

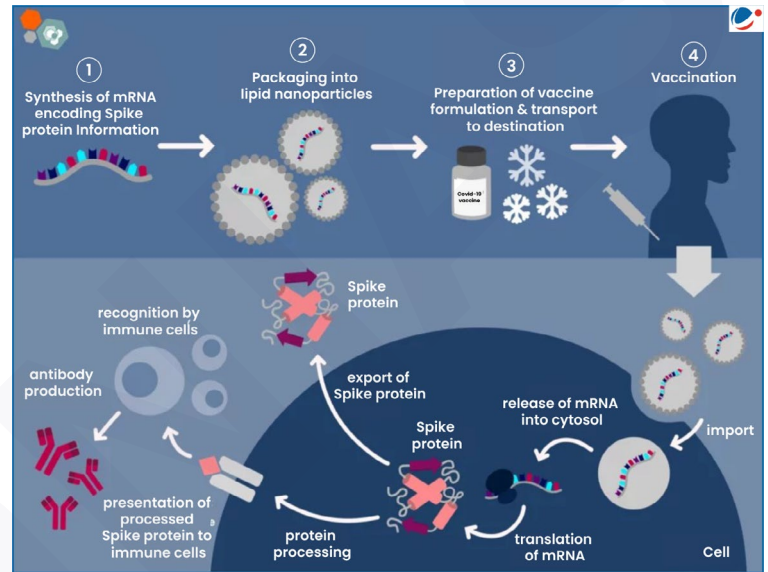
WHO launches new initiative to advance mRNA vaccine development against human avian influenza (H5N1)

Initiative aims to **accelerate the development and accessibility of H5N1 messenger Ribonucleic Acid (mRNA) vaccine candidates** for manufacturers in low- and middle-income countries (LMICs).

- This will be done through **mRNA Technology Transfer Programme (MTTP)** of WHO, which will supplement the ongoing work under the **Pandemic Influenza Preparedness (PIP) Framework**.
 - ⊕ PIP aim is to improve and strengthen the sharing of influenza viruses with human pandemic potential and increasing LMIC access to vaccines.
- **Significance: Promoting vaccine equity and preparation for next pandemic in decentralized way.**

About mRNA Vaccine technology

- mRNA vaccines work by **introducing a piece of mRNA** that corresponds to a **viral protein**, usually a small piece of a protein found on the virus's outer membrane.
 - ⊕ mRNA is a **genetic molecule** that contains instructions or recipe that directs cells to make a protein using its natural machinery.
- This mRNA prompts cells to **create viral proteins**, triggering the immune system to produce antibodies and boost immune system.
- For e.g. **mRNA vaccine for COVID-19** directs cells to produce copies of a protein on the outside of the **coronavirus known as the "spike protein"**.



India elected as Vice-Chair of IPEF's Supply Chain Council

Pursuant to **Indo-Pacific Economic Framework (IPEF's) Supply Chain Agreement**, India and 13 other IPEF partners have established three supply chain bodies. These bodies include:

- **Supply Chain Council:** To pursue targeted, action-oriented work to strengthen supply chains for those sectors and goods most critical to national security, public health, etc.
- **Crisis Response Network:** To provide a forum for a collective emergency response to exigent or imminent disruptions.
- **Labor Rights Advisory Board:** To bring together workers, employers, and governments at the same table to strengthen labor rights and workforce development across regional supply chains.

Supply Chain Resilience (SCR)

- SCR is the **ability of a supply chain network to withstand disruptions** and minimize the effects of upheaval on revenues, costs and customers.
 - ⊕ Supply Chain is the **interconnected journey of a raw materials, or products** from their assembly to final sale.
- **Threats to SCR:** Geo-political (e.g., disruption in energy supplies due to conflict between Russia-Ukraine), Economic (e.g., COVID-induced demand and supply shocks), etc.
- **Measures taken for SCR by India**
 - ⊕ **Global:** Supply Chain Resilience Initiative (Australia, India, and Japan), Quad Supply Chain Initiative, etc.
 - ⊕ **National:** PM Gati Shakti National Master Plan, National Logistics Policy, PLI Scheme for different sectors, etc.

