

## DAILY CURRENT AFFAIRS (DCA)

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## MAHATMA GANDHI AND SATYAGRAHA

### Context

- On June 7, 1893 MK Gandhi was thrown off a train's first-class compartment at the Pietermaritzburg railway station in **South Africa** that triggered **Gandhi's first act of civil disobedience, or satyagraha**.

### About the Mahatma Gandhi and Satyagraha

- Mahatma Gandhi, a name synonymous with peace and nonviolent resistance, has left an indelible mark on the world with his philosophy of Satyagraha.

### Birth of Satyagraha

- The term '**Satyagraha**' was coined by Gandhi during his time in **South Africa** to distinguish his movement from others under the name '**passive resistance**'.
  - Derived from '**satya**' (truth) and '**agraha**' (insistence), Satyagraha translates to '**truth-force**' or '**soul-force**'.
  - Unlike passive resistance, which could include violence and was seen as a weapon of the weak, Satyagraha was a method of **nonviolent protest** that could be pursued only by the strongest and completely excluded violence.

### Pietermaritzburg Incident

- On June 7, 1893, a young lawyer named MK Gandhi was unceremoniously thrown off a train's first-class compartment reserved for 'whites only', at the Pietermaritzburg railway station in South Africa.
- It triggered Gandhi's first act of **civil disobedience, or Satyagraha**, viewed as one of the most crucial moments in Gandhi's life.

### Principles of Satyagraha

- Gandhi envisioned **Satyagraha** as not only a tactic to be used in acute political struggle but as a **universal solvent for injustice and harm**.
- He asked **Satyagrahis (practitioners of Satyagraha)** to follow principles such as nonviolence, truth, non-stealing, non-possession, body-labour or bread-labour, control of desires, fearlessness, equal respect for all religions, and economic strategy such as boycotts of imported goods.

- Satyagraha is more than just civil disobedience, and it extends from the details of correct daily living to the construction of alternative political and economic institutions.
  - It seeks to conquer through conversion: in the end, there is neither defeat nor victory but rather a new harmony

### Satyagraha in Practice

- One of the earliest implementations of Satyagraha in India was during the Champaran movement in Bihar.
- The socio-politically charged situation in Champaran culminated in the historic Champaran Satyagraha.
- Gandhi's intervention led to a significant shift in the power dynamics between the indigo planters and the oppressed peasants.

### Power of Satyagraha

- Gandhi's Satyagraha was not just a political tool; it was a moral and spiritual philosophy. It emphasised the power of truth and moral courage in achieving social and political change.
- Gandhi believed that laws were for the welfare of society, and civil disobedience was a protest against the injustice committed by the lawgivers.

### Global Impact of Satyagraha

- The **principles of Satyagraha** were central to India's struggle for freedom, from the **Non-Cooperation Movement (1919-22) to the Civil Disobedience Movement (1930-34), to the Quit India Movement (1942)**.
- These principles then went on to influence other movements for justice globally, from Martin Luther King Jr's Civil Rights Movement in the United States, to Nelson Mandela's struggle against apartheid.

### Legacy

- Mahatma Gandhi's philosophy of Satyagraha has left a lasting legacy that has not only shaped India's freedom struggle but has also **influenced numerous movements worldwide**.
- Gandhi's philosophy of Satyagraha, developed during his time in South Africa, became a major tool in the Indian struggle against British imperialism and has since been adopted by protest groups in other countries.

- Today, as we navigate through various social and political challenges, the principles of Satyagraha continue to inspire millions around the globe in their quest for justice and equality.

Source: IE

## CHILD FOOD POVERTY: NUTRITION DEPRIVATION IN EARLY CHILDHOOD REPORT

### In Context

- UNICEF has released a report Titled “ **Child Food Poverty: Nutrition Deprivation in Early Childhood**”.

### About the Report

- It analyses the impacts and causes of dietary deprivation among the world’s youngest people in nearly 100 countries, and across income groups.
- The report focuses on low- and middle-income countries, where most children living in child food poverty reside, and on the implications of child food poverty for undernutrition and poor development.
- It examines the status, trends, inequities and drivers of child food poverty in early childhood.

