bank after nine years of talks and signed by India's first Prime Minister Jawaharlal Nehru and Pakistan's President Ayub Khan to manage shared rivers.



### About Treaty

- India has control over the eastern rivers—**Ravi, Beas, and Sutlej**—while Pakistan gets the waters from the western rivers—Indus, Jhelum, and Chenab.
- According to the World Bank, the treaty set up a framework for fair and cooperative management of the Indus River system, which is essential for agriculture, drinking water, and industry in both India and Pakistan





### ☐ How will Indus Water Treaty suspension impact Pakistan?

- The Indus River network, comprising the Jhelum, Chenab, Ravi, Beas, and Sutlej rivers, serves as Pakistan's principal water resource, supporting a population of tens of millions.
- The treaty will impact Pakistan as it receives about 80% of the total water flow, which are vital for agriculture in Pakistan, especially in the provinces of Punjab and Sindh.
- Pakistan relies substantially on this water supply for irrigation, farming and potable water.
- The agricultural sector contributes 23% to Pakistan's national income and supports 68% of its rural inhabitants.
- The Indus basin supplies 154.3 million acre-feet of water yearly, which is vital for irrigating extensive agricultural areas and ensuring food security.
- Any interruption to water flow would significantly impact Pakistan's agricultural sector, a crucial component of its economy and rural livelihoods.
- Reduced water availability will likely lead to lower crop yields, food shortages, and economic instability in rural areas dependent on farming.
- Pakistan already faces critical water management issues such as groundwater depletion, salinization of agricultural lands, and limited water storage capacity.
- The country's water storage capacity is low, with major dams like Mangla and Tarbela having a combined live storage of only about 14.4 MAF, which is just 10% of Pakistan's annual water share under the treaty.
- The suspension exacerbates these vulnerabilities by cutting off a guaranteed water supply, leaving Pakistan with fewer options to manage its water needs.

## Topic → Dark Matter deficiency

### Why in News ?

Astronomers at the Indian Institute of Astrophysics have identified the reason for the unusual lack of dark matter in the galaxy NGC 1052-DF2

### Findings

- Previous studies estimated the total dynamical mass of NGC 1052-DF2 to be under 340 million solar masses, with only about 200 million solar masses attributed to stars.
- The results suggest that the galaxy's mass is predominantly made up of stars, contradicting the established understanding of dark matter's role in galaxy formation.
- NGC 1052-DF2 raises questions about galaxy formation with minimal dark matter and the nature of dark matter itself.

### ☐ What is Dark Matter ??

Dark matter is an invisible substance that makes up a significant portion of the universe, though it's not detectable by normal means. It's primarily known for its gravitational influence on visible matter, like stars and galaxies, and is thought to play a crucial role in the formation and structure of the universe

#### • What is Dark Matter Halo ??

- ☐ A dark matter halo is a hypothetical, gravitationally bound region of the universe, primarily composed of dark matter, that surrounds galaxies and galaxy clusters

## **Topic - RC1**

### **Respiratory complex 1**

- RC1 and other similar complexes are essential for cells to produce energy when the body breathes oxygen.
- They are found in the mitochondrial inner membranes of all eukaryotic cells that require oxygen to respire – including ours.
- RC1 is the largest of these respiratory complexes.
- In humans, it is an obtuse-angled complex made of 44 proteins in humans.
- Some of the proteins are made in the cell's cytoplasm and some inside the mitochondria.

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**Topic -**  
**PAHALGAM**  
**ATTACK**

**The Setting:**  
**Baisaran,**  
**Pahalgam**

Baisaran, often dubbed "Mini Switzerland," is a breathtaking tourist destination nestled in the Kashmir Valley.

**Tourist Impact:** The attack has led to a significant decline in tourist inflow, with travelers reconsidering their plans.

**Psychological Ramifications:** The incident has instilled fear among locals and tourists alike, altering the perception of Kashmir as a safe haven.

