



30TH JUNE - 7TH JULY

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Why has the NTA failed to deliver?

- **Allegations and Investigations:** The National Testing Agency (NTA) is facing severe criticism due to allegations of cheating, paper leaks, and irregularities in major exams like NEET and UGC-NET. The director general has been removed, the CBI is investigating, and a high-level panel is set to propose reforms.



- **Operational Challenges:** Originally designed for computer-based tests, the NTA has struggled with conducting pen-and-paper exams, such as NEET-UG, due to various challenges, including concerns from the Health Ministry and Supreme Court rulings, leading to vulnerabilities and alleged malpractices.

- **Proposed Reforms:** Suggestions for the future include enhancing NTA's manpower and infrastructure to handle pen-and-paper exams, decentralizing the exam process to individual institutions, or adopting a new assessment system involving periodic knowledge and aptitude tests during school years, overseen by the NTA using online testing and AI-based proctoring.

NTA

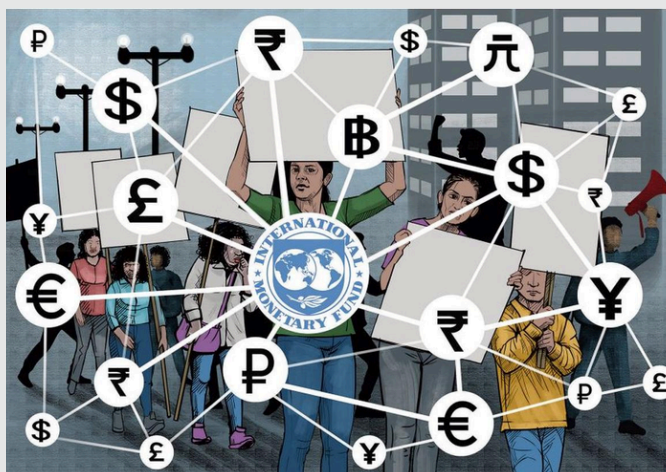
National Testing Agency

OVERLORDS OF THE DEVELOPING WORLD

IMF Mass protests in Kenya, in which at least 30 people were shot and killed by police, against an IMF-backed finance Bill that sought to raise taxes on essentials bring into focus, once again, the conditions the multinational lender imposes on poor countries in return for loan assistance

THE GIST

The IMF was created in 1944, at a conference of 44 nations in Bretton Woods, New Hampshire, the U.S.



Voting rights at the IMF don't follow the logic of one-member country-one vote but are quota-driven, based on dollar-contributions. The U.S. alone has a voting share of 16.5%, while the wealthy G-7 countries together command more than 40% of the voting power

As of March 2024, among Africa's 54 countries, 31 had outstanding loans with the IMF, but they have nothing remotely resembling a 'say' in how the IMF is run



INDIA LACKS DIAGNOSTIC TESTS FOR EMERGING INFECTIOUS DISEASES

Recent Zika Virus Case and Broader Concerns: A recent Zika virus infection in Pune has highlighted India's ongoing challenges in diagnosing emerging infectious diseases. Despite previous outbreaks in states like Kerala and Uttar Pradesh, the lack of approved diagnostic tests and significant surveillance means many cases likely go undetected.

Diagnostic Limitations and Surveillance Issues: India lacks approved diagnostic tests for Zika, relying on clinical symptoms and high clinical suspicion, which complicates diagnosis amidst concurrent dengue outbreaks. Similar surveillance and diagnostic limitations affect responses to other diseases like avian influenza

and Nipah virus, with delays in genome data sharing and reliance on a few apex institutes.

Call for Decentralisation and Improved Testing: Learning from the COVID-19 pandemic's rapid expansion of testing infrastructure, there's a strong need to decentralise testing facilities to district and sub-district levels. Developing accessible and affordable diagnostic tests for diseases like Zika, Nipah, and avian influenza can enhance India's preparedness and response to future outbreaks, emphasizing the importance of genomic surveillance and data sharing.

Global India AI Summit 2024

Why in news?

The Global India AI Summit 2024, organized by the Ministry of Electronics and Information Technology, will be held on July 3-4, 2024, in New Delhi. The summit underscores the Government of India's unwavering commitment to the responsible development, deployment, and adoption of artificial intelligence. The event aims to foster collaboration and knowledge exchange among global AI stakeholders, ensuring the ethical and inclusive growth of AI technologies in India.

Key Objectives

The summit is designed to bring together leading international AI experts from science, industry, civil society, governments, international organizations, and academia. The primary objectives are to foster collaboration, share insights on key AI issues and challenges, and ensure the ethical and inclusive development of AI technologies. Through this summit, India aims to establish itself as a global leader in AI innovation, ensuring that the benefits of AI contribute significantly to the nation's socio-economic development.



India's Role

As the lead chair of the Global Partnership on Artificial Intelligence (GPAI), India will host member countries and experts to advance GPAI's commitment to safe, secure, and trustworthy AI. This leadership role emphasizes India's dedication to fostering global collaboration in AI and highlights its aspiration to be at the forefront of AI innovation on the world stage.

Focus Areas

The summit will focus on several critical areas of AI development, including Compute Capacity, Foundational Models, Datasets, Application Development, Future Skills, Startup Financing, and Safe AI. Each of these areas is pivotal in building a robust AI ecosystem in India and ensuring the technology's benefits are widely accessible.

IndiaAI Mission

The IndiaAI Mission aims to build a comprehensive ecosystem that fosters AI innovation. The mission's goals include democratizing computing access, enhancing data quality, developing indigenous AI capabilities, attracting top AI talent, enabling industry collaboration, providing startup risk capital, ensuring socially impactful AI projects, and promoting ethical AI. This mission drives responsible and inclusive growth of India's AI ecosystem through various strategic initiatives.

Key Pillars

IndiaAI Compute Capacity: The objective is to establish a scalable AI computing ecosystem with over 10,000 GPUs through public-private partnerships. An AI marketplace will be developed to provide AI as a service and pre-trained models, acting as a central hub for essential AI resources.

IndiaAI Innovation Centre: This center focuses on developing and deploying indigenous large multimodal models (LMMs) and domain-specific foundational models. These models will cater to the unique needs of India's diverse industries and sectors, fostering innovation and addressing specific industry challenges.

