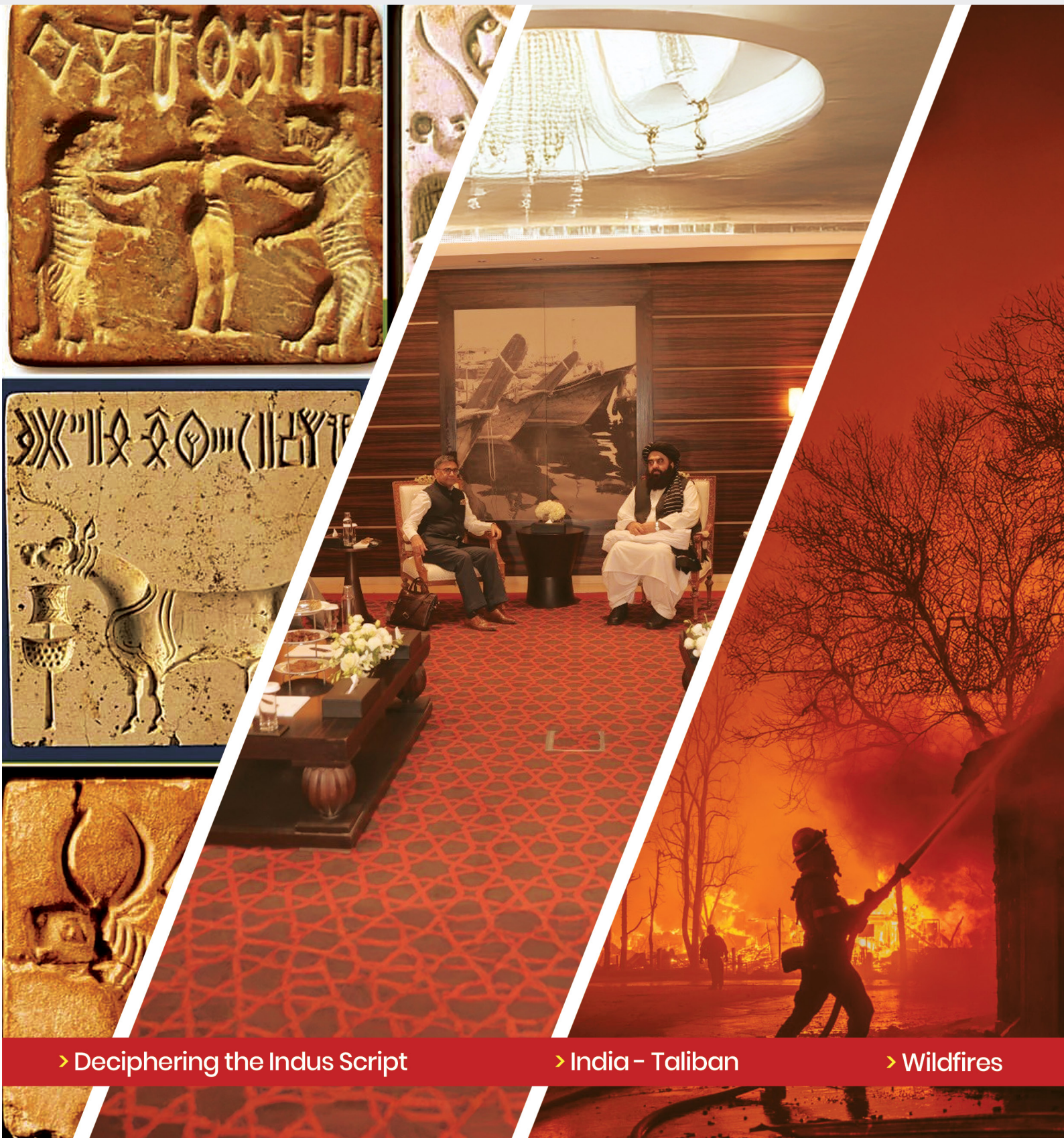


FWD

FORTUNE WEEKLY DIGEST



> Deciphering the Indus Script

> India - Taliban

> Wildfires

06th JANUARY, 2025 - 12th JANUARY, 2025

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EDITOR'S NOTE

As UPSC aspirants, it is essential to stay updated on current affairs to excel in the examination. This **Fortune Weekly Digest (ForWarD)** brings you the latest news and developments from around the world, carefully curated and analyzed to help you prepare for the Civil Services (Main) Examination.

We understand that time is precious, and we have made sure to present the information in a concise and easy-to-understand manner.

The magazine is divided into different sections. Mains relevant topics have been covered in detail with a UPSC previous year question perspective. The jot downs are examples and interesting facts to enrich your answer writing. Cherrypicks has some key words from the week, helpful again in answer writing and essay. We have also included essay topics and sample questions to help you gauge your preparation.

We have designed this magazine to best supplement the daily current affairs notes we have launched by the name of **FIND (Fortune IAS News Daily)** and **FINDER (Fortune IAS News Daily Explainer)** and the **Fortune Prelims Precise** monthly compilation. This magazine will be explained in detail and your queries addressed in a live class we conduct.

At a time when there is no dearth of current affairs materials, our hope is help you get a one-stop solution for all your current affairs needs.

This magazine is a work in progress and your feedback will be appreciated.

We hope that this magazine will serve as a valuable resource for your exam preparation and contribute to your success in the UPSC examination.

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**FIRST ATTEMPT TOPPERS FROM
OUR PRELIMS CUM MAINS BATCH**

KASTURI SHA
AIR 68

MANJIMA P
AIR 235

FABI RASHEED
AIR 71

SWATHI S BABU
AIR 522

OORMILA J S
AIR 561

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INDIA-TALIBAN

Syllabus: GS II - India and its neighborhood- relations

PYQ MAPPING

Q) The proposed withdrawal of the International Security Assistance Force (ISAF) from Afghanistan in 2014 is fraught with major security implications for the countries of the region. Examine in light of the fact that India is faced with a plethora of challenges and needs to safeguard its own strategic interests. (2013)

WHY IN NEWS

India's Foreign Secretary v, marking the **first high-level bilateral engagement with the Taliban regime**. This upgrade from previous meetings signals India's increasing diplomatic engagement with Afghanistan under Taliban rule.

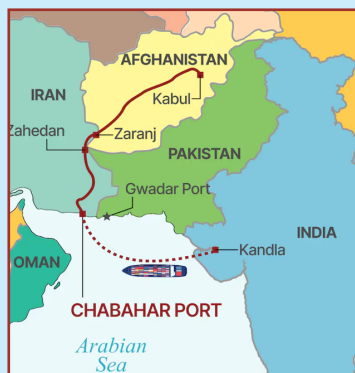
INTRODUCTION

India and Afghanistan share a historical and cultural bond, furthered by India's active role in Afghanistan's reconstruction and development. Since the Taliban's takeover in 2021, India has carefully navigated its engagement, focusing on humanitarian aid and people-centric initiatives while aligning with global approaches.

SHORT TAKES

➤ Chabahar Port:

- o Located in Iran's Sistan-Baluchistan province, is a key India-Iran infrastructure project aimed at enhancing sea-land connectivity with Afghanistan and Central Asia.
- o The project includes two terminals: a multi-purpose terminal (600 m) and a general container



terminal (640 m).

- o A Trilateral Transit and Transport agreement between India, Afghanistan, and Iran ensures smooth movement of goods and vehicles through the port.

- **UNSCR 2593:** Adopted in 2021, it condemned the Taliban's takeover, calling for an inclusive government and respect for human rights, especially women's and minorities' rights. It also urged the Taliban to prevent terrorism and uphold counterterrorism and humanitarian commitments.

ABOUT AFGHANISTAN

- ➔ **Land and Topography:** Afghanistan spans 652,230 sq km with a harsh, dry topography. It is landlocked, bordered by Iran, Turkmenistan, Uzbekistan, Tajikistan, China, Pakistan, and India (in disputed PoK).

TALIBAN SEEKING RECOGNITION

The meeting gains importance for the fact that no country, including India has formally recognized the Taliban government in Afghanistan. However, some nations have established de facto diplomatic ties:

- » China: Accepted a Taliban-appointed ambassador in January 2024.
- » UAE: Recognized a Taliban diplomat in August 2024.
- » Russia: Allowed Taliban control of Afghan missions and indicated a willingness to delist them as a terrorist group.

The international community remains hesitant due to the



Taliban's human rights record, especially restrictions on women's rights and education. India currently only has a technical team in Afghanistan.

KEY POINTS ABOUT THE MEETING

High-Level Engagement:

- o First high-level bilateral engagement with the Taliban regime.
- o Previous engagements were at the level of Joint Secretary, making this meeting an upgrade in official diplomatic ties.

Issues Discussed:

- o **India's Security Concerns:** Taliban acknowledged India's concerns, particularly ensuring that anti-India terror groups are not allowed to operate from Afghan soil.
- o **Humanitarian Assistance:** India evaluated its ongoing programmes, including the supply of wheat, medicines, vaccines, and earthquake relief.
- o **Development Projects:** India expressed readiness to engage in development activities beyond humanitarian aid, responding to Afghanistan's urgent needs.
- o **Refugee Rehabilitation:** India pledged support for rehabilitating Afghan refugees, especially those returning from Pakistan.
- o **Trade and Connectivity:** Discussed the promotion of trade and humanitarian activities through Iran's Chabahar port.
 - India received a reprieve from US sanctions on Chabahar to ensure access to Afghanistan.
- o **Sports Cooperation:** Strengthening cricket ties was highlighted as an area of collaboration, with India

providing training facilities for Afghan cricketers in Noida.

- o **No Mention of Rights Issues:** The MEA statement did not address the protection of women's rights, minority rights, or inclusion in the Taliban-led government.

Five key reasons for India's engagement with the Taliban

- o **Pakistan:** Tensions between Pakistan and Afghanistan have escalated, with Pakistan **accusing the Taliban of harboring Pakistani Taliban (TTP) militants**, resulting in cross-border airstrikes and complicating regional dynamics, which India views as an opportunity to counterbalance Pakistan's influence.
- o **China:** Actively engaging with the Taliban, aiming to tap into Afghanistan's natural resources and integrate the country into its **Belt and Road Initiative**, including large-scale urban development projects.
- o **Iran:** Distracted by internal and regional issues, including the **Israel conflict** and considers the Taliban as a "reality" in the region.
- o **Russia:** As Russia, preoccupied with its **war in Ukraine**, seeks to build ties with the Taliban for counterterrorism cooperation.
- o **United States:** With the possibility of a **return of Donald Trump to the White House**, India is preparing for potential shifts in U.S. policy towards the Taliban and is aiming to maintain its influence in Afghanistan amidst changing global dynamics.