**Intelligence and**  
**Security Failures**

**Analysis of**  
**Security**  
**Measures**

The attack has raised significant concerns about the efficacy of existing security protocols in Pahalgam:

**Gaps in Security:** There is a pressing need to reassess and enhance security measures to prevent such breaches.

**Role of Technology:** Leveraging technology could play a crucial role in preempting future attacks.

**Lessons from**  
**Past Intelligence**  
**Failures**

Reflecting on past blunders reveals patterns that could inform future strategies:

**Kargil Conflict:** The intelligence lapses during the Kargil War serve as a stark reminder of the consequences of complacency and lack of vigilance.

**Societal Impacts:** Intelligence failures not only impact national security but also erode public trust in governmental institutions

## The Perpetrators

### The Resistance Front and Its Links

The Resistance Front (TRF) has emerged as a significant player in the landscape of terrorism in Kashmir:

**Origins and Affiliations:** TRF's links to groups like **Lashkar-e-Taiba** and the ISI underscore a broader strategy of deniability.

**Motives:** Understanding the motives behind such attacks is crucial for formulating an effective counter-strategy



## The Strategy Behind the Attack

The attack serves a dual purpose:

**Inflicting Pain:** It aims to create chaos and fear, undermining the sense of security in the region.

**Sowing Uncertainty:** The strategic ambiguity allows Pakistan to distance itself from the actions of terrorist groups while still exerting influence.



## Crafting a Response

### The Need for a Strategic Response

In the wake of the attack, India must adopt a comprehensive approach to counter-terrorism:

**Political Consensus:** Formulating a unified response involves garnering support across political lines.

**Long-term Strategies:** Addressing the root causes of terrorism and investing in community resilience are vital.

### Deterrence as a Policy

Understanding deterrence is crucial for shaping India's response strategy:

**Definition and Importance:** Deterrence aims to dissuade adversaries from engaging in hostile actions through credible threats.

**Historical Examples:** Successful deterrence strategies provide valuable lessons for current policy formulations.

### Diplomatic Opportunities

#### Leveraging U.S. Support

The international dimension of counter-terrorism cannot be overlooked:

**Strategies for Isolation:** India must mobilize diplomatic efforts to isolate Pakistan on the global stage.

**Importance of Allies:** Securing support from international allies is vital for effective counter-terrorism operations

## Topic → Judicial review and judicial Despotism

### Overview of Judicial Review

Judicial review is the authority vested in the judiciary to examine and nullify legislations or executive actions that infringe upon constitutional provisions. This mechanism is crucial for maintaining the rule of law and ensuring that no law can stand if it violates the Constitution.



### Importance of Judicial Review:

Protects fundamental rights

Upholds the Constitution

Maintains checks and balances among government branches

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<p><b>Importance of Article 13 in the Context of Judicial Review</b></p> <p>Article 13 of the Indian Constitution is pivotal in establishing the framework for judicial review. It prohibits the enactment of laws that contravene fundamental rights guaranteed by the Constitution.</p> <p>High Courts under Article 226 and the Supreme Court under Article 32 look at the violation of rights.</p> <p><b>Significance:</b></p> <p>Acts as a safeguard against arbitrary legislation</p> <p>Empowers courts to strike down laws that violate</p>	<p><b>The Role of Judicial Review in Upholding the Constitution</b></p> <p>Judicial review is essential in upholding the Constitution by ensuring that all laws align with its provisions. This role is further amplified by landmark cases that have shaped the judicial landscape in India.</p> <p><b>Key Cases:</b></p> <p>Kesavananda Bharati v. State of Kerala (1973)</p> <p>Minerva Mills v. Union of India (1980)</p>	<p><b>Understanding Judicial Review</b></p> <p><b>Definition and Scope</b></p> <p>Judicial review is defined as the power of the courts to review the actions of the legislative and executive branches.</p> <p><b>Historical Context:</b></p> <p>Originated from the British legal system</p> <p>Adopted into the Indian legal framework post-independence</p>	<p><b>Constitutional Basis</b></p> <p>The foundation of judicial review in India lies within the Constitution, particularly Article 13 and the basic structure doctrine.</p> <p><b>Article 13:</b> Establishes the nullification of laws inconsistent with fundamental rights.</p> <p><b>Basic Structure Doctrine:</b> Ensures that certain fundamental aspects of the Constitution remain inviolable</p>
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fundamental rights			
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### The Role of the Judiciary

