DAILY CURRENT AFFAIRS 26-05-2025

GS-1

1. **Charaka Samhita & Sushruta Samhita**
2. **Early Onset of Monsoon**

GS-2

3. **Trump's Gold Card Visa Programme**

GS-3

4. **Energy and Climate Change Report**
5. **FATF's Role in Global Financial Oversight**

Charaka Samhita & Sushruta Samhita

Syllabus: GS-1: Indian Culture and Heritage – Traditional Medical system.

Context:

On May 25, 2025, Vice-President Jagdeep Dhankhar inaugurated statues of Acharya Charaka and Sage Sushruta at Raj Bhavan in Goa, highlighting their contributions to Ayurveda and ancient Indian medicine.

About Acharya Charaka

- **Identity & Period:**Charaka (c. 100 BCE–200 CE) was a legendary **Ayurvedic physician**, hailed as the *Father of Indian Medicine*.
- **Associated Kingdom:**Practised in **Taxila**, under the patronage of **Kushan ruler Kanishka**.
- **Key Work – *Charaka Samhita*:**
  - One of the oldest and most authoritative texts on **internal medicine (Kayachikitsa)**.
  - Classified Ayurveda into **Ashtanga Ayurveda** (Eight branches).
  - Detailed **embryology (Garbha Vigyan)**, **disease pathology**, and **preventive medicine**.
  - Propounded the **Tridosha theory**: *Vata*, *Pitta*, *Kapha*.
  - Emphasized ethical medical practice—confidentiality, compassion, and non-maleficence.
  - His approach is aligned with modern principles of **evidence-based medicine** and **patient rights**.

About Sage Sushruta

- **Identity & Period:**Sushruta (c. 600 BCE) is revered as the *Father of Surgery* and *Plastic Surgery*.
- **Associated Kingdom:**Practised in **Kashi (Varanasi)**, possibly under **King Divodasa**.
- **Key Work – *Sushruta Samhita*:**
  - Oldest known surgical text in the world.
  - Describes over **300 surgical procedures** and **100+ surgical instruments**.
  - Introduced **dissection for anatomy**, **anaesthesia**, and fracture management.

- Pioneered **rhinoplasty (nasal reconstruction)**, influencing later European practices.
- Systematised **toxicology**, **embryology**, **public health**, and **pediatric care (Kaumarbhritya)**.
- Set ethical standards for surgical education, including simulations and dissections.

Significance of Charaka and Sushruta in Medicine

- **Foundational Figures of Ayurveda:**Their works form the *Bruhat Trayi* (Great Triad) of classical Ayurvedic texts.
- **Pioneers in Medical Science:**
  - Their insights on **embryology** and **surgery** predate and inform modern scientific principles.
  - Sushruta's techniques were translated into Arabic (e.g., *Kitab-i-Susrud*) and influenced **Arab and European medicine**.
- **Pediatric Contributions:**Their work on **Kaumarbhritya** laid early foundations for **child healthcare**, including neonatal care rituals.
- **Global Relevance:**Their blend of scientific knowledge and ethical medical practice is globally admired and increasingly relevant in today's integrative healthcare approaches.

Conclusion

Acharya Charaka and Sage Sushruta represent the **timeless legacy of Indian medical science**—where empirical observation met moral responsibility. Their teachings continue to inspire modern healthcare systems. As **Swami Vivekananda** emphasized:

"We must not only revive the knowledge of our ancestors but also make it global in appeal."

Their statues now stand as enduring symbols of India's ancient wisdom and continued contribution to global well-being.

Early Onset of Monsoon

Syllabus: GS-1: Indian Geography – Monsoon.

Context:

Monsoon reaches Maharashtra a day after Kerala, earliest onset in 35 years.

Causes of Early Monsoon Onset

- **Cyclonic Activity and Low-Pressure Systems**:
  - Formation of cyclonic circulations or low-pressure areas in the Bay of Bengal or Arabian Sea can accelerate monsoon advancement.
  - Example: Strong pre-monsoon cyclones can pull moisture-laden winds inland earlier than usual.
- **El Niño-Southern Oscillation (ENSO)**:
  - A neutral or La Niña phase can strengthen monsoon winds, leading to an early onset.
  - Conversely, El Niño may delay or weaken monsoon progression, though exceptions occur.
- **Indian Ocean Dipole (IOD)**:
  - A positive IOD, characterized by cooler waters in the eastern Indian Ocean, can enhance monsoon activity, potentially causing early onset.
- **Global Warming and Climate Change**:
  - Rising sea surface temperatures due to climate change can alter monsoon dynamics, leading to unpredictable onset dates.
  - Increased atmospheric moisture content can trigger earlier rainfall.
- **Madden-Julian Oscillation (MJO)**:
  - The MJO, a tropical disturbance, can enhance convective activity, facilitating early monsoon rains.

