

National and International Weekly Current Affairs 04 to 10 Mar 2024

National News

Cabinet Approval for Semiconductor Plants

The Union Cabinet approved three semiconductor plant proposals to strengthen India's semiconductor manufacturing ecosystem.

Semiconductor Fab with 50,000 wfsm Capacity:

- Location: Dholera, Gujarat
- Investment: Rs. 91,000 crore
- Partnership: Tata Electronics Private Limited ("TEPL") and Powerchip Semiconductor Manufacturing Corp (PSMC), Taiwan
- Technology Partner: PSMC, known for expertise in logic and memory foundry segments
- Capacity: 50,000 wafer starts per month (WSPM)

Segments:

- High performance compute chips with 28 nm technology
- Power management chips for EVs, telecom, defense, automotive, consumer electronics, display, power electronics, etc.

Semiconductor ATMP Unit in Assam:

- Location: Morigaon, Assam
- Investment: Rs. 27,000 crore
- Company: Tata Semiconductor Assembly and Test Pvt Ltd ("TSAT")
- Technology: Developing indigenous advanced semiconductor packaging technologies including flip chip and ISIP
- Capacity: 48 million per day
- **Segments:** Automotive, EVs, consumer electronics, telecom, mobile phones, etc.

Semiconductor ATMP Unit for Specialized Chips:

- Location: Sanand, Gujarat
- Investment: Rs. 7,600 crore
- Partnership: CG Power, Renesas Electronics Corporation (Japan), and Stars Microelectronics (Thailand)
- Technology Partner: Renesas, a leading semiconductor company in specialized chips
- Capacity: 15 million per day

• **Segments:** Consumer, industrial, automotive, and power applications.

Potential in India:

- In 2019, India's semiconductor consumption hit US\$21 billion, showing a growth rate of 15 1%
- The country is expected to surpass USD 80 billion in semiconductor consumption by 2026 and USD 110 billion by 2030.
- Leading semiconductor manufacturing nations are the USA, Taiwan, South Korea, Japan, the Netherlands, and emerging producers like Germany.

India's 1st Green Hydrogen Plant in Stainless steel sector

- Union Minister for Steel and Civil Aviation, Sh. Jyotiraditya M. Scindia, inaugurated India's 1st Green Hydrogen Plant in Stainless Steel Sector virtually.
- The plant, located at Jindal Stainless Limited, Hisar, Haryana is a global milestone, being the world's first off-grid Green Hydrogen plant for the stainless steel industry.
- It is also the world's first Green Hydrogen plant with rooftop & floating solar.
- The project targets a significant reduction in carbon emissions, contributing to a sustainable future.
- This project is also a state-of-the-art green hydrogen facility with a target to reduce carbon emissions considerably by around 2,700 Metric Tonnes per annum and 54,000 tons of CO2 emissions over next two decades.
- The government encourages "green growth" and "green jobs" to achieve net zero carbon emissions by 2070.

SC: No Immunity for MPs & MLAs Who Accept Bribe for Vote or Speech in the House

 The Supreme Court overturned the 1998 PV Narasimha Rao judgment, which granted immunity to MPs and MLAs under Articles 105(2) and 194(2) of the Constitution for



accepting bribes related to voting or speeches in the legislature.

Key points:

- Articles 105 and 194 of the Constitution grant powers and privileges to MPs and MLAs in the Parliament and legislative assemblies.
- These articles provide legal protection to lawmakers, ensuring their freedom of speech and protecting them from prosecution for their remarks or votes in the House.

1998 Judgment Overturned:

- The recent verdict overturns the 1998 judgment in the PV Narasimha Rao case.
- This case involved allegations that legislators of Jharkhand Mukti Morcha accepted bribes during a no-confidence motion in 1993.
- The Supreme Court, in a 3:2 majority ruling, had granted immunity to MPs and MLAs from prosecution in bribery cases if they fulfilled their end of the bargain. However, the recent decision nullifies this immunity.

Significance of the Verdict:

- This decision is crucial in combating cashfor-votes practices and preserving the integrity of electoral processes.
- Previously, MPs and MLAs could not be prosecuted for accepting bribes related to voting or speeches.
- Now, they can be prosecuted as soon as they accept a bribe, with no immunity provided by the House in such cases.

International Centre for Audit of Local Governance (iCAL)

 The Comptroller and Auditor General of India (CAG), Girish Chandra Murmu, has announced the establishment of the Supreme Audit Institution India's International Centre for Audit of Local Governance (iCAL) in Rajkot, Gujarat.

Significance:

 To enhance auditing of local governments, capacity building of auditors and local

- government employees is crucial to improve financial management practices and internal controls.
- Open communication with local government officials can facilitate the audit process, improve data accessibility, and foster cooperation in addressing audit findings.
- The establishment of iCAL aims to achieve these objectives.

The Comptroller and Auditor General (CAG):

- The CAG is India's supreme audit institution, established in 1858 under Article 148 of the Constitution of India.
- It is known as the "Guardian of the Public Purse" and operates independently.
- The duties and powers of the CAG are outlined in Article 149 and 150 of the Constitution.

Appointment:

The Comptroller and Auditor-General of India is appointed by the President of India.

Removal:

The CAG can only be removed by an address from both houses of parliament on the ground of proved misbehavior or incapacity.

Digital Intelligence Platform

 Recently, Minister Chauhan launched the Department of Telecommunications (DoT)'s 'Digital Intelligence Platform (DIP)' and 'Chakshu facility on Sanchar Saathi portal.

About Digital Intelligence Platform (DIP):

- Developed by DoT, it's a secure platform for real-time intelligence sharing among stakeholders like Telecom Service Providers (TSPs), law enforcement agencies (LEAs), banks, social media platforms, etc.
- Contains information on detected misuse of telecom resources.
- Provides useful information to stakeholders.
- Acts as a repository for citizen-initiated requests on the Sanchar Saathi portal.





Chakshu - Citizen Centric Facility:

- Newest addition to Sanchar Saathi portal.
- Allows reporting of suspected fraud communications.
- Reports can include KYC expiry, updates to bank accounts/payment wallets/SIM cards/gas/electricity connections, sextortion, impersonation scams, disconnection of mobile numbers by DoT, etc.
- Victims of cyber-crime or financial fraud should report to the cyber-crime helpline 1930 or the Government of India's cybercrime website.

National Youth Parliament Festival (NYPF)

- On 6th March 2024, the Ministry of Youth Affairs and Sports hosted the finals of the National Youth Parliament Festival (NYPF).
- The festival, inspired by the Prime Minister's Mann Ki Baat Address on 31 December 2017, aims to fortify democratic principles, foster discipline and tolerance, and acquaint young people with parliamentary practices.

About:

- The NYPF held at various levels, is organized by the Ministry of Youth Affairs and Sports in collaboration with Nehru Yuva Kendra Sangathan (NYKS) and National Service Scheme (NSS).
- It includes District Youth Parliament, State Youth Parliament, and Parliament, all geared awareness about active citizenship, encouraging youth engagement, and nurturing leadership qualities among the participants.

Objectives:

- One of the festival's key objectives is to amplify the voices of youth aged 18-25 through deliberations at District, State, and National levels.
- It aims to stimulate young people to engage with public issues, form articulate opinions, and develop their decisionmaking abilities.
- Moreover, it seeks to cultivate respect for differing views, underscore the importance of rules in discussions, and document youth opinions on the Vision of New India, making them accessible to policymakers.

2024 Theme:

 Young Voices: Engage and Empower for Nation's Transformation

Maharashtra State News

National Safety Day

- Observed annually on March 4th, National Safety Day in India is a significant event dedicated to promoting safety awareness and preventing accidents.
- It coincides with the foundation day of the National Safety Council (NSC), established in 1966 to address workplace safety concerns.

Significance:

- Raises awareness about safety in workplaces, communities, and homes.
- Encourages adoption of safe practices and adherence to safety protocols.
- Serves as a platform for safety campaigns, rallies, and educational programs.

Theme:

 This year's theme is 'Focus on Safety Leadership for Environmental, Social, and Governance (ESG) Excellence'.

Did you Know?

 National Safety day was first observed on March 4, 1972, on the foundation day of the council.

MH forest department sets Guinness World Record

- The Maharashtra forest department achieved a remarkable feat by setting a Guinness World Record during the Tadoba Festival 2024.
- They used a staggering 65,724 saplings from 26 different species to form the words "Bharat Mata," which translates to "Mother India" in Hindi.
- This impressive arrangement not only earned them the title for the "largest potted sapling word" but also served as a unique way to promote environmental awareness and patriotism.





International HPV Awareness Day

- International HPV Awareness Day is marked annually on March 4
- It was developed in 2018 by the International Papillomavirus Society (IPVS)
- It aims to raise awareness about the human papillomavirus (HPV), its associated cancers, and the available preventive measures.

About:

- HPV is the most common sexually transmitted infection globally.
- While most people clear the virus naturally, certain HPV strains can lead to several cancers, including cervical, anal, and head and neck cancers.

Govt gives 7.8cr to restore monuments

- The Maharashtra government has allocated Rs 7.8 crore for the restoration of Soneri Mahal, Delhi Gate and Makai Gates.
- The Soneri Mahal has been granted Rs3.93 crore
- Delhi Gate and Makai Gate received funds worth Rs 2.35 crore. And Rs 1.6 crore respectively.
- This is a positive step towards preserving the state's rich historical and cultural heritage.
- The funds will be used to restore monuments across the state, which will help to attract tourists and boost the local economy.

World Wildlife Day

- United Nations World Wildlife Day (WWD) is celebrated every year on March 3.
- It is a global event dedicated to raising awareness about the diverse and magnificent wildlife on our planet.
- It highlights the critical role these animals and plants play in maintaining healthy ecosystems and supporting human wellbeing.

About:

 On 20 December 2013, at its 68th session, the United Nations General Assembly, in its resolution UN 68/205, decided to proclaim 3 March, the international day of the adoption of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on the planet raise awareness and benefits fauna and flora in 1973, as World Wildlife Day.

Theme:

 This year's theme is, "Connecting People and Planet: Exploring Digital Innovation in Wildlife Conservation."

Did you Know?

 The commemoration was proposed by Thailand

Borivali's Historic Mandapeshwar Caves

- Borivali's historic Mandapeshwar Caves, known for their intricate rock-cut carvings, are set to receive a new addition - a 12-Kg silver Shivling.
- The installation of the Shivling is a significant development for the cave temple, which holds cultural and religious significance for the local community.

About:

- The Mandapeshwar Caves were originally built around the 6th century as Buddhist viharas (monasteries)
- These caves were later transformed into a Hindu temple dedicated to Shiva.
- During the 16th century, the Portuguese converted the caves into a Christian chapel, adding a cross that is still visible today.

Government Initiates Farmer-Focused Schemes with Ambitious Goal of Doubling Income

- Maharashtra CM stated that the State government has implemented several schemes to double farmers' income.
- He highlighted the ongoing support for agriculturists during challenges like drought and excess rain.

Key Points:

- The Mahayuti government, driven by Balasaheb Thackeray's ideology, has allocated a substantial financial aid of ₹35,000 crore to farmers over the past 17 to 24 months.
- The Maharashtra government introduced crop insurance at an unprecedented cost of only ₹1 for farmers.





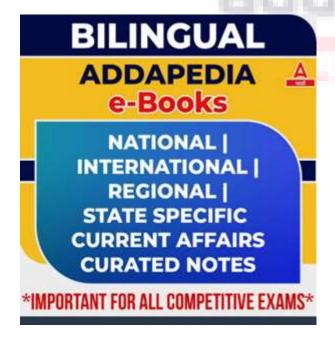
 Similarly, govt have implemented various other schemes that are aimed at doubling farmers' income.

MH CM lays foundation of Metro Line-12 in Mumbai metropolitan region

 Maharashtra CM laid the foundation stone for Metro Line-12 that will connect Kalyan to Taloja in Navi Mumbai.

About:

- Metro Line-12 is one of the several Metro lines that are strategically being developed across the Mumbai metropolitan region (MMR) to complement the exceptional transportation services of the Mumbai metro.
- Metro Line-12 acts as an extension of Metro Line-5 from Kalyan, thereby playing a crucial role in enforcing interconnectivity within the intricate and extensive Metro network.
- Metro Line-12 incorporates a completely elevated structure composed of 19 elevated stations and it constitutes a total length of about 22,173 km.
- The estimated cost of this project is around ₹5,865 crores, and it is anticipated to be completed by the end of 2027.



700 proposals for cluster schools under govt review

- The Maharashtra government is currently reviewing around 700 proposals from 1,900 institutions for establishing cluster schools in the state.
- These schools aim to improve educational access and quality, particularly in rural areas.
- Schools with less than 20 enrolments could be merged with nearby schools so that students get good facilities and quality education.

World Obesity Day

 World Obesity Day, held annually on March 4th, is a unified day of action to raise awareness and encourage solutions to address the global obesity crisis.

About:

- The inaugural World Obesity Day was held on March 4th, 2015.
- It was established by the World Obesity Federation
- lit aimed to bring global attention to the rising issue of obesity and encourage collaborative efforts to address it.

Theme:

- The World Obesity Day 2024 theme is "Let's Talk About Obesity and..."
- This theme emphasizes to encourage people to start conversations that address obesity from a cross-cutting perspective.
- The idea is to look at health, youth, and the world as a whole in order to find ways to combat obesity together.

Mastermind of 26/11 Mumbai Attacks, LeT Terrorist Azam Cheema, Passes Away in Pakistan

- Azam Cheema, a key conspirator in the 2008 Mumbai terror attacks, reportedly died of a heart attack in Pakistan on March 2, 2024.
- He was 70 years old.

Key Points:

 He was also involved in the 2006 Mumbai train bombings that killed 188 people and injured more than 800 people.





 The United States had accused him of training terrorists involved in the 26/11 attacks.

Metro 4 to be operational by Dec 2025'

- MP Rajan Vichare, said that the Thane to Mumbai Metro 4 route is expected to be operational by December 2025
- It connects Kasarvadavli in Thane with Wadala in Mumbai.
- It's a major milestone in Maharashtra's urban development.

Pune airport new terminal likely to be inaugurated on March 10

- The new terminal building at Pune Airport will be inaugurated online by PM Modi on March 10th, 2024.
- This new terminal, which showcases
 Maharashtra's rich culture, spans 51,595
 square meters and is anticipated to handle
 12 million passengers annually, a
 substantial upgrade from the current
 capacity of 7.2 million.
- Also a pedestrian bridge has been constructed to reach Aeromall from the airport terminal.

MMRDA Receives Budget Approval for 2024-25, Allocates Rs 41,955 Crore for Infrastructure

- The Mumbai Metropolitan Region Development Authority (MMRDA) received budget approval for the 2024-25 fiscal year.
- The total budget is estimated at Rs 39,453 crore, with Rs 41,955 crore allocated specifically for infrastructure projects.
- This significant investment aims to improve the Mumbai Metropolitan Region's infrastructure, including:
 - 1. Constructing new Metro lines
 - 2. Building the Thane-Borivali Twin Tube Tunnel Road
 - Developing an underground tunnel road
 - 4. Creating a Versova-Virar Sea Link
 - 5. Constructing the Thane Coastal Road
 - 6. Establishing growth centers
 - 7. Redeveloping the Ramabai Ambedkar Nagar slum

Mumbai to Launch Pod Taxi Service for Smoother Commute to Bandra-Kurla Complex

- Mumbai is set to introduce a futuristic transportation system pod taxis
- These automated, driverless pods will aim to ease traffic congestion and provide a smoother commute between Bandra and Kurla railway stations, connecting to the Bandra-Kurla Complex (BKC) business district.

Key Points:

- Route: 8.8 kilometers long with 38 stops
- Capacity: Each pod can hold up to 6 passengers
- Speed: Up to 40 kilometers per hour
- Implementation: Public-private partnership
- This innovative project is expected to revolutionize urban mobility in Mumbai and serve as a model for other cities facing similar traffic challenges.

MH issues GR for suo moto disclosure of information under RTI Act

- The MH govt issued a Government Resolution (GR) urging departments to proactively disclose information as mandated by Section 4 of the Right to Information (RTI) Act.
- This move aligns with the recent Supreme Court emphasis on the importance of "suo motu" disclosures, where public authorities share information without waiting for individual RTI applications.
- This initiative by the Maharashtra government is a positive step towards promoting transparency and citizen empowerment through the RTI Act.
- Implementing Section 4 effectively is seen as crucial for:
 - 1. Reducing RTI application backlog
 - 2. Increasing transparency

BMC initiates final launch of girders to connect Coastal Road with Bandra Worli Sea Link

 The Brihanmumbai Municipal Corporation (BMC) has begun installing the final section of the bridge connecting the Mumbai Coastal





- Road Project (MCRP) to the Bandra Worli Sea Link (BWSL).
- The project involves launching girders to bridge the 850-meter gap between the Worli interchange of the MCRP and the BWSL.
- Almost two girders, measuring 44 and 46 meters each, have already been successfully installed.
- This development brings the MCRP closer to completion, aiming to improve traffic flow and connectivity in Mumbai.

Maharashtra, Gujarat and Karnataka have met less than 50% of capex target in FY24

- As of January 2024, Maharashtra, Gujarat and Karnataka have reportedly spent less than 50% of their allocated capital expenditure (capex) budget for the financial year 2023-24 (FY24).
- Maharashtra: 37.49%
- Karnataka: 41%Gujarat: 46.4%
- These figures suggest that these states may not be able to fully utilize their planned investments in infrastructure and other development projects during the current fiscal year.

Wildlife board concern over ESZ provision violations by states

- The Wildlife Board has expressed significant concern regarding violations of Essential Standard Zone (ESZ) provisions by several states.
- These provisions, established within the framework of (mention the relevant legislation/regulation), aim to protect critical habitats and ensure the well-being of wildlife populations.
- The issue was raised in the 78th Standing Committee meeting chaired by Union environment minister Bhupender Yadav.
- The Board's concerns stem from reports of (mention specific examples of violations, e.g., development projects exceeding permitted limits, inadequate conservation measures).
- These violations, if left unchecked, could have detrimental consequences for (mention potential consequences, e.g., habitat loss, species endangerment).

Yadava dynasty-era pots found during Satara temple restoration

- Centuries-old clay pots have been unearthed during the restoration and conservation works at Katreshwar's Shivling temple in the Katarkhatav village of Satara's Khatav tehsil.
- The pots could be 800-900 years old.
- The "jirnoddhar" work of the temple has been undertaken by state govt, which has sanctioned Rs 3 crore for the first phase of the work.

About:

- The Yadava dynasty was a Hindu dynasty that ruled parts of western India from the 9th to the 14th centuries.
- The dynasty is known for its patronage of the arts and architecture, and many temples were built during their reign.

International Women's Day

- International Women's Day (IWD) is celebrated annually on March 8th.
- It's a day to recognize the social, economic, cultural, and political achievements of women.
- It also serves as a call to action for accelerating gender equality.

About:

- The United Nations began celebrating International Women's Day in 1975, which had been proclaimed the International Women's Year.
- In 1977, the United Nations General Assembly invited member states to proclaim March 8 as an official UN holiday for women's rights and world peace.

Theme:

- The United Nations has designated the year 2024's theme as 'Invest in Women: Accelerate Progress'
- It focuses on addressing economic disempowerment
- The campaign theme for this year is 'Inspire Inclusion.'





CIDCO Allocates Rs 4000 Crores for Housing projects in 2024-25 Budget

 Navi Mumbai is set for a significant improvement in housing and infrastructure development as the City and Industrial Development Corporation (CIDCO) allocated Rs 4,000 crore for housing projects in its 2024-25 budget.

About:

- Rs 4,018 crore to construct around 90,000 homes under the Prime Minister Awas Yojana to cater to low and middle-income groups.
- Rs 730 crore for water supply projects to address water scarcity.

Key Points:

 The Pradhan Mantri Awas Yojana (PMAY) is a flagship initiative by the Indian government to provide affordable housing for all by 2022 (target extended to Dec 2024 for Urban).

It has two main components:

Pradhan Mantri Awas Yojana-Urban (PMAY-U):

This scheme targets urban poor families, including those living in slums. It offers a credit-linked subsidy (CLSS) on home loans to eligible beneficiaries from Economically Weaker Section (EWS) and Low-Income Group (LIG) categories. Additionally, it provides interest rate subsidy for Middle Income Groups (MIG I & II)

Pradhan Mantri Awas Yojana-Gramin (PMAY-G/R):

 This scheme focuses on providing rural households with pucca houses. It provides financial assistance for building new homes or renovating existing ones.

9,000 MW solar power to provide 12-hr supply to farmers during day time

 Deputy CM issued letters of award to 95 entities for the installation of solar plants to generate 9,000 MW power, creating 25,000 jobs in Maharashtra.

About:

 This initiative aims to provide a reliable 12hour daytime electricity supply to farmers

- using a massive 9,000 MW solar power plant.
- It will enable 40 per cent agriculture feeders to be driven by solar power by 2025.
- This project is significant for a couple of reasons:
- Scale:
- With a capacity of 9,000 MW, this solar plant is a substantial undertaking.
- Target beneficiaries:
- By dedicating this power specifically to agriculture feeders, it directly addresses the needs of farmers for daytime electricity to run irrigation equipment and other agricultural operation.

Torent Power wins Rs 1,540 crore bid for 306 MW solar project in Nashik

- Torrent Power has secured a 306 MW solar power project in Nashik, Maharashtra.
- The project valued at Rs 1,540 crore will be set up across 48 locations in the district.
- The company received the Letter of Award (LoA) from Maharashtra State Electricity Distribution Co Ltd (MSEDCL).
- The project aims to provide stable daytime electricity to agricultural consumers through decentralized solar power.
- The power generated will be sold at a tariff of Rs 3.10 per kWh for 25 years.
- This project is expected to be commissioned within 18 months.

CIDCO Allocates Rs 977 Crores for the upcoming Navi Mumbai International Airport in 2024-25 Budget

- Navi Mumbai is set for a significant improvement in infrastructure development as the City and Industrial Development Corporation (CIDCO) allocated Rs 977 crore for the upcoming Navi Mumbai International Airport in its 2024-25 budget.
- The aim is to expedite critical projects like the Navi Mumbai International Airport (NMIA), Navi Mumbai Airport Influence Notified Area (NAINA), metro expansion, a coastal road, and a water supply scheme.

About:

- Rs 977 crore allocated to expedite the development of the new airport.
- Infrastructure:



- Rs 730 crore for water supply projects to address water scarcity.
- Rs 610 crore for Metro Rail projects for improved connectivity.
- Rs 569 crore for developing NAINA.
- Rs 300 crore for Kharghar-Turbhe Link Road.
- Rs 284 crore for Railway projects.

Sunrays event at the Ellora Caves on Sun

- Every year, citizens eagerly await a unique celestial phenomenon at the Ellora Caves.
- On a specific day, the sun's rays penetrate through the cave entrance and illuminate the face of a Lord Buddha sculpture located inside Cave number 10.
- This year the phenomenon is most likely to occur on March 10 and 11
- This remarkable event is a popular tourist attraction
- The Sun Rays are expected to illuminate Lord Buddha's face between 4:30 pm and 5:15 pm for two days.

Maharashtra's 4th Women's Policy unveiled

- Maharashtra has launched its fourth Women's Policy, outlining a roadmap for women's empowerment
- The policy, the fourth after the ones announced in 1994, 2001 and 2014, aims for comprehensive and all-inclusive development of women with focus on eight areas.

These are:

- 1. Health, nutrition and wellbeing
- 2. Education and skill development
- 3. Ending sexual and gender-based violence
- 4. Gender responsive livelihood enhancement, gender inclusive infrastructure.
- 5. Gender responsive governance and political participation
- 6. Gender sensitive natural resource management,
- 7. Climate change adaptation and disaster management
- 8. Exclusive sports policy.

Three committees will oversee implementation:

• **High-Power Committee:** Chaired by the Chief Minister for high-level oversight.

- **State Task Force:** Led by the Women and Child Development Minister for strategic guidance.
- **District Committees:** Headed by Guardian Ministers for local-level monitoring.

Electricity Price Hike in Mumbai

- Mumbai residents can expect to see a significant increase in their electricity bills starting in April.
- The Maharashtra Electricity Regulatory Commission (MERC) approved an average tariff increase of around 24% for Tata Power customers.
- This hike comes after a stay on a previous tariff revision meant to recover costs.
- The increase will vary depending on electricity usage, with bills going up by 27-44% for residential consumers.

SWAMIH allocates Rs 160 cr to Stans Buildtech Homes for stalled project

- Government-backed SWAMIH fund allocates ₹160 crore to Stans Buildtech Homes for completion of their stalled Sky Annex project in Chembur, Mumbai.
- This Slum Rehabilitation Authority (SRA)
 project faced delays due to issues with tenants, approvals, and financing.
- With SWAMIH funding, the project is expected to be completed by the end of 2026.

State News

PM Inaugurates India's First Underwater Metro Line in Kolkata

 In Kolkata, Prime Minister Narendra Modi inaugurated the Esplanade-Howrah Maidan section of the Kolkata Metro, marking India's first underwater transportation tunnel passing beneath the Hooghly river.

Key points:

- The Esplanade-Howrah Maidan stretch, part of the East-West Corridor, spans 4.8 kilometers and was constructed at a cost of ₹4,965 crore.
- Additionally, the Kavi Subhash-Hemanta Mukhopadhyay section of the New Garia-





Airport line, 5.4 kilometers long and costing ₹1,430 crore, was inaugurated.

 These new sections aim to alleviate road traffic congestion and enhance connectivity in Kolkata.

Bengaluru's First Driverless Metro Train

- The Bengaluru Metro Rail Corporation Limited (BMRCL) has received the first set of six train coaches for its underconstruction yellow line.
- These coaches are part of the Communication-based Train Control (CBTC) system, enabling driverless operations.

What is CBTC-enabled Driverless Metro Train?

- Utilizes Communication-based Train Control (CBTC) technology.
- Relies on radio communication for precise train control.
- Enables trains to communicate with each other.
- Unattended Train Operations (UTO) automate tasks like door operations and train movement.
- Enhanced Supervision Capability from Operations Control Centre (OCC) ensures effective monitoring and management of train operations.

Manufacturing and Design:

- Manufactured by CRRC Nanjing Puzhen Co Ltd, China, in collaboration with Titagarh Rail Systems Ltd., India.
- Part of the Make In India Initiative.
- A contract worth Rs 1,578 crore for 216 coaches was secured in 2019.

Al Integration:

- Al technology enhances safety operations on the new line.
- Al algorithms monitor tracks for anomalies using sensor data.
- Cameras on trains capture visual data for realtime analysis of safety concerns.
- Aims to improve track maintenance and ensure safe operations.

Special Features:

- Hot axle detection system monitors train bearings for overheating.
- Real-time location displays door status and arrival/departure information.
- Front and rear-view cameras aid in monitoring boarding and deboarding.
- Emergency Egress Device (EED) allows passengers to request assistance during emergencies.

Operation and Timeline:

- Initially, the train will have a train operator for at least six months before transitioning to fully driverless operations.
- Revenue operations will start with seven trains running at a 15-minute frequency.
- Operational delays have pushed the expected commencement to December 2024.
- Delays are primarily due to slow manufacturing and testing processes.

International News

Seizure of CNC Machines Bound for Pakistan at Nhava Sheva Port

 Customs authorities at Nhava Sheva port recently intercepted a dual-use shipment on a vessel destined for Karachi, expressing suspicions regarding its potential utilization in Pakistan's nuclear initiatives.

About Nhava Sheva Port:

- Jawaharlal Nehru Port, also known as JNPT and Nhava Sheva Port, is the second largest container port in India after Mundra Port.
- Operated by the Jawaharlal Nehru Port Trust Authority (JNPTA), it is located on the eastern shores of the Arabian Sea in Navi Mumbai, Raigad district, Maharashtra.

India, four-nation EFTA bloc likely to ink FTA on March 10

 India and the four-nation European Free Trade Association (EFTA), which includes Switzerland, Finland, Norway and Liechtenstein, is likely to sign a longnegotiated free trade agreement on March 10, aimed at increasing trade and investment flows, job creation and economic growth, according to multiple sources.





Key points:

- The proposed India-EFTA Trade and Economic Partnership Agreement (TEPA) is expected to lead to investments worth \$100 billion from the four-country bloc into India over the next 15 years generating an estimated one million jobs, officials said.
- Notably, this FTA marks the first instance where India secures commitments on investment and employment from partner nations.
- Officials anticipate that the pact will help address India's significant trade deficit with the EFTA bloc.

Schemes and Committees News

ADITI scheme

Raksha Mantri Shri Rajnath Singh unveiled the ADITI scheme at DefConnect 2024 to boost innovations in critical and strategic defence technologies.

Key points:

- Scheme Name: Acing Development of Innovative Technologies with iDEX (ADITI)
- Purpose: Develop critical and strategic defence technologies.
- Falls under: iDEX (Innovations for Defence Excellence) framework.
- Period: 2023-24 to 2025-26
- Focus: Innovations in critical and strategic defence technologies from startups
- Grant Amount: Up to Rs 25 crore for research, development, and innovation in defence technology
- **Benefits:** Nurtures youth innovation and advances country's technology sector
- Technology Watch Tool: To bridge gap between modern Armed Forces' needs and defence innovation ecosystem
- Challenges: 17 challenges launched in the first edition for Indian Army, Indian Navy, Indian Air Force, and Defence Space Agency to develop latest technologies
- R&D Importance: Need for self-reliance in technology development due to limitations of technology acquisition through offset and FDI
- Government's Support: Reserved 75% of defence capital acquisition budget for

purchases from local companies including MSMEs.

Revision in PM Surya Ghar Muft Bijli Yojana and Its Implementation

The Union government has modified the ₹75,000-crore PM Surya Ghar Muft Bijli Yojana, also known as the rooftop solar: free electricity scheme.

Key points:

- Initially intended to fully subsidize 1 kW-3 kW solar systems in one crore households, the scheme now contributes up to 60% of the installation costs.
- Interested households must now bear the remaining cost, with a minimum payment of ₹20,000, which can be mitigated through a low-interest, collateral-free loan.
- Eligibility criteria include suitable roof conditions and an existing grid connection.
 Consumers are still responsible for paying for the net power supplied and consumed via the grid.
- Net-metering allows unused solar power to flow back into the grid, offsetting the household's electricity bill.
- Twelve public sector banks offer collateralfree loans at 1% above the prevailing RBI repo rate to eligible households.
- A 3 kW-hour system can generate up to 300 units per month, with a maximum subsidy of ₹78,000 available.
- Currently, the cost of a rooftop solar system is around ₹50,000 per kW.
- Households can either pay the remaining balance or opt for a loan, with installation and maintenance costs factored in.
- Over 40 lakh registrations have already been received, with installations underway in Gujarat. The target is to reach one crore houses within three years.

Defense News

Yars Missile

 Russia recently conducted a fire test of its nuclear ballistic Yars missile.

Key points:





- The RS-24 Yars is an intercontinental ballistic missile (ICBM) in Russia's Strategic Missile Forces arsenal.
- It has an operational range of up to 12,000 kilometers, making it one of the longest-range missiles globally.
- The RS-24 Yars features a Multiple Independently targetable Reentry Vehicle (MIRV) system.
- This allows it to carry multiple nuclear warheads, enhancing its strategic deterrence capability.
- The RS-24 Yars replaces the older Topol and Topol-M missile systems.
- It exists in **both mobile and silo-based forms** to increase flexibility and reliability.

ICBM:

- An intercontinental ballistic missile is a ballistic missile with a range greater than 5,500 kilometres, primarily designed for nuclear weapons delivery.
- Maximum range varies from 7,000 to 16,000 kilometers, according to the Federation of American Scientists.
- Compared to other types of ballistic missiles, ICBMs are significantly faster and have a greater range.
- Agni-V, an Indian ICBM, has a range of over 5.000 kilometers.

Navy commissions INS Jatayu,MH-60R helicopter squadron

INS Jatavu:

- The Indian Navy commissioned the INS Jatayu at Minicoy island, marking its second base in Lakshadweep after INS Dweeprakshak in Kavaratti.
- The commissioning of INS Jatayu is part of a phased expansion plan to bolster India's surveillance and security in the strategically located islands near the Nine Degree channel and critical sea lanes of communication.
- The presence of INS Jatayu will strengthen the Indian Navy's presence in the Lakshadweep islands, enhancing capacity building, operational reach, and sustenance in the region.
- Plans are underway to improve the jetty infrastructure in Minicoy island to accommodate larger vessels, improve

connectivity, and enhance response and ability.

MH-60R Squadron Commissioned as INAS 334 'Seahawks'

- The Navy also commissioned its first MH-60R multi-role helicopter squadron, INAS 334 'Seahawks', at Kochi.
- The squadron consists of 48 officers and 170 men and is commanded by Captain M. Abhisheik Ram, an experimental test pilot with extensive flying experience.
- A scintillating fly-past by a formation of Seahawks and a traditional water cannon salute with four helicopters marked the historic moment.
- The MH-60R squadron represents a major capability boost for the Indian Navy's rotary fleet and its anti-submarine warfare capabilities.

Project Seabird

 The Defence Minister is set to inaugurate key infrastructure/facilities of Project Seabird at Naval Base Karwar in Karnataka.

About:

- The largest naval infrastructure project for India, it involves creation of a naval base at Karwar on the west coast of India.
- Approved in 1999 after Pokhran-II by the then Defence Minister George Fernandes.
- Upon completion, this \$3 billion program and effort will provide the Indian Navy with its largest naval base on the west coast and also the largest naval base east of the Suez Canal.
- It will be able to accommodate around 32 warships, 23 submarines, and hangers for several aircraft.

Purpose

• Providing fleet support and maintaining warships.

Phases I





- Designed for 10 ships, completed in 2011.
- Infrastructure included a breakwater, a pier for 10 ships, a 10,000-ton ship lift, Naval Ship Repair Yard, logistics and armament storage, accommodation for 1000 personnel, Headquarters/Depot Organisation, and a 141bed Naval Hospital.

Phase IIA

- CCS(Cabinet Committee on Security) approval for berthing 32 ships, submarines, and 23 Yardcraft.
- Includes constructing buildings adhering to MOEF and IGBC guidelines, piers for ships/submarines, technical facilities, electrical substations, and a Covered Dry Berth for four capital ships.
- Four townships with 10,000 dwelling units for Officers, Senior and Junior Sailors, and Defence Civilian staff.
- Setting up a green field dual-use Naval Air Station with a 2700 m runway and civilenclave.

Economic Benefits

- Directly generated employment for 7,000 personnel and indirectly for 20,000 jobs.
- More than 90% materials sourced from India, involving companies like AECOM India Ltd., Larsen & Toubro, ITD Cementation India Ltd, Nagarjuna Construction Company, Navayuga Engineering Company Ltd., and Shapoorji Pallonji Group.
- Once operational, estimated 50,000 individuals to reside in Naval Facilities, contributing to the local economy.
- Expected industrial growth and investments in Uttara Kannada region, creating employment opportunities.
- Naval Air Station to improve air connectivity and boost tourism in Uttar Karnataka and South Goa, providing government employment to around 8,000 personnel.

Ranks & Reports News

Women, Business and Law Index

India has improved its ranking to **113 out of 190 countries** in the World Bank's Women, Business and Law index.

Key points:

- The index, which measures the enabling environment for women's economic opportunity in 190 economies, assesses how laws and regulations impact women's economic rights on a scale of 0 to 100, where 100 signifies equal legal rights for men and women.
- The report evaluates eight key areas: Mobility, workplace, pay, marriage, parenthood, entrepreneurship, assets, and pension.
- This is the 10th edition of the report.
- Globally, no country achieved a perfect score, indicating a lack of equal rights for women worldwide.
- Indian women enjoy 60% of the legal rights given to men, which is lower than the global average of 64.2%.

Sports News

Union Minister Anurag Singh Thakur Announces Two NCoE for Women

Union Minister for Youth Affairs and Sports, Shri Anurag Singh Thakur, has declared the establishment of two National Centres of Excellence (NCOEs) for women in honor of International Women's Day.

Key points:

- These NCOEs will focus on 23 disciplines prioritized for medal-winning potential in global competitions like the Asian Games and the Olympics.
- Shri Thakur, addressing the lack of trainers, coaches, and infrastructure at the state level, emphasized the importance of national support for sports development.
- Collaboration between the Central government and state authorities is underway to identify key sports and allocate resources accordingly, ensuring a strategic approach to promoting sports like hockey, boxing, and athletics.
- Efforts are being made to strengthen existing NCOEs and enhance coaching quality in collaboration with national sports federations.





 The Sports Authority of India has established 23 NCOEs across India, equipped with advanced infrastructure, sports science facilities, personalized nutrition plans, and expert coaching staff to nurture promising athletes.

Science and Technology News

Prototype Fast Breeder Reactor - Kalpakkam

Prime Minister Narendra Modi visited the Kalpakkam nuclear power plant and observed the commencement of "core loading" at India's first indigenous Fast Breeder Reactor (500 MWe).

Key points:

- In 2003, the government approved the creation of Bhartiya Nabhikiya Vidyut Nigam Ltd. (BHAVINI) to operate India's most advanced nuclear reactor, the Prototype Fast Breeder Reactor (PFBR).
- The PFBR, fully designed and constructed indigenously by BHAVINI with contributions from 200 Indian industries, is a significant achievement.
- Once commissioned, India will be the second country, after Russia, to have a commercial operating Fast Breeder Reactor.
- The PFBR is an advanced third-generation reactor with inherent passive safety features, ensuring high levels of safety.

PFBR:

- The PFBR, which breeds more material for nuclear fission than it consumes, is a key project of India's nuclear power programme.
- Initially, the reactor will use uraniumplutonium mixed oxide (MOX) fuel.
- The uranium-238 'blanket' surrounding the fuel core will undergo nuclear transmutation to produce more fuel, earning the name 'Breeder'.
- The use of Thorium-232 as a blanket is also envisaged.
- Through transmutation, Thorium will create fissile Uranium-233 for use as fuel in the third stage.
- FBR is a stepping stone for the third stage, leading to the full utilization of India's abundant thorium reserves.

- After core loading, the reactor will approach criticality, generating power subsequently.
 PFBRs are cooled by liquid sodium, with 1,750 tonnes of liquid sodium to be loaded into the reactor.
- India chose the closed fuel cycle option for this reactor, where spent fuel is reprocessed and converted into indigenously-developed unique plutonium-rich mixed carbide fuel.

Graphene Innovation Center

Recently, S Krishnan, Secretary of the Ministry
of Electronics and Information Technology
(MeitY), inaugurated two significant initiatives
in Kerala: a Centre of Excellence (CoE) in
Intelligent Internet of Things (IIoT) Sensors
and India's first graphene center - the India
Innovation Centre for Graphene (IICG).

About India Innovation Centre for Graphene (IICG):

- Collaborative Initiative: Funded by MeitY, the Government of India, the State Government of Kerala, and Tata Steel Limited, along with various industries.
- Implementing Partners: Centre for Materials for Electronics Technology (C-MET), Digital University Kerala (DUK), and Tata Steel Limited.
- Objective: To explore the science and technology of graphene and other 2D materials, fostering partnerships between industry and academia for innovative research with practical applications.
- International Collaboration: Aims to attract leading international research on graphene to India and bridge the gap between scientific advancements and industrial applications.
- Facilities: Plans to establish facilities and acquire sophisticated equipment to support research aligned with industry needs.

Main Research Areas Include:

- Large-scale and large area single/few-layer graphene production in collaboration with Indian graphene industries.
- Nanoscale carbon and other 2D material composite technology.



- Research and development of graphene optoelectronic products such as graphene intelligent windows and touch screens.
- Development of graphene-based smart integrated devices on flexible/transparent substrates with energy storage capabilities.
- Exploration of graphene energy conversion devices like supercapacitors, fuel cells, and batteries.
- Advanced lithographic techniques for device fabrication.

Read about Graphene and its Properties

MethaneSAT

- MethaneSAT, a satellite launched aboard a SpaceX Falcon9 rocket from California, will track and measure methane emissions globally.
- Methane is a potent greenhouse gas, the second largest contributor to global warming after carbon dioxide, responsible for 30% of global heating since the Industrial Revolution.

Why Track Methane Emissions?

- Methane is 80 times more potent at warming than carbon dioxide over a 20-year period.
- It contributes to the formation of ground-level ozone, which could be contributing to one million premature deaths every year.
- Fossil fuel operations, accounting for about 40% of all human-caused methane emissions, are the main culprits.

About MethaneSAT:

- Developed by the Environmental Defense Fund (EDF) in partnership with Harvard University, the Smithsonian Astrophysical Observatory, and the New Zealand Space Agency.
- Will orbit the Earth 15 times a day, monitoring the oil and gas sector.
- Will provide data on methane emissions, their sources, and trends over time, enabling stakeholders and regulators to take action to reduce emissions.

Features of MethaneSAT:

- Equipped with a high-resolution infrared sensor and a spectrometer, enabling it to track methane concentrations as small as three parts per billion.
- Has a wide-camera view of about 200 km by 200 km, allowing it to identify larger emitters known as "super emitters."

Miscellaneous News

Hanguls on the Path to Recovery

- The endangered hangul, a shy deer species native to Kashmir, is showing signs of recovery with a healthy mating season indicating a potential increase in numbers.
- The official figure suggested there are 19.2 males per 100 females "which is much lower than the ideal ratio of 40-50 males per 100 females".

Key points:

- Hangul population declined sharply since 1947
 but showed a steady increase from 183 in 2015 to 261 in 2021.
- Conservation efforts include securing habitats, regulating traffic on highways, and identifying threats.
- A captive-breeding facility has been set up to further protect the species.

About:

Hangul, a subspecies of the Central Asian red deer, is primarily found in the dense riverine forests of the Valley and mountains of Jammu and Kashmir as well as northern Himachal Pradesh.

- Habitat: Dense riverine forests of the Valley and mountains of Jammu and Kashmir and northern Himachal Pradesh.
- **Threats:** Rising pollution, poaching, habitat fragmentation due to land use, and climate change.
- Impact of Human Activities: Studies indicate that human activities are major factors contributing to the decline in the Hangul population.
- Conservation Status: The International Union for Conservation of Nature (IUCN) has





- classified the Hangul as Critically Endangered in the Red Data Book.
- Legal Protection: The animal is listed under Schedule I of the Indian Wildlife (Protection) Act, 1972.

Shehbaz Sharif Becomes Pakistan's Prime Minister for the Second Time

 Shehbaz Sharif, a leader of the Pakistan Muslim League Nawaz (PML-N), has been elected as Pakistan's Prime Minister for the second time.

Key points:

- He secured 201 votes in the election held at the National Assembly, while his opponent Omar Ayub Khan of the Pakistan Tehreeke-Insaf (PTI) received only 92 votes.
- In his victory speech, Shehbaz Sharif emphasized his commitment to revive Pakistan's economy and eradicate terrorism.
- Shehbaz Sharif vowed to maintain cordial relations with neighboring countries based on principles of equality and not to involve Pakistan in any geopolitical "great game."
- While emphasizing the importance of improving ties with all nations, he also raised the Kashmir issue, urging for solidarity with the Kashmiri and Palestinian causes.

Narasapur crochet lace

- The Narasapur crochet lace craft, famous in the Godavari region of Andhra Pradesh, has received the Geographical Indications (GI) tag from DPIIT.
- The GI tag aims to revive the craft and boost its demand, especially against competition from machine-made lace products from China.

Key points:

- Originated in 1844 when Macrae and his wife from Scotland taught the lace-making technique to local women at Dummugudem, Telangana.
- The craft is limited to 19 mandals in West Godavari and Dr. B.R. Ambedkar Konaseema districts in the Godavari region.

Major trade points include Narsapur,
 Palacole, Razole, and Amalapuram,
 involving around 15,000 women in production.

GI Tags in Andhra Pradesh

- Srikalahasthi Kalamkari
- Kondapalli Bommallu
- Machilipatnam Kalamkari
- Budithi Bell & Brass Metal Craft
- Andhra Pradesh Leather Puppetry
- Uppada Jamdani Sarees
- Tirupathi Laddu
- Guntur Sannam Chilli
- Venkatagiri Sarees
- Bobbili Veena
- Mangalagiri Sarees and Fabrics
- Dharmavaram Handloom
- Pattu Sarres And Paavadas
- Bandar Laddu
- Udayagiri Wooden Cutlery
- Durgi Stone Carvings
- Etikoppaka Toys
- Allagadda Stone Carving
- Atreyapuram Pootharekulu
- Araku Valley Arabica Coffee
- Banaganapalle Mangoes

Tripura's traditional tribal attire 'risa' receives Gl tag

After a year of Tripura's queen pineapple receiving the GI tag, 'risa,' a traditional tribal attire, has also been granted the GI recognition, as announced by Chief Minister Dr. Manik Saha in Agartala.

Historical Significance:

- The attire is claimed to have originated before the Manikya kings' rule over Tripura, which lasted over 500 years starting from the 15th century.
- Maharaj Trilochana, also known as Subhrai Raja, is said to have invented nearly 250 designs of 'rignai' during his time for his 250 wives.

Features of Tripura's Traditional Attire:

- The traditional Tripuri female attire consists of three parts: 'risa,' 'rignai,' and 'rikutu.'
- 'Risa' is a handwoven cloth used as a female upper garment, headgear, stole, or a present



- to express respect. It is wrapped around the torso twice.
- 'Rignai' is primarily worn as the lower garment, similar to the sari of mainland India.
- 'Rikutu' is mainly used as a wrap, 'chunri,' or 'pallu' of the Indian saree, also used to cover the heads of newly married Tripuri women.

Cultural and Religious Significance:

- 'Risa' is worn in religious festivals such as Garia Puja by tribal communities and as a turban by men during weddings and festivals.
- Adolescent Tripuri girls are first given a 'risa' to wear in an event called Risa Sormani, at ages 12 to 14.
- The cloth is also used as a makeshift hanger to hold an infant on mothers' backs and is presented as a mark of honor to distinguished recipients.
- 'Risa' is common in almost all 19 indigenous tribal communities of Tripura, with each community having its own design.

Vaccine Preventing Six Cancers

- March 4: International HPV Awareness Day
- January: Cervical Cancer Awareness Month

Key points:

- Cervical cancer affects the cervix, the lower part of the uterus.
- HPV vaccination prevents cervical cancers.
- Cervical cancer is the fourth most common cancer among women globally.
- Over 300,000 women die from cervical cancer annually, about one every two minutes.
- Nine out of 10 women who die from cervical cancer live in lower- and middle-income countries.
- In India, cervical cancer is the second most common cancer after breast cancer.
- Around 500 million women above 15 in India are at risk of cervical cancer.
- Without action, cases and deaths from cervical cancer are expected to rise significantly by 2040.
- By 2040, India is estimated to have 191,347 new cases of cervical cancer, a 54% increase from 2020.

Prevention Strategies:

- Cervical cancer is caused by certain types of papillomaviruses (HPV).
- Two major prevention strategies: HPV vaccination and screening for precancerous lesions.

WHO's Strategy by 2030:

Targets:

- **90% of girls** to be fully vaccinated with HPV vaccine by age 15.
- **70% of women** screened for precancerous lesions by ages 35 and 45.
- **90% of women w**ith detected pre-cancer or cancer lesions receive treatment.
- Emphasizes high-quality and equitable healthcare services.

El Niño 2023: Among the Strongest on Record

- The World Meteorological Organisation (WMO) announced on March 5 that the 2023-2024 El Niño is among the five strongest on record.
- Despite a weakening trend, the El Niño is expected to continue affecting the climate in the upcoming months.

Key points:

- Above-normal temperatures are predicted over almost all land areas from March to May.
- The prevailing El Niño conditions have already caused record temperatures and extreme events worldwide, with 2023 being the warmest on record.
- The WMO forecasts a 60% chance of El Niño persisting during March-May and an 80% chance of neutral conditions during April-June.
- Scientists suggest that if La Niña conditions set in by June-August, it could lead to improved monsoon rains in India compared to 2023.

About:

- El Niño refers to the periodic warming of the ocean surface in the central and eastern tropical Pacific Ocean, occurring every two to seven years and lasting nine to twelve months.
- It is associated with increased rainfall in the Horn of Africa and southern U.S., and dry,





- warm conditions in Southeast Asia, Australia, and southern Africa.
- According to WMO Secretary-General Celeste Saulo, unusual high sea-surface temperatures persist globally for the past ten months, not solely explained by El Niño.
- El Niño typically has the greatest impact on climate in its second year of development, notably in 2024.
- The current El Niño event, which began in June 2023, peaked in November-January, with temperatures about 2 degrees C above the 1991-2020 average.
- This El Niño event has significantly impacted societies and economies, with accurate seasonal forecasts helping countries prepare in climate-sensitive sectors like agriculture, water resources, and health.
- Early warnings of weather and climate extremes associated with El Niño have saved numerous lives.