HISTORY OF RELATIONS

India's Stance:

India shares deep historical ties with Afghanistan but, like others, has not recognized the Taliban government. India adheres to agreements like the 1950 "Friendship Treaty" and UN resolutions, including UNSCR 2593 that called for an end of terrorism in Afghanistan post Taliban take over.

Diplomatic Engagement:

Since the Taliban's 2021 takeover, India has held meetings with Taliban leaders and stationed a technical team at its Kabul embassy to maintain communication.

Contributions to Afghanistan:

- o **Humanitarian Aid:** 50,000 MT wheat, 300 tons medicines, 27 tons earthquake relief, 40,000 litres pesticides, 100M polio doses, 1.5M Covid vaccines, and other essentials.
- o **Drug Rehabilitation:** Partnered with UNODC to assist Afghan drug users, focusing on women.

Educational Support

- o Scholarships via ICCR for 3,000+ Afghan students (600 girls) since 2021.
- o Online scholarships for 1,000 students, 30% reserved for women.
- o Continued collaboration with ANASTU in agriculture studies.

Development Partnership

- o **Projects:** 500+ across all provinces in power, healthcare, education, agriculture, etc.
- o **Key Initiatives:**
 - Indira Gandhi Institute of Child Health: A 400-bed paediatric hospital serving 3 lakh children annually.
 - Afghan-India Friendship Dam: Supplies 42 MW electricity and irrigates 75,000 hectares of land.

CHALLENGES

▼ Trust Issues with the Taliban

- o India remains concerned about the **Taliban's potential links to anti-India militant groups**, although the Taliban has adhered to its commitment of not allowing such activities on Afghan soil.
- o Since August 2021, the Taliban's rule has **curtailed basic freedoms**, particularly for women, with bans on education, work, and movement, conflicting with India's democratic values and complicating diplomatic engagement.

▼ Erosion of Afghan Trust: India's abrupt disengagement post-Taliban takeover and its **halt on visa services** disappointed many Afghans students, particularly women, lost educational opportunities, further straining ties.

▼ Geopolitical Constraints: Pakistan and China have

strengthened their influence in Afghanistan, using economic and political leverage.

- o The Taliban's reliance on Pakistan-backed groups, like the Haqqani network, undermines India's strategic presence.

▼ Humanitarian Crisis and Aid Mismanagement: Limited mechanisms for direct distribution of India's aid weaken the impact of Indian humanitarian efforts.

▼ International Recognition and Legitimacy: India's engagement risks inadvertently granting the Taliban the legitimacy they seek, complicating India's stance on democracy and human rights.

- o The lack of recognition of Taliban government has made it impossible for India to give Afghans visas to visit India for healthcare and studies.

What to expect in the future?

- » **Future Engagements:** Both sides agreed to maintain regular contact at various levels, keeping the door open for future political engagements.
- » **Strengthened Connectivity and Trade:** India's development of Chabahar port, in collaboration with Iran, is expected to improve access to Central Asia, enhancing trade and connectivity via Afghanistan.
- » **Strategic Positioning Against Pakistan and China:** India's outreach to the Taliban could disrupt Pakistan's influence and counterbalance China's growing presence in Afghanistan, benefiting India's regional strategy.

WAY FORWARD

- * **Engage with Non-Taliban Forces:** India should continue engaging with Afghan democrats and civil society, ensuring support for an inclusive government while maintaining ties with the Taliban.
- * **Focus on Humanitarian Aid:** India should expand its humanitarian efforts, especially for women and children, through trusted international partners, ensuring continued goodwill.
- * **Enhance Regional and Global Collaboration:**
 - o Work with the UN, G20, and regional forums to pressurise the Taliban to uphold human rights.
 - o Collaborate with Central Asian countries to counterbalance Pakistan-China influence in Afghanistan.
- * **Promote Accountability and Reform:** India should use its diplomatic influence to press the Taliban for reforms, particularly on women's rights and governance, to encourage a more inclusive future.

CONCLUSION

Indo-Afghan relations have adapted to the evolving geopolitical landscape, with India prioritising the welfare of the Afghan people amid the Taliban regime. Balancing humanitarian support with security concerns, India remains committed to fostering stability and development in the region.

SAMPLE QUESTION

Q) In the context of the Taliban's rule, how should India navigate its security concerns while fostering diplomatic and economic ties with Afghanistan? **(10marks)(150 words)**

DECIPHERING THE INDUS SCRIPT

Syllabus: GS I - Art and Culture

PYQ MAPPING

Q) To what extent has the urban planning and culture of the Indus Valley Civilization provided inputs to the present day urbanization? Discuss. (2014)

Q) The ancient civilization in Indian sub-continent differed from those of Egypt, Mesopotamia and Greece in that its culture and traditions have been preserved without a breakdown to the present day. Comment. (2015)

INTRODUCTION

- The Indus Valley Civilisation (IVC) flourished between 2600 BCE and 1900 BCE, spanning an area of about 800,000 square kilometers in present-day Pakistan and north-western India.
- Despite being one of the world's earliest urban cultures with a sophisticated trade, taxation, and drainage system, its script remains undeciphered. Since its discovery in the 1920s, scholars have debated its nature, structure, and language affiliation, making over 100 attempts to decipher it.

WHY IN NEWS

Tamil Nadu CM M. K. Stalin announced a **\$1 million prize** for deciphering the **Indus Valley script**, an unresolved mystery since the civilization's discovery by **Sir John Marshall** (c. 3300-1300 BCE).



HYPOTHESIS ABOUT NATURE OF INDUS SCRIPT

➔ Pictographic and Symbolic Hypothesis

- Bahata Ansumali Mukhopadhyay**, a researcher on the Indus script since 2014, argues that the script was primarily symbolic rather than phonetic.
 - She suggests it was designed to **convey meanings across different dialects and languages** of the Indus region.
 - She claims the script was **mainly used for commercial purposes** (tax stamps, trade permits) rather than religious texts or phonetic spellings of names.

➔ Logosyllabic Hypothesis

- Asko Parpola**, a leading Indus script researcher, believes the script was **logosyllabic**, meaning the signs represented **entire words or syllables**, similar to Mesopotamian cuneiform and Egyptian hieroglyphs.
- He supports the **'rebus' principle**, which says that pictures or symbols represent not their literal meaning but the sounds of words.

Tamil Nadu's Study on Indus Sign

- Tamil Nadu's **Department of Archaeology** published a study on **"Indus Signs and Graffiti Marks of Tamil Nadu."**
- The study found **90% similarity** between **South Indian graffiti marks** and **Indus symbols** on seals and terracotta tablets.
- Researchers analyzed **15,000 pot shards** from **140 sites in Tamil Nadu** and compared them with **4,000 Indus artefacts**, identifying:
 - 42 base signs**
 - 544 variants**
 - 1,521 composite forms**
- Example: The **fish sign** in the Indus script is unlikely to represent actual fish. Instead, he connects it to the **Dravidian word 'min'**, meaning both "fish" and "star," suggesting it was used to denote stars in astral names.

➔ Non-Linguistic Symbol System Hypothesis

- o Some scholars argue the Indus script was **not a full-fledged writing system** but a collection of symbols used for communication.
- o In 2004, Steve Farmer, Richard Sproat, and Michael Witzel published **“The Collapse of Indus Script Thesis”**, arguing that:
 - The script did not encode a language.
 - The short length of inscriptions (average **5 characters**, longest **26 characters**) suggests it was not a literate civilization.
 - The symbols were likely used for political or religious purposes rather than linguistic writing.
- o This theory was controversial and rejected by many scholars.

Nature of Indus Symbols

- The Indus Civilization (2600-1900 BCE) covered 800,000 sq km in modern Pakistan and northwest India.
- The script consists of human, animal motifs, and symbols, with no consensus on the number of signs:
- There is no consensus on the exact number of symbols in the Indus script. Estimates vary widely:
 - **S. R. Rao (1982):** 62 signs
 - **Asko Parpola (1994):** 425 signs
 - **Bryan K Wells (2016):** 676 signs
- The variation in estimates reflects the ongoing debate about whether some signs are **variants of the same symbol** or distinct characters.

COLLECTION OF INDUS SCRIPT



(Ten Indus script from the northern gate of Dholavira, dubbed the Dholavira Signboard, one of the longest known sequences of Indus characters.)

COLLECTION OF SEALS



The Pashupati seal of Mohenjodaro



A seal bearing the very common unicorn motif



Mould of a seal showing a man fighting two tigers



Mould of a seal showing an elephant in movement.

DEBATE OVER LANGUAGE

♣ Dravidian Hypothesis

- o Asko Parpola and Iravatham Mahadevan argue that the Indus script is based on a **Dravidian language**, particularly **Old Tamil**.
 - Parpola suggests the Indus script contained **Dravidian word roots**, and his research led to the identification of **Old Tamil names for planets**.
- o Linguist Peggy Mohan also supports a **Dravidian connection** but believes the Indus language was different from modern Dravidian languages in some aspects.

♣ Sanskritic Hypothesis

- o S. R. Rao, who discovered important Indus sites like **Lothal**, linked the Indus script to **Sanskrit**.
- o However, this theory is seen as **ideologically motivated** by many scholars.
 - Journalist Andrew Robinson argues that Rao sought to prove that Sanskrit originated from the Indus Civilisation rather than Indo-Aryan migrations from Central Asia.
- o **Counterargument:**
 - **Aryans arrived in the Indus region after 2000**



BCE, after the decline of the Indus Civilisation.

- Sanskrit, therefore, could not have been the language of the Indus people.

♣ Brahmi Link Hypothesis

- o Sir Alexander Cunningham, who first discovered an Indus seal, suggested a link to the **Brahmi script** (ancestor of many South and Southeast Asian scripts).
- o Asko Parpola refutes this, stating that:
 - Brahmi evolved from **Aramaic (Persian Empire, 500 BCE)** and was later influenced by **Greek script (Alexander's invasion, 326 BCE)**—much later than the Indus Civilisation.

