

# DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min Date: 20-06-2025

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# **MAGNA CARTA**

#### **Context**

 The Magna Carta (Latin for "Great Charter") was signed on June 15, 1215, at Runnymede Meadows near London.

# **Historical Context and Origin (1215)**

- Sealed on 15 June 1215 by King John of England, following pressure from English barons who sought to limit the king's arbitrary power.
  - Barons, part of the feudal system, were key stakeholders as landholders providing knights and military service to the king.
- The immediate cause of baronial rebellion was John's defeat at the Battle of Bouvines (1214) by King Philip II of France.
- Long-term causes included military failures (loss of Normandy and Anjou in 1204) and heavy taxation imposed to finance campaigns.
- Purpose: It was the first document to put into writing the principle that the king and his government was not above the law.
  - It sought to prevent the king from exploiting his power, and placed limits of royal authority by establishing law as a power in itself.

# **Charter Contents and Principles:**

- The Magna Carta consisted of 63 clauses, over 3,500 words.
- Addressed both local governance and broader legal principles.
- Key clauses:
  - Clause 39: Protects against arbitrary imprisonment — "No free man shall be seized or imprisoned... except by the lawful judgment of his equals or by the law of the land."
  - Clause 40: Guarantees access to justice
     — "To no one will we sell, to no one deny or
     delay right or justice."
- Immediate Aftermath and Reissues:
  - King John quickly sought annulment from Pope Innocent III; conflict resumed with the barons.
  - John died in 1216; his nine-year-old son Henry III was crowned. His regents reconfirmed the Magna Carta to secure baronial support.
  - The Charter was reissued multiple times in the 13th century, with revisions.

#### Legacy:

- Inspired legal traditions:
  - In the UK: Basis for habeas corpus and rights against arbitrary detention.
  - In the US: Influenced American Revolution and constitutional development — especially the Bill of Rights.
  - Symbolic value: Seen as a foundational text for modern democracy, even if not originally intended as such.
- Foundation of Rule of Law: Established the principle that no one, not even the king, is above the law.
  - Introduced the idea that the monarch's power could be legally restricted, a foundational shift in political authority.
- Legal and Constitutional Legacy: Clause 39 and 40 remain part of UK law, ensuring protection from arbitrary detention.
  - Right to a fair trial.
  - Access to justice without delay or sale.
  - Laid the groundwork for the writ of habeas corpus.
  - Served as a precursor to constitutional governance and judicial independence.
- While initially benefiting only the feudal elite (barons), over time it came to represent individual freedoms, protection from state oppression and the idea of accountable governance.
- Global Symbol of Justice: Used historically by reformers and revolutionaries to challenge autocracy.
  - Quoted by American revolutionaries, constitutionalists, and in human rights advocacy worldwide.

Source: IE

# ATLANTIC MERIDIONAL OVERTURNING CIRCULATION (AMOC)

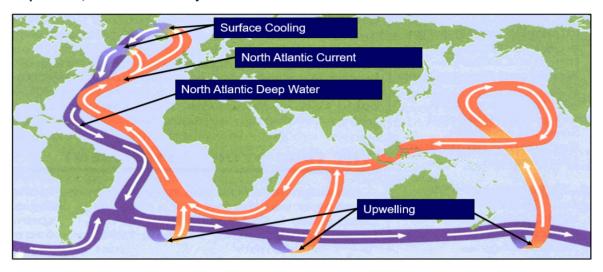
# **Context**

 Recently, a climate study found that if the Atlantic Meridional Overturning Circulation (AMOC) collapses, Europe could face a dramatic and prolonged winter freeze, even in a world warmed by greenhouse gas emissions.



# **About Atlantic Meridional Overturning Circulation (AMOC)**

- It is one of the most powerful and complex systems **driving Earth's climate.**
- It is often likened to a giant **conveyor belt** that transports **warm surface waters** from the tropics northward and **returns cold**, dense water southward at depth.
- It regulates temperatures across the Atlantic basin and plays a vital role in global climate stability, sealevel patterns, and marine ecosystems.



# **Working of AMOC**

- The AMOC is a key component of the global thermohaline circulation.
- Warm, salty water flows northward via currents like the **Gulf Stream**. As it reaches higher latitudes, it cools and becomes denser, sinking into the deep ocean and flowing back south.
- It helps **distribute heat and nutrients** across the globe, influencing weather patterns from the Amazon to the Arctic.