About IPEF

- **Launched:** In 2022 at Tokyo (Japan).
- **Members (14):** Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and USA.
- **Objective:** To strengthen economic engagement among partner countries to advance growth, peace and prosperity in the Indo-Pacific region.
- **Four pillars:** Trade (Pillar I); Supply Chain Resilience (Pillar II); Clean Economy (Pillar III); and Fair Economy (Pillar IV).
 - ⊕ India has joined Pillars II to IV of IPEF while it has maintained an observer status in Pillar-I.

Supreme Court highlighted need for continuous Legislative Assessment

A 2-Judge bench of the Supreme Court suggested a comprehensive statutory audit of the Maharashtra Slum Areas Act and emphasized that **reviewing and assessing the implementation of a statute is an integral part of Rule of Law.**

- **Directive came in response to several systemic issues** in implementation of the Act including problematic processes of land identification as slum areas, provision of accommodation for displaced slum dwellers, etc.

Legislative Impact Assessment (LIA)

- It is a **systematic approach** to analyze the positive and negative effects of **proposed and existing legislations.**
- Some of the essential **components of LIA** include **problem identification, exploring choices, comparative analysis, stakeholder consultations, socio economic analysis, impact assessment and reporting,** etc.

Need for LIA in India

- **Evidence-based policymaking:** To ensure laws are based on sound evidence and analysis and optimize resource allocation.
- **Policy predictability and coherence:** To ensure that new laws align with existing legislations, policies and international commitments.
- **Absence of sunset clauses:** Sunset Clauses are rare in the Indian legislative system which often leads to under reviewed, outdated, overburdened and redundant regulations.

Challenges for LIA in India: Absence of institutionalized framework, sub-optimal interdepartmental coordination, inadequate stakeholder engagement, etc.

Existing mechanisms to assess legislations post-enactment in India

- **Standing Committees of Parliament, Finance Commission, Law Commission, etc.**
- **NITI Aayog** is entrusted to monitor programmes and policy implementations in the country.
- **Civil Society Organizations, Industry Associations, Academic Institutions, etc.**

Recommendations of ARC-II

- **Each statute creating a regulator** should include a **provision for an impact assessment periodically** by an external agency.

Women Entrepreneurship Program launched by National Skill Development Corporation (NSDC)

About the Program

- It aims to empower **25 lakh women entrepreneurs** with skill, knowledge, resources, and financial grants, etc.
- NSDC, with **National Institute for Entrepreneurship and Small Business Development (NIESBUD)**, will offer free **online self-learning entrepreneurship courses through Skill India Digital Hub (SIDH).**
 - ⊕ The NIESBUD and SIDH under the Ministry of Skill Development and Entrepreneurship (MSDE) are engaged in providing training and apprenticeship opportunities.
 - ⊕ NSDC is a not-for-profit public limited company.

Significance of Women Entrepreneurship

- **Economic:**
 - ⊕ **Job creation** (women led enterprises could create around 170 million jobs, NITI Aayog),
 - ⊕ **Increase in GDP** (50% of women in workforce could increase GDP by 1.5%, World Bank) ,
 - ⊕ **foster innovative business practices.**
- **Social:**
 - ⊕ **Empowerment** (breaking gender norms and stereotypes);
 - ⊕ **Enhanced education, awareness, and networking opportunities;**, etc.
- **Political:** Policy advocacy, fostering strong women agency.
- **Cultural:** Participation in traditional crafts and arts can advance India's cultural heritage

Some Initiatives for fostering Women Entrepreneurship

- **Mudra Loans:** with no collateral required by women for upto 10 lakh loans.
- **Stand-Up India:** financing Women Entrepreneurs.
- **Trade-Related Entrepreneurship Assistance and Development (TREAD):** financing women through NGOs.
- **Women Entrepreneurship Program** by NITI Ayog

Challenges faced by Women Entrepreneurs in India

- **Gender gap** in access to finance, male dominated family structure etc.
- **Social cultural barriers** dual burden of balancing work and traditional gender roles.
- **Others:** lack of literacy; safety at workplace, access to advanced technology, etc.

