



Sympathy, Empathy and Compassion

SYMPATHY/EMPATHY/COMPASSION

SYMPATHY

- **Meaning:** Feeling pity or sorrow for someone's misfortune
- **Model:** Structure of Sympathy Model by Elizabeth C. Arnold

EMPATHY

- **Meaning:** Stepping into someone else's shoes and experiencing their emotions.
- **Model:** Dual Route Model of Empathy by Jean Decety

COMPASSION

- **Meaning:** Desire to alleviate one's suffering and actively taking steps to help
- **Model:** Halifax Model of Enactive Compassion by Joan Halifax

Values	Sympathy	Empathy	Compassion
Emotional Connection and Involvement	Not as intense as empathy rather just an external acknowledgment	Deep emotional connection and personal involvement	More active engagement with strong commitment to take positive action
Actions	Expressions of concern/verbal support	More about understanding and sharing emotions	Accompanied by tangible actions
Emotional Boundaries	More distinct emotional boundaries	Temporarily blurring emotional boundaries	Supportive and caring response without complete emotional fusion
Type of Emotions Responded	Negative emotions	Both positive and negative emotions	Negative emotions
Components (Cognitive or Affective)	A stronger cognitive component	Involves both	Cognitive + Affective + Behavioral
Relationship with Personal Experience	More generalised	Drawing on personal experiences to relate	Nature of helping
Consistency	More consistent but not as intense as empathy	Vary in consistency	More enduring commitment

DEVELOPING SYMPATHY, EMPATHY AND COMPASSION

- **Sympathy**
 - Active listening
 - Paying attention to others' emotions
- **Empathy:**
 - Develop radical listening
 - Look for the human behind everything
- **Compassion:**
 - Speaking with kindness
 - Accepting people for who they are

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Rural Wage Disparities

For Prelims: [Reserve Bank of India, Rural wages, MGNREGA, Mahatma Gandhi National Rural Employment Guarantee Act, Atmanirbhar Bharat Rojgar Yojana, National Career Service Project, Deendayal Antyodaya Yojana- National Rural Livelihood Mission.](#)

For Mains: Major Factors Responsible for Wage Inequality in India, Issues Arising Out of Design &

[Source: IE](#)

Why in News?

Recent data from the [Reserve Bank of India](#) highlights stark differences in [rural wages across different states in India](#), showcasing significant disparities in earnings for farm and non-agricultural workers.

- The stark contrast in rural wages across states underscores the need for equitable distribution and policies that bridge this disparity, ensuring a more balanced livelihood for agricultural and non-agricultural workers nationwide.

What are the Major Highlights of the Rural Wages Data by RBI?

- **Rural Economic Disruptions:** During the **fiscal year 2021-22**, the rural economy faced challenges due to the **Covid-19 pandemic** affecting employment and income levels.
 - Subsequently, in the **fiscal year 2022-23**, **elevated inflation rates and increased interest rates** significantly disrupted rural demand.
 - These factors **heavily impacted job opportunities and income stability** in rural areas across the nation.
- **Rural Wage Disparities:** Rural wages in **Madhya Pradesh for agricultural and non-agricultural workers are significantly below the national average** standing at Rs 229.2 and Rs 246.3 daily, respectively, impacting the livelihoods of rural families.
 - **Kerala boasts the highest wages across various sectors**, with rural farm workers earning Rs 764.3 per day.
 - In case of wages for rural construction workers too, **Kerala and Madhya Pradesh stand at opposite ends of the spectrum at Rs 852.5 and Rs 278.7 daily**, respectively.
- **National Average Wages:**
 - Agricultural workers: Rs 345.7
 - Non-agricultural workers: Rs 348
 - Construction workers: Rs 393.3
- **Stagnant Rural Income Growth:** Despite some wage growth peaks in **2022-23**, rural income prospects remained subdued, **stagnating the real rural wage growth** and indicating an incomplete recovery in the unorganized segment of the economy.
 - For instance, **MGNREGA job demand dipped** but remained higher than pre-pandemic levels in 2022-23, signaling **an incomplete recovery**, especially in the unorganized sector.

What are the Major Factors Responsible for Wage Inequality in India?

- **Economic Development Disparities:** Regions or states with varying levels of economic development showcase **substantial wage differences**.
 - Advanced industrial regions tend to offer higher-paying non-agricultural jobs compared to agrarian-centric areas.
- **Policy Interventions:** Diverse state-level policies regarding minimum **wages, labor regulations, and social security schemes** also create wage disparities. States with stringent labor laws may offer higher wages but could also face fewer job opportunities.
- **Market Forces and Demand-Supply Dynamics:** Wage rates often align with market demand for **specific skills or labor**. Regions with higher demand and limited workforce supply in certain sectors tend to offer higher wages.
- **Cost of Living and Standard of Living:** Variations in the **cost of living, housing expenses, and other essential amenities** directly impact wage disparities. Areas with higher living standards or higher costs of necessities often offer higher wages to compensate.