#### Child Food Poverty (CFP)

- UNICEF defines **child food poverty** as children’s inability to access and consume a nutritious and diverse diet in early childhood (i.e., the first five years of life).

Child food poverty is measured using the UNICEF and World Health Organization (WHO) dietary diversity score. To meet the minimum dietary diversity for healthy growth and development, children need to consume foods from **at least five out of the eight defined food groups**.

#### If children are fed:

0–2 food groups/day they are living in **severe** child food poverty

3–4 food groups/day they are living in **moderate** child food poverty

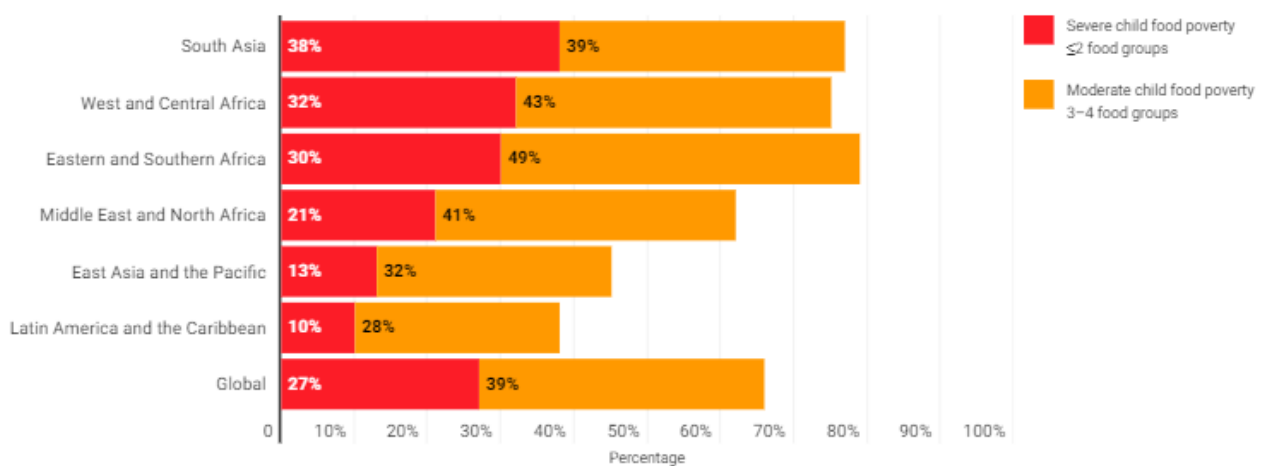
5 or more food groups/day they are **NOT** living in child food poverty



### Key findings include

- Globally, **one in four children** are living in **severe child food poverty** in early childhood, amounting to **181 million children** under 5 years of age.
- Millions of parents and families are struggling to **provide nutritious and diverse foods** that young children need to reach their full potential.
- The global food and nutrition crisis and localized **conflicts and climatic shocks are intensifying** severe child food poverty, especially in fragile countries.
- Global efforts are slow in ending Child Food Poverty (CFP).
- Severe child food poverty affects all regions of the world, but not equally: South Asia and sub-Saharan Africa are home to more than two-thirds (68 per cent) of the 181 million children living in severe child food poverty.

## Severe child food poverty affects 1 in 4 children, globally



Percentage of children living in severe child food poverty and moderate child food poverty, by UNICEF region and globally, 2022

### Status of Child Food Poverty in India

- **Severe Food Poverty:** India is among the 20 countries that account for 65% of the total number of children living in severe child food poverty between 2018-2022, according to a UNICEF report.
- **Inequities:** While India has reduced the gap in severe CFP between poorer and wealthier households in the last decade, disparities still exist based on socioeconomic status, caste, gender, and geographical location.
- **Micronutrient Deficiencies:** A significant number of children suffer from micronutrient deficiencies, particularly anemia (iron deficiency), which affects cognitive development and learning abilities.
- **Zero-Food Children:** A study published in The Lancet Child & Adolescent Health in 2023 found that 19.3% of Indian children under 5 years old experienced zero-food days, meaning they had not consumed any food in a 24-hour period. This figure is the highest among the 92 low- and middle-income countries surveyed.