# Slowing of AMOC and the Tipping Point

- Recent studies suggest that the AMOC has weakened significantly since the mid-20th century, and is expected to slow by 18–43% by 2100.
- It is **primarily driven** by climate change, particularly the **influx of freshwater** from melting Greenland ice, which **disrupts the salinity and density gradients** that power the current.
- AMOC may be approaching a tipping point, beyond which its collapse could trigger abrupt and irreversible climate shifts.
  - AMOC has two potential tipping points one linked to salt transport feedback and another to deep ocean convection.

#### **Climate Tipping Points**

- These are critical thresholds in Earth's systems—once crossed, they can trigger self-reinforcing feedback loops that lead to abrupt, irreversible, and potentially catastrophic changes.
- They occur when a **small change** in temperature or pressure pushes a system like an ice sheet, rainforest, or ocean current into a radically different state.

# **Key Tipping Elements at Risk**

- Recent assessments have identified at least 16 major Earth system components that are vulnerable to tipping, including:
  - Greenland and West Antarctic Ice Sheets;
  - Atlantic Meridional Overturning Circulation (AMOC);
  - Amazon Rainforest Dieback;
  - Arctic Permafrost Thaw;
  - Coral Reef Collapse;



# **Potential Consequences**

- Europe may face colder winters despite global warming, as warm currents fail to reach its shores.
- West Africa could see disrupted monsoon patterns, affecting agriculture and water security.
- Eastern North America might experience accelerated sea-level rise.
- The Amazon and South Asia could suffer from altered rainfall patterns, increasing drought risk.

#### **Ocean Currents**

• Horizontal and vertical components of the circulation system of ocean waters.

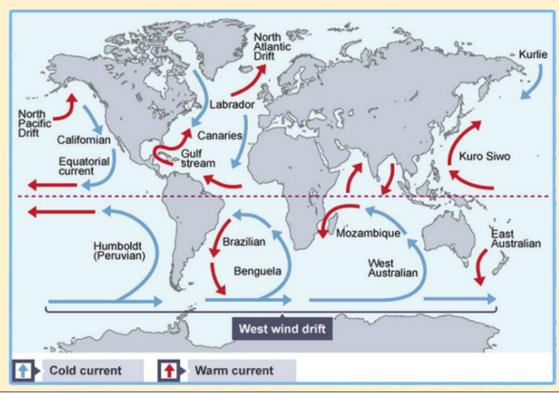
# **Types**

Surface Currents: Surface Circulation

• Deep Water Currents: Thermohaline Circulation

#### **Forces**

- Primary: Solar Heating, Winds, Gravity, Coriolis force
- Secondary: Temperature, Salinity & Density Difference



Source: DTE

# INCREASE IN OIL PRICES AMIDST IRAN-ISRAEL TENSIONS

#### **Context**

 Recent tensions between Iran and Israel have led to a spike in global oil prices.

#### About

- In mid-June 2025, the renewed military flare-up between Iran and Israel sent shockwaves through energy markets.
- The Brent crude futures surged by nearly **9%** on June 13 to **\$75.65 per barrel**, peaking at \$78.50, a near five-month high.

# Reasons for Increase in oil prices

- Vulnerability of the Strait of Hormuz: The Strait
  of Hormuz connects the Persian Gulf to the
  Arabian Sea and is the world's most crucial oil
  transit chokepoint.
  - In 2024, it facilitated the transport of around
     20 million barrels per day, about 20% of global petroleum liquids consumption.
  - Countries such as Saudi Arabia, UAE, Kuwait, Iraq, and Iran rely on this route for exports.



- Closure or disruption, even temporary, raises shipping delays, and energy costs.
- Potential Supply Chain Disruptions: Conflict in the Middle East could also hinder access to the Suez Canal and the Red Sea, affecting alternative maritime routes and leading to logistical and financial challenges for global oil trade.
- Risk Premium: The possibility of a large-scale conflict or blockades results in speculative buying and a risk premium on oil, pushing prices up even before any physical supply disruption occurs.