- **Geographical Factors and Agricultural Cycles:** Weather conditions and **agricultural cycles** influence the availability of work in rural areas. Seasonal fluctuations and dependence on agricultural activities can lead to **seasonal wage variations**.
- **Migration and Labor Mobility:** Labor mobility **from low-wage regions to high-paying areas** creates imbalances in wages, impacting both source and destination regions' wage structures.

What are the Related Indian Government Initiatives?

- [Mahatma Gandhi National Rural Employment Guarantee Act \(MGNREGA\)](#)
- [Atmanirbhar Bharat Rojgar Yojana \(ABRY\)](#)
- [National Career Service \(NCS\) Project](#)
- [Deendayal Antyodaya Yojana- National Rural Livelihood Mission \(DAY-NRLM\)](#)
 - **Rural Self Employment Training Institute (RSETI)**
- [PM Kaushal Vikas Yojna](#)

Way Forward

- **Agricultural Diversification:** Encouraging diversification in rural economies by promoting allied sectors such as animal husbandry, fisheries, and agro-processing.
 - This could generate supplementary income sources, reducing dependence solely on agriculture and **improving overall earnings**.
- **Technology Adoption and Innovation:** Integrating technological advancements into agricultural practices to enhance productivity. Access to **modern farming techniques, machinery, and market linkages can elevate rural incomes**.
- **Infrastructure Development:** Investing in rural infrastructure, including better roads, irrigation systems, and connectivity.
 - Improved infrastructure can stimulate economic activities, create job opportunities, and **attract industries to rural areas, boosting wages**.
- **Focus on Migrant Workers' Welfare:** Implementing policies safeguarding the rights and livelihoods of migrant workers. **Ensuring fair wages, adequate living conditions, and social security benefits** for this workforce can incentivize a balanced distribution of labor across states.
- **Promotion of Agri-Entrepreneurship:** Encourage and support rural entrepreneurship by providing incentives, mentorship, and market access to aspiring agripreneurs.
 - This could create a **ripple effect, generating jobs and augmenting rural incomes**.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Among the following who are eligible to benefit from the “Mahatma Gandhi National Rural Employment Guarantee Act”? (2011)

- (a) Adult members of only the scheduled caste and scheduled tribe households
- (b) Adult members of below poverty line (BPL) households
- (c) Adult members of households of all backward communities
- (d) Adult members of any household

Ans: (d)

Exp:

- Mahatma Gandhi National Rural Employment Guarantee (MGNREGA), which is the largest work guarantee programme in the world, was enacted in 2005 with the primary objective of guaranteeing 100 days of wage employment per year to every household whose adult members volunteer to do unskilled manual work.
- It aims at addressing the causes of chronic poverty through the ‘works’ (projects) that are undertaken, and thus ensuring sustainable development. There is also an emphasis on strengthening the process of decentralization by giving a significant role to Panchayati Raj

Institutions (PRIs) in **planning and implementing these works.**

- Therefore, option D is the correct answer.

Battery Waste (Management and Handling) Rules, 2022

For Prelims: [Battery Waste Management Rules, 2022](#) **Extended Producer Responsibility (EPR)**, Recycling-Friendly Design, Lithium-Ion Battery.

For Mains: Battery Waste Management Rules, 2022, Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

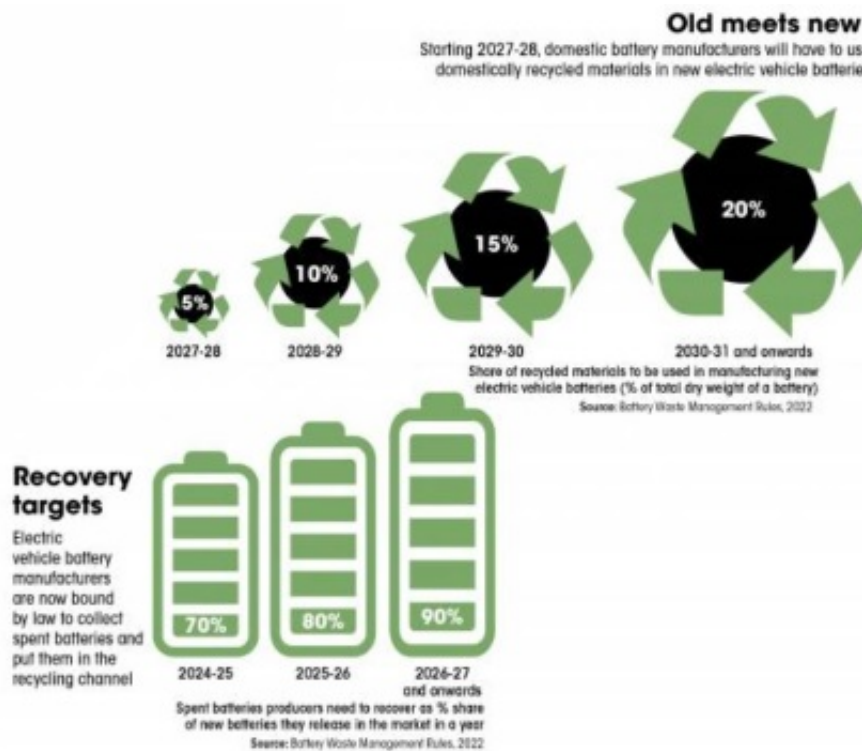
Source: [DTE](#)

Why in News?