### Impacts

- **Health Impacts:** CFP is the leading cause of malnutrition in children, which can manifest as stunting (low height for age), wasting (low weight for height), and underweight (low weight for age).
  - ◆ CFP increases the risk of childhood illnesses such as diarrhea, pneumonia, and measles, and can lead to premature death.
- **Impaired Cognitive Development:** Malnutrition during the critical early years of development can have irreversible effects on brain development, leading to reduced cognitive abilities.
- **Reduced Productivity:** Malnourished children grow up to be less productive adults with reduced physical and mental capacity, limiting their earning potential and economic contribution to society.
- **Increased Healthcare Costs:** CFP leads to higher healthcare expenditure for families and the government due to the increased need for medical treatment and hospitalization.
- **Social Exclusion and Stigma:** Children suffering from CFP and their families may face social exclusion and discrimination, leading to further marginalization.
- **Loss of Human Capital:** CFP deprives the nation of its most valuable asset – its human capital.

- **Increased Burden on Healthcare System:** The increased healthcare needs of malnourished children put a strain on the healthcare system, diverting resources from other essential services.

### Challenges in Handling CFP in India

- **Economic Inequality:** The high percentage of the population unable to afford a healthy diet is a root cause of child food poverty.
- **Inadequate Dietary Intake:** The shift towards processed foods, often lacking essential nutrients, exacerbates the issue.
- **Poor Sanitation:** The lack of access to proper sanitation facilities increases the risk of infections and diseases, which can further worsen malnutrition and hinder nutrient absorption.
- **Lack of Health Infrastructure:** The low density of doctors and nurses, especially in rural areas, limits access to healthcare services. This means children suffering from malnutrition may not receive timely diagnosis or treatment.

### Recommendations

- To address child malnutrition governments and partners **must invest in actions to improve children's access** to diverse and nutritious diets and end severe child food poverty.
- **UNICEF calls on national governments,** development and humanitarian partners, donors, civil society and media, academic and research organizations to:
  - ◆ **Transform food systems** by ensuring food environments make nutritious, diverse and healthy foods the most accessible, affordable and desirable option for feeding young children, and the food and beverage industry complies with policies to protect children from unhealthy foods and beverages.
  - ◆ **Leverage health systems** to deliver essential nutrition services, including counselling and support on child feeding, to prevent and treat child malnutrition, prioritizing the most vulnerable children.
  - ◆ **Activate social protection systems** to address income poverty in ways that are responsive to the food and nutrition needs of the most vulnerable children and their families, including social transfers to protect children at highest risk of child food poverty.

- ◆ **Strengthen data systems** to assess the prevalence and severity of child food poverty; detect increases in child food poverty early, including in fragile and humanitarian contexts; and track national and global progress in reducing severe child food poverty.

#### Do you know ?

- India has made consistent efforts in implementing nutrition programmes over the years such as the
  - ◆ Integrated Child Development Services (ICDS),
  - ◆ Mid-day meals, and
  - ◆ Poshan Abhiyaan etc.

#### Initiatives taken by India

- **Integrated Child Development Services (ICDS):** This comprehensive program provides a package of services, including supplementary nutrition, growth monitoring, immunization, health check-ups, and pre-school education to children under six years of age and pregnant and lactating mothers.
- **Mid-Day Meal Scheme (MDMS):** This scheme aims to improve the nutritional status of school-age children by providing them with a free, nutritious lunch in government and government-aided schools.
- **Mission Poshan 2.0:** This focuses on improving maternal nutrition and child feeding norms, integrating multiple schemes.
- **National Food Security Act (NFSA):** The NFSA aims to provide subsidized food grains to a significant portion of the population, including children, through the Public Distribution System (PDS).
- **Pradhan Mantri Matru Vandana Yojana (PMMVY):** Provide partial compensation for the wage loss in the form of cash incentives so that the woman can take adequate rest before and after delivery of the first living child.
- **Food Fortification:** The government is promoting the fortification of staple foods like rice, wheat flour, and edible oil with essential micronutrients to address micronutrient deficiencies among children.

Source: IE

## DEMAND FOR BIFURCATION OF STATES IN INDIA

### Context

- **Andhra Pradesh** was bifurcated into **two states 10 years ago** and resulted into formation of a **new state of Telangana**.