# **Implications for India**

- Rising Import Costs: India imports over 80% of its crude oil. As the global price increases, it will raise India's overall import bill.
- **Inflationary Pressures:** A rise in crude oil prices can spill over into transport, logistics, and manufacturing, causing a rise in retail inflation.
- Economic Growth and Investment: A sustained surge in prices may dent corporate profitability and delay private sector investments, especially in energy-intensive sectors.

#### **Way Ahead**

- Accelerate Renewable Energy Transition: Reducing long-term dependence on fossil fuels.
- Strengthen Strategic Petroleum Reserves to cushion short-term shocks.
- Diversify Energy Sources: Including gas imports, biofuels, and electric mobility.
- **Diplomatic Engagements:** To support deescalation and secure oil supply routes.

#### **Concluding Remarks**

- The ongoing Iran-Israel tensions have revived global concerns about energy security and price stability.
- For India, the conflict is a reminder of the country's high vulnerability to external shocks due to its dependence on oil imports.
- While current reserves and diversification strategies offer some resilience, a prolonged conflict could have significant economic and fiscal consequences.

# **Strategic Petroleum Reserves**

 The government of India, through a Special Purpose Vehicle called Indian Strategic Petroleum Reserve Limited (ISPRL), has established Strategic Petroleum Reserves (SPR) facilities with a total capacity of 5.33 Million Metric Tonnes (MMT) of crude oil at 3 locations.

# The locations are as;

- Vishakhapatnam (1.33 MMT),
- Mangaluru (1.5 MMT) and
- Padur (2.5 MMT) capacity.
- Government of India in 2021, had also approved the establishment of two additional commercial-cum-strategic petroleum reserve facilities with total storage capacity of 6.5 MMT at;
  - Chandikhol (4 MMT) in Odisha and
  - Padur (2.5 MMT) in Karnataka.

# Source: TH

# **WORLD REFUGEE DAY 2025**

#### Context

20th June is observed as **World Refugee Day.** 

#### **About**

- This international day is designated by the United Nations to honour refugees around the globe.
- It was first observed globally on 20 June 2001, to mark the 50th anniversary of the 1951 Convention on the Status of Refugees.
  - Formerly known as Africa Refugee Day, it was changed when the United Nations General Assembly declared it an international day in 2000.
- According to the UN, every minute, 20 people leave everything to flee conflict, persecution, or terror, and World Refugee Day serves as an opportunity to build empathy and understanding for their predicament.
- The theme for this year is "Solidarity with Refugees", which urges people to move beyond words and take meaningful steps to support those forced to flee.

# **Key Terms in Forced Displacement and Migration**

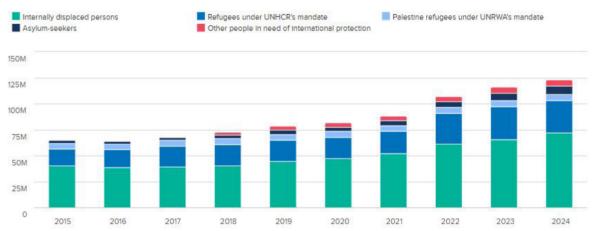
- Refugee: According to the 1951 UN Convention, refugees are individuals living outside their countries of origin who are in need of international protection because of feared persecution, or a serious threat to their life, physical integrity or freedom in their country of origin.
  - Refugees have legal permission to remain in the host country and may have access to health care, education and welfare benefits.
- **Asylum seeker:** A person who is seeking international protection. Prior to being granted legal status in the destination country, refugees are termed asylum seekers.

- Not all asylum seekers will be granted refugee status.
- **Internally displaced person:** Someone who has been forced to flee from their home to avoid conflict, violence and disasters and has moved within an internationally recognized state border.
- **Returnees:** Returnees are former refugees who return to their own countries or regions of origin after time in exile.
  - Returnees need continuous support and reintegration assistance to ensure that they can rebuild their lives at home.

# **Latest UNHCR data on Displacement**

- Overall Numbers: By the end of 2024, 123.2 million people were forcibly displaced worldwide.
  - Causes: Persecution, conflict, violence, human rights violations, and serious public order disruptions.