The [Battery Waste Management Rules, 2022](#), is a step in the right direction, however the Rules suffer from a few critical gaps that unless **addressed can impede efficient and effective recycling.**

What are the Battery Waste Management Rules, 2022?

- **Coverage:**
 - The rules cover all types of batteries, including Electric Vehicle batteries, portable batteries, automotive batteries, and industrial batteries.
- **Extended Producer Responsibility (EPR):**
 - The producers of batteries are responsible for the collection and recycling/refurbishment of waste batteries and the use of recovered materials from waste into new batteries. Rules prohibit disposal in landfills and incineration.
 - To meet the EPR obligations, **producers may engage themselves or authorise any other entity** for the collection, recycling, or refurbishment of waste batteries.
- **Online Portal for exchange of EPR Certificates:**
 - It will enable the setting up of a mechanism and centralized online portal for the exchange of EPR certificates between producers and recyclers/refurbishers to fulfill the obligations of producers.
- **Online Registration:**
 - Online registration & reporting, auditing, and committee for monitoring the implementation of rules and taking measures **required for removal of difficulties.**
- **Principle of Polluter Pays:**
 - Environmental **compensation will be imposed for non-fulfilment of Extended Producer Responsibility** targets, responsibilities and obligations set out in the rules.
- **Recovery Target:**
 - There is a target for recovery of the battery material — 70% by 2024-25, then 80% by 2026, and 90% after 2026-27 onwards.
- **Environmental compensation Fund:**
 - The funds collected under environmental compensation shall be utilized in the collection and refurbishing or recycling of uncollected and non-recycled waste batteries.



What are the Gaps in Battery Waste Management Rules, 2022?

- **Labeling and Information Deficiency:**
 - Current battery **labels lack comprehensive information about their chemical composition**, impeding effective recycling.
 - Lack of data on metals in lithium-ion batteries **hampers recyclers' ability to recover valuable materials efficiently**.
- **Design Complexity:**
 - Battery packs often **have intricate assembly methods** involving welding, adhesive, and screws, making disassembly challenging.
 - Standardizing **joining techniques could facilitate automated disassembly**.
- **EPR Implementation and Budgeting:**
 - The rules **lack a clear directive on the budget that manufacturers should allocate for collecting and recycling spent batteries**.
 - This ambiguity may result in **low rates paid to recyclers, impacting the efficiency of waste collection** and processing.
- **Informal Sector Competition:**
 - As the volume of spent batteries increases, informal collectors might outprice formal collectors, potentially leading to **hazardous recycling practices** and safety concerns.
- **Chemical Composition Changes:**
 - The shift towards safer but less valuable lithium iron phosphate (LFP) batteries poses a challenge. Recyclers might struggle to recover value due to the minimal lithium content in LFP cells.
- **Safety Standards and Handling:**
 - Absence of rules governing the storage, transport, and handling of electric vehicle batteries could **pose safety risks**, especially if the informal sector becomes more involved.

How can such Gaps be Addressed?

- **Policy Refinement:**
 - Implement **regulations mandating detailed information on battery labels**, including chemical composition and recyclability.
 - There can be learnings from the **European Union's Battery Directive**, which empowers recyclers by providing essential data to efficiently separate and recover valuable materials

from used batteries.

- This directive **requires battery manufacturers to label their products with information regarding chemical composition**, including the presence of hazardous substances, and clear indications of recyclability.

▪ **Incentivize Recycling-Friendly Design:**

- There is a need to introduce **policies encouraging manufacturers to design batteries** with standardized joining methods and eco-friendly materials, facilitating easier disassembly and recycling.

▪ **Budget Allocation Guidelines:**

- Define **clear guidelines mandating a budget allocation for battery collection** and recycling by manufacturers.
- This **ensures fair compensation for recyclers** and strengthens the waste collection infrastructure.

▪ **Environmental Auditing and Standards:**

- Strengthen rules requiring thorough audits for both formal and informal collectors, ensuring compliance with environmental safeguards and safety standards.

▪ **Technological Advancements:**

- There is a **need to allocate resources for research and development** initiatives focusing on innovative technologies for battery recycling, such as efficient disassembly techniques and advanced material recovery processes.
- Develop and implement **cutting-edge recycling processes**, like solvent-free separation methods and automation, to streamline the recycling of complex battery designs.

Conclusion

- Addressing these gaps will require a concerted effort involving policy-makers, industry stakeholders, technological innovators, and environmental experts.
- A comprehensive approach considering policy adjustments, technological advancements, industry collaboration, and global learning can significantly enhance the effectiveness and sustainability of battery waste management practices.

Climate Finance and the USD 100 Billion Goal: OECD

For Prelims: Climate Finance and the USD 100 Billion Goal: OECD, [COP \(Conference of Parties\) 28, Organisation for Economic Cooperation and Development \(OECD\)](#), Climate Finance, [UNFCCC \(United Nations Framework Convention on Climate Change\)](#).

For Mains: Climate Finance and the USD 100 Billion Goal: OECD, Environmental pollution and degradation.

[Source: TH](#)

Why in News?

Ahead of the [COP \(Conference of Parties\) 28 in Dubai](#), the [Organisation for Economic Cooperation and Development \(OECD\)](#) has released a Report titled- **Climate Finance and the USD 100 Billion Goal**, showing that Developed countries fell short of their promise to mobilize USD 100 billion a year, towards **Climate Mitigation**.

- The report presents **aggregate trends of annual climate finance** provided and mobilized by

developed countries for developing countries for the **period 2013-21**.

What is the Organization for Economic Co-operation and Development (OECD)?

- **About:**
 - The OECD is an intergovernmental economic organization, founded to stimulate economic progress and world trade.
 - Most OECD members are high-income economies with a very high Human **Development Index (HDI)** and are regarded as developed countries.
- **Foundation:**
 - It was **founded in 1961 with its Headquarters at Paris, France** and total membership is 38 countries.
 - The most recent countries to join the OECD were Colombia, in April 2020, and Costa Rica, in May 2021.
 - India is **not a member**, but a key economic partner.
- **Reports and Indices by OECD:**
 - Government at a Glance.
 - OECD Better Life Index.

What is the Background?

- At the **15th Conference of Parties (COP15)** of the **UNFCCC (United Nations Framework Convention on Climate Change)** in Copenhagen in 2009, developed countries **committed to a collective goal of mobilising USD 100 billion per year by 2020** for **Climate Action** in developing countries, in the context of meaningful mitigation actions and transparency on implementation.
- The goal was formalised at **COP16 in Cancun**, and at **COP21 in Paris**, it was reiterated and **extended to 2025**.
- At the request of donor countries, the **OECD has been tracking progress towards this goal since 2015**. It produces regular analyses of progress made, based on a robust accounting framework that is consistent with the COP24 outcome agreed by all **Parties to the Paris Agreement** on funding sources and financial instruments.

What are the Key Findings of the Report?

- **Total Climate Finance:**
 - In 2021, total climate finance provided and mobilised by developed countries for developing countries **amounted to USD 89.6 billion**, showing a significant 7.6% increase over the previous year.
 - **Public Climate Finance (bilateral and multilateral)** almost doubled over the 2013-21 period, from USD 38 billion to USD 73.1 billion, accounting for the **vast majority of the total USD 89.6 billion in 2021**.
 - Mobilized private climate finance, for which comparable data are only available from 2016, amounted to USD 14.4 billion in 2021, or 16% of the total.
- **Drop in Adaptation Finance:**
 - Adaptation finance dropped by USD 4 billion (-14%) in 2021, resulting in a decrease in its share of total climate **finance from 34% to 27%**.
 - The decrease in finance for adaptation is raising concerns about the **capacity of developing nations to address both mitigation** and adaptation needs.
- **Loan Dominance in Climate Financing:**
 - USD 73.1 billion of Finance was mobilized in 2021 by the public sector via bilateral and multilateral channels and USD 49.6 billion was provided as loans.
 - This reliance on loans, rather than grants, **can exacerbate debt stress in poorer countries**, impacting their ability to effectively address climate challenges.
- **Recommendations:**
 - **Need to Scale up Adaptation Finance:** There is a pressing need for **international**

providers to significantly scale up their efforts in two essential areas: adaptation finance and the mobilisation of private finance.

- **Capacity Building:** There is a need to support building capacity in terms of project development, financial literacy, and operational efficiency, which can strengthen developing countries' abilities to access, absorb, and effectively utilise climate finance.
- **Adapt and Evolve the Financial Products:** There is a need for international providers to adapt and evolve the financial products and mechanisms they offer to enhance the reach and effectiveness of climate finance.

What are the Issues with the OECD Report?

▪ **Ambiguity and Lack of Clarity in Definitions:**

- There is a **lack of a universally agreed-upon definition** of 'climate finance', allowing developed countries to **classify various types of funding**, including **Overseas Development Assistance (ODA)** and high-cost loans, as climate finance.
- This ambiguity can enable double-counting and evade scrutiny.

▪ **Challenges with Additionality:**

- The principle of "new and additional finance" stipulated by the UNFCCC, meant to prevent **diverting existing aid for climate purposes**, has been questioned.
- Some countries have **admitted to double-counting aid**, undermining the "new and additional" criterion.

▪ **Loan at Face Value not Grant equivalent:**

- Loans are considered at face value, not the grant equivalent when arriving at total climate finance figures.
 - So while poorer countries shell out money towards repayment and interest, the loan is still counted as climate finance provided by the developed world.

Way Forward

- Establishing transparent and standardized reporting mechanisms for climate finance contributions is crucial. This includes **defining clear criteria and methodologies** for tracking and reporting funding, ensuring accuracy, and preventing double-counting or misclassification of funds.
- Developing **universally agreed-upon definitions and criteria** for what constitutes climate finance is essential. This would prevent ambiguity, enable accurate measurement, and ensure that funds are genuinely additional and directed toward climate mitigation and adaptation.
- **Encouraging the provision of grants or concessional loans over commercial loans** can alleviate the debt burden on developing countries. Prioritizing funding mechanisms that do not add to debt stress while supporting climate actions is vital.

NIA and Civil Aviation Security

For Prelims: NIA and Civil Aviation Security, [National Investigation Agency \(NIA\)](#), [Indian Penal Code \(IPC\)](#) and the [Unlawful Activities \(Prevention\) Act](#), Terrorism, Insurgency, Bureau of Civil Aviation Security (BCAS).

For Mains: NIA and Civil Aviation Security, Role of external state and non-state actors in creating challenges to internal security.

[Source: TH](#)

Why in News?

Recently, the [National Investigation Agency \(NIA\)](#) has registered a case against a **Khalistani Terrorist** and Sikhs for Justice (SFJ) founder over the Air India threat.

- India banned the SFJ as an "unlawful association" in 2019, citing that it was involved in "anti-national and subversive" activities.
- The NIA invoked provisions of the [Indian Penal Code \(IPC\)](#) and the [Unlawful Activities \(Prevention\) Act](#) against SFJ.

What is the National Investigation Agency (NIA)?

▪ About:

- The NIA is a federal agency of the Indian government responsible for investigating and prosecuting crimes **related to Terrorism, Insurgency**, and other national security matters.
 - Federal agencies in a country typically have jurisdiction over matters that affect the country as a whole, rather than just individual states or provinces.
- It was established in 2009 following the [Mumbai terrorist attacks in 2008](#), under the **National Investigation Agency (NIA) Act, 2008**, operates under the Ministry of Home Affairs.
 - The National Investigation Agency (Amendment) Act, 2019 was passed in July 2019, amending the NIA Act, 2008.

▪ Function:

- The NIA has the power **to take over investigations of terrorism-related cases from state police forces and other agencies**. It also has the authority to investigate cases across state boundaries without obtaining prior permission from state governments.
- It coordinates with other law enforcement agencies, both within India and internationally, in matters related to terrorism and national security.

▪ Probe:

- The State government can refer cases related to scheduled offences to the Central government for NIA investigation under Section 6 of the NIA Act 2008.
- The Central government can also direct the NIA to investigate a scheduled offence, either within or outside India, on its own accord.
- For prosecuting the accused under the UAPA and certain other scheduled offences, the NIA seeks the sanction of the Central government.
- There is a special cell to deal with [LWE \(Left Wing Extremism\)](#) cases related to terror financing. During the investigation of a scheduled offence, the NIA can also investigate any other offence connected to it. Finally, after investigation, the cases are presented before the NIA Special Court.

What is Aviation Security and How is it Regulated in India?

▪ About:

- Civil aviation security **refers to the measures and protocols implemented to safeguard civil aviation** against unlawful interference, such as terrorist attacks, hijackings, sabotage, and other threats.
- These security measures aim to ensure the safety of passengers, crew, aircraft, and airport facilities.

▪ Regulating Bodies:

- The [Bureau of Civil Aviation Security \(BCAS\)](#) is the **national regulator for civil aviation security in India**.
 - The **BCAS** was initially set up as a Cell in the DGCA in January 1978 on the recommendation of the Pande Committee. The BCAS was reorganized into an independent department under the **Ministry of Civil Aviation** in 1987.
- The [Directorate General of Civil Aviation \(DGCA\)](#) regulates air transport services to, from, and within India. It also enforces civil air regulations, air safety, and airworthiness standards.

- **Rules:**

- The Ministry of Civil Aviation has introduced **the Aircraft (Security) Rules, 2023** to enhance civil aviation security in line with international conventions.

- **Convention on International Civil Aviation:**

- It is commonly known as the **Chicago Convention**, established in 1944 under the auspices of the [International Civil Aviation Organization \(ICAO\)](#), a specialized agency of the United Nations.
 - The Chicago Convention serves as the foundational treaty for international civil aviation. It outlines principles and standards for the **safe and orderly development of international civil aviation** and includes provisions related to aviation security.
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Aadhaar Services Outages

For Prelims: Aadhaar Services Outages, [Unique Identification Authority of India \(UIDAI\)](#), One-Time Passcodes, Management of Aadhaar services.

For Mains: Aadhaar Services Outages, Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

[Source: TH](#)

Why in News?

Recently, the [Unique Identification Authority of India \(UIDAI\)](#) has revealed that there was significant outage in Aadhaar authentication services in 2023, raising concerns about the reliability of Aadhaar services.

- There were **delays in sending one-time passcodes by SMS**, and 'intermittent' and 'minor fluctuations' in authentication were faced by **Aadhaar servers for hours-long periods** throughout the year till September 2023, amounting to 54 hours and 33 minutes of disruptions.

What is Aadhaar Authentication?

- **About:**

- Aadhaar Authentication is **a process by which the Aadhaar number along with demographic information** (such as name, date of birth, gender etc) or biometric information (Fingerprint or Iris) of an individual is submitted to UIDAI's Central Identities Data Repository (CIDR) for its verification and UIDAI verifies the correctness of the details submitted, or the lack thereof, on the basis of information available with it.
 - Aadhaar authentication is fundamental to accessing services, requiring individuals to **use their fingerprints or SMS passcodes to verify their identity** for tasks such as accessing rations and government services.

- **Concern:**

- The prolonged and repeated outages in 2023 raise questions about the overall reliability of Aadhaar services, especially as they have processed over 100 billion authentications since the platform's launch in 2009.

- **Implications of the Outage in Recent Aadhaar Authentication:**

- Access to Essential Services: Aadhaar authentication is **integral to accessing a wide range of essential services**, including government welfare programs, rations, and other entitlements. The outage may have resulted in individuals being denied timely access to

these services, leading to potential hardships.

- **Impact on Government Programs:** Government initiatives often rely on Aadhaar authentication to streamline service delivery and prevent leakages. Outages can disrupt the smooth functioning of these programs, affecting the targeted beneficiaries and the overall efficacy of welfare schemes.
- **Financial Transactions:** Aadhaar-enabled services, **such as ATM transactions**, depend on authentication. The disruption may have hindered individuals' ability to conduct financial transactions, impacting their day-to-day financial activities and access to banking services.
- **Public Trust and Confidence:** Repeated outages can erode public trust in the reliability of Aadhaar services. Citizens depend on Aadhaar for various aspects of their lives, and interruptions may **lead to a loss of confidence in the system's ability** to securely manage personal information and facilitate smooth service delivery.

What is Aadhaar?

- Aadhaar is a **12-digit individual identification number** issued by the Unique Identification Authority of India on behalf of the Government of India. The number serves as proof of identity and address, anywhere in India.
- The Aadhaar number is unique for each individual and will remain valid for life time.
- Aadhaar number will help the residents to avail various services provided by banking, mobile phone connections and other Govt and Non-Govt services in due course.
- Establishes identity of individuals on the basis of demographic and biometric information.
- It is a voluntary service that **every resident can avail irrespective of present documentation**.

Way Forward

- The need for enhanced transparency and accountability in the management of Aadhaar services is critical.
- Transparency is closely tied to public awareness. Individuals have a right to be informed about service disruptions, especially when their access to essential services is affected. Lack of information may impede public participation in addressing and mitigating such challenges.
- The outage highlights the importance of strengthening the technical infrastructure of Aadhaar to ensure its long-term systemic resilience. This involves not only addressing immediate issues but also proactively investing in technology, cybersecurity, and continuous monitoring to prevent future disruptions.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Consider the following statements: (2018)

1. Aadhaar card can be used as a proof of citizenship or domicile.
2. Once issued, Aadhaar number cannot be deactivated or omitted by the Issuing Authority.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (d)

Exp:

- The Aadhaar platform helps service providers authenticate identity of residents electronically, in a safe and quick manner, making service delivery more cost effective and efficient. According to the Gol and UIDAI, Aadhaar is not proof of citizenship.
- However, UIDAI has also published a set of contingencies when the Aadhaar issued by it is liable for rejection. An Aadhaar with mixed or anomalous biometric information or multiple names in a single name (like Urf or Alias) can be deactivated. Aadhaar can also get deactivated upon non-usage of the same for three consecutive years.

E Prime Layer

[Source: HT](#)

Why in News?

According to a research conducted at the Advanced Photon Source of Argonne National Lab and PETRA III of Deutsches Elektronen-Synchrotron in Germany, a new mysterious layer called the **E prime layer** has formed on the outer part of the [Earth's core](#).

- This happened because **surface water penetrated deep into the planet**, changing the composition of the outer region of the **liquid metal core**.

How Did E Prime Layer Develop Over Time?

- **Tectonic Plates Transporting Water to Earth's Core:**
 - New research reveals a fascinating process where **tectonic plates**, carrying surface water, have been transporting it deep into the Earth's interior over billions of years.
 - As this water reaches the core-mantle boundary, located approximately 1,800 miles beneath the Earth's surface, **it instigates significant chemical changes that directly influence the structure of the Earth's core.**
- **Chemical Reactions and Structural Impact on Earth's Core:**
 - Observations by scientists highlight the chemical reactions occurring **when subducted water interacts with core materials** under high pressure.
 - This interaction results in the creation of a distinct layer in the outer core **characterized by high hydrogen content and low silicon levels**, forming a film-like structure.
 - Additionally, **the process generates silica crystals that ascend into the mantle**, causing compositional changes.
 - These alterations in the liquid metallic layer have potential implications, including reduced density and modified seismic characteristics.
- **Significance of E Prime Layer in Understanding Earth More:**
 - This finding suggests a more **intricate global water cycle than previously recognized**. The altered core layer carries significant implications, **shedding light on the interconnected geochemical processes** that link surface water cycles with the deep metallic core.

INTERIOR OF THE EARTH

1 THE CRUST

- Thin, outermost layer
- Oceanic crust – thinner
 - Mean thickness - 5 km
 - Made up of Silica and Magnesium (SiMa)
- Continental crust – thicker
 - Mean thickness - 30 km
 - Made up of Silica and Aluminum (SiAl)
 - Thicker in the areas of major mountain systems.
 - Around 70 km thick in the Himalayan region.
- Temperature increases with depth (rises by up to 30° C for every km)

Lithosphere

- Rigid outer layer, thickness: 100 km
- Consists of the crust and the upper mantle
- Divided into tectonic plates responsible for large-scale changes in the earth's geological structure (folding, faulting)

3 THE CORE

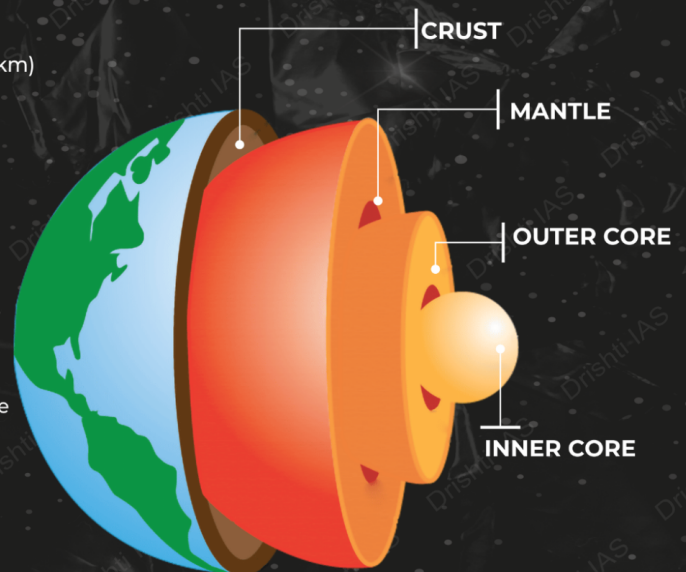
- Lies between 2900-6370 km below the earth's surface
- Made up of heavy materials, primarily nickel (Ni) and iron (Fe) - NiFe
- Outer core –
 - Between 2900-5100 kms
 - Liquid because of not enough pressure to solidify
- Inner core –
 - Between 5100-6370 kms
 - Solid – it can transmit secondary waves (earthquake) which outer core can't
- Denser than Mantle

Boundaries/discontinuities between Earth's layers

- Conorod Discontinuity – between upper and lower crust
- Mohorovicic Discontinuity (Moho) – separates the crust from the mantle, its average depth being about 35 km.
- Repiti Discontinuity – between the upper and lower mantle
- Gutenberg Discontinuity – lies between the mantle and the outer core.
- Lehman Discontinuity – between inner and outer core

2 THE MANTLE

- Extends from Moho's discontinuity to a depth of 2,900 km
- Upper portion is called **asthenosphere**
 - Zone of weak rocks; in semi molten or jelly like state
- Extends upto 400 kms
- Main source of magma that comes out of volcanic eruptions



UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q 1. In the structure of planet Earth, below the mantle, the core is mainly made up of which one of the following? (2009)

- (a) Aluminium
- (b) Chromium

- (c) Iron
- (d) Silicon

Ans: (c)

Mains

Q. Define mantle plume and explain its role in plate tectonics. (2018)

Emmy Awards

[Source: IE](#)

Why in News?

Recently, Comedian **Vir Das** made history as the **first Indian to win an International Emmy Award in the comedy category** for his Netflix show, "Vir Das: Landing on Monday."

- Producer and filmmaker **Ekta Kapoor** became the first Indian woman filmmaker to **win the International Emmy Directorate Award**, which is given to individuals or organizations for outstanding contributions to international television.

What are the Emmy Awards?

- **About:**
 - The Emmy Awards stand as prestigious accolades for excellence in television and emerging media performances.
 - Unlike the [Oscars](#) and [Golden Globe Awards](#), the Emmys specifically recognize achievements in television.
 - The term "Emmy" has no specific meaning; it serves as the name for the award.
 - Originally intended as "Immy," derived from the image-orthicon camera tube crucial in television's technical development.
 - Modified to "Emmy" for a more "feminine" touch, symbolizing the "**muse of art uplifting the electron of science.**"



▪ **Inception of the Emmy Awards:**

- Conceived in 1948, the inaugural Emmy Awards ceremony took place on January 25, 1949.
 - Six awards were presented, including recognitions for the Most Outstanding Television Personality and Most Popular Television Program.