### Reorganisation of States in India

- **Pre-Independence Era:** Before India gained independence from British rule in 1947, the territory of the Indian subcontinent was divided into numerous **princely states, provinces, and regions under direct British control**.
  - ◆ The boundaries were drawn based on administrative convenience rather than linguistic, cultural, or ethnic considerations.
- **Creation of States:** The demand for linguistic states gained momentum post-independence. One of the earliest and most significant movements was the **demand for Andhra Pradesh, based on the Telugu-speaking population**.
  - ◆ The **States Reorganisation Commission (SRC)** was established in **1953** to examine the demand for linguistic states.
  - ◆ Based on its recommendations, the **Indian states were reorganized along linguistic lines in 1956**.
  - ◆ This led to the formation of states such as **Maharashtra, Gujarat, Karnataka, and Punjab**.
- **Further Reorganizations:** Creation of new states like **Haryana and Himachal Pradesh in 1966**, the formation of **Uttarakhand** (formerly part of Uttar Pradesh) and **Jharkhand** (formerly part of Bihar) in **2000**, and the bifurcation of Andhra Pradesh to create Telangana in 2014.

#### Process to form/rename a state in India

- **Article 3** authorizes the Parliament to:
  - ◆ form a new state by separation of territory from any state or by uniting two or more states or parts of states or by uniting any territory to a part of any state;
  - ◆ increase the area of any state;
  - ◆ diminish the area of any state;
  - ◆ alter the boundaries of any state; and
  - ◆ alter the name of any state.
- However, **Article 3** lays down two conditions in this regard: a bill contemplating the above changes can be introduced in the Parliament only with the prior recommendation of the President; and before recommending the bill, the President has to refer the same to the state legislature concerned for expressing its views within a specified period.

- The **President (or Parliament) is not bound** by the views of the state legislature and may either accept or reject them.
- Moreover, the **Indian Constitution (Article 4)** itself declares that laws made for alteration of names of existing states (under Articles 3) are not to be considered as amendments of the Constitution under **Article 368**. such laws can be passed by a simple majority and by the ordinary legislative process.

### Factors Responsible for Demands for a Separate State

- **Linguistic and Cultural Identity:** Communities often feel that their distinct language, culture, and heritage are not adequately represented or protected within larger states.
- **Regional Disparities:** Economic and developmental disparities between different regions within a state often fuel demands for bifurcation.
- **Political Representation:** Some regions feel that they are not adequately represented in state governments or at the national level due to their minority status within larger states.
  - ♦ The creation of separate states can provide better political representation and empower local leaders to address the specific needs and concerns of their communities.
- **Resource Allocation:** Disputes over the distribution of resources, such as water, land, and revenue, also drive demands for bifurcation.
- **Historical Grievances:** Historical injustices, perceived discrimination, and unresolved grievances from the past fuel demands for state bifurcation.

### Challenges

- **Political Opposition:** One of the foremost challenges is political opposition from various stakeholders, including political parties, leaders, and interest groups, who may have vested interests in maintaining the status quo or have concerns about the impact of bifurcation on their political influence.
- **Administrative Reorganization:** It requires the creation of new administrative units, redistribution of resources, and delineation of boundaries, which lead to administrative inefficiencies and confusion.

- **Resource Allocation:** Dividing a state often raises issues related to the allocation of resources such as water, land, and financial resources.
  - ♦ Disputes over the distribution of resources can arise between the newly formed states, leading to prolonged negotiations and conflicts.
- **Social Integration:** Bifurcation affect social cohesion and integration, particularly in regions with diverse ethnic, linguistic, and cultural identities.
- There are often **emotional attachments to existing state boundaries**, which can make any proposed changes contentious.

### Way Ahead

- The demand for new states or the reorganization of existing ones continues to persist in India, driven by factors such as regional identity, economic disparities, and governance issues.
- Any future reorganizations will likely involve careful deliberation and negotiation to balance competing interests and maintain the unity and integrity of the nation.

Source: TH

## HIGHS AND LOWS OF INDIA-US CONVERGENCE

### Context

- The assassination attempt on a Sikh separatist in the United States (US) has become a bone of contention between India and the US.

