

National and International Weekly Current Affairs 25 to 31 December 2023

National News

Muslim League Jammu Kashmir (Masarat Alam faction) under Unlawful Activities (Prevention) Act (UAPA)

- The Union Home Ministry declared the Muslim League Jammu Kashmir (Masarat Alam faction) an "unlawful association" under the anti-terror Unlawful Activities (Prevention) Act (UAPA) for five years.
- MLJK-MA was known for its anti-India and pro-Pakistan propaganda and its objectives were to get freedom of Jammu and Kashmir from India so as to realise the merger of Jammu and Kashmir with Pakistan and establish Islamic rule.

About

- UAPA was passed in 1967.
- It aims at effective prevention of unlawful activities associations in India.
- Unlawful activity refers to any action taken by an individual or association intended to disrupt the territorial integrity and sovereignty of India.
- The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
- It has the death penalty and life imprisonment as the highest punishments.
- Under UAPA, both Indian and foreign nationals can be charged.

Disabled staff to get quota in promotion with effect from 2016

- The Indian government has implemented a policy granting disabled staff reservation in promotions within government departments, retroactive to June 30, 2016.
- This decision signifies a significant step towards ensuring equal opportunities for disabled individuals in career progression.

Key Points:

 The policy provides a 4% reservation in vacancies within Groups C, B, and A for

- promotion of **Persons with Disabilities** (PwDs).
- Employees with benchmark disabilities exceeding 40% in specified categories, as defined by the Rights of Persons with Disabilities Act, 2016, are eligible for the quota.
- It aims to address the underrepresentation of PwDs in higher positions within government departments, offering them a fair chance to climb the career ladder.
- The Department of Personnel and Training (DoPT) has issued guidelines for various aspects of the policy, including identification of vacancies, application procedures, and selection criteria.

Maharashtra State News

New Vande Bharat to soon operate on Mumbai-Jalna route

- A new Vande Bharat train is likely to operate between Mumbai to Jalna
- This proposed train will be the fourth one from Chhatrapati Shivaji Maharaj Terminus
 (CSMT)

About:

- The Vande Bharat Express is a mediumdistance train service operated by Indian Railways,
- It was launched in 2019
- It is capable of reaching speeds up to 160 km/h, significantly faster than most Indian trains.

Central Railway to procure 500 more fog devices

- The Central Railway is procuring 500 additional fog safety devices to assist loco pilots during poor signal visibility due to bad weather conditions.
- Aim is to mitigate accident risks.
- At present, the Central Railway has 497 devices, which have been given to different rail divisions under its jurisdiction.





MUHS thesis on tribal health in 4 Vid dists ready

- Nagpur regional centre of Maharashtra University of Health Sciences (MUHS) has compiled a thesis under the ambitious BLOSSOM project.
- It covered 18 villages having 85% tribal population in four districts for screening and surveillance of these diseases.
- BLOSSOM was launched in September 2022
- It stands for Breast cancer, Liver disease, Osteoporosis, Sickle cell, sexually transmitted diseases, Oral cancer, Malnutrition.

Good Governance Day

- Good governance is observed annually on December 25.
- The day aims to let the citizens, the students, who are the future of the country know about the government's responsibilities and duties that it needs to fulfill.
- The day is also celebrated to commemorate the birth anniversary of India's former Prime Minister, Atal Bihari Vajpayee.

Key Points:

- December 25th marks the birth anniversary of Atal Bihari Vajpayee
- He was born in Gwalior, Madhya Pradesh, in 1924
- His life was a testament to dedication, resilience, and political acumen.
- He served as Prime Minister three times
- Vajpayee initiated significant economic reforms, ushering in an era of liberalization and globalization.
- India conducted nuclear tests in 1998, establishing itself as a nuclear power under Vajpayee's leadership.
- He is known for his contributions to state integration.
- During his Prime Ministership (1998-2004),
 Vajpayee's government oversaw the creation of three new states Chhattisgarh,
 Uttarakhand, and Jharkhand.