# People forcibly displaced worldwide | 2015 - 2024



Some Palestine refugees under UNRWA's mandate in Gaza have also been internally displaced in 2023 (1.2 million) and 2024 (1.4 million). In this graph, these internally displaced refugees under UNRWA's mandate are only counted once, under the figure for 'Palestine refugees under UNRWA's mandate'.

- By April 2025: Estimated decrease to 122.1 million, a 1% drop.
  - This marks the first decline in over a decade.
- Refugee Returns: In the past year, 1.6 million refugees returned to their countries of origin.
  - 92% of these returns were concentrated in just four countries: Afghanistan, Syria, South Sudan and Ukraine.
- Outlook for 2025: The direction of displacement trends in the rest of 2025 will hinge on several kev factors:
  - Peace or ceasefire prospects, particularly in: Democratic Republic of the Congo (DRC), Sudan, Ukraine and Stability in South Sudan, avoiding further deterioration.
  - Improvement of return conditions in Afghanistan and Syria.
  - Impact of funding cuts on humanitarian operations and capacity to create safe and dignified return environments.

# 1951 Refugee Convention and its 1967 Protocol

- The 1951 Convention contains a number of rights and also highlights the obligations of refugees towards their host country.
- The cornerstone of the 1951 Convention is the **principle of non-refoulement**.
  - According to it, a refugee should not be returned to a country where he or she faces serious threats to his or her life or freedom.
  - This protection may not be claimed by refugees who are reasonably regarded as a danger to the security of the country, or having been convicted of a particularly serious crime.
- The rights contained in the 1951 Convention include:
  - The right not to be expelled, except under certain, strictly defined conditions;
  - The right not to be punished for illegal entry into the territory of a contracting State;



- The right to work;
- The right to housing;
- The right to education;
- The right to public relief and assistance;
- The right to freedom of religion;
- The right to access the courts;
- The right to freedom of movement within the territory;
- The right to be issued identity and travel documents.
- A refugee becomes entitled to other rights the longer they remain in the host country, which is based on the recognition that the longer they remain as refugees, the more rights they need.

# **India's Policy on Refugees**

- India has welcomed refugees in the past, with nearly 300,000 people categorised as refugees.
  - This includes the Tibetans, Chakmas from Bangladesh, and refugees from Afghanistan, Sri Lanka, etc.
- But India is not a signatory to the 1951 UN Refugee Convention or the 1967 Protocol relating to the Status of Refugee. Nor does India have a refugee policy or a refugee law.
- All foreign undocumented nationals are governed as per the provisions of The Foreigners Act, 1946, The Registration of Foreigners Act, 1939, The Passport (Entry into India) Act, 1920 and The Citizenship Act, 1955.
- As per the MHA foreign nationals who enter into the country without valid travel documents are treated as illegal immigrants.

Source: AIR

# RETHINKING ALCOHOL CONTROL IN INDIA

#### In News

 India has recorded one of the highest rates of heavy episodic alcohol drinking, with lakhs needing clinical and social support.

# **Present status**

- Alcohol and alcoholic beverages contain ethanol, which is a psychoactive and toxic substance with dependence-producing properties.
  - Alcohol has been widely used in many cultures for centuries, but it is associated with significant health risks and harms.

 The safe level of alcohol consumption is zero, yet 23% of Indian men and 1% of women consume alcohol (NFHS-5).

## **Reasons for Consumption**

- Alcohol use is influenced by a complex mix of biopsychosocial, commercial, and policy factors.
- Biologically, some people are genetically prone to addiction, while psychologically and socially, stress relief, peer pressure, and media portrayals normalize drinking.
- **Commercially**, the industry targets new and younger consumers with diverse products, surrogate advertising, promotions, and strategic placements, often amplified by social media.
- Easy access is ensured through widespread liquor store locations and attractive packaging, while pricing makes alcohol affordable for both rural lower-income groups and urban middle classes.
- Policy-wise, the alcohol industry heavily influences regulation, resisting stricter laws by highlighting its revenue contributions, and circumvents advertising bans through covert marketing tactics.