### Overview of India and US Bilateral Relations

- Since India's independence, ties with the United States have weathered the **Cold War era** distrust and **estrangement over India's nuclear program**.
  - ♦ Relations have **warmed in recent years** and cooperation has strengthened across a range of economic and political areas.
- **Bilateral Trade:** The bilateral trade between the two countries has risen by **72 percent** between 2017-18 and 2022-23.
  - ♦ The US accounted for **18 percent** of the gross **FDI inflows** into India during **2021-22**, ranking second behind Singapore.

- **Defense and Security:** India and the US have signed a troika of “foundational pacts” for deep military cooperation, beginning with the **Logistics Exchange Memorandum of Agreement (LEMOA) in 2016**, followed by the **Communications Compatibility and Security Agreement (COMCASA)** after the first 2+2 dialogue in 2018, and then the **Basic Exchange and Cooperation Agreement (BECA)** in 2020.
    - ♦ In **2016**, the United States elevated India to a **major defense partner**.
  - **Space: Artemis Accords** signed by India established a common vision for the future of space exploration for the benefit of all humankind.
  - **Multilateral Cooperation:** India and the United States cooperate closely in multilateral organizations and forums, including the **United Nations, G20, International Monetary Fund, World Bank, and World Trade Organization**.
    - ♦ Together with Australia and Japan, the United States and India convene as the **Quad**, a diplomatic network, to promote a **free and open Indo-Pacific**.
  - **Nuclear Cooperation: Civil Nuclear Deal** was signed in **2005**, under the agreement, India agreed to separate its civil and military nuclear facilities and place all its civil resources under International Atomic Energy Agency (IAEA) safeguards.
    - ♦ In exchange, the United States agrees to work toward full civil nuclear cooperation with India.
  - **New initiatives:** Several new initiatives have been announced like **GE-HAL deal** to manufacture jet engines in India and the **initiative on Critical and Emerging Technology (iCET)**, to bring revolution between the relations of the two nations.
- ♦ In the event of US military involvement in Taiwan’s defense, India would likely avoid entanglement in such a US-China conflict.
  - **The US seeks greater alignment from its allies against Russia.** While countries like South Korea and Australia have sent military aid to Ukraine, India is viewed by the US and the West as opportunistically buying more oil from Russia amid the war.
  - **Defence Relations with Russia:** The US is concerned about India’s acquisition of arms like the S-400 air defense system, as it strengthens Russian power, hinders interoperability and secure communications between US and Indian forces, and prevents sharing of sensitive weapons technologies.

### Concerns for India

- **Dependency on China:** US aid in the Russia-Ukraine war strengthens Ukraine’s defense and counter offensives, forcing Russia to rely more on China for support. This diminishes Russian autonomy and potentially its ability to honor defense agreements with India in an India-China conflict.
- The **Russia-Ukraine conflict** has shifted the focus of the US away from China, and has, therefore, contributed to considerably eroding the strategic convergence between India and the US.
- Further, the **war in the Middle East** has diverted US attention away and Indo-Pacific in general and India, in particular, have suffered neglect.

### Concluding remark

- The India-US ties have come a long way in the last 25 years, and it holds significant importance in shaping the global order of the 21st century. However, looking at it today, the relationship seems hitting a ceiling as the strategic glue in the foundation is coming apart.
- The strategic convergence of India and the US is because of the common threat posed by China. The more the US focuses on Russia or any other adversary and India focuses on Pakistan, the more their strategic convergence weakens.

Source: ORF

### Divergence in relations

- **Conflicting positions:** India’s muted criticism of the Russian invasion of Ukraine in 2022 expectedly led to some frustration in the West, raising questions over India’s credibility as a security partner.
- **Limited Utility:** India’s utility to the US in an Indo-Pacific conflict, such as a Chinese invasion or naval blockade of Taiwan, is likely limited.

## NEWS IN SHORT

### QS WORLD UNIVERSITY RANKING 2025

#### Context

- Recently QS World University Ranking 2025, was released ranking Higher education institutions across the world.

#### Ranking of Indian Universities

- In the **QS World University Ranking 2025**, seven out of the top 10 ranks in India have been achieved by IITs (**IIT Bombay, Delhi, Kharagpur, Madras, Kanpur, Kharagpur, and Guwahati**).
- The Indian Institute of Technology Bombay (IIT-B)** has climbed from 149 in 2024 to **118 in the 2025** rankings.
- The University of Delhi (DU)**, rose 79 ranks from 407th in 2024 to **328th in 2025**, securing the **seventh spot** among Indian universities.

#### Ranking of Top Global Institutions

- Massachusetts Institute of Technology** remains the best institute globally for the 13th year in a row.
- The second spot has been claimed by the **UK's Imperial College London**, which improved from sixth place last year.
- Harvard University** and the **University of Oxford** are jointly ranked third.

#### QS Rankings

- QS Rankings, **established in 2004**, is the most reputed Ranking among the major global university rankings and offers an impartial assessment of nearly 1,500 institutions across 104 locations.
- Higher education institutions are **evaluated on criteria** such as employer reputation, academic reputation, student ratio, international students, employment outcomes, sustainability, and international research.

Source: TH

### LIVING WILL AND PASSIVE EUTHANASIA

#### Context

- Justice M S Sonak, who serves on the Goa Bench of the Bombay High Court **became the first person in Goa to register a "living will"**.

#### Living Will

- A **living will is a written document** that specifies the **actions to be taken if the person is** unable to make their own medical decisions in the future.
- The Supreme Court had in **2018 legalised passive euthanasia**, contingent upon the person having a "living will".

#### Passive Euthanasia

- Passive euthanasia entails the deliberate **decision to withhold or withdraw medical interventions**, like life support, with the aim of permitting a person's natural death.
  - Conversely, active euthanasia involves a direct action, such as administering a lethal substance, to end a person's life.
- Passive euthanasia is legalised to recognise the **living wills of terminally-ill patients** who could go into a permanent vegetative state and issued guidelines regulating the procedure.
- Goa is the first state that has formalised**, to some extent, the implementation of directives issued by the Supreme Court.

#### Significance

- Patients, even in the eventuality of terminal illness with no hope of recovery or irreversible coma, are often kept on life support just to delay death — perhaps under social or family pressure. These expensive treatments push many families into a huge debt trap.

Source: IE

### CHINA-PAKISTAN ECONOMIC CORRIDOR (CPEC)

#### Context

- The second phase of the China-Pakistan Economic Corridor (CPEC) is expected to be formally announced during the visit of Pakistan's Prime Minister to China.

#### China-Pakistan Economic Corridor (CPEC)

- Launched in 2015, the China-Pakistan Economic Corridor (CPEC) is a **3,000-kilometer-long network** of infrastructure projects that **links China's Xinjiang region to Pakistan's Gwadar Port** in Balochistan.
- The **\$62-billion CPEC**, is part of China's **Belt and Road Initiative (BRI)**, aimed at expanding its geopolitical influence through investments in infrastructure projects in more than 100 countries.



- ♦ Belt and Road Initiative (BRI) seeks to establish a network of land and sea routes linking Southeast Asia, Central Asia, the Gulf countries, Africa, and Europe.
- The project violates the sovereignty of India as it passes through Pakistan -occupied Kashmir (PoK), which is a disputed territory between India and Pakistan.

Source: IE

## RBI HAS KEPT THE REPO RATE UNCHANGED

### Context

- The **monetary policy committee (MPC) of the RBI** has decided to keep the policy repo rate unchanged at 6.5 per cent.

### About

- The central bank revised the upward FY25 GDP growth forecast to **7.2% from 7.0% estimated earlier**.
- It retained FY25 CPI inflation forecasted at **4.5%**.

### About RBI Monetary Policy Committee

- The Monetary Policy Committee or the MPC is a **6 member committee** that is led by the **RBI governor**.
- The first such MPC was constituted in **2016**.
- The MPC determines the **policy repo rate** required to achieve the **inflation target**.
- The MPC is required to meet at least **four times in a year**. The quorum for the meeting of the MPC is four members.
- Each member of the MPC has **one vote**, and in the event of an **equality of votes**, the **Governor has a second or casting vote**.
- Each Member of the Monetary Policy Committee writes a statement specifying the reasons for voting in favour of, or against the proposed resolution.

### Instruments of Monetary Policy

- **Repo Rate:** The interest rate at which the Reserve Bank provides liquidity under the liquidity adjustment facility (LAF) to all LAF participants against the collateral of government and other approved securities.