Bharatiya Vayuyan Vidheyak 2024 introduced in the Lok Sabha

It will replace the 90-year-old **Aircraft Act, 1934** (for the control of the manufacture, possession, use, operation, sale, import and export of aircraft).

Key Highlights of the Bill

- **Aim:** To address the **ambiguities in the existing law and for ease of doing business & manufacturing in aviation sector.**
- **Important Provisions:**
 - ⊕ To empower the Central Government to make rules to **implement the Convention** relating to **international civil aviation.**
 - ◆ **E.g., Chicago Convention (1944)** and the **International Telecommunication Convention (1932).**
 - ⊕ To give the **Directorate General of Civil Aviation (DGCA), the Bureau of Civil Aviation Security (BCAS), and the Aircraft Accident Investigation Bureau (AAIB)** increased powers.
 - ⊕ To empower the Central Government to issue orders (like detaining aircraft) in **emergency in the interest of public safety.**

Significance of the Bill

- Regulating the design and manufacturing of aircraft is in alignment with the **Atmanirbhar Bharat initiative.**
- Wider coverage to **cover drones, unmanned aerial vehicle (UAV), flying taxis and certain electronic gliders.**
- Cater to the needs of a **rapidly growing market for aviation.**
 - ⊕ ICRA estimates that **domestic air passenger traffic will grow by 8–13% in FY2024.**

'Announcement of Opportunity (AO)' for Private Sector for Communication Satellites

Indian National Space Promotion and Authorization Centre (IN SPACe) released the AO for **making available Indian Orbital Resources to Non-Government Entities (NGEs) to own, establish, and operate a Geosynchronous Orbit satellite.**

- Objective of this AO is to **identify and enable the eligible NGEs** to make **use of unutilised ITU Filing.**
- '**Unutilised ITU filing**' refers to filing made by ISRO to International Telecommunication Union (ITU), for registering a satellite to coordinate use of orbital slots and frequencies to avoid interference between satellites.

Significance of Private Sector participation in Space

- **Innovation and cost reduction:** Through improved competition, better economies of scale, move towards demand-driven approach for development of space assets, etc.
- **Commercialization of space:** Development of new business models around space including satellite services, space tourism, etc.
- **Complementing government efforts:** Private firms can take on certain tasks allowing ISRO to focus on advanced research and exploration missions.

Challenges with Private sector participation in Space

- **Legal and regulatory:** Absence of clear national space legislation leading to lack of clarity on conducting space-related activities.
- **Funding:** Limited availability of venture capital for space startups in India, inadequate expenditure on R&D, etc.
- **Others:** Increase in Space debris, navigating compliance and liabilities under international conventions, etc.

Steps taken to encourage Private-sector participation

- **Foreign Direct Investment:** 100% allowed in space sectors like satellite manufacturing and operation, etc.
- **IN-SPACe:** Established in 2020, A single-window, independent, nodal agency responsible to **promote, enable authorize and supervise various space activities of NGEs in space sector.**
- **Indian Space Policy 2023:** Enshrined a holistic approach to encourage and promote greater **private sector participation in the entire value chain of the Space Economy.**

Also in News



Privilege Motion

Recently, a breach of Privilege notice was moved in Rajya Sabha against the Union Home Minister.

About Privilege motion

- If a member believes that its privilege has been breached or misused, a motion or complaint can be raised to the Chairman or Speaker.
 - ⊕ Parliamentary privileges are **certain rights enjoyed by each House collectively** and by **members of each House individually**, such as freedom of speech, etc.
 - ⊕ **Article 105 deals with Powers, privileges, etc.,** of the Houses of Parliament and of the members and committees.
- Question of privilege can be raised **subject to 2-conditions:**
 - ⊕ Question shall be **restricted to a specific matter of recent occurrence.**
 - ⊕ Matter **requires intervention of the House.**



Nirbhaya Fund

Government allocated ₹7,212 crore to Nirbhaya Fund for FY 2023-24

Nirbhaya Fund

- It was created for the implementation of initiatives aimed at **enhancing the safety and security for women in the country.**
- It is a **non-lapsable corpus** fund administered by the **Ministry of Finance.**
- **Ministry of Women and Child Development (MWCD)** is the nodal Ministry to appraise/recommend proposals and schemes to be funded under Nirbhaya Fund.
 - ⊕ **Funding pattern:** **60:40** for all States; **90:10** for States with difficult terrains; **100%** for UTs.
- Covers **One Stop Centres** scheme, a component under Mission Shakti.