#### **Impacts of Alcohol Consumption**

- Health Impact: Alcohol use significantly increases risks of injuries, mental illness, non-communicable diseases like cancer, and is linked to aggression, crime, suicides, and risky behavior.
- Economic Impact: While states earn heavily through excise duty (~2.5 lakh crore annually), the social cost of alcohol outweighs this gain, according to NITI Aayog estimates.
  - Workplace absenteeism, job loss, and decreased efficiency are major outcomes.
- Social Impact: NCRB reports reveal a high correlation between alcohol use and cases of domestic abuse, marital rape, and child neglect.
  - Easy availability, peer pressure, and glorification on social media have led to a rise in underage drinking, particularly in metros.

# **Regulation Status**

- Alcohol regulation in India falls under State jurisdiction, granting each State authority over legislation, excise taxes, supply chain, licensing and manufacturing, sale and consumption restrictions, prohibition, and pricing.
- Some States like Bihar, Gujarat, Mizoram, and Nagaland enforce prohibition, while others like Andhra Pradesh and Kerala promote alcohol

sales with policies such as affordable pricing and marketing traditional beverages.

#### **Various Policies**

- Alcohol was initially excluded from India's 2012 National Policy on Narcotic Drugs and Psychotropic Substances but was later included in the 2021-22 National Action Plan for Drug Demand Reduction under Nasha Mukta Bharat Abhiyan.
- The National Mental Health Policy (NMHP) 2014
  recognised the role of alcohol in mental illness
  and suicide prevention and suggested the need
  for a specific action plan.
- The National Health Policy (NHP) 2017 mentioned curbing alcohol use through higher taxation.
- The National Suicide Prevention Strategy (NSPS) 2022 identified alcohol as a major risk factor for suicides, advocating for a national alcohol control policy and measures to limit alcohol accessibility.
- The National Action Plan and Monitoring Framework for Prevention and Control of Noncommunicable Diseases (NMAP) 2017-2022 also echoed the call for a national alcohol policy.

## **Issues and Concerns**

- The national policies address specific issues like drunk driving or supply-chain regulation but India currently lacks a comprehensive, unified national alcohol regulation policy.
- The efforts to reduce alcohol demand and supply are fragmented across various Central ministries and States.
- The GST Act excludes liquor from sales tax, leaving alcohol taxation largely to States, often under vague excise policies.

#### **Suggestions and Way Forward**

- Regulating alcohol in India is urgent but complex due to its ties with State revenues, social norms, and politics.
- A comprehensive, evidence-based, and equitable systems approach is needed.
- Key measures include
  - Pricing alcohol to deter misuse without encouraging illicit liquor, earmarking health taxes for public health
  - Restricting alcohol availability in daily environments,
  - Regulating digital and influencer-driven advertising, enforcing plain packaging and warning labels,

- Increasing public awareness of alcohol's health risks, and using AI to control online alcohol content and misinformation.
- A unified National Alcohol Control Policy is essential to prioritize public health over profits and ensure long-term well-being.

Source:TH

# NEWS IN SHORT

# ASI TO HOST INTERNATIONAL CONCLAVE TO DECODE INDUS VALLEY SCRIPT

#### Context

 The Archaeological Survey of India (ASI) will host a three-day international brainstorming conference in August on ways to decipher the Indus Valley script.

#### **About**

 The Indus Valley Civilisation was discovered more than a 100 years ago in 1921 at Harappa, and was formally announced to the world in 1924 by John Marshall, the then Director-General of the ASI.

# **Indus Script**

- The first official report on excavations at Mohenjodaro, in 1931 had a section on the 'Indus Script'.
  - This script has attracted and fascinated a number of archaeologists, epigraphists, scientists, and many others who have made sincere attempts to solve its riddles.



- Where is it preserved? Most examples of this script have been found on Harappan seals and their impressions.
  - Other objects that preserved this script are metal and terracotta tablets, copper objects, pottery, etc.



- Nature of the Script: Consists of signs and symbols, many resembling human and animal figures, plants, or tools.
  - Most inscriptions are very short—typically
     4–5 signs long; the longest is about 26 characters.

# **Attempts at Decipherment**

- Various methods using computer analysis, comparative linguistics, and frequency analysis have been attempted.
- Due to the lack of a bilingual inscription (like the Rosetta Stone), decipherment is extremely difficult.
- So far Archaeologists haven't been able to find any bilingual records running into at least a couple of sentences.
  - Hence they refrain from making any claims on deciphering the script.