Himroo

 Himroo is a luxurious brocade fabric woven with silk and gold or silver threads widely associated with Aurangabad in Maharashtra

- The origins of Himroo remain debated, with theories attributing its introduction to Persia or Europe during the Mughal era.
- Himroo employs a complex weft-based pick-and-pick technique, where silk warp threads are interlaced with silk wefts containing gold or silver zari threads.
- This creates a reversible fabric with shimmering metallic patterns and motifs woven seamlessly into both sides

School edu dept to bring in new act to regulate kindergartens

- The state's school education department is gearing up to bring in a new act to regulate pre-primary education, to be aligned with the National Education Policy (NEP) 2020.
- It will be implemented from the next academic year
- It aims to improve the quality of education and control arbitrary fees.
- The regulation emphasizes accreditation, curriculum standards, and minimum facilities, with the goal of ensuring equality in kindergarten education.

Devendra Fadnavis conferred honorary doctorate by Japanese university

- Maharashtra Deputy Chief Minister
 Devendra Fadnavis was bestowed with an honorary doctorate by Japan's Koyasan University.
- It was given in acknowledgment of his endeavors in establishing fundamental civic infrastructure, executing initiatives like the Jalyukta Shivar Yojana, and his role in advancing the industrial development of the state.

Umed - Maharashtra State Rural Livelihoods

- Umed, also known as the Maharashtra State Rural Livelihoods Mission (MSRLM), is a state-level initiative launched in 2011 by the Government of Maharashtra
- Aim is to eradicate rural poverty and improve the livelihoods of rural communities.

Objectives:





- Reduce poverty by enabling poor households to access better income-generating opportunities.
- Empower rural communities through capacity building and social mobilization.
- Promote self-reliance and sustainable development in rural areas.
- Create vibrant rural economies through entrepreneurship and skill development.

Key Components:

- Self-Help Groups (SHGs): Formation and support of women-led SHGs for promoting micro-enterprises, savings, and collective action.
- Skill Development and Training: Providing vocational training and skill development programs in various sectors like agriculture, textiles, and handicrafts.
- Financial Inclusion: Facilitating access to credit and financial services for SHGs and individuals through partnerships with banks and microfinance institutions.
- Infrastructure Development: Improving rural infrastructure by constructing roads, markets, and other essential facilities.
- Natural Resource Management: Promoting sustainable practices for managing land, water, and forest resources.

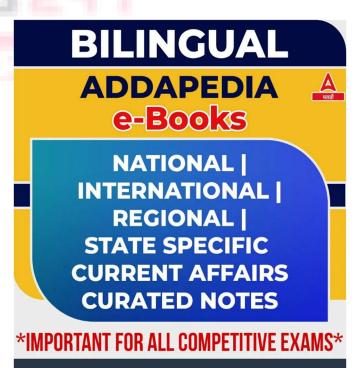
NGT Issues notice to Maharashtra over presence of Arsenic and fluoride groundwater

- The National Green Tribunal has issued notices to 24 states, including Maharashtra, and four Union Territories in a matter regarding the presence of arsenic and fluoride in groundwater.
- The presence of these metals or chemicals are "very serious" and requires "urgent preventive and protective steps".
- Effects of Arsenic: Long-term exposure to arsenic can lead to a multitude of health problems, including:
 - Skin lesions and hyperkeratosis (thickening of the skin)
 - Cancer of the skin, bladder, lung, and other organs
 - Cardiovascular diseases
 - Diabetes
 - Developmental problems in children
 - Neurological disorders

- Safe Level: According to the WHO, the safe limit for arsenic in drinking water is 10 micrograms per liter (µg/L).
- Effects of Fluoride: While fluoride in appropriate amounts helps prevent dental cavities, excessive exposure can cause:
 - Dental fluorosis (discoloration and weakening of teeth)
 - Skeletal fluorosis (stiffness and pain in bones and joints)
 - Gastrointestinal problems
 - Neurological damage
- Safe Level: The WHO recommends a fluoride level of 1.5 mg/L, with adjustments based on climate and age of the population.