- **Standing Deposit Facility (SDF) Rate:** The rate at which the Reserve Bank accepts uncollateralised deposits, on an overnight basis, from all LAF participants. The SDF rate is placed at 25 basis points below the policy repo rate.
- **Marginal Standing Facility (MSF) Rate:** The penal rate at which banks can borrow, on an overnight basis, from the Reserve Bank by dipping into their Statutory Liquidity Ratio (SLR) portfolio up to a predefined limit (2 per cent).

Source: TM

## AVIAN INFLUENZA

### Context

- The World Health Organization (WHO) confirmed the death of a 59-year-old man in Mexico by a **strain of bird flu called H5N2**, which was never recorded in humans before.

### Avian Influenza

- Depending on the **origin host**, influenza A viruses can be classified as **avian influenza (bird flu, subtypes A H5N1 and A H9N2), swine influenza (swine flu, subtypes A H1N1 and AH3N2)**.
- Avian influenza, commonly known as bird flu, is a viral infection that primarily affects birds.
  - ♦ Avian influenza is a zoonotic disease, meaning it can spread from animals to humans.
  - ♦ H5N1 subtype has been responsible for numerous human infections and fatalities in the past.
- **Symptoms:** Fever, cough, sore throat, muscle aches, and severe respiratory distress in advanced cases
- **Prevention:** Avoiding contact with sick or dead birds; ensuring poultry products are thoroughly cooked; and implementing robust surveillance systems to detect and respond to new cases promptly.

Source: IE

## INDIA-NORWAY COOPERATION

### Context

- As per the Norwegian Ambassador **India-Norway cooperation will witness manifold increase in the next 10 years**.

### About

- The India-Norway relationship is characterized by **rich political exchanges and extensive bilateral institutional mechanisms**.
  - ♦ Particularly noteworthy is their **collaboration in the Blue Economy** for sustainable development, encompassing marine and maritime sectors.
- Norway and the other European Free Trade Association (EFTA) countries have reached an agreement with India on a trade deal.
  - ♦ The agreement is historic and will **provide zero tariffs on almost all Norwegian exports to India**.

### EFTA

- It is the **intergovernmental organisation of Iceland, Liechtenstein, Norway and Switzerland**.
- It was set up in **1960** by its then seven Member States for the promotion of **free trade and economic integration between its members**.
- **Trade with India:** In 2022, the combined EFTA-India merchandise trade surpassed USD 6.1 billion.
  - ♦ The primary imports to the EFTA States consisted of organic chemicals (27.5%), while machinery (17.5%) and pharmaceutical products (11.4%), constituted the main exports to India.

Source: TH

## 'AIR OF THE ANTHROPOCENE' INITIATIVE

### Context

- Recently, researchers and artists joined forces for a so-called **'painting with light'** international project **to make invisible air pollution in India visible**, demonstrating the health risks posed to the population.

### About the 'Air of the Anthropocene' Initiative

- Created by **artist Robin Price** and an environmental scientist at the University of Birmingham to document air pollution levels around the world through photography.
- It employs a **unique method known as 'light painting'** to make the invisible visible.

- By using **digital light painting techniques** and **low-cost air pollution sensors**, researchers and artists have collaborated to produce **photographic evidence of pollution levels**.
- It has been successful in **capturing pollution levels** in cities across three countries – **India, Ethiopia, and the UK**.
- Particulate matter (PM), including PM10 and PM2.5, is a key focus of the project, with PM concentrations measured in real-time using sensors and visualized through a moving LED array.



Source: TH

## TRISHNA MISSION

### Context

- Recently, the Indian Space Research Organisation (ISRO) provided details on the **Indo-French Thermal Infrared Imaging Satellite for High-resolution Natural Resource Assessment (TRISHNA) Mission**.

### About the TRISHNA Mission

- It is a collaborative endeavour between the **ISRO** and the **French National Space Agency CNES**.
- It is engineered to deliver high spatial and high temporal resolution monitoring of Earth's surface temperature, emissivity, biophysical and radiation variables for surface energy budgeting at regional to global scale.

### Objectives of the Mission

- Detailed **monitoring of the energy and water budgets** of the continental biosphere for quantifying terrestrial water stress and water use and high-resolution observation of water quality and dynamics in coastal and inland waters.