# **Archaeological Survey of India (ASI)**

- ASI is the premier organization for the archaeological research and protection of the cultural heritage of the nation under the Ministry of Culture.
- Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.
- It regulates all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It also regulates the Antiquities and Art Treasure Act, 1972.

Source: TH

# **SEINE RIVER**

#### Context

 Paris is leveraging an underground cooling system that uses water from the Seine River to cool over 800 buildings.

#### **About**

- Origin: The Seine River originates from the Langres Plateau in northeastern France.
- Length: Approximately 777 kilometers long.
- **Major Tributaries:** Aube, Marne, Yonne, Oise, and Eure rivers.
- **Navigability:** The river is navigable for about 560 kilometers, supporting both commercial and recreational transport.
- The Banks of the Seine in Paris were inscribed as a UNESCO World Heritage Site in 1991.

Source: TH

# NATIONAL INTERNET EXCHANGE OF INDIA (NIXI)

#### In News

• The National Internet Exchange of India (NIXI) recently turned 20.

#### **About**

- NIXI is a not-for-profit organisation set up in 2003 under the Ministry of Electronics and Information Technology (MeitY).
- NIXI has played a key role in ensuring that India's internet remains local in routing, robust in performance, and ready for future demands.
- It currently operates 77 Internet Exchange Points (IXPs) across the country, which help domestic traffic stay within India's borders

   reducing latency, increasing speed, and enhancing security.
- Through its IRINN division, it is guiding India's transition to IPv6, which will be essential as the country moves deeper into the era of connected devices, AI, and quantum computing.

# **Role & Significance**

- Acts as the silent pillar behind India's booming digital economy — from UPI at kirana stores to digital classrooms in tribal belts.
- Strengthens India's ambition of becoming a \$5 trillion digital economy.
- Aligns with goals like Digital India, Bhashini,
   and localised internet ecosystems.

Source: DD News

# SHANGHAI COOPERATION ORGANISATION

# Context

 Defence Minister Rajnath Singh will travel to China to attend the Shanghai Cooperation Organisation Defence Ministers' meet.

# **Shanghai Cooperation Organisation (SCO)**

- Shanghai Five emerged in 1996 from a series of border demarcation and demilitarization talks between 4 former USSR republics and China.
  - Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan were members of the Shanghai Five.
  - With the accession of **Uzbekistan** to the group in **2001**, the Shanghai Five was renamed the SCO.
- Objective: To enhance regional cooperation for efforts to curb terrorism, separatism, and extremism in the Central Asian region.

- **Members:** China, Russia, India (2017), Pakistan, Iran, Belarus and the four Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan.
- Observer status: Afghanistan and Mongolia.
- Language: The SCO's official languages are Russian and Chinese.
- Structure: The supreme decision-making body of the SCO is the Council of Heads of States (CHS) which meets once a year.
  - The Organization has 2 standing bodies —
    the Secretariat in Beijing and the Executive
    Committee of the Regional Anti-Terrorist
    Structure (RATS) in Tashkent.

Source: TH

# WHA'S LANDMARK RESOLUTION ON SKIN DISEASES

#### In News

 The World Health Assembly has unanimously adopted a resolution declaring skin diseases a global public health priority.

## Skin diseases resolution

- Skin diseases include all conditions that irritate, clog or damage your skin, as well as skin cancer.
- They are among the most visible health conditions, often leading to stigma, discrimination, and emotional distress.
- They affect 1.9 billion people worldwide, especially in low- and middle-income countries (LMICs).
- They are now recognised for their deep social, psychological, and economic impacts.

#### **Features of resolution**

- It is jointly sponsored by **Côte d'Ivoire, Nigeria, Togo, and Micronesia**, and others, supported by the International League of Dermatologic Societies (ILDS), the world's largest alliance of dermatology organizations marks a pivotal moment in recognising skin diseases as a global public health priority.
- It calls attention to **low awareness**, **poor surveillance**, **and limited health worker training**, despite most skin diseases being manageable at the primary care level with proper support.
- It seeks to **integrate skin health into national health agendas**, improve funding, strengthen frontline dermatologic care, and combat stigma.
- It urges coordinated national action to improve financing, diagnostics, medicine access, integration with other health programmes, and research.