Judicial review operates in tandem with judicial activism, which is the proactive stance taken by the judiciary to address social and political issues.



#### Judicial Review vs. Judicial Activism:

Judicial Review: Authority to invalidate laws

Judicial Activism: Expanding the scope of rights through proactive judgments

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<ul style="list-style-type: none"> <li>• <b>The Basic Structure Doctrine</b></li> <li>• The basic structure doctrine posits that certain fundamental features of the Constitution cannot be altered or destroyed by amendments.</li> <li>• <b>Landmark Cases:</b> <ul style="list-style-type: none"> <li>◦ Kesavananda Bharati case established this doctrine, emphasizing the judiciary's role in protecting the Constitution's core values.</li> </ul> </li> </ul>	<p><b>The Evolution of Judicial Review in India</b></p> <p>Judicial review has evolved significantly since independence, marked by critical historical milestones and landmark judgments.</p> <p><b>Key Developments:</b></p> <p>The introduction of Public Interest Litigation (PIL) expanded access to justice.</p> <p>The impact of the Emergency (1975-1977) highlighted the need for judicial vigilance.</p>	<p><b>The Debate on Judicial Power</b></p> <p>While judicial review is essential for democracy, it has sparked debates regarding judicial accountability and the potential for judicial overreach.</p> <p><b>Accountability:</b></p> <p>Are judges unaccountable in their decisions?</p> <p>The necessity for mechanisms ensuring judicial accountability.</p>
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### The Future of Judicial Review in India

As society progresses, the role of judicial review is expected to evolve, incorporating technological advancements and shifting public perceptions.



#### Predictions:

Increased reliance on technology in judicial processes

The growing influence of social media on public perception of judicial authority

## Arguments

- ❑ Justice Krishna Iyer in *Maru Ram v. Union of India* (1981) has held that “no legal power can run unruly like John Gilpin on the horse but must keep sensibly to a steady course”. He also observed that no constitutional power can be vulgarised by the personal vanity of the men in authority
- ❑ In *Qaiser e Hind* (2001), Justice Dorairajan had observed that “the assent of the President envisaged under Article 254(2) is neither an idle or empty formality not an automatic event” (Paragraph 73). It is an exercise of constitutional power. The Indian President too is under the constitution and not above it. Her actions too are amenable to judicial review. Even the Supreme Court is not supreme despite its nomenclature; it too must work under and within the constitutional limits
- ❑ Article 226 and Article 32
  - High Courts, under Article 226, and the Supreme Court, under Article 32, play pivotal roles in safeguarding rights. They can intervene when there is a violation of fundamental rights, ensuring that justice is served. This dual mechanism allows for a robust system of checks and balances
- ❑ Article 142 and Its Implications
  - Article 142 empowers the Supreme Court to pass any order necessary for doing complete justice. While this provision has been used to uphold rights and provide relief, it has also sparked debates about its potential misuse. Critics argue that the court has shifted its focus from individual rights to broader societal issues
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## Mapping

Earthquake in Marmara Sea



- **Why Earthquake ??**
- Turkey lies on two major fault lines, making earthquakes a frequent occurrence.
- **The Arabian plate was moving northwards and grinding against the Anatolian plate, which is part of the Eurasian plate.** This created a great deal of pressure, which built up over time until it was too much for the earth's crust to handle, resulting in the earthquake.