Impacts of Early Monsoon Onset on Indian Agriculture

Positive Impacts

- **Extended Growing Season**:
  - Early rains allow farmers to start sowing Kharif crops (e.g., rice, maize, cotton, sugarcane) earlier, potentially leading to an extended growing period and higher yields.
  - Example: In states like Punjab and Haryana, early sowing of rice can align better with optimal growth cycles.
- **Improved Soil Moisture**:
  - Early monsoon replenishes soil moisture, critical for rain-fed areas (about 50% of India's agricultural land).
  - Enhances germination rates and reduces dependency on pre-monsoon irrigation.

- **Recharge of Water Bodies**:
  - Early rains fill reservoirs, ponds, and groundwater tables, ensuring water availability for irrigation during dry spells.
  - Example: Reservoirs in Maharashtra and Karnataka benefit from early inflows, supporting Rabi crops later.
- **Reduction in Heat Stress**:
  - Early monsoon cools temperatures, reducing heat stress on crops and livestock, particularly in northern and central India.
- **Boost to Farmer Confidence**:
  - Timely or early rains encourage farmers to invest in quality seeds, fertilizers, and labor, potentially increasing productivity.

Negative Impacts

- **Flooding and Crop Damage**:
  - Excessive early rainfall can lead to waterlogging, damaging crops like pulses and oilseeds that are sensitive to excess moisture.
  - Example: In 2019, early heavy rains in Madhya Pradesh caused flooding, affecting soybean crops.
- **Disruption of Agricultural Calendar**:
  - Early onset may catch farmers unprepared, especially if they rely on traditional sowing schedules.
  - Premature sowing without adequate infrastructure can lead to crop failure if rains are inconsistent.
- **Increased Pest and Disease Incidence**:
  - Early rains create humid conditions, promoting pests (e.g., locusts, aphids) and diseases (e.g., fungal infections in rice and wheat).
  - Example: Early monsoon in 2020 led to locust outbreaks in Rajasthan and Gujarat.
- **Soil Erosion**:
  - Heavy early rains on unprepared or dry soils can cause erosion, depleting fertile topsoil, particularly in hilly regions like the Western Ghats.
- **Impact on Pre-Monsoon Crops**:

- Crops like summer vegetables or late-sown Rabi crops (e.g., wheat, mustard) may face damage if early rains arrive during harvesting.
- Example: Early rains in March-April can affect wheat harvesting in Punjab.

Regional Variations in Impact

- **Northwest India (Punjab, Haryana, Rajasthan)**:
  - Early monsoon benefits rice and cotton but may disrupt wheat harvesting if rains arrive in late spring.
  - Waterlogging is a concern in low-lying areas.
- **Central India (Madhya Pradesh, Maharashtra)**:
  - Soybean and pulses benefit from early soil moisture but are vulnerable to flooding.
  - Early rains recharge reservoirs like those in the Narmada basin.
- **Eastern India (Bihar, Odisha, West Bengal)**:
  - Rice cultivation thrives with early rains, but flooding risks are high in low-lying areas.
  - Jute and maize may face pest issues due to humidity.
- **Southern India (Karnataka, Andhra Pradesh, Tamil Nadu)**:
  - Early monsoon supports coffee, tea, and spice plantations but can cause landslides in hilly areas.
  - Groundwater recharge aids dryland farming.
- **Northeast India**:
  - Early rains enhance tea and rice production but increase flood risks in Assam and Meghalaya.

Long-Term Implications

- **Climate Change and Monsoon Variability**:
  - Increasing frequency of early or erratic monsoon onset due to climate change poses challenges for long-term agricultural planning.
  - Need for climate-resilient crops and adaptive farming practices.
- **Economic Impact**:
  - Early monsoon can stabilize food prices by boosting Kharif output but may increase costs for pest control and flood mitigation.
  - Affects rural economy, as agriculture supports millions of livelihoods.