IndiaAI Datasets Platform: The platform aims to streamline access to high-quality non-personal datasets for AI innovation. A unified data platform will be provided, offering seamless access to Indian startups and researchers, aiding in the development of robust AI models.

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IndiaAI Application Development Initiative: This initiative promotes AI applications in critical sectors by addressing problem statements from Central Ministries, State Departments, and other institutions. The focus is on developing impactful AI solutions for large-scale socio-economic transformation.

IndiaAI FutureSkills: The objective is to reduce barriers to AI education by increasing AI courses at various academic levels and establishing Data and AI Labs in Tier 2 and 3 cities. This ensures a steady pipeline of skilled AI professionals nationwide, supporting the growth of India's AI ecosystem.

IndiaAI Startup Financing This pillar supports deep-tech AI startups with streamlined access to funding. By providing risk capital and financial support, the mission aims to nurture a vibrant ecosystem of AI startups, driving technological advancements and economic growth.

Safe & Trusted AI Ensuring responsible AI development is a key objective, achieved through implementing Responsible AI projects, developing indigenous tools and frameworks, and establishing guidelines for ethical, transparent, and trustworthy AI technologies. This initiative ensures that AI technologies are developed and deployed in a manner that is safe and trustworthy.

SPECIAL CAMPAIGN FOR FAMILY PENSIONERS' GRIEVANCES

Why in News?

The Ministry of Personnel, Public Grievances and Pensions, is launching a month-long special campaign for the effective redressal of family pensioners' grievances. This initiative will run from July 1-31, 2024, involving 46 Ministries/Departments with the aim of significantly reducing the pendency of such grievances.

KEY OBJECTIVES

The special campaign seeks to address and resolve 1,891 family pension grievances identified from



the Centralized Pension Grievance and Redress System (CPENGRAMS) Portal. The primary goal is to provide timely and effective solutions to the grievances of family pensioners, especially focusing on issues faced by women pensioners, defense pensioners, railway pensioners, and CAPFs pensioners under the Ministry of Home Affairs (MHA).



SANKHYIKI PORTAL

Why in News?

The Ministry of Statistics and Programme Implementation (MoSPI) has launched the eSankhyiki portal, aimed at enhancing user experience and ease of data access. This initiative aligns with the Ministry's commitment to the integrated development of the national statistical system in tune with global statistical practices and data dissemination standards.

Objective

The primary objective of the eSankhyiki portal is to establish a comprehensive data management and sharing system that facilitates the ease of dissemination of official statistics in the country. The portal provides real-time

inputs for planners, policymakers, researchers, and the public at large, supporting evidence-based decision-making processes.

Key Features

The eSankhyiki portal has been designed with user-centric features, incorporating cutting-edge technologies and global best practices to ensure enhanced accessibility and usability of statistical data. The portal offers two main modules:

1. Data Catalogue Module

- **Function:** Catalogues the major data assets of the Ministry for ease of access.
- **Features:** Allows users to search within datasets, including within tables, and download data of interest.

- **Data Products:** Includes National Accounts Statistics, Consumer Price Index, Index of Industrial Production, Annual Survey of Industries, Periodic Labour Force Survey, Household Consumption Expenditure Survey, and Multiple Indicator Survey.
- **Content:** Hosts over 2291 datasets along with specific metadata and visualizations for each dataset to enhance user convenience.

2. Macro Indicators Module

- **Function:** Offers time series data of key macro indicators with features for filtering and visualizing data.
- **Features:** Enables users to download custom datasets, visualizations, and share them through APIs.
- **Data Products:** Includes National Accounts Statistics, Consumer Price Index, Index of Industrial Production, and Annual Survey of Industries, covering data from the last ten years.
- **Content:** Hosts more than 1.7 million records, facilitating detailed analysis and data reusability.

Perovskite Quantum Dots (PQDs)

Why in News?

Scientists from the Centre for Nano and Soft Matter Sciences, Bengaluru, have developed an improved method for producing light-emitting diodes (LEDs) using perovskite quantum dots (PQDs). These advancements are set to enhance LED display technology.

Perovskite Quantum Dots (PQDs)

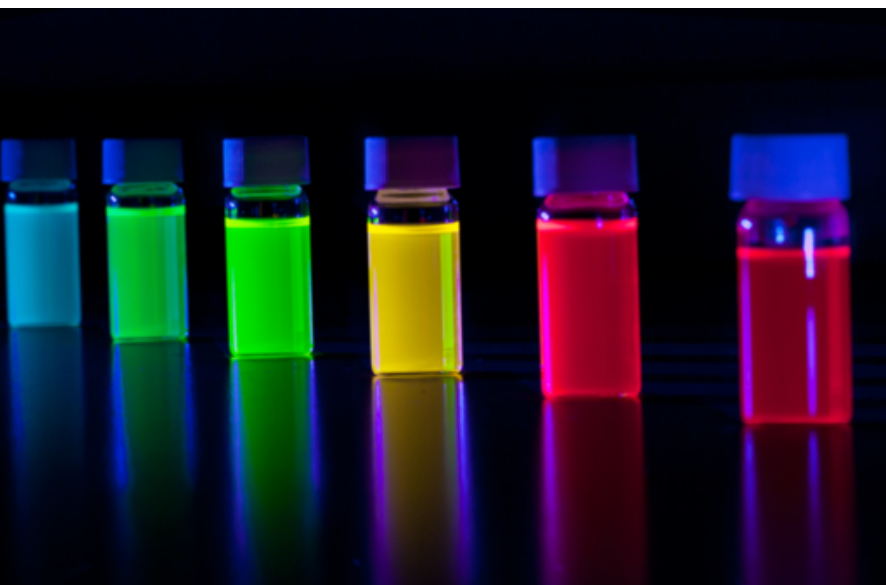
Perovskite quantum dots (PQDs) are a new class of quantum dots based on perovskite materials. These materials share a crystal structure similar to the perovskite mineral, calcium titanium oxide (CaTiO_3). Despite being relatively new, PQDs have demonstrated properties that



match or even surpass those of metal chalcogenide quantum dots. PQDs are known for their defect tolerance, superior photoluminescence quantum yields, and high color purity, making them ideal for electronic and optoelectronic applications such as LED displays and quantum dot solar cells.

Challenges in Perovskite Quantum Dot Research

One significant challenge in PQD research is their susceptibility to moisture and heat, which can



affect their performance and lifespan in LEDs. Additionally, when different-colored PQDs are layered to produce white light, anion migration can occur, causing them to lose their individual colors.