OTHER THEORIES AND CROSS-CULTURAL COMPARISONS

🕒 Egyptian Hieroglyphs Connection

- o **Sir Flinders Petrie (1932):** Suggested that the Indus script followed the **pictographic principles of Egyptian writing**.

🕒 Mesopotamian Influence

- o **J. V. Kinnier Wilson (1987):** Proposed links between Indus and **Mesopotamian scripts**, as both civilizations had trade relations.

🕒 Easter Island Theory

- o **Vilmos Hevesy (1932):** Claimed the Indus script

resembled the **rongorongo script of Easter Island**.

o **Counterargument (Parpola, 2015):**

- The scripts are separated by **20,000 km** and **3,500 years**—highly unlikely to be related.
- The rongorongo script is still undeciphered, making comparisons speculative.

🔗 **The 'Not a Language' Argument**

- o Steve Farmer, Richard Sproat, and Michael Witzel (2004) argued the Indus script was nonlinguistic, as:
 - Inscriptions are very short (5 characters on average, max 26).

- No long texts, unlike other ancient scripts.

- o They claimed the symbols were political/religious icons, not a writing system.

🔗 **Commercial Notation Theory**

- o Bahata Ansumali Mukhopadhyay (2023) proposed that:
 - Indus seals were tax stamps.
 - Indus tablets were permits for trade/crafts.
 - The script did not encode language phonetically.
- o Linguist Peggy Mohan likened Indus signs to dhobi (washerman) marks, which serve record-keeping rather than language.

SIGNIFICANCE IN DECIPHERING

- ★ **Unveiling Language Origins:** Identifying the script's linguistic roots (Dravidian, Indo-Aryan, or others) would clarify ancient India's language history.
- ★ **Insights into Harappan Society:** Decipherment could reveal religious beliefs, governance, and social structures.
- ★ **Tracing Cultural Continuity:** Connecting Harappans to later civilizations would help map India's historical and

linguistic evolution.

- ★ **Global Impact:** Understanding this script enhances knowledge of ancient writing systems, communication, and cross-cultural exchanges.
- ★ **Potential Vedic Links:** Deciphering may uncover ties to Vedic traditions and linguistic connections to Dravidian or Indo-European families.

CHALLENGES IN DECIPHERING

● **Short Texts**

- o The longest Indus inscription is only 26 characters long, making it difficult to identify sentence structures.

categories:

- **Unknown script, known language**
- **Known script, unknown language**
- **Unknown script, unknown language (most difficult)**

● **Lack of Multilingual Inscriptions**

- o Scripts are often deciphered through comparisons with known scripts, as seen in the case of the Rosetta Stone, which had Greek, demotic, and hieroglyphic inscriptions.
- o The Indus Valley Civilisation had trade links with Mesopotamia (where cuneiform was deciphered), yet no bilingual or multilingual inscriptions have been found.

- o The Indus script belongs to the third category, meaning scholars lack references to determine phonetic values.

● **Limited public access**

- o Many of the indus scripts are still kept outside public gaze thus limiting it's access
- o Most scripts that are in the public lack context make it difficult to find connections and hypothesis.

● **Limited Archaeological Evidence**

- o Many Indus sites are yet to be excavated.
- o Mohenjodaro, the largest known Indus city, was excavated over 100 years ago, and modern scientific techniques were not available at the time.

● **Limited Material & Knowledge of the Civilization**

- o Decipherment relies on ample inscriptions and their contexts.
- o Only 3,500 Indus seals have been found, averaging five symbols per seal, which is insufficient for analysis.
- o Many Harappan sites remain undiscovered or underexplored, unlike Mesopotamian and Egyptian civilizations, which provide more material for study.

● **Unknown Language**

- o According to **Andrew Robinson is a British author, journalist, and expert in archaeology and ancient scripts.**, undeciphered scripts fall into three

WAY FORWARD

* **Need for Further Excavations**

- o Italian archaeologist Paolo Biagi stresses that without new discoveries, decipherment remains difficult.
- o More Indus sites need to be explored, particularly in Pakistan.

* **Advancements in Decipherment Methods**

- o Modern technology (AI, computational linguistics) might provide new insights into the script's structure.

* **Shift in Focus:**

- o Instead of expecting literature or religious texts, scholars should approach decipherment with a practical mindset.
- o Even if the script contains commercial records, it can provide valuable information about Harappan trade and administration.

* **Shun political mindset**

- o The decipherment must be shunned of any political ambitions, rather must be heralded as the commons of the subcontinent.

* **Interdisciplinary Approach:**

- o Collaboration between linguists, archaeologists, and data scientists can enhance analysis and interpretation.
- o Collaborate with researchers from Pakistan, Afghanistan, Sri Lanka, Bangladesh etc can also help to reduce redundancies and cross-country analysis.

CONCLUSION

The Indus script remains one of history's greatest mysteries, with scholars still divided on whether it is a full language or a symbolic commercial system. Despite numerous attempts, no theory has gained universal acceptance, and the true nature of the script remains elusive. Tamil Nadu's initiative offers a promising new direction, but further excavations and discoveries will be crucial to unraveling this ancient enigma and shedding light on the sophisticated culture of the Indus Valley Civilization.

SAMPLE QUESTION

Q) Discuss the challenges involved in deciphering the Indus Valley script and analyze their impact on our understanding of the Harappan Civilization. **(10marks)(150 words)**

GREENLAND, PANAMA, CANADA: WHY DOES TRUMP WANT IT?

Syllabus: GS II - Effect of policies and politics of developed and developing countries on India's interests

PYQ MAPPING

Q) Indian diaspora has a decisive role to play in the politics and economy of America and European Countries'. Comment with examples (2020)

Q) "The USA is facing an existential threat in the form of China, that is much more challenging than the erstwhile Soviet Union." Explain (2021)

WHY IN NEWS

The recent interest shown by US President-elect Donald Trump in **buying Greenland, taking over the Panama Canal and declaring Canada as the USA's 51st state** has created heated debates in the international sphere.

INTRODUCTION

The recent remarks by U.S. President-elect Donald Trump regarding the potential acquisition of Greenland, the Panama Canal, and Canada have reignited discussions about **American expansionism**. These proposals raise significant questions about the future of international relations, territorial sovereignty, and the balance of power in global geopolitics

SHORT TAKES

➤ Soft power:

- A term coined by American Political Scientist **Joseph Nye** in his book *Bound to Lead: The Changing Nature of American Power*(1990), refers to a nation's ability to influence others through appeal and attraction rather than coercion or force.
- It is rooted in cultural influence, political values, and effective diplomacy.

➤ Rare earth minerals:

- A group of 17 chemically similar elements, including lanthanides, scandium, and yttrium, that are critical for advanced technologies such as electronics, renewable energy systems, and

defence equipment.

- Despite their name, they are relatively abundant in the Earth's crust but are challenging to extract and process economically.

➤ United States-Mexico-Canada Agreement (USMCA):

- A trade agreement that replaced the North American Free Trade Agreement (NAFTA) and entered into force on July 1, 2020.
- It modernizes trade provisions related to labor, environmental standards, digital trade, and intellectual property, aiming to promote fairer trade and economic growth across the three countries.

GREENLAND

ABOUT

- ♣ Greenland is an **autonomous region of Denmark**, strategically located between Europe and North America, with significant geopolitical and military importance due to its proximity to the Arctic.
- ♣ Greenland is part of the Denmark kingdom which also includes the Faroe Islands.

TIMELINE

- ➔ **Pre-1500s:** Indigenous **Inuit** people inhabited Greenland for over 4000 years
- ➔ **986-1500s:** Norsemen, led by the Viking Erik the Red, settled Greenland. Erik was a Scandinavian criminal who was exiled from



Iceland for manslaughter charges.

- ➔ **1721-1814:** The Viking settlements vanished by 1500 and Denmark as part of the Danish-Norwegian Kingdom began exploring Greenland in the early 18th century. In 1721, the Danish missionary **Hans Egede** established a colony, marking the start of formal Danish rule. This period also saw the coercive conversion of Inuits to Christianity.
- ➔ **1814:** Treaty of Kiel ceded Greenland to Denmark after Norway was separated.
- ➔ **19th-20th Century:** Greenland remained a Danish colony with limited self-governance.
- ➔ **1867:** The US State Department highlighted Greenland's strategic location and natural resources, suggesting its acquisition, but no formal action was taken.
- ➔ **1940-1945:** The U.S. took control of Greenland's defense during WWII, as Denmark fell to the Nazi Germany.
- ➔ **1946:** Following World War II, President Harry S. Truman offered \$100 million to Denmark for Greenland and considered exchanging parts of Alaska for Greenland, but the proposal did not progress.

- ➔ **1951:** USA constructed the Thule Air Base (now expanded to Pituffik Space base) in Greenland under code name 'Blue Jay' by expelling the Inuits in thousands. The US also established a Distant Early Warning (DEW), now expanded to Ballistic Missile Early Warning System (BMEWS). These were mainly to intercept the Soviet jets.
- ➔ **Post-War Period and Home Rule (1950s-1979):** In 1979, Denmark granted Greenland Home Rule, giving it a degree of autonomy, though foreign affairs, currency and defense remained under Danish control.
- ➔ **Full Self-Government (2009-Present):** Greenland obtained further autonomy through the Self-Government Act of 2009, gaining more control over its internal affairs. While Denmark still controls foreign policy, defense, and monetary matters, Greenland has its own parliament and government.
- ➔ **2019:** President Donald Trump proposed buying Greenland, calling it a "large real estate deal," but cancelled a scheduled visit to Denmark after Danish Prime Minister Mette Frederiksen rejected the idea as absurd.

SIGNIFICANCE OF GREENLAND

- ☀ **Geostrategic Importance:** Greenland's location between Europe and North America allows the US to **monitor and intercept potential missile threats from Russia, China, and North Korea**, while also providing easier access to launch missiles or ships towards Asia and Europe.
- ☀ **Resource Richness:** Greenland is abundant in **rare earth minerals** critical for technology and defense, and with China being a major supplier, the US has

an interest in securing access to these resources, particularly as Greenland banned uranium mining in 2021.