- It addresses **critical water and food security** challenges, focusing on the impacts of human-induced climate change and efficient water resource management through evapotranspiration monitoring.
- It also aims to help in a **comprehensive assessment of urban heat islands, detection of thermal anomalies** linked to volcanic activity and geothermal resources, and precise **monitoring of snow-melt runoff and glacier dynamics**.
- It aims to provide valuable data on **aerosol optical depth, atmospheric water vapour, and cloud cover**.
- For **climate monitoring**, it aims to track key indicators such as **droughts, permafrost changes, and evapotranspiration rates**.

Source: TH

## HOUSEHOLD CONSUMPTION EXPENDITURE SURVEY (HCES) 2022-23

### In News

- Household Consumption Expenditure Survey (HCES) 2022-23 released by the Ministry of Statistics and Programme Implementation (MoSPI).

### Key Findings

- Households across the country's rural and urban areas **spent the highest share of consumption expenditure** on 'beverages, refreshments and processed food' among food items in 2022-23.
  - ♦ In rural India, food accounted for about **46 per cent of the households'** consumption spending. In rural areas among all major states, the households of Haryana spent the maximum on 'milk and milk products' at 41.7 per cent as a percentage of total expenditure on food, while Kerala spent the most on 'egg, fish & meat' at 23.5 per cent.
  - ♦ In urban India, the share of food in average monthly per capita consumption expenditure (MPCE) in 2022-23 was about 39 per cent. The households in Rajasthan recorded the highest expenditure share on 'milk and milk products' at 33.2 per cent, only to be followed by Haryana (33.1 per cent)

- Over the years, the consumption expenditure on non-food items has increased to over 50 per cent
  - ♦ **Among non-food items**, households spent the most on conveyance in both rural and urban areas of almost all the major states.
    - This was followed by durable goods and miscellaneous goods, entertainment. Medical expenses and spending on fuel & light also constituted a significant share of the expenditure by households on non-food items.

Source: IE

## MILGROMIAN DYNAMICS (MOND) THEORY

### In News

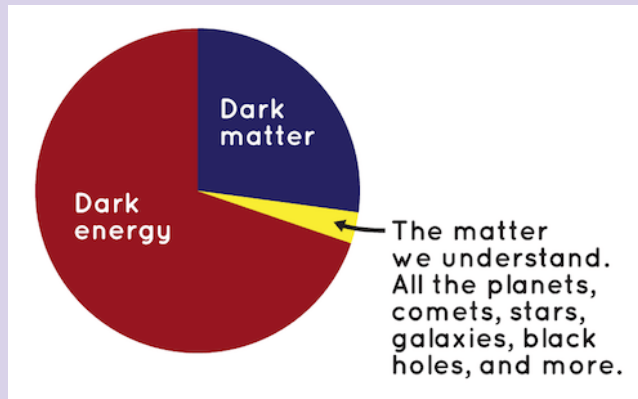
- It has been observed that Milgromian dynamics (MOND) Theory fails to explain small bodies in the distant outer Solar System.

### About Milgromian dynamics (MOND) Theory

- It is proposed by Israeli physicist Mordehai Milgrom in 1982
- It suggests a modification to **Newtonian dynamics** to explain certain astrophysical phenomena without the need for dark matter.
- The main postulate of MOND is that gravity starts behaving differently to what Newton expected when it becomes very weak, as at the edges of galaxies.
- It is quite successful at predicting galaxy rotation without any dark matter, and it has a few other successes.
- **Limitations:** MOND only changes the behaviour of gravity at low accelerations, not at a specific distance from an object.
  - ♦ Newtonian gravity is strongly preferred over MOND on length scales below about a light year.
  - ♦ Mond also fails on scales larger than galaxies: it cannot explain the motions within galaxy clusters.
  - ♦ It cannot provide enough gravity either, at least in the central regions of galaxy clusters

**Do you know ?**

- Dark matter was first proposed by Fritz Zwicky in the 1930s to account for the random motions of galaxies within the Coma Cluster, which requires more gravity to hold it together than the visible mass can provide.
- Dark matter is stuff in space that has gravity, but it is invisible



Source:TH

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