▪ **Different Types of Emmy Awards:**

- In addition to the International Emmy Awards, which are specifically for international shows, there are additional categories of Emmys that are commonly recognized as “the Emmys.”

- **Primetime Emmy Awards:**

- Honour television shows produced only in America and aired during primetime.

- **Daytime Emmy Awards:**

- Recognizing outstanding American shows aired during late morning and afternoon.

- **Sports Emmy Awards:**

- Honoring achievements in sports programming.

- **News and Documentary Emmy Awards:**

- Acknowledging excellence in news, documentary, and public affairs programming.

- **Technology and Engineering Emmy Awards:**

- Celebrating advancements in broadcast technology.

- **Regional Emmy Awards:**

- Focusing on regional television markets, covering state-to-state programming, local news, and locally produced shows.

▪ **Awarding Organizations**

- Emmy Awards are presented by three sister organizations, each overseeing specific categories:

- **Television Academy:** Administers the Primetime Emmy Awards.

- **National Academy of Television Arts & Sciences:** Oversees daytime, sports, news, and documentary categories.

- **International Academy of Television Arts & Sciences:** Responsible for International Emmy Awards.
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Rapid Fire Current Affairs

Jammu and Kashmir Government Terminates Employees Citing Article 311(2)(C)

Recently, the Jammu & Kashmir government has terminated four employees, on grounds of being deemed a **"threat to the security of the state."**

- The terminations were executed under [Article 311\(2\)\(C\) of the Constitution](#).
- Article 311 (2) says that no person who is a **member of a civil service of the Union** or an **all-India service or a civil service** of a State or holds a **civil post under the Union or a State** shall be **dismissed or removed** or reduced in rank **except after an inquiry** in which he has been informed of the charges against him and given a reasonable opportunity of being heard in respect of those charges.
- **Exceptions to Article 311 (2):**
 - 2(a) where a person is dismissed or removed or reduced in rank on the ground of conduct which has led to his **conviction on a criminal charge**.
 - 2(b) The authority empowered to dismiss or remove a person or to reduce him in rank is satisfied that, for some reason, which must be recorded in writing by that authority, it is not reasonably practicable to hold such an inquiry; or
 - 2(c) In cases where the President or the Governor, as applicable, is convinced that, in the **interest of the security of the State**, it is not expedient to conduct an inquiry, such an inquiry may be deemed unnecessary.

Read more: [Article 311 of the Constitution](#)

Digital Mapping of Cities

In a move towards transforming India's mapping ecosystem, Genesys International, a leading **3D mapping company**, signed a strategic tie-up with [Survey of India \(SOI\)](#), the country's national surveying and mapping authority.

- This collaboration is set to revolutionize India's map content through the implementation of the **'3D Digital Twin Mapping Program.'**
- This is in line with [India's National Geospatial Policy 2022](#), emphasizing **self-reliance in geospatial data**.
- This initiative will provide previously unavailable data layers, including high-precision **3D data**, digital terrain models (DTMs), digital surface models (DSMs), and ortho imagery (image corrected by removing distortion).
- The project will leverage **Genesys' navigable maps of India** and its constellation of sensors. The company will access datasets from the **SOI's CORS (Continuously Operating Reference Stations)** network of 902 stations across all states, which provides for real-time, high-precision positioning data.

Read more: [National Geospatial Policy 2022](#)

Advancing Ayurveda: AGNI Initiative & Mainstreaming Research

The **Central Council for Research in Ayurveda Sciences (CCRAS)**, under the Ministry of Ayush, launched the **"Ayurveda Gyan Naipunya Initiative" (AGNI)** to promote [evidence-based practices](#) and scientific validation within Ayurveda.

- AGNI serves as a platform for Ayurveda practitioners to report innovative treatments and experiences in various diseases.
- Additionally, CCRAS has previously initiated programs like **SPARK, PG-STAR, and SMART** to foster research in Ayurveda colleges and hospitals, recognizing the need for evidence-based research in managing contemporary health challenges through Ayurveda interventions.

Read more: [Ayurveda, SMART](#)

BDS Movement

The ongoing [Israel-Hamas conflict](#) has once again brought the **Boycott, Divestment, and Sanctions (BDS) movement** into the spotlight, as it urges the boycott of major multinational companies.

- The **Boycott, Divestment, and Sanctions (BDS) movement**, born in 2005 from the collaboration of over 170 Palestinian groups, aims to rally global support for the rights of Palestinian people.
 - Drawing inspiration from the successful **South African anti-apartheid movement**, it seeks **nonviolent means to pressure Israel into complying with international law**.
- It utilizes **nonviolent methods** to pressure Israel into adhering to international law, focusing on ending occupation and colonization, equality for Palestinian citizens, and the rights of Palestinian refugees as stipulated in **UN Resolution 194**.
 - The resolution stated that refugees wishing to return to their homes should be permitted, and that compensation should be paid for the property of those choosing not to return.

Read more: [Israel-Hamas Conflict and its Global Impact](#)

PDF Reference URL: <https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/24-11-2023/print>