Solution

To address these challenges, scientists have developed a method to mitigate anion migration by embedding an ultrathin alumina layer within the perovskite quantum dot layers using atomic layer deposition (ALD). This innovation helps maintain the distinct colors of PQDs, thereby improving the stability and performance of PQD-based LEDs.

Comparison of LEDs, Incandescent Light Bulbs, and Compact Fluorescents (CFLs)

Comparison of LEDs, Incandescent Light Bulbs, and Compact Fluorescents (CFLs)

Feature	LED Lamp	Compact Fluorescents (CFLs)	Incandescent Light Bulbs
Life Span (average)	50,000 hours (40X)	8,000 hours (7.5X)	1,200 hours (X)
Power Used	7 watts (X)	14 watts (2X)	60 watts (9X)
Brightness in Lumens	600	540	800
Annual Operating Cost	X	2X	10X
Contains Toxic Mercury	No	Yes	No
Carbon Dioxide Emissions	Lower (X)	2X	10X
Turns On Instantly	Yes	No – takes time to warm up	Yes
Heat Output	Low	Medium	High
Heat Sensitive	No	Yes	Yes
Moisture Sensitive	No	Yes	Yes
Durability	Very durable – can handle jarring and bumping	Not very durable – glass can break easily	Not very durable – glass or filament can break easily

AGENDA OF THE 16TH FINANCE COMMISSION

Why in News?

The 16th Finance Commission (FC) has commenced its work under Article 280 of the Indian Constitution, primarily focusing on the devolution of the consolidated fund. Since the 73rd and 74th constitutional amendments, local bodies have gained significant recognition within the federal system. These amendments introduced sub-

clauses 280 (3) (b) and (c), which mandate the FC to recommend measures to augment State consolidated funds for supporting panchayats and municipalities.

Importance of Urban Areas

The National Commission on Urbanisation in the mid-80s described cities as “engines of growth.” Despite this, the current economic scale is insufficient to meet rising needs. Urban areas contribute about 66% of India’s GDP



d about 90% of total government revenue. However, financial devolution to cities remains inadequate. The World Bank estimates that \$840 billion is needed for basic urban infrastructure in the next decade. Intergovernmental transfers (IGTs) to Urban Local Bodies (ULBs) in India are about 0.5% of GDP, much lower than the 2-5% typical of other developing nations. The fiscal health of municipalities is poor, affecting both productivity and quality of life. Rapid urbanisation without appropriate fiscal action has adverse effects on development.

Taxation System

The introduction of the Goods and Service Tax (GST) has reduced ULBs' tax revenue (excluding property tax) from about 23% in 2012-13 to around 9% in 2017-18. IGTs from States to ULBs are very low, with State Finance Commissions recommending only about 7% of States' own revenue in 2018-19. Increasing the quantum of IGTs as a percentage of GDP is necessary. Despite the 74th constitutional amendment's aim to financially strengthen ULBs, progress over three decades has fallen short. The 13th Finance Commission observed that "parallel agencies and bodies are emasculating local governments both financially and operationally."

Importance of the Census

In the absence of the 2021 Census, reliance on 2011 data is inadequate for evidence-based fiscal devolution. India has approximately 4,000 statutory towns and an equal number of Census towns, with an estimated 23,000 villages, all of which are effectively urban. These figures must be captured by the 16th FC, including the significant migration to Tier-2 and 3 cities. Thus, the 15th FC's nine guiding principles require a revisit, focusing on enhancing property tax collection, maintenance of accounts, resource allocation for mitigating pollution, primary healthcare, solid waste management, drinking water, and untreated sewage.

Recommendations

The 16th FC must consider India's urbanisation dynamics and ensure IGTs to urban areas are at least doubled. A McKinsey Global Institute report warns that without increased investment in urban infrastructure, current rates will lead to severe water supply issues and untreated sewage. Therefore, it is crucial to prioritize urban development to ensure sustainable growth and improved living conditions in urban areas.



AIR INDIA TO ESTABLISH FLIGHT TRAINING SCHOOL IN AMRAVATI

Why in News?

Air India will set up a flying training school in Amravati, Maharashtra, with an investment of ₹200 crore. The school aims to graduate 180 pilots annually and will be operational by June 2025.

Facilities and Operations

Located at Belora airport, the school will feature 31 single-engine Piper Archer and three twin-engine Diamond DA42 aircraft. It will span over 10 acres with digitally enabled classrooms, a digitized operations center, and a maintenance facility.

Objectives and Impact

The initiative by the Maharashtra Airport Development Company Ltd. (MADCL) will create over 3,000 jobs in the aviation sector and allied fields, significantly contributing to the state's GDP. Air India aims to enhance its global standing by training pilots with world-class curricula.

Strategic Importance

This facility will boost India's flying training infrastructure, reducing dependence on foreign training and improving domestic training standards.

Understanding India's Emergency Provisions: Fifty Years Post-1975

Why in News?

On June 25, India commemorated fifty years since the imposition of the Emergency, a significant period from 1975 to 1977 when civil liberties were curtailed, press freedom restricted, mass arrests conducted, elections cancelled, and governance was executed by decree.



Emergency Definitions and Legal Framework According to the Constitution of India, there are three types of emergencies:

- 1. National Emergency (Article 352):** Triggered by war, external aggression, or armed rebellion, allowing the President to declare a national emergency if he perceives a threat to the nation's security.

- 2. President's Rule or State Emergency (Article 356):** When governance in a state cannot be carried on in accordance with the Constitution.

- 3. Financial Emergency (Article 360):** If the financial stability or credit of India or any part thereof is threatened.

Procedures and Duration
A national emergency, declared under Article 352, must be laid before both houses of Parliament and approved by a special majority within one month. If approved, it normally remains in effect for six



months but can be extended indefinitely with parliamentary approval every six months. The process ensures both immediate responsiveness and legislative oversight.

Impacts of a National Emergency

- **Executive Power:** Central government can direct any state government on how to use its executive powers.
- **Legislative Authority:** Parliament gains the power to legislate on matters in the State List, which are normally reserved for state legislatures.
- **Financial Control:** The President can alter the distribution of revenues between the Union and states.
- **Extension of Legislative Terms:** The life of Lok Sabha and state assemblies can be extended beyond their normal term up to a maximum of six months after the emergency ends.