- ☀ **Arctic Accessibility:** As global warming melts ice, **new Arctic waterways open**, and the US seeks to prevent Russia and China from expanding their influence in the region, ensuring a strong presence in Greenland and its surroundings.

CANADA

ABOUT

- ♣ Canada is the **second-largest country in the world by land area**, spanning approximately 9.98 million square kilometres, bordered by the United States to the south.
- ♣ A key economic ally of the U.S., with integrated industries such as automotive, energy, and agriculture, and shared trade agreements like the **USMCA**.

SIGNIFICANCE

- ☀ **Economic Integration:**
 - o Trump believes annexing Canada would **eliminate trade deficits and allow the US to directly control Canadian industries**, such as lumber, dairy, and automotive production.



- o He envisions reducing reliance on Canadian imports and boosting domestic production in regions like Detroit.

☀ **National Security:** He argues that merging with Canada would strengthen US national security by removing the "artificially drawn" border and consolidating

defence efforts.

☀ **Long-Term Debt Reduction:** He ties the idea of acquiring Canada to reducing the **US's \$36 trillion debt** by leveraging resources and energy from the combined territory.

PANAMA CANAL

ABOUT

- ♣ The Panama Canal **connects the Atlantic and Pacific Oceans**, making it a vital global waterway for shipping and trade especially for oil, industrial products, and goods between the US's east and west coasts.
- ♣ The canal is 80 km long and an average 12.5m depth with a minimum width of 300 feet.

TIMELINE

- ➔ **1821:** Panama was a Spanish colony till 1821 when the leaders like **Simon Bolivar** (the Liberator), Francisco de Miranda, Jose de Fabrega among others were instrumental in including Panama into **Gran Colombia**. Gran Colombia was a republic that included newly independent Panama, Venezuela, Ecuador and Colombia.
- ➔ **1831:** Saw the **dissolution** of Gran Colombia and it split into parts, but Panama continued under the sovereignty of the Republic of Columbia. The US tried to negotiate with Columbia for the right to build a canal but Columbia was reluctant.
- ➔ **1880s:** The **French**, led by Ferdinand de Lesseps (who had completed the Suez Canal), began building the Panama canal motivated by desire to shorten the shipping route between the Pacific and Atlantic. But they failed due to financial (including corruption) and health issues. The French planned to construct the canal in the same way as Suez by cutting the canal, but the difficult terrain of hard rocks along the isthmus of Panama put paid to their plans.
- ➔ **1903:** Panama saw independence movements largely due to economic neglect by Columbia. The US took advantage of it by sending forces to help Panama secure independence in exchange for a Canal treaty. Panama declared independence and the Hay-Bunau-Varilla Treaty was signed to give US control of the Panama Canal Zone (which included a 5 mile territory



on either side of the canal).

- ➔ **1904:** The US began constructing the canal, overcoming challenges like disease and technical difficulties. The Canal uses a system of **locks (two at Miraflores and one at Gatun)** to raise and lower ships as they pass through the artificial **Gatun Lake and Culebra Cut**. **Tugboats** guide ships through the locks, which adjust water levels to help vessels move from the Atlantic to the Pacific, or vice versa.
- ➔ **1977:** US President **Jimmy Carter** negotiated the **Torrijos-Carter Treaties**, which stipulated that the U.S. would gradually transfer control of the canal back to Panama by the end of 1999. The treaty was the result of increasing tension between Panama and the US regarding sovereignty over the canal. There was also increasing international pressure on US against its imperialism
- ➔ **1989:** **US invaded Panama** (operation Just Cause) after the disputed 1989 elections which saw the potential return of a drug warlord General Noriega, a once CIA agent who later fell out of favour. The US installed a transitional government and continued their military presence in Panama.
- ➔ **1999:** On December 31, 1999, Panama assumed full control of the canal after nearly a century of US operation

SIGNIFICANCE

☀️ Historical Importance:

- o The canal was a **strategic asset during the World Wars**, facilitating the movement of US military forces and supplies.
- o Control over the canal allowed the US to exert significant influence in the region and globally, particularly during the Cold War.
- o The canal **reduced the travel distance for ships**, cutting the journey between the US east and west coasts by 8,000 nautical miles.

☀️ Economic Concerns:

2.5% of global trade passes through the canal. Trump criticizes Panama's control over the canal and its **high fees, which he considers unfair to the US**, given the historical contribution of the US to its construction.

- o However, Panama says that shipping prices have increased because of droughts last year affecting the canal locks, forcing Panama to drastically cut shipping traffic through the canal and raise rates to use it.

- o The higher fees will help Panama to accommodate modern shipping needs along the canal.

☀️ Chinese Influence:

Trump is concerned about China's growing involvement in the region, particularly in managing infrastructure and ports related to the canal, which he perceives as a threat to US interests. Currently, the Panama Ports Company – a subsidiary of Hong Kong-based Hutchison Ports – manages the Balboa and Cristóbal ports that serve as the entry and exit ways to the canal.

☀️ Illegal Migration:

Panama is a key route for illegal migrants from South America, especially the impassable Darien Gap, between Panama and Columbia.

☀️ Treaty of Neutrality:

The 1977 treaty to hand over Panama Canal to Panama contains a neutrality agreement that says that Panama will remain neutral and open to all. The US military can only return to Panama for its defence and that too if requested by Panama. Trump says that the 1977 treaty was 'foolish'.

NOTABLE US LAND AQUISITIONS

🇺🇸 **Louisiana Purchase (1803):** The US acquired more than 2 million sq km of land from France for \$15 million during Thomas Jefferson's presidency.

🇺🇸 **Alaska Purchase (1867):** The US bought Alaska from the Russian Empire for \$7.2 million, adding about 1.5 million sq km of land, with the modern state of Alaska established in 1959.

🇺🇸 **Danish West Indies Purchase (1917):** The US bought the Danish West Indies, a group of Caribbean islands, for \$25 million and renamed them the US Virgin Islands.

ATTITUDE OF WORLD NATIONS

🇩🇰 **Danish Prime Minister Mette Frederiksen:** Firmly rejected Trump's proposal to buy Greenland, emphasizing that **Greenland is not for sale**, and warned against using financial means to force decisions, stressing the importance of peaceful relations between Denmark and the U.S.

🇵🇦 **Panamanian Foreign Minister Javier Martínez-Acha Vásquez:** Strongly denied Trump's claims about Panama overcharging U.S. ships and allowing Chinese military control over the Panama Canal, asserting that **Panama retains full control of the canal** and would

not entertain such threats.

🇨🇦 **Canadian Prime Minister Justin Trudeau :** Called Trump's statements about annexing Canada a **distraction** and pointed to Canada's increased spending on border security as a sign of cooperation.

🇩🇪 **German Chancellor Olaf Scholz:** Reaffirmed the principle that **borders should not be altered by force**, expressing unease over Trump's expansionist rhetoric, and emphasized the need for European unity in response to such destabilizing remarks.

ISSUES WITH TRUMP'S EXPANSIONIST RHETORIC

- ✧ **Violation of International Norms:** Advocating territorial acquisition through force or coercion contradicts **principles of sovereignty and international law**.
- ✧ **Diplomatic Fallout:** Strains relations with key allies like Denmark (Greenland) and Canada, and **undermines trust in the US** as a global leader.
- ✧ **Geopolitical Instability:** Expansionist ambitions could embolden other nations like Russia and China to justify their territorial claims, destabilising global order.
- ✧ **Economic Consequences:** Threatening economic coercion could disrupt trade relationships with Canada and other affected nations, harming mutual economic interests.
- ✧ **Legality and Feasibility:** Annexing territories like Greenland or the Panama Canal faces significant **legal, political, and logistical hurdles**, making these goals impractical.
- ✧ **Domestic Criticism:** Such policies have drawn backlash from US lawmakers, highlighting divisions and questioning the administration's priorities.
- ✧ **Global Perception:** The rhetoric risks portraying the **US as an aggressive power**, damaging its reputation and soft power influence globally.
- ✧ **Historical Backlash:** Revisiting 19th-century expansionism ignores the post-WWII consensus against altering borders by force, potentially **reversing decades of progress**.

WAY FORWARD

- ✧ **Reaffirming International Norms:** The U.S. should reaffirm its commitment to international law and respect for territorial integrity, while addressing security concerns through **diplomacy** rather than coercion.
- ✧ **Diplomatic Engagement:** Strengthen diplomatic dialogue with Denmark, Greenland, Panama, and Canada to address security concerns without compromising sovereignty.
- ✧ **Multilateral Cooperation:** Collaborate with **NATO and regional allies** to enhance security in areas like the Panama Canal, addressing shared threats without unilateral actions.
- ✧ **Economic Partnerships:** Invest in **trade agreements and resource-sharing initiatives** with Greenland and Canada to foster mutual economic growth.
- ✧ **Domestic Consensus:** Build bipartisan support for foreign policy initiatives, focusing on sustainable and lawful strategies rather than expansionist rhetoric.
- ✧ **Global Image Management:** Avoid actions that could alienate allies, instead promoting the U.S. as a **cooperative global leader** committed to stability.
- ✧ **Strategic Investments:** Enhance U.S. presence in key regions through infrastructure development, technology sharing, and research partnerships.
- ✧ **Public Diplomacy:** Use **soft power strategies**, such as cultural and educational exchanges, to strengthen ties with allied nations.

CONCLUSION

Trump's expansionist rhetoric, driven by political motives to appeal to his base and project strength, **aims to create an illusion of dominance**, particularly against allies who cannot retaliate effectively. Moving forward, the U.S. must **focus on diplomacy and respect** for sovereignty to ensure a balanced approach to global relations. The US clearly cannot get back any of these territories without going for an all out invasion which will have its repercussions, which a weakened US today may not be able to handle.

SAMPLE QUESTION

Q) What are the key factors driving the U.S. expansionist policy in the 21st century? Evaluate the long-term consequences of such a policy on international trade and security. **(10marks)(150 words)**

WILDFIRES

Syllabus: GS III - Disaster Management

PYQ MAPPING

Q) Vulnerability is an essential element for defining disaster impacts and its threat to people. How and in what ways can vulnerability to disasters be characterized? Discuss different types of vulnerability with reference to disasters. (2019)

Q) Discuss the recent measures initiated in disaster management by the Government of India departing from the earlier reactive approach. (2020)

INTRODUCTION

The increasing frequency and intensity of wildfires globally reflect the complex interplay between climate change, human activity, and environmental management. These fires not only threaten lives and property but also disrupt ecosystems and exacerbate existing socio-economic challenges.

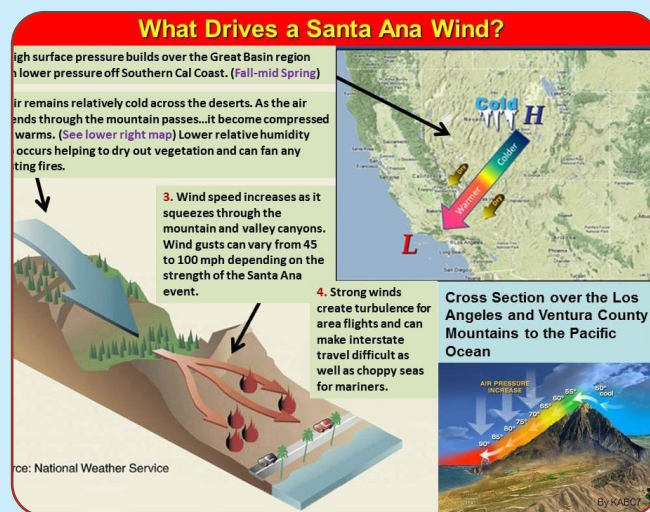
WHY IN NEWS

A new fire broke out in Southern California on January 13, adding to ongoing blazes that have **killed at least 25 people**, forced evacuations, and **burned over 40,000 acres**.

SHORT TAKES

➤ Santa Ana Winds

- A natural part of California's climate, typically occurring from **October to January**, driven by high pressure over the Great Basin and low pressure over California's coast.
- These winds blow from the **inland deserts of the Great Basin towards Southern California**, moving east and north before reaching the Pacific Ocean, often reaching speeds up to **161 km/h**.
- As the winds descend the mountains, they compress and heat up, **reducing humidity levels to less than 10%**, which dries out vegetation, making it more susceptible to fire.



What are Wildfires?

- » Wildfire, also called **forest, bush or vegetation fire**, is an unplanned, unwanted wildland fire (including unauthorised human-caused fires).
- » Vegetation fires are caused by slash/burn land clearing, clearing of plantations following logging operations, and by natural events such as lightning or extreme drought.
- » The **dry seasons provide peak conditions** for wildfires to occur, and it is during this time that they are most prevalent.
- » Wildland fires are usually signalled by dense smoke that fills the area for miles around.

» Types

- **Surface Fire:** The most common type, burning along the forest floor, moving slowly, and causing damage or death to trees.
- **Ground Fire:** Typically ignited by lightning, burning on or below the forest floor and often smouldering for extended periods.
- **Crown Fire:** Rapidly spreading due to wind, leaping from treetop to treetop, making it the most destructive and difficult to control.

Source— UN-SPIDER (United Nations Platform for Space-based Information for Disaster Management and Emergency Response) Knowledge Portal

ABOUT SOUTH CALIFORNIA WILDFIRES

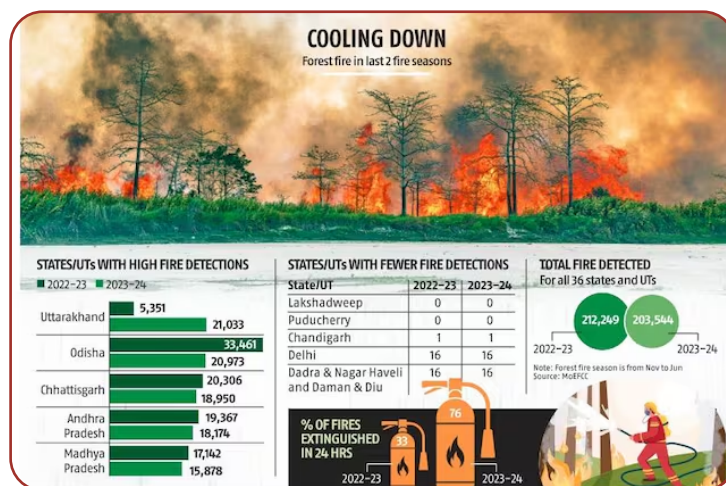
- ➔ **Widespread Destruction:** A series of wildfires in Southern California have caused significant damage, destroying homes and businesses while leaving cities and roads engulfed in smoke.
 - o **Palisades Fire:** The largest and most destructive of the recent wildfires, the Palisades fire has destroyed over 23,000 acres in the Pacific Palisades neighbourhood and led to the **evacuation of 30,000 residents from around 10,000 homes**
 - o **Eaton Fire:** The second-largest fire burning in the San Gabriel Mountains north of Pasadena and has consumed 14,000 acres.
- o **Other Fires:** The Hurst fire, Lidia fire, and a fire in LA's West Hills neighbourhood have each burnt between 300 and 1,000 acres, contributing to the widespread devastation.
- ➔ **Wind-Driven Spread:** The fire rapidly expanded fueled by **strong Santa Ana winds**, with gusts reaching up to 161 km/h, complicating firefighting efforts.
- ➔ **State of Emergency:** California Governor Gavin Newsom declared a state of emergency, mobilising resources and expressing gratitude to firefighters and first responders battling the destructive blaze.

FOREST FIRES IN INDIA

- 🇮🇳 **Forest Fire Season:**
 - o Lasts from November to June, with peak incidents in March, April, and May due to dry biomass accumulation.
- 🇮🇳 **Fire-Prone Forests:**
 - o Nearly 36% of India's forests are prone to frequent fires, as per the Forest Survey of India (FSI).
 - o 54.40% of forests in India are exposed to occasional fires, 7.49% to moderately frequent fires and 2.40% to high incidence levels while 35.71% of India's forests have not yet been exposed to fires of any real significance.
- 🇮🇳 **Regional Vulnerability:**
 - o Northeastern states have the highest tendency for forest fires.
 - o Other vulnerable zones include western Maharashtra, southern Chhattisgarh, central Odisha, and parts of Andhra Pradesh, Telangana, and Karnataka.
- 🇮🇳 **Forest Types and Susceptibility:**
 - o Dry deciduous forests are highly prone to severe fires.
 - o Evergreen, semi-evergreen, and montane

temperate forests are comparatively less prone.

- 🇮🇳 **Policy and Legal Framework:**
 - o The **Ministry of Environment, Forest and Climate Change (MoEFCC)** oversees the implementation of preventive measures, including the construction of fire lines, deployment of fire watchers, and community engagement.
 - o The **National Disaster Management Authority (NDMA)** provides guidelines for forest fire management and promotes technological solutions to minimise risks.



Key points from the India State of Forest Report (ISFR) 2023

- **Decrease in Forest Fire Incidents:**
 - o Fire hotspots detected in **2023-24: 2,03,544**, down from **2,23,333** in **2021-22** and **2,12,249** in **2022-23**.
- **Global Tree Cover Loss (2001–2022):**
 - o Total tree cover loss from fires: **126 million hectares (mha)**.
 - o Year with the highest loss: **2016**, with **9.6 mha** lost to fires (32% of total tree cover loss for that year).
 - o Countries with the highest annual loss: **Russia (2.5 mha)**, **Canada (1.2 mha)**, and the **US (566 mha)**.

> States with Highest Fire Incidences (2023-24):

- o **Uttarakhand:** 21,033 cases.
- o **Odisha:** 20,973 cases.
- o **Chhattisgarh:** 18,950 cases.
- o Followed by **Andhra Pradesh (18,174), Maharashtra (16,008), and Madhya Pradesh (15,878).**

> Protected Areas and National Parks:

- o Forest fire analysis in **705 protected areas** detected **6,046 cases** in national parks.

> Technological and Human Interventions:

- o FSI Director Anoop Singh highlighted the **improved response rate** of forest teams in managing wildfires.

CAUSES OF FOREST FIRES

🔍 Man-Made Causes:

- o **Deliberate Fires:** Locals often set forests on fire **to promote the growth of fresh and high-quality grass** for livestock grazing, to **cover up illegal activities** like tree cutting, or to facilitate **poaching**.
- o **Carelessness:** Negligence in handling fire during farming or recreational activities, such as leaving **campfires unattended, discarded cigarettes, burning of debris** can lead to wildfires.
- o **Climate Change and Prolonged Dry Seasons:** Climate change has intensified wildfires globally by causing **warmer springs and summers, early snow melts, and extended dry seasons**, which increase moisture stress on vegetation and create ideal conditions for more frequent and severe wildfires.

🔍 Natural Causes:

- o **Lightning Strikes:** A common natural trigger, lightning can ignite dry vegetation, leading to forest fires.
- o **Friction from Electricity Cables:** Sparks generated by electricity cables rubbing against dry leaves can start fires.

🔍 Facilitating Factors

- o **Climatic Conditions:** Hot, dry temperatures, clear skies, and calm winds provide a conducive environment for fires to spread.
- o **Vegetation:** High tree density and the early availability of dry biomass due to prolonged heat waves exacerbate fire risks.

IMPACTS OF FOREST FIRES

🌀 Health and Environmental Impact:

- o Wildfire smoke contains hazardous pollutants like **PM2.5, nitrogen dioxide, and lead**, causing lung, heart, and other systemic diseases
- o Wildfires release over **1.8 billion tonnes of greenhouse gases annually**, exacerbating climate change.
 - ❑ **Example:** The 2019-2020 Australian bushfires emitted 715 million tonnes of CO₂, nearly doubling the country's annual emissions.

🌀 Biodiversity and Ecosystem Loss:

- o Wildfires destroy habitats, leading to loss of flora and fauna and long-term ecosystem degradation.

🌀 Economic Impact:

- o Direct losses include fire suppression costs, property damage, and insurance claims, while indirect losses affect tourism and productivity.
 - ❑ **Example:** Wildfires in Southern California

cost \$150 billion, making it the third costliest natural disaster in U.S. history.

🌀 Impact on Sustainable Development Goals (SDGs):

- o **SDG 1 (No Poverty):** Economic losses from wildfires push vulnerable populations into poverty, especially in developing regions.
- o **SDG 3 (Good Health and Well-being):** Wildfires cause respiratory illnesses and mental health challenges for displaced populations.
- o **SDG 5 (Gender Equality):** Women in disaster-prone areas face higher fatality rates and recovery challenges due to social vulnerabilities.
- o **SDG 9 (Industry, Innovation, and Infrastructure):** Fires damage infrastructure, including power grids and communication networks, leading to costly rebuilding efforts.
- o **SDG 13 (Climate Action):** Wildfires intensify global warming by releasing stored carbon and reducing carbon sequestration.

BEST PRACTICES IN PREVENTION AND CONTROL OF WILDFIRES

Prevention

🌲 Australia:

- o **Prescribed burning:** A common practice in Australia, where **planned fires** are intentionally set under specific conditions to **reduce fuel loads** and prevent larger, more destructive wildfires by creating **firebreaks**.

🌲 **Total Fire Ban:** The Fire Danger Ratings are forecast for four days and a Total Fire Ban is declared on days when fires are likely to spread rapidly and could be difficult to control.

🌲 **Defensible Space in US**

- o Having “defensible space” against wildfires around homes in or near forests, scrubland, or open prairie can restrict the damage to houses and buildings.
- o Achieved by cutting down trees and vegetation next to houses and buildings.

🌲 **Fire Line Creation in India:**

- o **Kachha Fire Lines:** These involve clearing undergrowth and shrubs while retaining trees to reduce the fuel available for fires.
- o **Pucca Fire Lines:** These are clear-felled areas that create a physical barrier between forest compartments, preventing the spread of fires.

🌲 **Smokey Bear Wildfire Prevention campaign in United States:**

- o Launched in **1944**, the Smokey Bear Wildfire Prevention campaign is the **longest-running public service advertising campaign in the U.S.**, educating generations on wildfire prevention.



Response

🚒 **Hotshot crews in the United States**

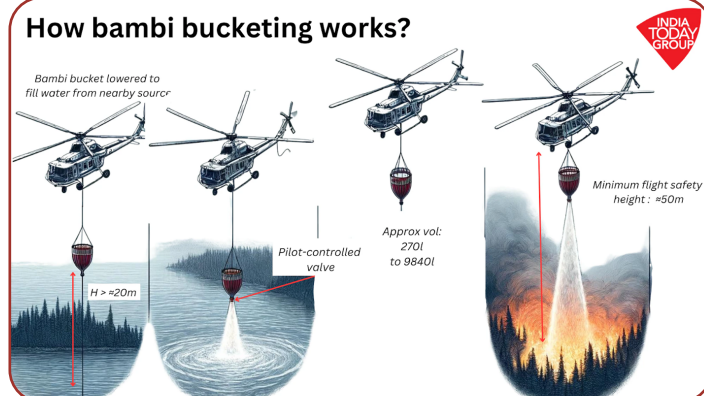
- o Interagency Hotshot Crews (IHC) consist of 20-22 highly trained firefighters specialising in tackling large, high-priority fires, including the most challenging and remote areas.
- o Implements **rapid response strategies** to quickly contain and suppress wildfires before they grow large.

🚒 **Suppression Zonation in Canada:**

- o In **high-value zones** such as **recreation parks or animal sanctuaries**, fires are suppressed more aggressively, while less intense suppression may be applied in other areas.
- o This strategy **prioritises the protection** of critical ecosystems and human assets.

🚒 **Bambi Bucket for Aerial Firefighting**

- o A Bambi Bucket, also known as a helicopter bucket or **helibucket**, is a specialised container designed for aerial firefighting.
- o It is suspended by a cable underneath a helicopter and can be filled by lowering it into a water source like a river, lake, or pond.
 - The bucket is equipped with a **valve at the bottom**, which allows water to be discharged directly over a fire.
- o Highly effective in combating fires in **remote or inaccessible terrains**, allowing **precise** water drops and **quick response** to emergencies.
- o Provides critical support in emergencies where **ground-based firefighting methods are insufficient**.
- o **Example:** In March 2024, the Indian Air Force supported the firefighting efforts in the Nilgiris by deploying an Mi-17 V5 helicopter, which conducted multiple “Bambi Bucket” operations, dropping approximately 16,000 litres of water on the fires.



WAY FORWARD

- * **Strengthening Disaster Preparedness:** Invest in fire-resistant infrastructure, water systems, and evacuation plans.
 - o **Watch Towers:** These are constructed in strategic locations to enable early detection of fires and to monitor vulnerable forest areas.
 - o **Fire Watchers:** Trained personnel are deployed to keep a constant watch and respond quickly to fire outbreaks.
- * **Climate Action:** Implement policies for sustainable development, renewable energy, and carbon reduction.
- * **Urban Planning:** Restrict development in fire-prone areas and focus on eco-friendly urbanisation.
- * **Community Awareness:** Promote education on fire safety and the importance of preserving natural ecosystems.
- * **Indigenous Practices:** Integrate traditional ecological knowledge into policy-making and conservation efforts.
 - o **Example**
 - In **Guatemala**, indigenous communities with legal rights to manage their ancestral forest lands, such as those in the **Maya Biosphere Reserve**, are more effective at preventing wildfires in their territories.
- A **study by the Prisma Foundation** highlights that granting local communities and indigenous peoples control over their lands is one of the most effective ways to protect critical tropical forests.
- * **Combat Misinformation:** Strengthen fact-checking mechanisms and promote media literacy to address pseudo-causality.
- * **Corporate Responsibility:** Encourage tech companies to contribute to local environmental and social welfare.
- * **Restoring Ecological Balance:** Prioritise reforestation, controlled burns, and habitat preservation to mitigate fire risks.
- * **Technology for Prevention and Management:**
 - o **Satellite-Based Remote Sensing Technology:** Satellites are used to monitor forest areas in real time, provide early warnings for fire-prone zones, and track active fires.
 - o **Geographic Information System (GIS) Tools:** GIS tools are utilised to estimate burnt areas and assess fire risks, aiding in better prevention and management.

CONCLUSION

To effectively combat wildfires, a comprehensive approach involving improved prevention strategies, enhanced emergency response, and global cooperation on climate change mitigation is essential. Without addressing these underlying issues, the devastating impact of wildfires will continue to escalate.

SAMPLE QUESTION

Q) Examine the key factors contributing to the rising frequency and intensity of wildfires in recent years. How can India address these challenges in its disaster management framework?
(10 marks) (150 words)

WEEKLY DOSSIERS

ADVOCACY FOR LABOUR RIGHTS OF SEX WORKERS IN INDIA – LESSONS FROM BELGIUM

The **Durbar Mahila Samanway Committee (DMSC)**, one of India's largest collectives of sex workers, has launched a campaign to advocate for the labour rights of sex workers in India. Inspired by Belgium's legislative reforms granting sex workers legal protections and labour rights, the DMSC aims to decriminalise sex work and secure recognition of sex work as a valid profession in India.

THE BELGIUM MODEL

Belgium's recent legislation in December 2024 established a global precedent by granting comprehensive labour rights to sex workers. Key provisions include:

- The ability to sign employment contracts.
- Access to health insurance, unemployment, and maternity benefits.
- The right to refuse clients and require criminal background checks on employers.
- Installation of emergency panic buttons for safety.

This legal framework not only decriminalises sex work but also aims to balance power dynamics between sex workers and third parties, ensuring safety and dignity for those in the profession.

CURRENT SCENARIO IN INDIA

In India, sex work is partially legal but heavily stigmatised, with inadequate protections for sex workers. The Supreme Court's recognition of sex work as a "profession" in recent judgments has opened doors for further legal and policy reforms, but challenges persist.

CHALLENGES HIGHLIGHTED IN THE STRATEGY MEETING

- ◆ **Scale of Implementation:**
 - Belgium's relatively small population of sex workers contrasts with India's millions, making the implementation of similar laws complex.
- ◆ **Power Dynamics:**
 - Many third parties in the Indian sex trade do not comply with laws, often exploiting workers.
- ◆ **Stigma and Social Acceptance:**
 - Persistent societal stigma hampers efforts to organise sex workers and recognise their profession as dignified.
- ◆ **Cultural and Legal Barriers:**
 - India's socio-political and cultural fabric slows the pace of reform.
 - A lack of inclusion for third-party stakeholders, such as pimps, limits progress in policy discussions.

PROPOSED STEPS FOR REFORM

- ◆ **Legal Recognition:**
 - Establish sex work as a valid profession under Indian labour laws.
- ◆ **Awareness and Education:**
 - Integrate discussions on sex work into educational curricula to destigmatise the profession.
 - Promote public awareness campaigns to reshape societal perceptions.
- ◆ **Intersectional Organisation:**
 - Mobilise sex workers across diverse socio-economic and regional backgrounds.
- Address marginalisation within the profession to create a unified advocacy platform.
- ◆ **Policy and Legislative Reforms:**
 - Draft new laws or amend existing ones to include provisions for contracts, health insurance, safety measures, and maternity benefits.
 - Engage third-party stakeholders in the policymaking process to ensure comprehensive solutions.
- ◆ **Empowering Sex Workers:**
 - Encourage pride and dignity in the profession to combat internalised stigma.

CONCLUSION

The path to reform in India involves navigating societal stigma, legal barriers, and the sheer scale of implementation. However, adopting a rights-based approach with lessons from global models like Belgium offers a promising roadmap to empower sex workers and uphold their rights.

EFFORTS OF TAMIL NADU CYBER CRIME WING (CCW) IN COMBATING CYBER FRAUD

In 2024, the Cyber Crime Wing (CCW) of the Tamil Nadu Police made significant strides in combating cybercrime, particularly cyber fraud, by taking a proactive approach in both prevention and investigation. The year saw substantial efforts in freezing funds, filing FIRs, recovering stolen assets, and raising public awareness through a variety of initiatives.



KEY ACHIEVEMENTS

◆ Freezing Funds and Returning Stolen Money:

- The CCW successfully froze ₹771.98 crore lost to cyber fraud, showcasing its efficiency in securing funds and preventing further financial damage.
- The wing managed to return ₹83.34 crore to victims, indicating a notable success in asset recovery.