- **Policy and Adaptation Needs**:
  - Investment in early warning systems, weather forecasting, and crop insurance to mitigate risks.
  - Promotion of flood-resistant and drought-tolerant crop varieties.
  - Infrastructure development for better water management (e.g., check dams, canals).

Mitigation and Adaptation Strategies

- **Improved Weather Forecasting**:
  - Leverage India Meteorological Department (IMD) and satellite data for accurate monsoon predictions.
  - Disseminate forecasts to farmers via mobile apps like Kisan Suvidha.
- **Crop Diversification**:
  - Promote crops resilient to early rains, such as short-duration rice varieties or millets.
- **Water Management**:
  - Construct check dams and contour bunds to prevent soil erosion and manage excess water.
  - Enhance rainwater harvesting to store early monsoon water.
- **Pest and Disease Control**:
  - Integrated Pest Management (IPM) to address pest outbreaks triggered by early humidity.
  - Use of biopesticides and resistant crop varieties.
- **Farmer Education and Support**:
  - Train farmers on adaptive sowing schedules and climate-smart agriculture.
  - Expand coverage of schemes like PM Fasal Bima Yojana for financial protection.
- **Infrastructure Development**:
  - Strengthen drainage systems to prevent waterlogging in flood-prone areas.
  - Improve rural connectivity for timely access to markets during early rains.

Government Mechanisms to Mitigate Impact

- **IMD Forecasting & Early Warning Systems** – Improved models for **onset and distribution**.

- **National Agricultural Disaster Management Plan (NADMP)** – Includes response for early or delayed monsoon.
- **Pradhan Mantri Fasal Bima Yojana (PMFBY)** – Insurance for crop loss due to weather anomalies.
- **Soil Health Cards & Advisory Services** – Guide farmers on nutrient management depending on rainfall pattern.
- **Weather-Based Crop Insurance Scheme (WBCIS)** – Based on rainfall triggers.
- **Agro-climatic zoning** – Helps identify cropping systems based on regional rainfall trends.

Trump's Gold Card Visa Programme

Syllabus: GS-2: International Relations – USA immigration Policy.

Context:

President Donald Trump announced the launch of the 'gold card' visa programme.

Gold Card Visa Programme: Overview

Launched by: Former President Donald Trump

Announced at:*Building the Future* event, Washington, D.C.

Objective: To attract high-net-worth individuals to invest in the U.S. in exchange for **permanent residency** and a **pathway to citizenship**.

Key Features of the Programme

- **Minimum Investment:** $5 million
- **Residency Granted:** Permanent U.S. residency (similar to a Green Card)
- **Path to Citizenship:** Yes
- **Application Portal:**trumpcard.gov (official registration and application platform)

Economic Goals

- Encourage foreign **capital inflow** to boost U.S. economic growth.
- Support national revenue and potentially help reduce the **$36+ trillion national debt**.

Legal and Political Considerations

- **Controversy:** Critics argue this immigration policy change requires **Congressional approval**.
- **Trump Administration's Stance:** Asserts that the programme will benefit the economy and generate substantial revenue.
- Legal experts question if an entirely new visa category can be unilaterally introduced without legislative action.

Impact on Existing EB-5 Visa Programme

- **EB-5 Programme Overview:**
  - Created in 1990.
  - Requires a minimum investment (currently $800,000 or $1,050,000 depending on location).
  - Must create **10 full-time jobs** for U.S. workers.
  - Recently reauthorized until **2027** under the EB-5 Reform and Integrity Act.
- **Concerns:**
  - The Gold Card's $5 million threshold may **exclude mid-level investors**.
  - It could **divert interest** from EB-5, especially from those who seek a simpler, job-creation-free route.

Early Reception

- Strong interest reported from **investors in the Middle East**.
- Seen as a potential tool for wealthy individuals seeking a fast-track route to U.S. residency.

Summary

The **Gold Card Visa Programme** is a proposed high-value investor immigration initiative aiming to replace or rival the current EB-5 programme. It promises permanent residency and future citizenship for a $5 million investment, but faces **legal hurdles and policy scrutiny**, especially concerning whether such a visa category can bypass Congress.

