NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

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AUSTRALIA PASSES WORLD-FIRST LAW BANNING UNDER-16S FROM SOCIAL MEDIA

In News

- The Australian Senate passed a law that imposes fines on platforms like TikTok, Facebook, Snapchat, Reddit, X, and Instagram if they fail to prevent users under the age of 16 from creating accounts.

About the Legislation

- **Objective:** To protect young people from the potential harms of online platforms, such as cyberbullying, addiction, and exposure to harmful content.
- **Strict Enforcement:** Social media platforms will be held accountable for enforcing age restrictions and could face significant fines for non-compliance.

Challenges in Banning Social Media

- **Privacy Concerns:** The law raises concerns about privacy, as platforms may require users to verify their age using government-issued identification.
- **Challenge of age verification:** One of the biggest challenges in implementing these bans is age verification.
- **Potential for Circumvention:** Experts argue that the ban could lead to increased use of anonymous platforms and VPNs, making it difficult to monitor online activity.
- **Exposure to harmful sites:** It could inadvertently push young people towards more dangerous online spaces, such as the Dark Web. This further creates more challenges like cybercrimes.

Impact of Social Media Addiction on Children

- **Psychological Impacts:** Excessive social media use has been linked to increased rates of anxiety, depression, and low self-esteem.
    - Children can be exposed to cyberbullying, which can have severe emotional and psychological consequences like low self esteem.
- **Physical Impacts:** Excessive screen time can lead to a sedentary lifestyle, contributing to obesity and other health problems like eye strain and poor posture.
- **Social and Emotional Impacts**: FOMO (Fear of Missing Out) and can hinder the development of face-to-face communication, erosion of real-life relationships and social skills.

Way Ahead

- **Stricter Age Verification:** Social media platforms should implement robust age verification systems to ensure that only users who meet the minimum age requirements can access their services.
- **Parental Consent:** Platforms could require parental consent for users below a certain age.
- **Digital Literacy Education:** Schools should incorporate digital literacy into their curriculum to teach young people about the responsible use of technology.
- **Platform-Based Interventions like Time Limits:** Social media platforms can implement features that limit screen time, especially for younger users.
    - Platforms can use AI-powered tools to filter harmful content and promote positive content.
- **Government Regulations:** Strong data privacy laws can protect users' personal information and prevent data breaches.
    - Governments can work with social media platforms to develop and enforce stricter content moderation standards.
- **Digital Detox Camps:** Organizing camps to encourage digital detox and promote offline activities.

Source: LM

THE WORKER POPULATION RATIO FOR WOMEN HAS INCREASED

Context

- As per the Periodic Labour Force Survey (PLFS), The Worker Population Ratio for women has increased from 22% in 2017-18 to 40.3% in 2023-24.

About

- **The Labour Force Participation Rate for women** has risen from 23.3% in 2017-18 to 41.7% in 2023-24.
- It indicates that **39.6% of women with post-graduate education** and above are employed in 2023-24, up from 34.5% in 2017-18.
- **23.9% of women with a higher secondary education** are part of the workforce in 2023-24, compared to 11.4 per cent in 2017-18.

Recent Trends as per the State of Working India Report 2023

- **Older women** with lower levels of education are **exiting** the workforce and younger women with higher levels of education are entering it.

- The number of women in **salaried employment is increasing**, while women in informal wage work are decreasing.
- The share of women working in agriculture is decreasing. The proportion of women entering the services sector is increasing.
- **Impact:**
  - As the number of women in salaried employment increases, it has a **positive impact on the gender gap** in earnings, which decreases with more women leaving casual wage work.
  - These shifts in the female workforce imply a **longer-term impact on women's economic participation in the country.**

Significance of Women Participation

- India is seeking to **harness its demographic dividend**, with the largest working-age population in the world—expected to touch nearly 70 percent by 2030.
- India is poised to become the **biggest contributor to global growth.**
- A recent report has forecast that the next five years are crucial for the country to achieve a **GDP growth rate of 8 percent.**
- To ensure that growth, **women must account for more than half** of the **new workforce** which will be created by 2030.

Challenges

- **Pay Gap:** Despite entering the workforce in larger numbers, women often face a significant gender pay gap.
- **Sexual Harassment:** Women in the workplace, particularly in male-dominated sectors, face a high risk of sexual harassment.
- **Unpaid Domestic Work:** Even though women are increasingly participating in the workforce, they still bear the primary responsibility for unpaid domestic labor, such as cooking, cleaning, and childcare.
- **Lack of Supportive Infrastructure:** There is insufficient support infrastructure such as childcare facilities, flexible working hours, and work-from-home options that could ease the burden of balancing work and family duties.
- **Resistance from Family:** Families often resist the idea of women working, especially in rural areas or conservative households.

Government Initiatives to Increase women Participation in Labour Force

- **Pradhan Mantri Mudra Yojana (PMMY):** Under PMMY, women can avail of micro-credit loans without collateral to set up small enterprises, helping women overcome barriers related to accessing capital.
- **Beti Bachao Beti Padhao Scheme:** The scheme works to prevent gender-based discrimination and violence, focusing on changing societal attitudes towards girls.
  - It promotes education, health, and empowerment, which indirectly increases women's participation in the labor force.
- **Maternity Benefit (Amendment) Act, 2017:** The Act extended the maternity leave from 12 weeks to 26 weeks for women working in establishments with more than 10 employees.
- **Women Entrepreneurship Platform (WEP) by NITI Aayog:** The platform offers mentorship, networking, funding, and skill development opportunities for women in business.
- **Self-Help Groups (SHGs) and National Rural Livelihood Mission (NRLM):** The NRLM, through its SHG component, encourages women in rural areas to form collectives that can access credit, entrepreneurship training, and marketing opportunities.
- **National Creche Scheme:** This scheme supports working mothers, especially those in the unorganized sector, by setting up daycares in nearby locations where they can leave their children while they work.
- **Mission Shakti** is a women empowerment programme launched by the Ministry of Women and Child Development (MWCD) for the period 2021-2025.
  - It aims to strengthen interventions for women's welfare, safety, and empowerment, making women equal partners in nation-building.
- **The Women in Science and Engineering-KIRAN (WISE KIRAN) program** has supported nearly 1,962 women scientists from 2018 to 2023.

Way Ahead

- Women-led development remains at the core of announcements made by the Finance Minister (FM) in this year's Budget.
  - There has been a remarkable **218.8 percent rise in the budget allocation** for women's welfare from **FY14 to FY25.**
- **Shifting societal norms about women's roles** through awareness campaigns can encourage more women to join the workforce.
- **Encouraging women's entrepreneurship** through easier access to credit, business training, and financial support will foster economic independence.

- **Ensuring safe work environments,** addressing workplace harassment, and offering flexible work options will help women balance work and family responsibilities.

Source: PIB

DARK TOURISM

In News

- Ukraine is experiencing an influx of Western visitors engaging in **"dark tourism"** amid the ongoing war.

Dark tourism

- It refers to visiting locations associated with death, tragedy, suffering, or unusual historical events.
    - These sites include cemeteries, battlefields, memorials, disaster zones, and crime scenes.
- **Examples of Prominent Dark Tourism Sites:** Auschwitz Concentration Camp (Poland): A reminder of the Holocaust.
    - **Chernobyl** (Ukraine): Site of a catastrophic nuclear disaster.
    - **Ground Zero** (New York): Memorial for the victims of the 9/11 attacks.
    - **Hiroshima Peace Memorial Park (**Japan): Commemorates victims of the atomic bombing in 1945.
    - **Jallianwala Bagh (Amritsar, Punjab)** : The site of the tragic 1919 massacre, where innocent lives were lost, Jallianwala Bagh serves as a powerful tribute to resilience and sacrifice.

Reasons for Popularity

- **Emotional Connection**: Visitors seek to engage deeply with the history and emotions of those affected by past tragedies.
- **Curiosity and Uniqueness:** Dark tourism offers unique, non-traditional experiences distinct from typical tourist attractions.
- **Reflection on Mortality:** It prompts introspection about life, death, and historical significance, offering a "reality check."

Role of Social Media

- Amplifies Interest: Posts, photos, and videos shared by users increase the visibility of dark tourism sites.
- Influencers' Role: Social media influencers visit these sites for content creation, sometimes focusing on aesthetics and personal branding rather than respectful engagement.

- Curiosity Driven: The visual appeal of dark sites on social media encourages others to visit.

Ethical Considerations

- Dark tourism offers a unique and thought-provoking way to explore history and human experience.
- Experts in the field of tourism ethics stress the importance of respectful engagement.
- it is essential to approach these sites with respect and sensitivity, the educational and emotional value they provide can be profound.

Conclusion

- Dark tourism occupies a complex space in the world of travel. It allows people to confront uncomfortable truths about the past and engage with history in a meaningful way. However, it also carries ethical challenges, especially in the context of social media and content creation, where the gravity of these sites can sometimes be overshadowed by the pursuit of visually captivating images.
- As dark tourism continues to grow, it is important for travelers to approach these sites with the respect and understanding they deserve.

Source :TH

COORDINATED ACTION ON SKILLS AND EMPLOYMENT FOR INDIA'S $5 TRILLION ECONOMY GOAL: WB

Context

- Recently, the **World Bank, in its report 'Jobs at Your Doorstep'** has emphasised the critical need for **India to adopt a coordinated approach** to skills development and employment to achieve **its ambitious $5 trillion economy target.**

Current Economic Landscape of India

- As of 2024, **India's GDP** stands at approximately $3.7 trillion, making it the **fifth-largest economy globally.**
- The Finance Ministry projects that **India will become the third-largest economy** with a **GDP of $5 trillion by 2027-28**.
    - This projection is based on continued reforms and the demographic advantage that India enjoys, with a young and dynamic workforce.

Roadmap to $5 Trillion Economy

- **Economic Reforms:** Major reforms such as the Goods and Services Tax (GST), Insolvency and Bankruptcy Code (IBC), and reduction in corporate tax rates have been implemented to create a conducive business environment.

- **Digital Economy and Fintech:** Promoting digital transactions and fintech innovations to enhance financial inclusion and efficiency.

- **Infrastructure Development:** Significant investments in infrastructure, with the Union Budget 2023-24 allocating 10 lakh crore for capital investment, representing 3.3% of GDP.

- **Energy Transition and Climate Action:** Emphasising sustainable development through renewable energy projects and climate action initiatives.

- **Employment and Skilling:** A robust job market increases consumer spending, which in turn drives demand and stimulates economic activity

  - Employment ensures that the benefits of economic growth are distributed across different sections of society, reducing inequality and promoting social stability.

  - A well-employed workforce contributes to higher productivity and fosters innovation, which are key drivers of economic competitiveness.

Fig.1: Vital Determinants of $5 Trillion Economy

Key Challenges in Achieving $5 Trillion Economy

- **Fiscal Deficit:** Managing the fiscal deficit while ensuring adequate public investment in critical sectors.

- **Employment Generation:** Creating sufficient job opportunities to absorb the growing workforce.

- **Global Economic Uncertainties:** Navigating geopolitical tensions and global economic fluctuations.

- **Skills Impartment:** Ensuring the quality of training programs is essential to make them effective. This includes having qualified trainers and up-to-date training materials.

  - Skilling programs need to be accessible to all, including those in rural and remote areas.

Key Government Initiatives for Achieving a $5 Trillion Economy

- **Economic Reforms:**

  - **Goods and Services Tax (GST):** The implementation of GST has streamlined the indirect tax system, reducing the complexity and improving compliance.

  - **Insolvency and Bankruptcy Code (IBC):** This reform has strengthened the resolution framework for distressed assets, improving the ease of doing business.

  - **Corporate Tax Reduction:** The reduction in corporate tax rates has made India a more attractive destination for investment.

- **Infrastructure Development**

  - **Capital Investment Outlay:** The Union Budget 2023-24 allocated ₹10 lakh crore for capital investment, representing 3.3% of GDP. This substantial increase in capital expenditure aims to boost infrastructure development and attract private investment.

  - **National Infrastructure Pipeline (NIP):** This initiative aims to invest ₹111 lakh crore in infrastructure projects by 2025, covering sectors like energy, roads, railways, and urban development.

- **Digital Economy and Fintech:**

  - **Digital India:** This initiative promotes digital literacy and aims to bridge the digital divide, ensuring that all citizens have access to digital skills and services.

  - **Fintech Innovations:** The government is fostering a conducive environment for fintech startups, enhancing financial inclusion and efficiency.

- **Energy Transition and Climate Action:**

  - **Renewable Energy Projects:** India is investing heavily in renewable energy, with a target to achieve 450 GW of renewable energy capacity by 2030.

  - **Climate Action:** The government is committed to sustainable development through various climate action initiatives, including the National Action Plan on Climate Change (NAPCC).

- **Production Linked Incentive (PLI) Scheme:**

  - **Boosting Manufacturing:** The PLI scheme aims to boost domestic manufacturing in key sectors by providing financial incentives for incremental production.

  - **Sectoral Focus:** The scheme covers 14 sectors, including electronics, pharmaceuticals, and automobiles, to enhance India's manufacturing capabilities and export potential.

- **Make in India and Start-up India:**

  - **Make in India:** This initiative aims to transform India into a global manufacturing hub by

encouraging both multinational and domestic companies to manufacture their products within the country.

- ◆ **Start-up India:** This program supports entrepreneurship by providing funding, mentorship, and regulatory support to startups.
- ◆ **PM internship scheme 2024:** The scheme aims to provide one crore internships in its first five years and enhance employability of candidates.

Key Suggestions

- **Bridging the Skills Gap:** Aligning education and training with market needs is crucial for addressing the skills gap.
  - ◆ It ensures that the workforce is equipped with relevant skills that meet industry demands.
- **Technological Adaptation:** As industries evolve with technological advancements, continuous skilling and up-skilling are necessary to keep the workforce adaptable and competitive.
- **Enhancing Employability:** Skilling initiatives improve employability, making it easier for individuals to find jobs and for industries to find skilled workers.
- **Industry Collaboration**: Collaboration between the government and industry is crucial for effective skilling. Industry participation ensures that the skills being imparted are aligned with market needs.
  - ◆ Initiatives like the **Sector Skill Councils (SSCs) and the National Skill Development Corporation (NSDC)** facilitate this collaboration.

Conclusion

- The vision of a $5 trillion economy is ambitious but achievable with sustained efforts and strategic planning.
  - ◆ The government's focus on structural reforms, digital economy, and infrastructure development lays a strong foundation for this goal.

Source: LM

NEW MOIRÉ SUPERCONDUCTOR

In News

- Recent breakthroughs show that semiconductor-based **moiré materials**, like twisted **bilayer tungsten diselenide (tWSe$_2$)**, exhibit superconductivity.

Moiré Patterns and Their Impact

- **Formation:** A moiré pattern arises when two identical layers of material are stacked and twisted at a small angle.

- **Flat Bands:** The twist causes the electronic energy bands to flatten, reducing the variation in energy among electrons. This flatness:
  - ◆ Slows electron movement, making them "heavy."
  - ◆ Encourages strong electron-electron interactions, essential for superconductivity.

Superconductivity in Semiconductor Moiré Materials

- **tWSe$_2$ Superconductivity:** Researchers studied twisted bilayer tungsten diselenide with a 3.65° twist.
  - ◆ Superconductivity emerged when the electronic states were half-filled, with a critical temperature of approximately –272.93°C.
  - ◆ The material showed stability and coherence, making its superconducting state robust and less fragile compared to graphene-based systems.
- **Mechanism:** In tWSe$_2$, superconductivity stems from electron-electron interactions and the half-band filling, contrasting with graphene, where electron-lattice interactions dominate.
- **Transition to Insulating State:** By altering the material's electronic configuration, tWSe could transition between superconducting and insulating states, revealing its tunability.

Advantages of Semiconductor Moiré Systems

- **Stability:** The study on twisted bilayer tungsten diselenide (tWSe$_2$) demonstrates stable superconductivity in semiconductors, marking a significant leap in quantum materials research.
- **Coherence Length:** The material's coherence length (distance over which superconductivity persists) is 10 times longer than in other moiré materials, making it more robust.
- **Exploratory Potential:** Open doors to designing new quantum materials with tunable electronic and superconducting properties.

Source: TH

BIOMEDICAL WASTE MANAGEMENT

Context

- Mishandling of biomedical waste still poses risks, particularly in resource-limited settings.

Biomedical Waste

- It refers to any waste generated during the **diagnosis, treatment, or immunization of humans or animals,** or in related **research activities.**

- This waste is often contaminated with **potentially infectious materials** and can pose a significant risk to public health and the environment if not managed properly.

- Bio Medical waste consists of:

  - Human anatomical waste like tissues, organs and body parts;

  - Animal wastes generated during research from veterinary hospitals;

  - Microbiology and biotechnology wastes;

  - Waste sharps like hypodermic needles, syringes, scalpels and broken glass;

  - Discarded medicines and cytotoxic drugs;

  - Soiled waste such as dressing, bandages, plaster casts, material contaminated with blood, tubes and catheters;

  - Liquid waste from any of the infected areas;

  - Incineration ash and other chemical wastes.

- **Concerns:**

  - Biomedical waste can carry various health risks, including the transmission of diseases like HIV, hepatitis, tuberculosis, and other infectious diseases.

  - If not disposed of properly, it can contribute to environmental contamination.

Biomedical Waste Management

- It involves collection, segregation, treatment, and disposal.

  - **Autoclaving:** Sterilizing the waste using steam and pressure.

  - **Incineration:** Burning the waste at high temperatures.

  - **Chemical disinfection:** Using chemicals to neutralize pathogens.

  - **Land disposal:** For non-hazardous waste after proper treatment.

Waste Management in India

- India generates around **700 Tonne per day (TPD)** of biomedical waste approximately and about 640 TPD is treated.

- India has a combined treatment capacity of 1,590 TPD.

- Despite having a surplus capacity, 20 states are still using **captive treatment measures and deep pit burials for disposal.**

The Biomedical Waste Management Rules, 2016

- It provides a framework for the management of biomedical waste (BMW) generated from healthcare facilities and other related sources.

Key Provisions:

- **Segregation and Storage:** BMW must be segregated at the point of generation into different categories (e.g., infectious, hazardous, non-hazardous, etc.).

  - Waste should be stored in color-coded bins and containers, as per the prescribed categories.

- **Categories of Biomedical Waste:** It defines seven categories of biomedical waste (e.g., human tissues, sharps, discarded medicines, body fluids, and microbiological waste) and specify color coding for disposal:

  - Yellow: Infectious waste (e.g., contaminated items, body parts).

  - Red: Contaminated plastic items.

  - Blue: Glassware (e.g., bottles, vials).

  - White: Sharps (e.g., needles, scalpels).

  - Black: General waste (e.g., paper, plastic).

- **Treatment and Disposal:** Waste disposal should be done in compliance with the guidelines set by the rules, ensuring that it does not pose harm to public health or the environment.

- **Authorization and Record-Keeping:** All healthcare facilities must obtain authorization from the State Pollution Control Board (SPCB) for handling and disposing of biomedical waste.

  - Proper record-keeping of the quantity, treatment, and disposal of biomedical waste is required.

- **Waste Disposal by Common Biomedical Waste Treatment Facilities (CBWTF):** Healthcare establishments can send their biomedical waste to a Common Biomedical Waste Treatment Facility (CBWTF) for treatment and disposal.

- **Key Amendments (2021):** The rules introduced an extended timeline for compliance with waste management norms.

Way Ahead

- India's biomedical waste management market is expected to grow at a compound annual growth rate of 7-8%.

- The quantum of waste generated is expected to be troublesome if the gaps and leakages are not managed.

- All SPCBs need to conduct the gap analysis to estimate the leakages and use their discretion, so newer CBWTFs can be constructed and their operational radius can be determined.

- All stakeholders from the user to the occupier to the processors need to be tracked so any premeditated leakages can be avoided.

Source: TH

NEWS IN SHORT

SIDDI COMMUNITY

Context

- Recently released film **Rhythm of Dammam** shines a light on the marginalised Siddi community.

About

- The Siddis are **descendants of the Bantu populations of East and Central Africa.**
- The ethnic group came to India **through the slave trade centuries ago.**
- The population resides **primarily in five states** (Goa, Gujarat, Karnataka, Maharashtra, and Telangana), but the majority (90%) reside in Gujarat or Karnataka.
- The government of India has recognized the **Siddi people as a Scheduled Tribe (ST) in some regions.**

Source: IE

KHELO INDIA SCHEME

In News

- The Union Minister of Youth Affairs and Sports has updated the Rajya Sabha on implementation of Khelo India Scheme.

About Khelo India Scheme

- **Brief**: It is the flagship Central Sector Scheme of the Ministry of Youth Affairs & Sports, launched in 2016-17, with the aim of developing a sporting culture in India.
  - The Khelo India Scheme is being implemented in both rural and urban areas of the country.
  - The scheme has been revised n and extended for an additional five years, from 2021-22 to 2025-26.
- **Objective:** It focuses on grassroots development, talent identification, and infrastructure development.
- **Key Components:** A national-level multi-discipline sports competition for school students.
  - Khelo India State Centre of Excellence (KISCE) for providing State-of-the-art training facilities for young athletes.
  - Provides financial assistance to promising young athletes.
  - Encourages sports participation in universities and colleges.

Impact of Khelo India

- Increased Sports Participation among young people.
- Talent Identification and nurturing young talent
- Development of world class Infrastructure
- Promotion of Sports culture

Source: PIB

INTERNATIONAL PATHOGEN SURVEILLANCE NETWORK (IPSN)

In News

- The International Pathogen surveillance network announced the **first round of grants towards understanding disease threats.**
  - It supports low- and middle-income countries (LMICs) in building capacity for pathogen genomic analysis to track and respond to disease threats.

About International Pathogen Surveillance Network (IPSN)

- It is a global initiative led by the WHO Hub for Pandemic and Epidemic Intelligence, aimed at advancing pathogen genomics and enhancing public health decision-making.
- It focuses on **monitoring and analyzing the genetic material** of pathogens like viruses, bacteria, fungi, and parasites to track their evolution, spread, and inform public health actions.
- **Importance :** It fosters international collaboration, bringing together organizations with expertise in genomics and surveillance systems, to improve access, equity, and accelerate global efforts in pathogen genomic surveillance, as seen during the COVID-19 pandemic.

Source: TH

PUNJAB'S PADDY PROCUREMENT HITS FIVE-YEAR LOW

In News

- Punjab is facing one of its lowest paddy procurements in the past five years despite the highest-ever area under rice cultivation.

> **About Paddy Cultivation**
> - Paddy, also known as rice paddy, is primarily cultivated in southern and eastern Asia in irrigated fields with standing water.

- **It** is a semi-aquatic plant that thrives in tropical climates but can also be grown in subtropical and temperate regions. In India, paddy is cultivated almost year-round across three seasons: Kharif, Rabi, and Zaid, depending on factors like cultivar, climate, and water availability.

- **Conditions for paddy cultivation:** Rainfall: Requires 750–1250 cm of annual rainfall.

  - **Temperature**: The ideal temperature is 30°C during the day and 20°C at night, though it can tolerate temperatures up to 40°C for short periods.

- Paddy cultivation likely began between the **15th and 20th century B.C. i**n the **Himalayan regions** and is considered a key development in human history.

  - **Rice** is mentioned in ancient texts like the **Yajur Veda.**

Status in Punjab

- Punjab is a major contributor to India's foodgrain pool and it has procured only 172.16 lakh metric tonnes (LMT) of paddy so far, falling short of the target of 185 LMT for the 2024-25 season, set by the central government.

- **Several factors are responsible for this shortfall:**

  - **Delayed Procurement:** Early issues with rice mills led to delays, and some millers refused to store paddy, affecting the smooth procurement process.

  - **Moisture Level Issues**: Due to delayed harvesting, paddy's moisture content dropped, resulting in lower yields. Farmers expected higher yields but faced losses of up to 5-6 quintals per acre.

  - **Decline in Paddy from Other States**: Restrictions on the transport of paddy from non-MSP states, which usually supplement Punjab's procurement, further contributed to the shortfall.

  - **Systemic Issues:** The combination of procurement delays, lower yields, and policy changes led to a significant shortfall in procurement, affecting farmers' earnings and Punjab's contribution to the central grain pool.

- **Impacts:** These combined challenges have led to a significant gap in paddy procurement, affecting farmers' earnings and the state's role in India's grain supply.

- **Suggestions:** There is a need for improving coordination between procurement agencies, transportation, and storage facilities, ensuring timely payments to arhtiyas (commission agents), and addressing labor demands will enhance the efficiency of the procurement process.

Source:IE

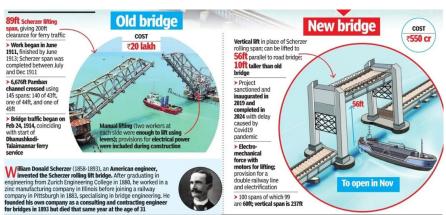## PAMBAN RAIL BRIDGE

In News

- The Commissioner of Railway Safety (CRS) has raised serious concerns about the construction and design of the new Pamban Bridge.

Issues Highlighted

- The CRS report highlighted several glaring lapses like Non-adherence to Research Designs and Standards Organisation (RDSO) standards, Lack of Technical Advisory Group & Corrosion Concerns.

About New Pamban Bridge

- The bridge is built by **Rail Vikas Nigam Limited** and connects the mainland Indian town of **Mandapam with the pilgrimage island of Rameswaram** in Tamil Nadu.

- The **original Pamban Bridge**, completed in 1913 and began in 1914. The new Pamban Bridge is a state-of-the-art vertical lift bridge, allowing ships to pass underneath.

- The bridge plays a crucial role in connecting the mainland with the **holy island of Rameswaram**, a significant pilgrimage site for Hindus.

Pamban Island

- **Location:** Between India and Sri Lanka, in the Gulf of Mannar.
- **Significance:** The largest island in Tamil Nadu by area.
- **Alternative Name:** Also known as Rameswaram Island.
- **Geographical Features:** Part of a chain that includes Adam's Bridge (Ram Setu) and Mannar Island.
  - Connected to the mainland by the Pamban Bridge.

Commissioner of Railway Safety (CRS)

- The Commission of Railway Safety (CRS) is a **statutory authority** in India under the **Ministry of Civil Aviation**, tasked with ensuring railway safety in the country.
- Headed by the **Chief Commissioner of Railway Safety (CCRS)**. Divided into nine circles. It reports to the **Director General of Civil Aviation (DGCA)** for administrative purposes, but works **independently of the Ministry of Railways.**
- CRS is tasked with inspectorial, investigatory, and advisory functions as laid down in the **Railway Act of 1989.**
- The CRS's jurisdiction spans the entire **Indian Railways network.**

Source: TH

ASIAN DEVELOPMENT BANK (ADB)

In News

- The **Asian Development Bank (ADB) Board** of Governors has unanimously elected Masato Kanda as ADB's 11th President.

About Asian Development Bank (ADB)

- **Establishment:** On 19th December 1966
- **Objective:** It is the principal international development finance institution for the Asia-Pacific region.
  - Supports projects in developing member countries that create economic growth and development impact.
- **Focus areas include:** Poverty reduction, Infrastructure development, regional integration.

- **Membership:** Total of 69 members (including 49 from Asia and the Pacific and 20 from outside the region).
  - India is a founding member and one of its largest borrowers.
- **Shareholders:** Japan and the United States hold the largest shares in ADB, each owning around 15.6% of the total subscribed capital.
  - ADB is run by a **board of governors**, which represents the member countries of the ADB.
- **Sources of Funding:** Mix of sources like by issuing bonds in international financial markets, contributions from member countries, income from interest on loans, investment income etc
- **Headquarters:** Manila, Philippines.

Source: AIR

K-4 BALLISTIC MISSILE

Context

- The Indian Navy successfully tested the K-4 ballistic missile from the **INS Arighaat submarine**, enhancing India's nuclear deterrence capabilities.

About K-4 ballistic missile

- **Development:** K-4 or **Kalam-4**, code-named after former President Dr. APJ Abdul Kalam, is a **solid-fuelled nuclear capable ballistic missile** developed by **DRDO**.
- **Range:** Extending to **3,500 km**
- **Nuclear triad:** K-4 will strengthen India's weakest leg of the **nuclear triad**. The land and air vectors, with the Agni ballistic missiles and fighter jets with nuclear gravity bombs, are relatively more robust.

Do you know?

- The **K-5**, with a **range of 5,000 km**, is under development, promising to bridge the gap between regional and intercontinental strike capability.
- Simultaneously, efforts to field the **K-6, a 6,000 km-range** submarine-launched ballistic missile with **MIRV** (multiple independently targetable reentry vehicle) capability, are underway at DRDO's Advanced Naval Systems unit in Hyderabad.

Source: TH