◆ Registration of Cyber Crime Reports:

- The CCW filed a total of **4,326 FIRs** and generated **79,449 Community Service Registers (CSRs)** for reported cases, highlighting the extensive nature of the investigations.
- A total amount of ₹1,673.85 crore was reported lost due to cyber fraud in these cases.

◆ Arrests and Detentions:

- The wing made **838 arrests** and detained **34 individuals** under the Goondas Act, which targets repeat offenders in serious crimes.
- The Cyber Crime Wing also conducted **Operation Thiraineekku**, a statewide operation that led to the arrest of **76 accused** from across Tamil Nadu.

◆ Technological Initiatives:

- The CCW utilized the **Central Equipment Inventory Register (CEIR)** to recover **16,296 mobile phones** and block **79,748 IMEIs** of devices used in illegal activities, further disrupting cyber fraud operations.
- In total, the CCW received **2,68,875 calls** and registered **34,392 online fraud complaints** through the **National Cyber Crime Helpline 1930**.

◆ Public Awareness Campaigns:

- **Cyber Arangam**, one of the three divisions of the Cyber Crime Wing, focused heavily on public education to reduce the risks of falling victim to cyber fraud.
- In 2024, **972 awareness programs** were conducted in schools, **856 in colleges**, and **5,878 in public places**. These programs played a critical role in educating the public about the risks of cybercrime and preventive measures.
- The Cyber Arangam's approach, including interactive sessions and outreach campaigns, helped spread crucial information regarding the safe use of digital platforms.

KEY CHALLENGES

◆ Rising Cyber Fraud Cases:

- Despite the substantial efforts made, the scale of cybercrime is continuously growing, with thousands of victims reporting financial losses. The reported loss amount of ₹1,673.85 crore in 2024 underlines the significant challenge faced by law enforcement in controlling these crimes.

◆ Changing Nature of Cyber Crimes:

- Cyber fraud schemes are becoming increasingly sophisticated, requiring continuous adaptation

of law enforcement strategies. The challenge of keeping up with evolving techniques used by fraudsters remains a significant hurdle.

◆ Public Awareness and Cooperation:

- While awareness campaigns have been successful, a large portion of the public is still unaware of the resources available to report cyber fraud. Ensuring that more people are educated on how to protect themselves and report crimes remains an ongoing challenge.

STRATEGIES FOR IMPROVEMENT

◆ Strengthening Public-Private Partnerships:

- Collaboration with financial institutions, mobile phone manufacturers, and internet service providers could lead to quicker identification and disruption of fraudulent activities.

◆ Enhancing Technology Use:

- Further investment in AI-driven tools and real-time fraud detection systems could enhance the response time and improve the accuracy of investigations.

- Expanding the use of blockchain and encryption methods may also offer additional layers of protection against fraud.

◆ Expanding Awareness Programs:

- Increasing the frequency and scope of awareness programs, especially targeting rural areas, where access to cybersecurity information might be limited, could help further reduce the impact of cybercrime.

CONCLUSION

Tamil Nadu's Cyber Crime Wing has demonstrated a proactive and comprehensive approach to tackling the growing menace of cyber fraud in 2024. The combination of freezing funds, arrests, recovery efforts, and public awareness campaigns has significantly reduced the impact of cybercrime in the state. However, the challenges are ongoing, and continuous innovation, public engagement, and technological integration are essential for further reducing cyber fraud and increasing public trust in the system.

UNDERSTANDING AND MITIGATING LANDSLIDE RISKS IN WAYANAD, KERALA

The landslides in Wayanad, Kerala, in July 2024, caused widespread destruction, particularly in villages located in steep, mountainous areas. A collaborative study involving multiple institutions has analyzed the behaviour of rapid debris flows during these landslides. The research emphasizes the need for improved disaster management strategies to mitigate future risks in vulnerable regions like Wayanad.

KEY FINDINGS OF THE STUDY

◆ Debris Flow Behaviour:

- The study focused on understanding how rapid debris flows behave during landslides. It tracked the path of the debris flow using **advanced run-out modelling**, which provided valuable insights into the speed, pressure, and material accumulation during such events.
- The findings highlighted that debris flow events can cause significant damage to communities at lower elevations, where debris deposits were most concentrated.

◆ Mapping Vulnerable Areas:

- Using **crowd-sourced data** and **Rapid Mass Movement Simulation (RAMMS)**, the researchers created detailed vulnerability maps. These maps pinpointed areas most at risk, offering a roadmap for future disaster preparedness and planning.
- Post-event imagery confirmed that debris accumulation at lower elevations posed significant risks, potentially creating downstream hazards.

◆ Historical Context and Trends:

- The study noted a concerning trend: the path of the 2024 debris flow closely resembled the path of

a landslide in July 1984, which had also devastated nearby villages and caused fatalities.

- The recurrence of such events suggests the need for continuous monitoring and risk assessment in high-risk areas like **Punchirimattom, Mundakkai, and Chooralmala**.

◆ Threshold Volume for Predicting Debris Flow Paths:

- The study identified that a **threshold volume** of 7,072 cubic meters is crucial in determining the path of debris flows. Events that exceed this volume are more likely to follow the steepest hill slope stream channels, while smaller events are likely to follow existing stream channels.
- This discovery helps predict the potential path of debris flows, enabling better preparation and mitigation strategies.

◆ Importance of Early Warning Systems:

- One of the key recommendations of the study was the installation of **rainfall and soil moisture monitoring stations**. By setting thresholds for rainfall and soil moisture levels, authorities could receive early alerts about the likelihood of debris flows.

- o Early warnings would allow authorities to evacuate vulnerable populations and implement other safety measures in advance, significantly reducing the risk of loss of life.

♦ **Vulnerability Mapping and Risk Reduction:**

- o The study emphasized the importance of creating **detailed vulnerability maps** that show potential run-out paths for debris flows. These maps can guide authorities in avoiding construction and development in high-risk areas, thereby reducing the chances of future disasters.

CHALLENGES IN IMPLEMENTATION

♦ **Geological Complexity:**

- o The steep and rugged terrain of Wayanad presents a unique challenge in understanding and predicting landslide risks. The geological features of the region are highly complex, making accurate predictions and mapping of debris flow paths difficult.

♦ **Infrastructure Limitations:**

- o Installing and maintaining monitoring systems in

remote and mountainous areas of Wayanad can be logistically challenging. Limited infrastructure and access to these regions may hinder the effective deployment of early warning systems.

♦ **Public Awareness and Cooperation:**

- o Ensuring that local communities understand the risks and the necessary precautions during landslide events is essential for reducing fatalities.

STRATEGIC RECOMMENDATIONS

- ♦ Enhanced Monitoring and Early Warning Systems.
- ♦ Improved Land Use Planning.
- ♦ Community-Based Disaster Preparedness.
- ♦ Further Research and Collaboration.

CONCLUSION

The landslides in Wayanad in July 2024 underscored the urgent need for improved disaster management strategies in mountainous regions. The findings from this study, including the identification of high-risk areas, the importance of early warning systems, and the use of threshold volumes to predict debris flow paths, provide a foundation for future mitigation efforts. By implementing these recommendations, Kerala can better protect its vulnerable populations and reduce the devastation caused by future landslide events.

ETHICS - CASE STUDY

Q) Cities in your state are facing significant challenges in managing household waste. Landfills are nearing full capacity, while waste-to-energy plants, intended as a solution, are under scrutiny for inefficiency and environmental hazards. One of the primary causes is improper waste disposal by residents. Despite the implementation of government regulations and numerous awareness initiatives, the issue remains unresolved. In light of this, consider the following questions:

- What do you think causes people's indifference toward issues like waste disposal, which have a significant impact on society as a whole?
- Identify the stakeholders and the significance of their involvement in addressing the issue.

ETHICS - EXAMPLES

- Social Influence:** A study published in Indian Journal of Medical Research on cancer care barriers in Meghalaya revealed that cultural beliefs like "bih" (taint) and "skai" (evil eye), misconceptions, stigma, and reliance on traditional healers delay diagnosis and treatment. Efforts like the Meghalaya Cancer Prevention Mission aim to address these challenges through early detection, awareness campaigns, and culturally appropriate interventions.
- Inclusivity:** Mangalamkali, a tribal art form of the Mavilar and Malavettuvur tribes in Kasaragod, debuted at the 63rd State School Arts Festival, blending rhythmic celebration with social commentary on tribal struggles. Performed during life events, it reflects themes of resilience, forest knowledge, and ancestral wisdom.
- Conflict of Interest:** The Indian National Science Academy (INSA) introduced new fellowship categories, "Science in Translation" and "Science in Society," to recognise contributors beyond traditional scientists, including industrialists and philanthropists supporting science for societal impact. While aimed at enhancing diversity and encouraging R&D funding, it has faced criticism for potentially diluting the focus on scientific achievements.
- AI in governance:** The Uttar Pradesh government's Digi Kumbh initiative includes AI-powered surveillance, 2,750 CCTV cameras, AI-based video analytics, real-time monitoring through the Integrated Command and Control Centre, drone-based monitoring for disaster management, automated ration supply systems, GIS-based mapping, and an AI-powered chat-bot for navigation.
- Innovation:** ISRO successfully sprouted cowpea seeds in space and operated India's first space robotic arm during the PSLV-C60 SpaDeX mission's PS4-Orbital Experiment Module (POEM-4) on December 30, 2024, as part of the CROPS experiment.
- Dedication:** Dr. Savithri Narayanan, the world's first woman national hydrographer from Thrissur, overcame societal taboos against sea travel, financial hardships limiting her education, and gender barriers in a male-dominated field to build a global career in ocean science, as chronicled in her memoir *Jeevitha Sagaram*.
- Empathy and Sensitivity:** Granting bail to businessman Bobby Chemmanur, arrested for allegedly making obscene remarks about actor Honey Rose, the Kerala High Court emphasised that body shaming is unacceptable in society, stating that comments on a person's appearance—such as being "too fat, too skinny, too short, too tall, or too dark"—should be avoided.
- Social Responsibility:** Dr Taru Jindal, a Mumbai-based gynaecologist, transformed Bihar's healthcare system through her relentless efforts to improve hygiene, maternal care, and staff training at the Motihari District Hospital, despite overwhelming challenges. Her two-year tenure led to systemic reforms, earning the hospital the Kayakalp Award in 2018 for promoting cleanliness and infection control.