Energy and Climate Change Report

Syllabus: GS-3: Environment – Climate Change and Energy demand.

Context:

According to the joint analysis by the Council on Energy, Environment and Water (CEEW) and the Alliance for an Energy Efficient Economy (AEEE), published in Energy and Climate Change, India is projected to exceed its 2030 target of reducing emissions intensity by 45% from 2005 levels.

Energy and Climate Change Report

Published by:

- Council on Energy, Environment and Water (CEEW)
- Alliance for an Energy Efficient Economy (AEEE)

Key Findings on India

- **Emission Intensity Reduction (vs. 2005 levels):**
  - India is on track to achieve **48–57% reduction in emissions intensity** of GDP by **2030**, surpassing its updated Nationally Determined Contributions (NDCs).
  - Reflects strong gains from **energy efficiency**, **renewable energy adoption**, and **structural economic shifts**.
- **Behavioural Impact – Mission LiFE:**
  - **Mission LiFE (Lifestyle for Environment)** promotes sustainable lifestyle choices.
  - Behavioural changes under this mission could lead to a **10% reduction in emissions by 2050**.
  - Focus on **low-consumption habits**, **public transport**, **energy-saving devices**, and **recycling**.
- **Non-Fossil Fuel Share in Power Capacity:**
  - By **2035**, India's **non-fossil fuel power capacity** could account for **60–68%** of total installed power generation capacity.
  - Driven by aggressive scaling of **solar**, **wind**, **hydropower**, and **nuclear energy**.
- **Policy Tools and Interventions Required:**
  - **Carbon Pricing:** Implementation of market-based instruments like carbon markets to internalize environmental costs.
  - **Tariff Reforms:** Rationalization of electricity tariffs to reflect true cost and promote efficiency.
  - **Clean Tech Investments:** Large-scale investments in **electric mobility**, **green hydrogen**, **battery storage**, and **smart grids** are crucial for achieving net-zero by **2070**.

- **Emissions vs. Economic Growth:**
  - While India's **total emissions may increase** due to economic and population growth, its **emissions intensity will continue to decline**.
  - Indicates **decoupling of emissions from GDP growth**, largely due to **renewable energy uptake** and **efficiency improvements**.

Significance

- Aligns with India's **Long-Term Low Emission Development Strategy (LT-LEDS)**.
- Reinforces the importance of **multi-sectoral coordination**, **public engagement**, and **international cooperation** in climate action.

FATF's Role in Global Financial Oversight

Syllabus: GS-3: Internal Security – Terror Financing

Context:

- India is set to submit a dossier to the Financial Action Task Force (FATF) to advocate for Pakistan's reinstatement on the "grey list".

Financial Action Task Force (FATF) and India's Recent Move on Pakistan

What is FATF?

- **Established**: 1989
- **Members**: 40 countries and 2 regional organisations
- **Mandate**: Global watchdog to combat **money laundering**, **terror financing**, and related threats to the international financial system.

Core Functions

- **Monitoring Financial Crimes**:
  - Tracks methods used by criminals/terrorists to manage finances.
  - Identifies jurisdictions with weak AML/CFT (Anti-Money Laundering / Counter Financing of Terrorism) frameworks.
- **Setting Global Standards**:
  - Issues **40 Recommendations** for international best practices.

- Promotes effective implementation of legal, regulatory, and operational measures.

Grey List vs Black List

- **Grey List**:
  - Countries with strategic deficiencies but committed to reforms.
  - Currently includes **24 countries**.
  - Increased monitoring; negative impacts on foreign investment and aid.
- **Black List**:
  - Countries with serious AML/CFT failures and no commitment to improvement.
  - Currently includes **North Korea, Iran, and Myanmar**.
  - Subject to **economic sanctions** and **enhanced due diligence**.

India's Position

- **Planned Submission**: India intends to submit a dossier to FATF for **Pakistan's re-inclusion in the grey list**.
- **Concerns**: Non-compliance with AML/CFT standards; alleged terror financing activities affecting regions like **Jammu & Kashmir**.
- **Past Effect**: Pakistan's greylisting (2018–2022) reportedly reduced illicit fund flows to terror-linked activities.

Geopolitical Relevance

- FATF decisions impact **international diplomacy, financial credibility**, and **security environments**.
- India's move reflects **strategic use of multilateral forums** to address cross-border threats.