Additional Factor Authentication (AFA)

RBI released a draft Framework on Alternative Authentication Mechanisms for Digital Payment Transactions.

- Framework will be applicable to all Payment System Providers and Payment System Participants, as defined in the **Payment and Settlement Systems (PSS) Act, 2007**.

About AFA Framework

- All digital payment transactions shall be authenticated with an additional factor(s) of authentication (AFA), unless exempted.
- All digital payment transactions, other than card present transactions, shall ensure that **one of the factors of authentication is dynamically created**, i.e., the factor is **generated after initiation of payment, is specific to the transaction and cannot be reused**.



Exercise Tarang Shakti 2024

Indian Air Force is all set to host, first multinational air exercise, **Tarang Shakti**, at Suler (Tamil Nadu) and Jodhpur (Rajasthan).

- **More than 30 countries** will participate, exercise aims to strengthen strategic relationship.



Bagless Days

Union Ministry of Education announced **guidelines for implementation of bagless days for students of Classes 6 to 8**.

- Previously, **National Education Policy 2020** recommended that all students will participate in a **10-day bagless period sometime during Grades 6-8** where they **intern with local vocational experts** such as carpenters, gardeners, potters, artists, etc.

About Guidelines

- **Objectives:** To build observation-based learning capacity, develop understanding of connectedness of community and interdependence, to promote dignity of labour through hands on activity, etc.
- **Activities covered:** Visit and survey of vegetable markets, charity visits, survey and report writing on pet care, doodling, etc.



Krishna Raj Sagar Dam

Heavy rainfall in the Cauvery basin has led to increased water release from Krishna Raj Sagar (KRS) dam.

About KRS Dam

- It is built across the **River Cauvery** at Kannambadi (Mandya) during the rule of Wodeyar dynasty.
- Named as **Krishnaraja Sagara in 1917 after the king Krishnaraja Odeya IV**.
- **Significance:** Supply water to the hydro-electric power station at Shivasamudra, drinking water to the Mysore City, as well as for a continuous supply of Kaveri water to irrigational purposes.



Nano-MIND

Researchers from South Korea have successfully demonstrated the ability to **control specific brain regions in mice using magnetic fields, known as Nano - Magnetogenetic Interface for Neuro Dynamics (Nano-MIND) technology**.

About Nano-MIND

- It uses **magnetic fields and magnetized nanoparticles to selectively activate targeted brain circuits**, allowing for its wireless, remote, and precise modulation.
- **Significance:** Can pave way for better understanding and manipulating complex brain functions such as cognition, emotion, and motivation; improve understanding sophisticated artificial neural networks, etc.



Alzheimer Disease

As per a study, Alzheimer's drug **Leqembi** slowed disease progression in patients over three years.

- Leqembi is an **antibody intravenous (IV) infusion therapy** that targets and **removes beta-amyloid** from the brain.

About Alzheimer Disease

- It is the most common type of **dementia**.
- It **begins with mild memory loss** and possibly leads to loss of the ability to carry on a conversation and respond to the environment.
- **Symptoms** can first appear after age 60, and the risk increases with age.

Places in News



Mozambique (Capital: Maputo)

Import of Tur dal by India resumed from the Nacala Port in Mozambique post disruption.

Political Features

- **Location:** South-east African country with a **long coastline bordering the Indian Ocean**.
⊕ **Mozambique Channel** separates it from the island of Madagascar.
- **Bordering Countries:** Tanzania (North), Malawi & Zambia (North West), Zimbabwe (West), South Africa and Eswatini (South West)

Geographical Features

- **Major rivers:** Zambezi (largest) and Limpopo (both empty into Indian Ocean), Ruvuma etc.
- **Highest Peak:** **Mount Binga** (part of the Chimoio highlands)
- **Resources:** Gold, emeralds, copper, iron ore and bauxite



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI