NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 25-07-2024

Table of Content

ICMR TO TRANSFER TECHNOLOGY FOR COMMERCIALISATION OF TB KIT

Context

- **Indian Council of Medical Research (ICMR)** has begun work on bringing in affordable, faster and easy-to-use testing technology for detection of tuberculosis (TB).

About

- The Council has invited Expressions of Interest (EOI) for undertaking '**Transfer of Technology**' for the commercialisation of A **CRISPR Cas based TB detection system** for the detection of **Mycobacterium TB.**

- The system can detect the TB bacteria using DNA from a patient's saliva for a very low cost, can identify the bacteria with preliminary symptoms, and test over 1,500 samples simultaneously within approximately two hours.

What is Tuberculosis?

- Tuberculosis (TB) is an **infectious disease** that most often affects the lungs and is caused by the **bacteria Mycobacterium tuberculosis.**

- It spreads through the air when infected people **cough, sneeze or spit.**

- **TB can manifest in two forms:** Latent TB infection and active TB disease.
    - In latent TB infection, the bacteria are present in the body, but the immune system keeps them in check, and the person does not exhibit symptoms.
    - However, the bacteria can become active later, leading to active TB disease, which is characterized by symptoms such as persistent cough, chest pain, weight loss, fatigue, and fever.

- **Symptoms:** prolonged cough (sometimes with blood), chest pain, weakness, fatigue, weight loss, fever, night sweats.
    - The symptoms people get depend on where in the body TB becomes active. While TB usually affects the lungs, it also affects the kidneys, brain, spine and skin.

- **Treatment:** Tuberculosis is **preventable and curable.**
    - Tuberculosis disease is treated with antibiotics.

- **TB Vaccine: The Bacillus Calmette-Guérin (BCG) vaccine** remains the only licensed vaccine against TB; it provides moderate protection against severe forms of TB (TB meningitis) in infants and young children.

India's Burden of TB

- India accounts for around **27% of TB cases** worldwide – which is the world's highest country-wise TB burden.

- In India TB kills an estimated **480,000 people every year** or over 1,400 patients every day.

- Additionally, the country also has **more than a million 'missing' TB cases annually,** which are not notified.

- India's aim to **eliminate TB by 2025.**

Challenges Faced by India in Eliminating TB

- **Diagnostics and Case Detection:** The accurate and timely diagnosis of TB remains a challenge.
    - Some areas lack access to modern diagnostic tools, leading to reliance on older methods with limitations.

- **Drug-resistant TB cases:** India has a significant burden of drug-resistant TB, including multidrug-resistant TB (MDR-TB).
    - This type of TB is much harder to treat and requires more expensive, specialized drugs and a longer duration of treatment.

- **Poor primary health-care and infrastructure:** In many parts of India, especially in rural and remote areas, there is limited access to healthcare facilities.
    - This can result in delayed diagnosis and treatment, allowing TB to spread within communities.

- **Stigma and Awareness:** Stigma associated with TB can lead to delays in seeking healthcare, and lack of awareness about the disease may contribute to its persistence.

- **Private Sector Engagement:** A significant portion of healthcare services in India is provided by the private sector.
    - Coordinating efforts between the public and private sectors and ensuring standardized treatment protocols are crucial for effective TB control.

- **Treatment Adherence:** TB treatment requires a prolonged course of antibiotics, and ensuring patient adherence to the full course is challenging.

- **Vulnerable Populations:** Certain populations, such as migrant workers, urban slum dwellers, and those living in crowded conditions, are at higher risk of TB.

Steps Taken by Government of India to Eliminate TB

- **Revised National Tuberculosis Control Program (RNTCP):** The RNTCP, launched in **1997,** was the flagship program to control TB in India.
  - The program has been continuously revised and strengthened over the years.
- **National Tuberculosis Elimination Program (NTEP):** The Government of India has developed a National Strategic Plan (2017-25) for Ending TB in the country by 2025.
- **Pradhan Mantri TB Mukt Bharat Abhiyan (PMTBMBA):** Launched in **2022** for community support to TB patients with the objective to provide people with TB with additional nutritional, diagnostic and vocational support.
- **Universal Drug Susceptibility Testing (DST):** The government has scaled up efforts to provide universal access to drug susceptibility testing, helping to identify drug-resistant strains of TB early and tailor treatment accordingly.
  - Earlier, the patients were started on first line treatment and were tested for drug resistance only if the therapy did not work.
- **Ni-kshay portal:** An online Ni-kshay portal has been set up to track the notified TB cases.
- **New Drugs:** Newer drugs such as Bedaquiline and Delamanid for the treatment of drug-resistant TB have been included in the government's basket of drugs provided free TB patients.
- **R&D for Treatment:** Researchers have been studying shorter three- and four-month courses of anti-tubercular drugs, instead of the existing six-month therapy.
- **Vaccine Development:** Trials are underway to test the effectiveness of a vaccine called **Immuvac**, which was initially developed to prevent leprosy, in preventing TB.
  - Researchers are also testing VPM1002, which is a recombinant form of the **BCG vaccine** modified to express the TB antigens better.

Suggestions

- Setting norms and standards on TB prevention and care and promoting and facilitating their implementation;

- Developing and promoting ethical and evidence-based policy options for TB prevention and care;
- Monitoring and reporting on the status of the TB epidemic and progress in financing and implementation of the response at global, regional and country levels.

CRISPR-Cas9

- **Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)** is a DNA sequence which is part of the bacterial defense system.
- **Cas9 (CRISPR-associated)** is the name of the protein that transfers resistance.
  - It is an enzyme that acts like a pair of **molecular scissors,** capable of cutting strands of DNA.
  - It allows researchers to easily alter DNA sequences and modify gene function.
- In 2020, **Emmanuelle Charpentier** and **Jennifer A. Doudna** was awarded the Nobel Prize in chemistry for discovering CRISPR-Cas9.

Source: TH

BUDGET 2024: INDIA'S HEALTHCARE SECTOR

Context

- Finance Minister Nirmala Sitharaman announced **significant measures** in the **Union Budget 2024 to bolster India's healthcare sector.**
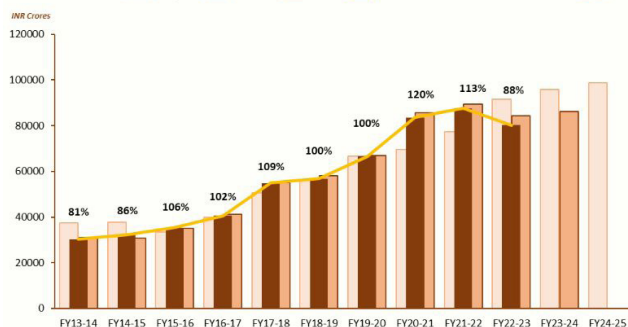
About

- The Health Ministry's budget allocation increased by **12.59%** to Rs 90,658.63 crore.
  - **The Department of Health and Family Welfare** will receive a significant portion of this allocation, with Rs 87,656.90 crore dedicated to its initiatives.
  - **The Department of Health Research** will receive Rs 3,301.73 crore, ensuring continued support for medical research and development.
- One of the key measures announced was the **exemption of customs duties** on **three additional cancer medications**, a move designed to alleviate the financial burden on patients battling cancer.

- These three cancer medications: Trastuzumab Deruxtecan, Osimertinib, and Durvalumab, are commonly prescribed in India for **breast cancer, lung cancer and bladder cancer.**
- Changes in Basic Customs Duty (BCD) on X-ray tubes and flat panel detectors.

A Decade of the Health Sector in Union Budgets

Healthcare Sector of India

- **Healthcare Sector:** It comprises hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment.
- India's healthcare delivery system is categorised into **two major components - public and private.**
- **Public Sector:** It comprises limited secondary and tertiary care institutions in key cities and focuses on providing basic healthcare facilities in the form of **Primary Healthcare Centers (PHCs) in rural areas.**
- **Private Sector:** The private sector provides the majority of secondary, tertiary, and quaternary care institutions with a major concentration in metros, tier-I, and tier-II cities.

Structure of Financing of Public Healthcare Sector in India

- **The Ministry of Health and Family Welfare** broadly takes responsibility for **formulating policy for public health.**
  - It provides **administrative and financial support to states** to operate public health facilities and infrastructure, and to **deal with specific health issues, such as maternal health and nutrition.**
  - It also **establishes and runs medical Institutes of National Importance** such as AIIMS as well as establishments in union territories including Delhi.

- **The Ministry comprises:** the Department of Health and Family Welfare, which is responsible for implementing public health schemes and regulating medical education, and
  - The Department of Health Research which is responsible for conducting medical research.

Concerns with low Public Expenditure on Healthcare

- This has resulted in **inadequate health infrastructure** including human resources, and slow improvement in key health indicators.
- **Limited Access to Healthcare Services:** Low public spending hampers accessibility to healthcare services, particularly in rural and remote areas where infrastructure is already lacking.
  - This exacerbates health disparities between urban and rural populations and leads to many people being unable to afford or access essential medical services.
- **Neglected Preventive and Primary Care:** A large portion of healthcare spending in India is directed towards tertiary care, neglecting preventive and primary healthcare services.
  - This results in missed opportunities for early detection and management of diseases, leading to higher treatment costs and poorer health outcomes in the long run.
- **Higher Disease Burden:** Low public spending on healthcare contributes to a higher burden of preventable diseases such as communicable diseases, malnutrition, and maternal and child health issues.
- **Increased Out-of-Pocket Expenditure:** The lack of public healthcare infrastructure has led people to **use private health services more,** and that has **increased the financial burden on citizens.**

Recent steps Taken by the Government for the Growth of Healthcare Sector

- **National Digital Health Mission (NDHM):** Launched in **2020**, NDHM aims to create a digital health ecosystem, including health IDs for citizens and the establishment of a national digital health infrastructure.
- **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY):** AB-PMJAY, launched in **2018**, is a national health protection scheme that provides financial protection to over 100 million families for secondary and tertiary care hospitalization.

- **National Health Policy 2017:** The National Health Policy outlines the government's vision to achieve the highest possible level of health and well-being for all and emphasizes preventive and promotive healthcare.
- **Health and Wellness Centers (HWCs):** The government is working towards transforming primary health centers into HWCs to provide comprehensive primary healthcare services, including preventive and promotive care.
- **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY):** PMSSY aims to enhance tertiary care capacities and strengthen medical education in the country by setting up new AIIMS (All India Institutes of Medical Sciences) institutions and upgrading existing government medical colleges.
- **Research and Development Initiatives:** The government has been encouraging research and development in healthcare, including support for the development of vaccines, drugs, and medical technologies.
- **National Medical Commission (NMC) Act:** The NMC Act, passed in 2019, aims to bring reforms in medical education and practice by replacing the Medical Council of India (MCI) and promoting transparency and accountability.
- **Jan Aushadhi Scheme:** The Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) aims to provide quality generic medicines at affordable prices through Jan Aushadhi Kendras.

Way Ahead

- The COVID-19 pandemic had shown the cracks in India's health system and highlighted the **need for increased public investment in healthcare.**
- Effective primary health care can prevent or pre-empt the occurrence of more serious health issues, meaning that overall health outcomes can be improved significantly through investing in primary healthcare.

Source: IT

BUDGET 2024: FOR EDUCATION, EMPLOYMENT, AND SKILL

Context

- Recent Union Budget for 2024-25 aims to provide ₹1.48 lakh crore for education, employment and skilling in the country.

Budget Allocations (Overall Vision)

- The budget's emphasis on education, employment, and skilling reflects the government's commitment to building a robust and inclusive economy.
- It aims to lead India toward strong development and all-round prosperity.

> ### Budget Estimates(2024-25)
> - Total receipts (excluding borrowings): 32.07 lakh crore.
> - Total expenditure: 48.21 lakh crore.
> - Net tax receipts: 25.83 lakh crore.
> - Fiscal deficit: 4.9% of GDP. The government aims to reduce it further to below 4.5% next year

Education Initiatives in Budget 2024-25

- It aims to facilitate access to quality education and empower our youth with the necessary skills for the future.
- **Higher Education:** Financial support for loans up to ₹10 lakh will be provided to youth pursuing higher education in domestic institutions, especially those who haven't previously benefited from government schemes and policies

Prime Minister's Package for Employment and Skilling

- **Scheme A - First Timers:** First-time employees registered with the EPFO will receive one month's salary (up to ₹15,000) in three instalments.
- **Scheme B - Job Creation in Manufacturing:** Incentives will be provided directly to both employees and employers based on their EPFO contributions during the first four years of employment.
- **Scheme C - Support to Employers:** The government will reimburse up to 3,000 per month for two years towards EPFO contributions for each additional employee.
- Additionally, a new centrally sponsored scheme aims to skill 20 lakh youth over five years, upgrading 1,000 Industrial Training Institutes.

Employment and Skilling

- **Prime Minister's Package for Youth:** Budget announced a comprehensive package aimed at facilitating employment, skilling, and other opportunities for 4.1 crore youth over the next five years. This package has a central outlay of 2 lakh crores.

- **Centrally-Sponsored Scheme for Skilling:** The government has launched a new centrally-sponsored scheme to skill 20 lakh youth over the next five years.
    - This collaborative effort with states and industry will focus on imparting relevant skills to enhance employability.
- **Model Skilling Loan Scheme:** The existing model skilling loan scheme will be revised to facilitate loans of up to 7.5 lakh. This will encourage more individuals to pursue vocational training and skill development.
- **Skill Development and Upgradation:** As part of this budget, 1,000 **Industrial Training Institutes (ITIs)** will be upgraded. Skill development remains a critical pillar for economic growth and individual empowerment.
    - Additionally, a plan called **'Purvodaya'** will be formulated to promote all-round development in the eastern region of India, covering states like Bihar, Jharkhand, West Bengal, Odisha, and Andhra Pradesh.
- **PM Garib Kalyan Anna Yojana Extension:** The government has extended the PM Garib Kalyan Anna Yojana for five more years. This scheme benefits a staggering 80 crore people in the country, ensuring food security for vulnerable populations.
- **Focus on Marginalised Groups:** As mentioned in the interim budget, there is a renewed focus on supporting the poor, women, youth, and farmers. The budgetary provisions aim to uplift these sections of society through targeted interventions.
- **Rural Development and Infrastructure:** A substantial provision of 2.66 lakh crores has been allocated for rural development, including rural infrastructure.
    - **Phase IV of the Pradhan Mantri Gram Sadak Yojana (PMGSY)** will be launched to provide all-weather connectivity to 25,000 rural habitations.

Conclusion

- Budget 2024-25 reflects a holistic approach, addressing employment, skill development, and economic growth. It aims to create ample opportunities for all segments of society, from youth to women to the middle class.
- It underscores the critical role education and skill development play in shaping India's future. By investing in our youth and promoting employment

opportunities, the government aims to create a more resilient and prosperous nation.

Source: TH

UNION BUDGET 2024: ANGEL TAX FOR ALL CLASSES OF INVESTORS TO BE ABOLISHED

In News

- In a bid to bolster the Indian startup ecosystem, the Budget 2024 announced the abolishment of angel tax for all classes of investors. The changes to the angel tax system will take effect on April 1, 2025.

What is Angel Tax?

- **Introduced in 2012** under the Finance Act.
- Angel tax refers to the income tax that the government **imposes on funding raised by unlisted companies, or startups**, if their valuation exceeds the company's fair market value. It falls under **Section 56 (II) (viib) of the Income Tax Act**.
- Previously the angel tax applied only to local investors, the Budget for the 2023-24 fiscal year (April 2023 to March 2024) widened its ambit to include foreign investments.
- The purpose of its introduction was to curb money laundering and prevent the influx of unaccounted funds. However, it has stirred controversy among startups and investors, who claim it hinders innovation and fundraising efforts.

Reasons for abolishment

- This will bolster the Indian start-up eco-system, boost the entrepreneurial spirit and support innovation.
- It reduces FDI (foreign direct investment) into India. Abolishing angel tax will address concerns of various investors, especially with the decline in funding over the past year.
- The number of unicorns in India has dipped due to the slowing down of the startup ecosystem.
    - A "unicorn" is a privately-owned startup business worth more than $1 billion.

Indian start-up Ecosystem

- India has the 3rd largest startup ecosystem in the world.

- Several factors like increased internet penetration, digitization, and government initiatives have fueled the growth of top-funded sectors from 2014 to 2023 in India. These sectors include Retail, Enterprise Applications, Fintech, Transportation & Logistics tech, Food & Agriculture tech, Auto tech, Travel & Hospitality tech, and Edtech

- Women-led startups have also seen growth in the past ten years with total funding for these companies reaching $1.1 billion in 2023 from $0.456 billion in 2014.

Indian Initiatives in Startups

- **Startup India initiative:** Launched in January 2016, the Startup India initiative aims to build a strong homegrown startup ecosystem while nurturing innovation and encouraging investments.
    - The DPIIT-recognised startups get access to a variety of incentives under schemes including Fund of Funds for Startups (FFS), Startup India Seed Fund Scheme (SISFS) and Credit Guarantee Scheme for Startups (CGSS).

- **The Startup India Seed Fund Scheme :** It has been approved for four years, from FY22, with an outlay of 945 crore.
    - It aims to provide financial assistance to startups for proof of concept, prototype development, product trials, market entry and commercialization.

- **Startup Mahakumbh:** The government is also organizing a two-day Startup Mahakumbh to showcase India's startup prowess, and foster collaboration and growth within the ecosystem.
    - The government's push toward green mobility unlocks enormous opportunities for businesses to explore and create charging infrastructure, battery recycling, and energy storage solutions

- **Startup20:** With the introduction of the first-ever engagement group, Startup20, under India's G20 presidency, the Indian startup ecosystem is making strides toward global recognition and impact.

Major Challenges

- Despite initiatives launched by the government, many enterprises still face difficulties navigating the regulatory environment and obtaining the necessary approvals and licences for operation.

- Another challenge is the lack of infrastructure.

- A major challenge that businesses face is the need for more skilled talent.

- Startups hitherto exist mostly on the urban landscape

- Social enterprises often face difficulty in securing investment, as many investors are still cautious about investing in untested business models and technologies.

Source: IE

BUDGET 2024 EASES CUSTOMS ACT TO FACILITATE FTAS WITH UK, EU

Context

- To create legroom for signing **free trade agreements (FTAs) with developed nations** such as the UK and European Union, the Union Budget 2024 has **introduced amendments in the Customs Act.**

About

- It has **liberalised compliance with value-addition norms** that typically guard against misuse of concessions agreed in a trade pact.

- **Rules of origin** are the criteria needed to **determine the national source of a product.**
    - While trade agreements help boost trade volumes with partner countries, it often risks a **third country benefiting** from the concessions resulting in a **loss of revenue if rules of origin are breached.**

- The government amended **Section 28DA of the Customs Act, 1962** substituting **'certificate' of origin with 'proof' of origin.**
    - The Budget defined "Proof of origin" as a "certificate" or "declaration" in accordance with a trade pact.

- **Impact on Future FTAs:** The amended Customs Act now enables the **acceptance of "proof" of origin** (if India decided so in an agreement) which is a wider term that includes a certificate of origin as well as a self-declaration in line with global Customs norms.
    - Amendments in the Customs Act would affect future trade agreements including the one signed with the European Free Trade Association (EFTA) which has a provision allowing self-certification that can be activated in the future.

Need for the Amendments

- As per the Global Trade Research Initiative (GTRI), nearly **60 times jump in silver imports** during the last financial year from the United Arab Emirates (UAE) is unusual since the West Asian country does not produce silver and the import jump may be indicative of a breach in rule of origin finalised by India and UAE under the FTA.

- India introduced stringent rules of origin verification norms, CAROTAR, in 2020 after few instances of **re-routing of goods** through the countries with which India has FTAs.

  - Several **Southeast Asian countries** such as Thailand subsequently raised concerns against CAROTAR norms in the India-ASEAN FTA review.

- The developed countries have good tracking systems, and the **self-certification mode** has already come into play in those countries for the FTAs they sign.

  - India is still insisting on authority to sign a certificate of origin, because of bad experience of goods being diverted from China and other countries through Indonesia and Vietnam.

Customs Act in India

- **Objective**: It aims to regulate the import and export of goods, prevent illegal trade, and enforce customs duties as levied by the government.

- **Administration**: The Act is administered by the Central Board of Indirect Taxes and Customs (CBIC), which is part of the Department of Revenue under the Ministry of Finance.

- **Key Provisions**:

  - **Customs Duty**: It specifies the duties payable on import and export of goods. It is a type of indirect tax.

  - **Prohibited Goods**: Specifies goods that cannot be imported or exported.

  - **Penalties**: Prescribes penalties for various offences such as smuggling, evasion of duty, and other violations.

  - **Adjudication**: Provides for adjudication by customs officers for disputes and violations.

  - **Appeals**: Allows for appeals against decisions of customs officers to higher authorities and courts.

- **Enforcement:** The Act empowers customs officers with extensive powers to enforce customs laws, inspect cargo, search premises, and seize goods.

Source: IE

CONCERNS OVER CARBON BORDER ADJUSTMENT MECHANISM

Context

- The Economic Survey has raised concerns over the forthcoming Carbon Border Adjustment Tax (CBAT) by the European Union.
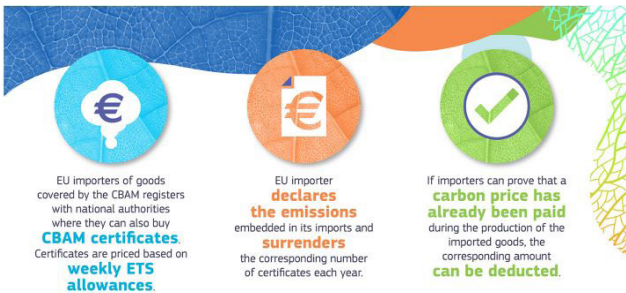
Carbon Border Adjustment Mechanism (CBAM)

- CBAM is the European Union's tool to put a fair price on the carbon emitted during the production of carbon intensive goods that are entering the EU, and to encourage cleaner industrial production in non-EU countries.

- CBAM is one of the elements of the **EU Green Deal,** the goal of which is to reduce **GHG emissions by 55% by 2030.**

- CBAM is aimed at **equalizing the price of carbon paid for EU** products operating under the EU Emissions Trading System (ETS) and imported goods.

  - It refers to a phenomenon where a **EU manufacturer moves carbon-intensive production to countries outside the region with less stringent climate policies.** Its primary objective is to avert **'carbon leakage'**.

Implementation of CBAM

- The CBAM system is expected to come into force on **January 1, 2026.**

- The CBAM will initially apply to imports of **Cement, Iron and steel, Aluminium, and Electricity,** as these sectors have a high risk of carbon leakage and high carbon emissions.

- EU importers will have to **buy carbon certificates corresponding to the carbon price** that would have been paid in the EU, if the goods had been produced locally.

- The price of the certificates would be calculated according to the **auction prices in the EU carbon credit market.**

- Once a non-EU producer can show that they have already paid a price for the carbon used in the production of the imported goods in a third country, the **corresponding cost can be fully deducted for the EU importer.**

- **CBAM will apply on:** In principle, imports of goods from **all non-EU countries** will be covered by the CBAM. Certain third countries who participate in the ETS or have an emission trading

system linked to the Union's will be excluded from the mechanism. This is the case for members of the **European Economic Area and Switzerland.**

Impact on India

- As per the **Global Trade Research Initiative report** India is among the **top eight countries** that will be adversely affected by CBAM.

- In 2022, **27% of India's exports of iron, steel and aluminum products worth $8.2 billion went to the EU.** It is estimated that a few of its core sectors, such as steel, will be "greatly affected" by CBAM.

- Raising financial resources for climate change adaptation is an **"unprecedented challenge"** as India's climate action has been largely financed through domestic resources and the flow of international finance has been very limited.

Concluding remarks

- Europe is on course to implement its **Carbon Border Adjustment Tax** and both the United Kingdom and the United States are in different stages of imposing their versions of it in due course.

- These taxes are in **contravention to the spirit of the Paris Agreement** that recognised **Common but Differentiated Responsibilities**.

- India not only has to deal with climate change and undertake energy transition but also deal with the protectionism of the developed countries.

Source: TH

═══ NEWS IN SHORT ═══

KALARIPAYATTU

In News

- Ministry of Youth Affairs & Sports Recognized Kalaripayattu Federation of India for Promotion of Kalaripayattu in Country

About Kalaripayattu

- **Origin and Historical linkages :** It originated in Kerala, India, but its exact origin is uncertain.
    - It is mythologically linked to Lord Parasurama reclaiming Kerala, though historians dispute this.

Historically dated between 200 BCE and 600 CE, with peak popularity in the 14th to 16th centuries.

- **Evolution :** Initially used for hunting, it evolved into a structured combat system effective for self-defense and warfare.
    - It is considered one of the oldest and most scientific martial arts globally.

- **Physical Feats:** Includes feats like chattom (jumping), ottam (running), and marichil (somersault), integral to the training.

    - **It I**nvolves learning to use various weapons such as swords, daggers, spears, maces, and bows with arrows.

- **Cultural Significance:** Kalaris (training grounds) are important centers of both martial training and religious worship.
    - Specialization in indigenous medicinal practices is also a focus of Kalaripayattu.

Source:IE

RIGHT TO BE FORGOTTEN

In News

- Supreme Court to examine plea on **'right to be forgotten'** which pertains to securing digital privacy.

Right to be Forgotten

- 'Right to be forgotten' deals with individual rights to have a control of the use of their personal data, including photos, videos, etc and have it removed from the records of organisations.

- The European Union's General Data Protection Regulation (GDPR) which outlines data protection laws, protects individual rights in this case under **Article 17 of the rules.**

- In India, **'right to be forgotten'** is considered as a part of the right to privacy, which is a fundamental right granted to Indian citizens under **Article 21 of the Constitution.**

- In the key 2017 judgement of declaring 'right to privacy' as fundamental, the apex court had acknowledged that the **'right to be forgotten' is a facet of the 'right to privacy'.**

- The Centre had passed the Digital Personal Data Protection Act, 2023 last year but is yet to be implemented.

Source: BS

BIOMETRIC AUTHENTICATION BY UPSC

Context

- Recently, UPSC floated a tender seeking PSU to implement tech solutions to prevent impersonation and cheating.

About the Biometric Authentication

- **Identity Verification:** Biometric authentication relies on unique physical or behavioural traits, such as fingerprints, iris scans, or facial recognition.
  - By linking an individual's identity to their biometric data, it becomes nearly impossible to impersonate someone else during the examination process.

- **Reducing Fraud:** Using Biometric authentication, candidates cannot use proxies or engage in impersonation. It aims to enhance the fairness and transparency of the entire examination system.
  - Just as in the case of GST, biometric authentication could significantly reduce fraud.

- **Streamlining Processes:** Biometric authentication can streamline various administrative processes.
  - For instance, during document verification, candidates' biometric data could be matched with their application forms, eliminating errors and ensuring accuracy.

Implementation Challenges

- **Infrastructure:** Implementing biometric authentication requires robust infrastructure.
  - UPSC examination centres across the country would need to be equipped with biometric scanners and databases for efficient verification.

- **Data Security and Privacy:** Biometric data is highly sensitive. Ensuring its security and protecting candidates' privacy would be critical.
  - Adequate safeguards against data breaches and misuse must be in place.

Source: TH

KETAMINE PILL

Context

- Recently, researchers have found a new tablet that slowly releases the drug ketamine that can ease treatment-resistant depression in a clinical trial.

About Ketamine

- It is often associated with **its recreational use as a 'party drug'** that has emerged as an unexpected ally in the **battle against depression.**

- Originally used **as an anaesthetic**, researchers discovered that ketamine had rapid **antidepressant effects**, often within hours.

- It works by **blocking a receptor** for an excitatory **neurotransmitter** called **glutamate**.
  - Glutamate, a neurotransmitter, plays a crucial role in neuronal communication.

Beyond the Pill

- **Esketamine:** It is a derivative of ketamine that is administered as a nasal spray called **Spravato**.

- **Injected Ketamine: Ketalar** is a form of ketamine, can be **prescribed off-label.**
  - Both esketamine and injected ketamine act as fast-acting lifelines for treatment-resistant depression.

Challenges with Traditional Administration

- Ketamine is typically administered **intravenously (IV) or via intranasal spray.** However, these routes come with **side effects,** including headache, nausea, drowsiness, and even dissociation from reality.

Source: TH

END OF INDEXATION BENEFIT ON PROPERTY SALE

Context

- The Finance Minister in Budget 2024 announced the **removal of indexation on property sales**.

About

- The long-term capital gains (LTCG) tax **on property and gold was reduced** from **20 percent to 12.5 percent.**

- However the properties purchased before **April 1, 2001**, would continue to **enjoy indexation.**

What is Indexation?

- Inflation erodes the purchasing power of money over time. **Adjusting the purchase price for inflation reduces the taxable capital gain**, which results in lower tax payments.

- Without the indexation benefit, taxes are calculated based on the original purchase price without adjusting for inflation.

- This could lead to a **higher taxable capital gain** despite the lower LTCG rate.

- Essentially, while the tax rate is reduced, the taxable amount might be higher due to the absence of inflation adjustment, potentially resulting in increased taxes.

Source: MINT

NATIONAL INDUSTRIAL CORRIDOR DEVELOPMENT PROGRAMME

Context

- The Union Finance Minister announced that twelve new industrial parks will be developed under the National Industrial Corridor Development programme in her Budget speech for 2024-25.

National Industrial Corridor Development Programme

- It is India's infrastructure programme aiming to develop new industrial cities as **"Smart Cities"** and converging next generation technologies across infrastructure sectors.

- The oldest such corridors are **Delhi Mumbai Industrial Corridor (DMIC)** and **Western Dedicated Freight Corridor**, which are India's transportation backbone.

- The Government of India, through **National Industrial Corridor Development & Implementation Trust (NICDIT)**, provides funds as equity/debt for the development of infrastructure in the industrial regions under industrial corridors.

  - The States are responsible for making available contiguous and encumbrance free land parcels.

Source: TH

PHASE-II BALLISTIC MISSILE DEFENCE (BMD) SYSTEM

Context

- **The Defence Research & Development Organisation (DRDO)** successfully flight-tested the **Phase-II Ballistic Missile Defence (BMD) system.**

About

- **India is pursuing its ballistic missile defence programme in two phases** – the first phase has been completed while the second is underway for validating intercept systems in a new range category.

- Test demonstrates India's capability to **defend against ballistic missiles of 5000 km class.**

- **The Phase-II AD Endo-atmospheric missile** is an indigenously developed, two-stage, solid-propelled, ground-launched missile system designed to neutralise various types of enemy ballistic missile threats within the altitude bracket of endo- to low exo-atmospheric regions.

- In 2022, DRDO successfully tested for the first time **a long-range interceptor missile, called AD-1,** designed for both exo-atmospheric and endo-atmospheric interception of ballistic missiles.

- The two systems have been integrated for a **multi-layered defence against ballistic missiles.**

Source: HT

HENLEY PASSPORT INDEX- 2024

Context

- According to the latest ranking of the **Henley Passport Index**, India's passport now ranks at the **82nd** spot, allowing Indians visa-free entry to 58 countries.

About

- The Henley Passport Index is the original, authoritative ranking of all the world's passports according to the number of destinations their holders can access without a prior visa.

- The Index is an annual list put together by **Henley & Partners**, a London-based global citizenship and residence advisory firm.

- It is based on exclusive data from the **International Air Transport Association (IATA)**.

- The index covers **227 destinations and 199 passports**.

Key findings

- **Singapore** occupied the **top spot** in the Index with its citizens having visa-free entry to 195 countries. It dethroned Japan from the first place, which is now at the second place along with Spain, France, Germany and Italy. The passports of all five countries allow visa-free access to 192 destinations.

- **Afghanistan's** passport at the 103rd spot, remains the **world's weakest**, allowing visa-free entry to only 26 destinations.

Source: AIR

LIBERIA MIGHT RELOCATE ITS CAPITAL CITY MONROVIA

In News

- Severe flooding in Liberia has led a group of senators to propose relocating the capital city away from Monrovia.

> ### Do you know ?
> - Global warming is driving sea level rise . As temperatures across the world continue to soar, more and more glaciers and ice sheets are melting and adding water to the ocean.
> - Global warming is also making the ocean warmer, which is leading to something called thermal expansion — when water becomes warmer, it expands in volume. This is contributing to sea level rise as well.

About Liberia

- Liberia is situated on the west coast of Africa north of the equator, with Guinea on the north, Sierra Leone on the west, Côte d'Ivoire on the east and the Atlantic Ocean on the south.

- **Main resources** : iron ore, timber, diamonds and gold

- **Geographical Features :**
  - Highest point Mount Wuteve
  - Rivers : the Mano the Cavalla ,the Lofa, St. Paul, St. John and Cestos River.

Source:HT

CHEETAH CONSERVATION BREEDING CENTRE IN GUJARAT

Context

- **The Central Zoo Authority (CZA)** has given its final approval for a **cheetah conservation breeding centre in Gujarat's Banni grasslands**.

About

- **Banni** was selected from among ten potential sites identified in 2009 for cheetah reintroduction in India.

- Its **savannah-like habitat,** similar to East African landscapes, and the presence of Pilu trees (Salvadora persica) for perching make it an ideal location.

- Historically, cheetahs were found in this region, with records of cheetah hunting in **Saurashtra and Dahod** until **1921**, and references to their presence **in Gujarat until the early 1940s.**

- The project aims primarily at **developing and breeding the animals**, rather than tourism.

- To support the cheetahs, the forest department has improved about 14,000 hectares of grasslands at Banni and introduced a chinkara breeding program to bolster the prey base.

Source: HT

■■■■