Rights and Liberties During Emergency

- **Article 358:** Automatically suspends the six fundamental rights under Article 19 during emergencies due to war or external aggression.
- **Article 359:** Allows the President to suspend the right to move any court for the enforcement of other fundamental rights, except for Articles 20 and 21 which guarantee protection in respect of conviction for offenses and protection of life and personal liberty.

Revocation of Emergency: The President can revoke the emergency without the need for parliamentary approval, though any extension requires a special majority in Parliament.

Historical Instances

- **1962 Indo-China War:** Marked the first national emergency in India.
- **1971 Bangladesh Liberation War:** This was the second instance when emergency provisions were invoked.
- **1975 Internal Emergency:** Distinctly noted for its basis on internal disturbances, this period is often criticized for its severe impact on democratic structures and civil liberties in India.

ENHANCING RURAL MOBILE CONNECTIVITY: THE ROLE OF IEEE 2061-2024 STANDARD

Introduction to Rural Mobile Connectivity Issues:

Mobile devices are integral to daily life, offering connectivity for transactions, communication, and access to information. However, there is a significant disparity in mobile network deployment and usage between urban and rural areas. Urban areas enjoy a robust 127% teledensity compared to just 58% in rural regions, largely due to the economic constraints that make mobile services less affordable for rural populations.

IEEE 2061-2024 Standard and Its Implementation:

The IEEE 2061-2024 standard introduces a wireless network architecture aimed at providing affordable broadband access in rural areas. Approved by the Institute of Electrical and Electronics Engineers (IEEE), this standard advocates for a multi-hop wireless connectivity network. It effectively bridges the gap where traditional networks fall



short, especially in areas lacking optical fiber links.

The Frugal 5G Network Concept:

Defined within the IEEE 2061 framework, the Frugal 5G network (also known as the middle-mile network) is designed to extend connectivity in economically challenging rural areas. This model utilizes a series of intermediate nodes that amplify the network's reach beyond the limitations of traditional single-hop systems. The middle-mile setup includes various transmission types, such as macro-BS and Wi-Fi, to deliver extended coverage.




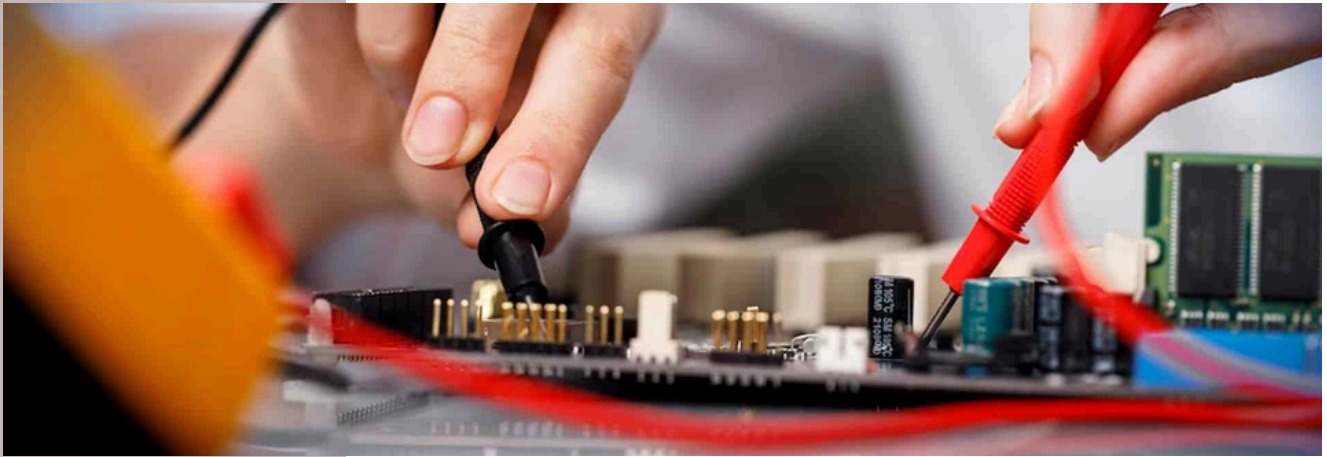
Operational Dynamics of the Frugal 5G Network:

The network operates by allowing seamless connectivity transitions between different network types—including 4G, 5G, and Wi-Fi—thus ensuring that even in the remotest areas, users can access consistent and reliable internet services. The technology employs direct connectivity from core networks through edge nodes, ensuring that even unconnected regions can link to the global internet backbone without direct fiber links.

Impact and Benefit:

The IEEE 2061-2024 standard is poised to significantly alter the landscape of rural connectivity in India by offering a scalable solution that integrates various network types. This approach not only enhances connectivity but also offers a cost-effective solution tailored for the diverse geographical and economic landscapes of rural India.





ICEA'S RECOMMENDATION ON TARIFF REDUCTION FOR ELECTRONIC INPUTS

Why in News?

The Indian Cellular & Electronics Association (ICEA) has urged the government to consider reducing import duties on electronic manufacturing inputs. This recommendation was directed towards the Finance Ministry as a key demand in the upcoming Union budget. The ICEA, which represents domestic electronics manufacturers, highlights that this measure is crucial to enhance the competitiveness of Indian manufacturers against their counterparts in countries like China and Vietnam, where tariffs on electronic components are considerably lower.

Rationale behind the Recommendation:

The call for lower tariffs comes at a time when India's electronic production sector is experiencing sustained growth, transitioning from being solely dependent on domestic demand to becoming a significant player in the global market. The ICEA President, Pankaj Mohindroo, pointed out that lowering duties would not only reduce the cost of raw materials but also allow Indian companies to leverage global market opportunities more effectively. He noted that the current tariff structure inadvertently places Indian manufacturers at a disadvantage by elevating the net prices of inputs, thus impacting their ability to compete on price in both domestic and international markets.

Impact of Current Tariffs on Market Dynamics:

The association argues that the high input costs due to current tariff rates make it challenging for Indian electronic component manufacturers to price their products competitively. This is especially significant considering a large portion of fresh production in the sector is intended for export, implying that international competitiveness is essential for the growth of the industry.

Herpes Simplex Virus (HSV)

Infection

A study has found that high-income and upper-middle-income countries sustained the highest economic burden from herpes infections in 2016.

- Herpes simplex is a group of viral infections caused by herpes simplex viruses (HSV). The virus resides within nerve cells and alternates between inactive and active states.

Transmission

Herpes is transmitted through direct contact with an infected person or by touching contaminated surfaces.

Symptoms

- Painful sores or blisters on lips, mouth, genitals, and anus.

Types of HSV

- **Type 1 (HSV-1):**
 - Primarily spreads through oral contact.
 - Causes oral herpes (cold sores) and can also cause genital herpes.
 - Most adults are infected with HSV-1



- **Type 2 (HSV-2):**

- Spreads through sexual contact.
- Causes genital herpes.
- Symptoms range from none to mild, with possible recurring painful blisters or ulcers.

Treatment

There is no permanent cure for herpes, but medications can suppress symptoms and reduce the spread of the infection to others.

Prevention

- **HSV-2 (Genital Herpes):**

- Promotion of safe sexual practices can prevent transmission.
- **HSV-1 (Oral and Genital Herpes):**
 - Education on the risks associated with oral-genital contact is essential.

Prevalence

- **Global:**
 - In 2016, 67% of the global population under 50 had HSV-1 infection (oral or genital), usually acquired during childhood.
 - HSV-2 affects an estimated 13% of people aged 15–49 years worldwide, infecting women almost twice as often as men due to more efficient sexual transmission from men to women.
- **India:**
 - The National AIDS Control Organization (NACO) reported a herpes prevalence of 3 to 10%, higher in states like Karnataka, Maharashtra, and Gujarat.

FINANCIAL DEVOLUTION TO URBAN LOCAL BODIES (ULBS)

Why in News?

Despite efforts since the 11th Finance Commission, financial devolution to cities remains insufficient. Municipalities face poor fiscal health, and rapid urbanisation without adequate fiscal measures hampers development.

Current State of Financial Devolution

- **Allocation to ULBs:** India allocates only 0.5% of its GDP to ULBs, whereas countries like South Africa, Mexico, the Philippines, and Brazil allocate between 1.6% to 5.1%.
- **Intergovernmental Transfers (IGTs):**
 - Account for about 40% of ULBs' revenue in India.
 - Characterized by unpredictability and lack of earmarking for vulnerable groups and horizontal equity.



- **Impact of GST:** The introduction of GST reduced the tax revenue (excluding property tax) of ULBs from 23% in 2012-13 to around 9% in 2017-18.
- **State Transfers to ULBs:** State Finance Commissions recommended only about 7% of States' own revenue for ULBs in 2018-19.
- **74th Constitutional Amendment:** Intended to financially strengthen ULBs, but progress has been inadequate over three decades.
- **Parallel Agencies:** The 13th Finance Commission noted that parallel agencies financially and operationally diminish local governments.

Challenges Posed by Absence of 2021 Census Data

- **Accurate Population Figures:** Essential for determining fund distribution and ensuring equitable resource allocation based on demographic needs.
- **Financial Devolution Strategies:** Census insights inform strategies by highlighting urban growth trends and demographic shifts.
- **Migration Impact:** Accurate census data is crucial for capturing significant migration to tier 2 and tier 3 cities, impacting their service structure and needs.
- **Service Needs:** Lack of 2021 census data hampers understanding of demographic changes essential for evidence-based fiscal devolution.

Measures to Strengthen ULBs

- **Support from Governments:** Local governments need funding, personnel, and technical assistance from Union and State governments.
- **Increase IGTs:** Enhancing the percentage of GDP allocated to ULBs is crucial for their financial stability.
- **Addressing Parallel Programs:** Programs like the MP and MLA Local Area Development Schemes should be addressed to prevent distortion of the federal structure by creating parallel agencies.

16th Finance Commission

- **Establishment:** The Government of India has established the 16th Finance Commission under Article 280(1) of the Constitution, with Dr. Arvind Panagariya appointed as Chairman.
- **Article 280:** Mandates the establishment of a Finance Commission every five years to recommend the distribution of tax revenues between the central and state governments.

Terms of Reference for the 16th Finance Commission

- **Distribution of Taxes:** Recommending the distribution of taxes between the Union and States and allocating State shares.
- **Grants-in-Aid:** Principles governing grants-in-aid from the Consolidated Fund of India to States and grants under Article 275 for specific purposes.
- **Supporting Local Bodies:** Measures to boost State Consolidated Funds for supporting Panchayats and Municipalities based on State Finance Commission recommendations.
- **Disaster Management:** Reviewing current financing structures related to disaster management under the Disaster Management Act of 2005 and proposing improvements or changes.

Conclusion

- The financial health of Urban Local Bodies in India remains weak due to insufficient financial devolution and unpredictable intergovernmental transfers. The introduction of GST has further reduced their revenue base. Accurate census data is crucial for evidence-based fiscal devolution. Enhancing support from Union and State governments, increasing IGTs, and addressing parallel programs are essential steps to strengthen ULBs. The 16th Finance Commission's role will be pivotal in recommending measures to improve the financial stability of local governments.



INDIA TO HOST 46TH UNESCO HERITAGE PANEL SESSION

Why in News?

- India will host the 46th session of the UNESCO World Heritage Committee from July 21-31.

Where it is Hosted?

- The event will take place at the Bharat Mandapam in New Delhi.
- It is organized by the Archaeological Survey of India and is likely to be inaugurated by Prime Minister Narendra Modi.
- UNESCO has released a provisional agenda and timetable for the meeting.

- The UNESCO World Heritage Committee consists of representatives from 21 State Parties to the World Heritage Convention (1972) elected by the General Assembly.
- The committee oversees the implementation of the World Heritage Convention, allocates funds from the World Heritage Fund, and decides on the inclusion of properties on the World Heritage List.
- The session will be attended by over 2,500 delegates, including advisory bodies, senior diplomats, heritage experts, scholars, and researchers from 195 countries.

What is UNESCO World Heritage Committee?

What is UNESCO and When was it Established?

- **UNESCO:** The United Nations Educational, Scientific and Cultural Organization.
- **Establishment:** Founded on November 16, 1945.
- **Purpose:** UNESCO aims to promote peace and security through international cooperation in education, science, and culture.
- **Functions:** The organization works to preserve cultural heritage, promote education for all, foster scientific progress, and protect freedom of expression.

National Green Hydrogen Mission Scheme Guidelines

Why in News?

- The Government of India has issued new guidelines for funding testing facilities, infrastructure, and institutional support under the National Green Hydrogen Mission (NGHM), aimed at enhancing the quality and safety standards in the Green Hydrogen sector.



Guidelines Overview:

- Issued by the Ministry of New & Renewable Energy (MNRE) on July 4, 2024.
- Focus on creating and upgrading testing facilities for components, technologies, and processes in the Green Hydrogen value chain.
- Scheme to be implemented with a budget of Rs. 200 Crores till FY 2025-26.
- National Institute of Solar Energy (NISE) will act as the Scheme Implementation Agency (SIA).
- Ensure robust quality, sustainability, and safety in Green Hydrogen production and trade.
- Encourage participation from both private and government entities.
- Funding up to 100% for government entities and 70% for non-government entities for equipment and commissioning.
- Support the establishment of new testing infrastructure and the upgrade of existing facilities.

Goals and Implementation:

- Identify gaps in existing testing facilities and support the creation of new ones.

Significance:

- The scheme aligns with the National Green Hydrogen Mission's broader goals to decarbonize the economy, reduce fossil fuel dependence, and establish India as a leader in Green Hydrogen technology.
- The initiative is part of India's efforts to become self-reliant in clean energy and contribute to the global clean energy transition.

National Green Hydrogen Mission (NGHM)

The National Green Hydrogen Mission (NGHM) aims to promote the commercial production of green hydrogen and position India as a net exporter of this clean fuel. Launched to drive India's transition towards a sustainable and self-reliant energy future, the mission encompasses several key sub-schemes:

Sub-schemes of NGHM:

1. Strategic Interventions for Green Hydrogen Transition Programme (SIGHT):

- **Objective:** To fund the domestic manufacturing of electrolyzers and the production of green hydrogen.
- **Focus:** Enhancing the capacity for local production and reducing dependence on imports.

2. Green Hydrogen Hubs:

- **Objective:** To develop regions capable of supporting large-scale production or utilization of hydrogen.
- **Focus:** Establishing specific areas as centers for green hydrogen production and consumption, leveraging local resources and infrastructure.

3.Strategic Hydrogen Innovation Partnership (SHIP):

- **Objective:** To foster research and development through a public-private partnership (PPP) framework.
- **Focus:** Encouraging innovation and technological advancements in the green hydrogen sector.

Green Hydrogen Production

Process:

- Green hydrogen is produced by splitting water into hydrogen and oxygen using an electrolysis process.
- **Electrolysis:** Involves passing an electric current through water to induce a chemical change, separating hydrogen and oxygen molecules.
- **Energy Source:** The electrolysis process is powered by renewable energy sources such as wind and solar, ensuring the sustainability of the hydrogen produced.
- The NGHM not only supports the production and utilization of green hydrogen but also focuses on developing the necessary infrastructure, fostering innovation, and creating strategic hubs to enhance India's position in the global green hydrogen market.

NITI AAYOG - SAMPOORNATA ABHIYAN

Why in News?

NITI Aayog launched the 'Sampoornata Abhiyan' on July 4, 2024, aiming for 100% saturation of 12 key social sector indicators in 500 Aspirational Blocks and 112 Aspirational Districts over a three-month campaign.

Campaign Launch and Participation:

- A nationwide initiative focusing on Health, Nutrition, Agriculture, Social Development, and Education.
- The campaign involves extensive participation from district and block-level officials, community leaders, local representatives, and citizens.
- Activities include health camps, awareness marches, cultural programs, and educational competitions.

Key Performance Indicators (KPIs):

- **Aspirational Blocks:**



1. Antenatal care registration in the first trimester.
2. Diabetes and hypertension screening.
3. Supplementary nutrition for pregnant women.
4. Soil Health Cards generation.
5. Revolving fund access for Self Help Groups (SHGs).

Aspirational Districts:

- Antenatal care registration in the first trimester.
- Supplementary nutrition for pregnant women.
- Full immunization of children (9-11 months).
- Soil Health Cards distribution.
- Functional electricity in secondary schools.
- Timely provision of textbooks in schools.

Implementation and Support:

- NITI Aayog officials and Young Professionals are guiding and supporting local governance. Collaboration with Central Ministries, State, and Union Territory governments to achieve campaign objectives. Emphasis on competitive and cooperative federalism to enhance socio-economic development.



ANUSANDHAN RESEARCH FOUNDATION (ANRF) ACT



ANUSANDHAN NATIONAL RESEARCH FOUNDATION (ANRF)

Why in News?

- The recently announced executive and governing boards of the Anusandhan National Research Foundation (ANRF) lack sufficient representation from Indian industry and state universities. Despite the ANRF Act, 2023 allowing for up to five members from business organisations or industries, the current 15-member Governing Board includes only one industrialist and two university representatives.

Board Composition and Governance:

- **Current Board:** Primarily

composed of government officials and department secretaries, with minimal representation from industry and state universities.

- **Allowed Composition:** The ANRF Act, 2023 permits appointing up to five members from business organisations or industries onto the governing board.
- **Replacement:** The ANRF replaces the Science and Engineering Research Board (SERB), which was established in 2008.

Scope and Funding:

- **Expanded Scope:** Unlike SERB, ANRF includes humanities and social sciences in its definition of research.

- **Funding Structure:** ANRF can fund and receive money from private and international sources, with a budget allocation of ₹2,000 crore for the 2024-2025 financial year.

Research and Development Context:

- **Private Sector Involvement:** In 2019-20, only 36% of India's total research expenditure came from the private sector.
- **R&D Expenditure:** India's overall R&D expenditure remains low at 0.6% of GDP, compared to the global average of 1.8%.

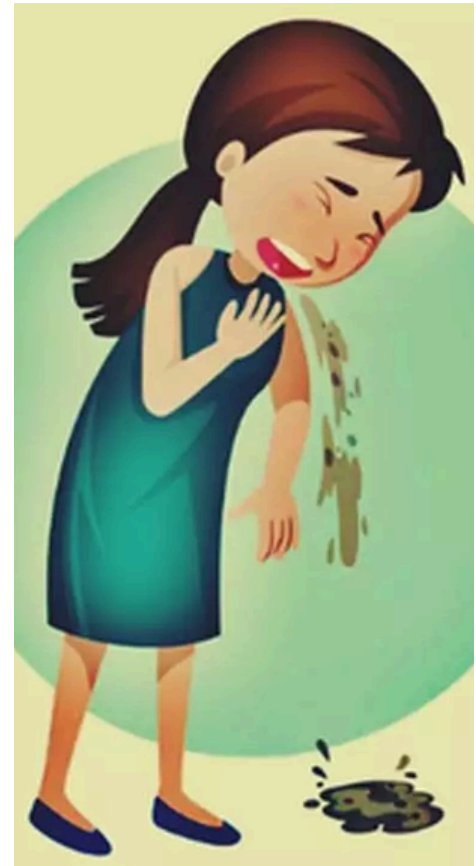
Objectives and Functions:

- **Central Hub:** ANRF will act as a central hub, promoting R&D activities across universities, colleges, research institutions, and R&D labs.
- **Alignment with NEP:** It aligns with the National Education Policy (NEP) recommendations, ensuring research efforts meet national educational objectives.
- **Collaboration:** Fosters collaboration between industry, academia, government departments, and research institutions, creating a platform for participation and contribution.

Ministry of Jal Shakti: 'Swachh Gaon, Shudh Jal - Behtar Kal' Campaign

Context and Objective

- The Ministry of Jal Shakti's Department of Drinking Water and Sanitation (DDWS) has launched the 'Swachh Gaon, Shudh Jal - Behtar Kal' campaign, running from 1st July 2024 to 31st August 2024. This two-month awareness campaign aims to promote the use of safe water and sanitation practices at the village and panchayat levels. The initiative is part of a broader collaboration with the National STOP Diarrhoea Campaign, launched on 24th June 2024 by Union Health Minister Shri J.P. Nadda. The campaign underscores the Indian government's commitment to public health, particularly in reducing childhood mortality due to diarrhoea and fostering a culture of health and hygiene across rural India.



Campaign Focus Areas

- The campaign focuses on several key areas:
- 1. Strengthening Health Infrastructure:** Ensuring the maintenance of health facilities and the availability of essential medical supplies like ORS and Zinc, especially in rural areas.

2. Improving Access to Clean Water and Sanitation: Implementing quality control measures and sustainable practices for safe drinking water and sanitation.

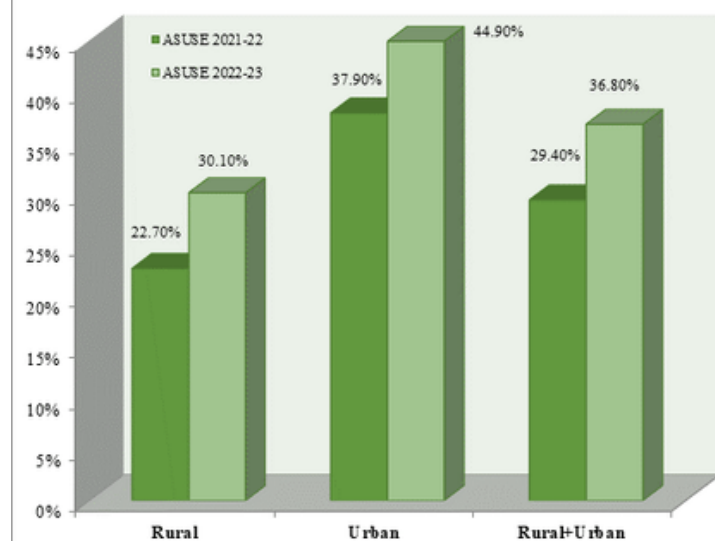
3. Enhancing Nutritional Programs: Tackling malnutrition to prevent diarrhoeal diseases.

4. Promoting Hygiene Education: Providing necessary facilities in schools and educating children on hygiene practices.

Goals

- The primary goal of the campaign is to achieve zero child deaths from diarrhoea through a comprehensive, multi-sectoral approach. Additional objectives include achieving and sustaining the Open Defecation Free Plus Model status in all villages and improving overall public health in rural India, thereby contributing to a Sampoorna Swasth & Swachh Bharat (completely healthy and clean India).

ANNUAL SURVEY OF UNINCORPORATED SECTOR ENTERPRISES (ASUSE) RESULTS FOR 2021-22 AND 2022-23



Overview: The Ministry of Statistics & Programme Implementation (MoSPI) released the results of the Annual Survey of Unincorporated Sector Enterprises (ASUSE) for 2021-22 and 2022-23 on 14th June 2024. The surveys covered the periods from April 2021 to March 2022 and October 2022 to September 2023, respectively. The survey aimed to assess the performance and growth of unincorporated non-agricultural establishments in India.

Key Results:

Growth in Establishments and Workers:

- The number of establishments increased by 5.88% from 5.97 crore in 2021-22 to 6.50 crore in 2022-23.
- The number of workers increased by 7.84% from 9.8 crore in 2021-22 to 11 crore in 2022-23.
- Gross Value Added (GVA) saw a growth of 9.83% during the same period.

Sectoral Insights:

- The highest number of establishments were in the 'other services' sector (37.88%), followed by 'trade' (34.71%) and 'manufacturing' (27.41%).
- Uttar Pradesh reported the highest number of establishments, followed by West Bengal and Maharashtra.

Digital and Financial Inclusion:

- Use of the internet for entrepreneurial purposes increased by 7.2%.
- Average fixed assets per establishment rose from Rs. 2,81,013 to Rs. 3,18,144.
- Outstanding loans per establishment increased from Rs. 37,408 to Rs. 50,138.

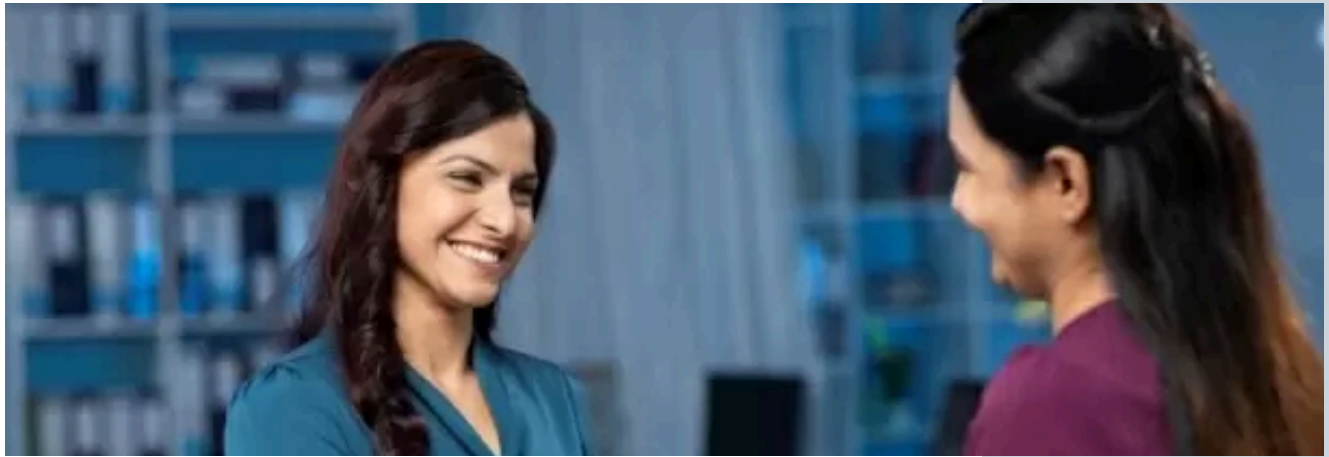
- **Women Entrepreneurship:**

- 54% of proprietary establishments in the manufacturing sector were run by women entrepreneurs.

Survey Challenges and Methodology:

- The survey period of ASUSE 2021-22 was impacted by the COVID-19 pandemic, particularly during April to June 2021, affecting the annual aggregate estimates.
- The ASUSE surveys followed a multi-stage stratified sampling scheme, covering rural and urban areas across India, excluding inaccessible villages in Andaman and Nicobar Islands.
- Data collection was done through oral enquiry and recorded using Pen-and-Paper Personal Interviews (PAPI) for 2021-22 and Computer Assisted Personal Interviews (CAPI) for 2022-23.

Significance: The unincorporated non-agricultural sector is crucial for the Indian economy due to its role in absorbing a significant portion of the workforce and contributing to the GDP. The surveys highlight the sector's resilience, growth in digital adoption, and increased financial inclusivity, reflecting its evolving dynamics and importance.



SECOND MEETING OF FINANCING WOMEN COLLABORATIVE (FWC)

Key Facts

1. Entities Involved in Launching the Initiative

- **Women Entrepreneurship Platform (WEP):** Incubated in NITI Aayog in 2018, transitioned to a public-private partnership in 2022.
- **Partners:** TransUnion CIBIL (TU CIBIL), MicroSave Consulting (MSC), Small Industries Development Bank of India (SIDBI), various public and private sector partners.


2. Purpose of the Initiative

- To accelerate access to finance for women entrepreneurs.
- To strengthen the ecosystem for women-led development by fostering collaboration among stakeholders.

3. Key Facts and Initiatives

- **Event Details:** The second convening of FWC was held at the Taj Mahal Palace Hotel, Mumbai, on 5th July 2024.
- **Participants:** Senior officials from NITI Aayog, RBI, Ministry of Finance, Ministry of MSME, SIDBI, public and private sector banks, CSOs/NGOs, and women entrepreneurs.
- **Key Speakers:** Representatives from NITI Aayog, RBI, Ministry of Finance, MSME, SIDBI, SBI, Bank of India, Gates Foundation, MAVIM, TU CIBIL, and MSC.
- **Objectives:** Enhance credit readiness of women entrepreneurs, foster collaboration, amplify research and good practices.

Initiatives Launched:

- Partnership between MAVIM and MSC to improve access to finance through alternate credit rating mechanisms.
 - MoU exchange between WEP and GroW Network (founded by AfD, SIDBI, and Shakti Sustainable Energy Foundation).
 - Launch of the “Seher” program by TU CIBIL.
 - Launch of the “Shine” program in partnership with CreditEnable to strengthen credit readiness of women-led enterprises.
 - SEWA Bank’s commitment to reach more women entrepreneurs as a member of FWC.
- 

Can the uber-rich worldwide be taxed better?



- **Proposal:** Gabriel Zucman proposes a global minimum wealth tax of 2% annually on individuals with wealth exceeding \$1 billion. This tax aims to ensure that ultra-high-net-worth individuals contribute more proportionately to public finances, considering their low effective tax rates compared to other income groups.
- **Rationale:** The proposal addresses growing wealth inequality, where ultra-high-net-worth individuals benefit from low tax rates relative to their income. Zucman argues that progressive taxation is crucial for social cohesion, funding public goods, addressing climate issues, and countering the concentration of wealth.
- **Support and Relevance:** Brazil, France, Spain, Colombia, Belgium, the African Union, and South Africa support the idea. In India, where wealth inequality is pronounced, there's a suggestion to implement a similar tax to boost fiscal space for social expenditures.

KEEPER OF IRAN'S REFORM HOPES



THE GIST

Masoud Pezeshkian entered Tehran's circles of power in 1999 when reformist President Mohammed Khatami appointed him as a Deputy Minister of Health

In 2008, he contested and won from Tabriz, Osku and Azarshahr constituency in East Azerbaijan to Majles — a seat he still holds

In 2009 and 2022, he had criticised the state's handling of protesters, and called for easing Islamic moral laws and better engagement with the West



EXTINCT HUMANS OCCUPIED THE TIBETAN PLATEAU 1,60,000 YEARS AGO

- **Discovery and Context:** Bone remains, including a rib bone from a new Denisovan individual, were found in Baishiya Karst Cave on the Tibetan Plateau, at an altitude of 3,280 meters. This suggests Denisovans adapted to high-altitude environments, surviving there from about 200,000 to 40,000 years ago.
- **Survival in Harsh Conditions:** The research indicates Denisovans lived through various climatic shifts, including ice ages and warmer interglacial periods. This resilience sheds light on their ability to adapt to fluctuating environmental conditions.
- **Hunting and Tool Use:** Analysis of bone fragments from the cave shows that Denisovans hunted and butchered a variety of animals, including blue sheep, wild yaks, woolly rhinos, and small mammals like marmots. They not only consumed these animals but also used bones as raw material for crafting tools.
- **Scientific Methodology:** The study employed innovative methods to distinguish between animal and human bones based on collagen differences. This allowed researchers to identify the types of animals hunted and utilized by Denisovans.