Source: TH

# **REVERSE FLIPPING**

#### Context

The Securities and Exchange Board of India (SEBI) has approved a series of reforms aimed at improving the ease of doing business and reverse Flipping Support.

# What is Reverse Flipping?

- Reverse Flipping is a term used in the startup ecosystem and corporate structuring to describe the process where an Indian startup or company moves their domicile back to India essentially "flipping" in reverse.
- How does it work?
  - The parent company abroad transfers ownership, assets, or control to an Indian entity.
  - The Indian subsidiary (which was earlier just an operational arm) became the main holding company.
  - This may involve shifting intellectual property
     (IP), data, and key functions to India.

# Why Do Startups Flip in the First Place?

- Initially, many Indian startups "flip" to foreign jurisdictions because:
  - Easier access to global venture capital.
  - Simplified regulations around stock options, fundraising, or acquisitions.
  - Favorable tax regimes.
  - Ease of listing on foreign stock exchanges.

# Significance of Reverse Flipping?

- Reflects confidence in India's economic and regulatory ecosystem.
- Tied to broader goals like Atmanirbhar Bharat, ease of doing business, and capital market reforms.
- Important for innovation, job creation, and domestic capital mobilisation.

Source: BS

# **ENERGY TRANSITION INDEX (ETI)**

#### **In News**

 India ranked 71 on the World Economic Forum (WEF)'s Energy Transition Index (ETI) 2025, dropped from rank 63 in 2024.

#### **Key Findings**

- Sweden, ranked first in the Index followed by Finland, Denmark and Norway.
- China topped the "Emerging Asia" category.

#### **About ETI**

- The ETI is a tool developed by the WEF, an international non-profit for public-private cooperation set up in 1971 to quantify the yearly progress of nations in energy transition.
- The energy transition means moving from high carbon-emitting fuels such as coal to what are generally considered cleaner and renewable fuels such as solar power.
- It is based on 43 indicators from various global data sources.

Source: DTE

# **EXTREME HELIUM (EHE) STARS**

#### **In News**

 Indian astronomers have discovered singlyionized germanium (Ge II) in a rare class of stars known as Extreme Helium (EHe) stars, specifically in the star A980.

## What are Extreme Helium (EHe) Stars?

- EHe stars are rare hydrogen-deficient stars that are primarily composed of helium with trace amounts of other elements.
- Only a few dozen such stars have been discovered.
- The most accepted formation theory suggests they result from the merger of two white dwarfs:
  - One helium-rich, the other carbon-oxygenrich.
- EHe stars are cool, low-gravity objects that defy normal stellar chemical profiles.

# **Significance of Germanium Detection**

- Germanium is a heavy element that forms via the s-process (slow neutron capture) — common in the Asymptotic Giant Branch (AGB) phase of stellar evolution.
- The presence of Ge implies prior synthesis through stellar nucleosynthesis, possibly before the white dwarf merger.

Source: PIB

# **OPERATION SINDHU**

#### Context

 India has launched Operation Sindhu to evacuate its nationals from both Iran and Israel, amid the escalating conflict between the two countries.

# **About the Operation**

- It is launched by the **Ministry of External Affairs** (**MEA**), Govt. of India.
- They were evacuated from northern Iran to Armenia, and flown from Yerevan (Armenian capital) to New Delhi on a special flight.
- India is utilising safe and open airspace corridors for evacuation flights, with logistical coordination through diplomatic channels in the region.
- In a **planned expansion** of the operation, Indians in Israel will be evacuated via **land borders**, followed by onward air travel from neighbouring countries, given the suspension of flight operations at Israeli airports.

#### Other India's Civilian Evacuations Missions

| Mission<br>Name          | Context                      | Year |
|--------------------------|------------------------------|------|
| Vande Bharat<br>Mission  | COVID-19 global repatriation | 2020 |
| Operation<br>Devi Shakti | Afghanistan regime fall      | 2021 |
| Operation<br>Ganga       | Russia-Ukraine conflict      | 2022 |
| Operation<br>Kaveri      | Sudan civil war              | 2023 |
| Operation<br>Ajay        | Israel-Hamas<br>conflict     | 2023 |
| Operation<br>Sindhu      | Iran conflict escalation     | 2025 |

Source: AIR