MODEL ESSAY

"He who has a why to live can bear almost any how"

Introduction

- Quote by German Philosopher Friedrich Nietzsche
- **Meaning:** The idea that having a sense of purpose or meaning in life can help individuals endure challenges and hardships.
- Relevant in the context of human resilience, mental strength, and the pursuit of meaning in life.

Need of Purpose

- **Meaning and Fulfillment:** Purpose provides a sense of meaning and fulfillment in life, contributing to overall happiness and satisfaction.
- **Reduced Stress and Anxiety:** Having a clear purpose can buffer against stress and anxiety by providing a sense of direction and control.
- **Healthier Lifestyle:** Purposeful individuals are more likely to engage in healthy behaviors, such as exercise, healthy eating, and avoiding harmful substances.
- **Increased Motivation:** Purpose provides intrinsic motivation, driving individuals to pursue their goals and overcome obstacles.
- **Personal Development:** Pursuing a purpose often involves continuous learning, growth, and development of new skills and abilities.
- **Life Satisfaction:** Individuals with a clear purpose tend to experience higher levels of life satisfaction and fulfillment.

Absence of Purpose and Its Consequences

- **Loss of Direction:** Individuals often feel lost or aimless, leading to confusion about life's goals.
- **Increased Risk of Mental Health Issues:** linked to higher rates of depression, anxiety, and stress.
- **Lower Motivation:** Without a purpose, people struggle to find the energy or desire to engage in daily activities or work.
- **Social Disconnection:** A lack of purpose can lead to isolation, as individuals may withdraw from relationships and communities.
- **Potential for Destructive Behaviors:** A lack of

purpose may lead some individuals to engage in harmful or self-destructive behaviors, such as substance abuse or reckless actions.

Way Forward

- **Encouraging Self-Discovery:** Promote activities like journaling, meditation, and counselling to help individuals identify their passions and values.
- **Purpose-Driven Education:** Introduce purpose-oriented curricula. **Eg:** Finland's education system integrates life skills with academics to encourage
- **Community Building Initiatives:** Establish local support groups and volunteering opportunities to foster social connections and shared goals.
- **Promoting Positive Role Models:** Highlight stories of individuals who have transformed adversity into purpose, such as Malala Yousafzai or Dr. A.P.J. Abdul Kalam.
- **Policy and Governance:** Governments can encourage purpose-driven living through initiatives **Eg:** India's Skill India Mission aims to empower individuals with meaningful skills aligned with their aspirations.
- **Corporate Responsibility:** Organisations should create purposeful work environments by aligning roles with employees' values and offering flexible work options. **Eg:** Companies like Google promote work-life balance

Conclusion

- A sense of purpose is not just a personal tool for resilience but a societal necessity for progress and harmony.
- Reinforce that having a sense of purpose or "why" is essential for enduring life's challenges.

Sample Quotes

- *The greatest sin is to think yourself weak - Swami Vivekanandan*
- *Overcoming poverty is not a gesture of charity, it is an act of justice- Nelson Mandela*
- *The roots of education are bitter but the fruit is sweet"- Aristotle*

MAINS JOT DOWN



GS- I - ART & CULTURE

- ➔ Archaeologists have discovered a well-engineered mud-brick stadium and a marketplace from the 'Mature Harappan' phase at Rakhigarhi, highlighting its sporting culture.
- ➔ **About Rakhigarhi:**
 - » One of the largest and oldest Harappan sites, located in Hisar, Haryana.
 - » Shows evidence of Early, Mature, and Late Harappan phases.
 - » The only site to yield DNA evidence from the Harappan era.



GS- I - IMPORTANT GEOGRAPHICAL PHENOMENA

- ➔ A strong **6.9 magnitude earthquake struck southwestern Japan**, highlighting the seismic activity of the Ring of Fire.
- ➔ This horseshoe-shaped zone along the Pacific Ocean is marked by intense volcanic and earthquake activity due to interactions between several tectonic plates, including the Pacific, Juan de Fuca, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates.
- ➔ A key stretch of the Ring of Fire, where the Pacific and North American Plates meet, is a transform boundary where plates slide past each other, causing frequent earthquakes as accumulated tension in the Earth's crust is released.



GS- I - IMPORTANT PERSONALITIES IN NEWS

- ➔ **Thiruvalluvar Day is celebrated on 15th January** to honor the Tamil philosopher, poet, and thinker **Thiruvalluvar, known for his work Tirukkural.**
- ➔ The Tirukkural consists of couplets on ethics, politics, economics, and love, classified under righteousness, wealth, and enjoyment.
- ➔ The Thiruvalluvar Statue in Kanyakumari was created by sculptor V. Ganapathi Sthapathi.



GS- I - MINERAL RESOURCES

- ➔ Researchers have developed **Electrokinetic Mining (EKM)**, an eco-friendly method for extracting rare earth elements (REEs).
 - » This technique uses electrokinetics to recover over 95% of REEs while reducing chemical leaching by 80% and energy use by 60%, making mining more sustainable. REEs, a group of 17 metals with unique properties, are crucial for modern technology.



GS- III - ENVIRONMENTAL CONSERVATION

- ➔ **Ranthambore Tiger Reserve** faces a submergence threat from the proposed **Parbati-Kalisindh-Chambal-Eastern Rajasthan Canal Project (PKC-ERCP).**
- ➔ Located between the Aravalli and Vindhya hills, it was declared a tiger reserve in 1973 and includes Ranthambore National Park, multiple sanctuaries, and the UNESCO-listed Ranthambore Fort.
- ➔ Flanked by the Banas and Chambal rivers, its ecosystem features dominant Dhok trees and diverse wildlife, including Royal Bengal tigers, leopards, and sarus cranes.



GS- II - POLITY

- ➔ Over 2,900 senior citizens and persons with disabilities (PWDs) applied for home voting in the upcoming Delhi Legislative Assembly Election.
- ➔ Home voting, introduced during the 2024 Lok Sabha elections, allows postal ballots for senior citizens aged 85+ and PWDs with a disability of 40% or more.
- ➔ The Union Law Ministry amended the Conduct of Elections Rules-1961 to enable this facility before the 2024 elections.



GS- III - *BIODIVERSITY*

- Scientists from the Zoological Survey of India have discovered a new species of **Indo-Burmese pangolin (*Manis indoburmanica*)** through genetic analysis.
- This distinct species of Asian pangolin belongs to the Manidae family. Its scales are dark brown and olive brown, with a pinkish face.
- The species is found in parts of Arunachal Pradesh, Assam, and may extend to Nepal, Bhutan, and Myanmar.



GS- III - *INFRASTRUCTURE*

- The Prime Minister inaugurated the **Z-Morh Tunnel in Sonamarg, J&K**, enhancing all-weather connectivity between Srinagar and Leh.
- Initially started by BRO in 2015, the project was later developed by National Highways and Infrastructure Development Corporation Limited., with APCO Infratech executing the construction.
- Situated at 8,650 feet, the 12 km stretch includes a 6.4 km main tunnel, an escape passage, and approach roads.
- The tunnel ensures safe access to Ladakh, boosts tourism in Sonamarg, and promotes winter sports and local livelihoods.



GS- III - *DEFENCE*

- The **Ministry of Defence** has launched the **Bharat Ranbhoomi Darshan** website and app as part of its '**Battlefield Tourism**' initiative.
- This platform will provide information and clearances for battlefield visits, along with virtual tours and historical narratives.
- The Indian Army, in collaboration with the Ministry of Tourism, has identified key sites of military significance, including Kibithoo and Bum La Pass (Arunachal Pradesh), Rezang La and Pangong Tso (Ladakh), and Doklam (site of the 2017 conflict).
- **India has successfully tested Bhargavastra, its first indigenous micro-missile system designed to counter swarm drones.**
- Key features include detecting small drones from over 6 km, rapid deployment on mobile platforms, the ability to track and engage up to 64 targets simultaneously, and using guided micro munitions to neutralize threats.

CHERRYPICKS OF THE WEEK

POSITIVE MASCULINITY

- Positive masculinity, rooted in positive psychology, focuses on the strengths of traditional masculinity, such as physical strength and risk-taking, which are crucial in fields like emergency services.
 - It promotes men's wellbeing and benefits those around them. While it also encourages men to embrace traditionally feminine traits, like expressing emotions, it doesn't mean replacing masculine traits with feminine ones.
- » A balance of both is key to maintaining healthy masculinity.

NANO BUBBLE TECHNOLOGY

- Nanobubbles, measuring 70-120 nanometers, are 2,500 times smaller than a grain of salt. Their strong negative surface charge prevents coalescing and helps separate small particles, such as fats, oils, and grease, from water. This hydrophobic property, combined with the surface charge, allows nanobubbles to lift organic and inorganic materials off surfaces, similar to surfactants.
- **Applications:**
 - Water Purification
 - Agriculture (Enhances oxygenation of irrigation water)
 - Healthcare
 - Food Industry
 - Industrial Cleaning

CONDUCTIVE INK

- It is a paint that contains silver or carbon particles, enabling it to conduct electricity. Unlike traditional copper wire circuits, it allows for circuits to be drawn directly onto surfaces.
- **Key Applications:**
 - Repairing or enhancing circuits on printed circuit boards
 - Flexible electronics (e.g., foldable screens, keyboards, defrosters)
 - RFID tags, wearable devices, sensors, displays, and solar panels
 - Potential for interactive marketing or touch-based signage

PINK FIRE RETARDANT (PHOS-CHEK)

- Phos-Chek is a fire retardant made from ammonium phosphate-based slurry, primarily ammonium polyphosphate salts, which are less prone to evaporation than water, allowing it to stay longer.
- Its pink color helps firefighters easily spot it against the landscape.
- However, aerial spraying of fire retardants is costly, inefficient, and contributes to pollution in rivers and streams.

HYDROCLIMATE WHIPLASH

- Hydroclimate whiplash refers to a rare meteorological condition where an extremely wet season is followed by a very dry one.
- **Impacts:**
 - Increases hazards like flash floods, wildfires, landslides, and disease outbreaks
 - Degrades water quality through harmful algal blooms and excess organic or mineral content
 - Threatens food security with reduced plant productivity, crop failures, and livestock losses
 - **Baseband Units (BBUs):** Process and manage signals for smooth communication.