About:

- The National Green Tribunal (NGT) is a specialized body in India established to handle expeditious disposal of cases related to environmental protection and conservation of forests and other natural resources.
- It was set up under the National Green Tribunal Act, 2010, to address environmental disputes and provide speedy access to justice in such matters.
- NGT is a Quasi-judicial body
- It aims to **deliver speedy resolutions** to environmental disputes, reducing delays often associated with traditional courts.







GN1 Corona

- Gen1 infection, which is spreading rapidly in many states in India, has been reported to be spreading in many states like Goa, Tamil nadu, Karnataka, Telangana, Kerala and Maharashtra as well.
- GN1 Corona is a relatively new strain of the coronavirus family, first identified in China in 2023.
- Compared to existing variants, it demonstrates some differences in characteristics and potential risks.

Pioneer of bone marrow transplant starts onco OPD

- Dr Suresh Advani, a Pune doctor who pioneered bone marrow transplant in the country, has started an oncology OPD at Talegaon, where he conducted his first oncosurgery in 1982
- The Onco Life Cancer Centre also has a chemotherapy ward.
- The centre will conduct an OPD every second Saturday.

Selu's Bhure is NU's first sprinter to clinch 100m bronze in zonal meet

 Adarsh Bure became the first Nagpur University sprinter to clinch bronze medal in 100 m race of North- East West Zone inter-university athletics meet at Bhubaneswar

Temporary stay on Adani Green's soil testing for Patgaon project

- The Kolhapur Forest division's deputy conservator of forest (DCF) has temporarily stayed the permission to Adani Green Energy Limited (AGEL) for soil testing in forest areas of Patgaon dam backwaters in Budarghad tehsil of district for a proposed pumped hydropower project
- The project is to come up at Patgaon and at Anjiwade village in Kudal tehsil of Sindhudurg district

CIDCO plans ₹14,321 cr infra projects in NAINA in 2024

 City and Industrial Development Corporation (CIDCO) has announced plans

- for infrastructure projects worth ₹14,321 crore in the NAINA region, Maharashtra.
- The projects will include a road network, stormwater management, water supply, sewer, and electrical works
- The tendering process for the projects to be implemented immediately will be done in January 2024

No Registration or Renewal for Real Estate Agents from 1st January

- From January 1st, 2024, a significant change will impact the Indian real estate sector as there will be no new registrations or renewals for real estate agents without a valid MahaRERA Real Estate Agent Certificate of Competency.
- Maharashtra Real Estate Regulation Authority has made it mandatory for real estate agents to obtain training and certification for registering or renewing their permits
- It aims to enhance professionalism, transparency, and consumer protection in the industry.

IndiGo announces first ever direct flights from Mumbai to Ayodhya

- IndiGo, has announced to launch the firstever direct flights between Mumbai and Ayodhya, the spiritual city in Uttar Pradesh
- Ayodhya is known for its association with Lord Rama.
- These daily flights will commence on January 15, 2024, bringing a convenient and faster option for pilgrims and travelers connecting the financial capital with the holy city.

Madrassas in Maha will now get ₹10 lakh for modernization

- The Maharashtra government has announced a tenfold increase in the annual grant for modernization of madrassas in the state.
- Previously, madrassas received only ₹2 lakh per year, but under the new Zakir Hussain Madarsa Modernization Scheme, each madrassa will now receive ₹10 lakh annually.
- It aims to improve the teaching infrastructure, learning environment,





including classrooms, libraries, laboratories, and computer labs.and overall quality of education in madrassas across Maharashtra.

Discharge of water from Koyna dam initiated again

- Koyna Dam, a crucial water source in Maharashtra, has resumed water discharge to cater to the increasing demand from the Sangli district.
- The discharge of 1,050 cusecs of water from Koyna dam has been initiated into Krishna river to cater to the irrigation demand of Sangli district.
- It was in view of recent lack of rainfall and depleting water levels in rivers like Krishna.

Mumbai, Pune among top cities propelling growth of India's real estate sector in 2024

- In its latest analysis, housing.com has identified Mumbai, Pune, and Hyderabad as pivotal players propelling the anticipated growth of India's residential real estate sector in 2024.
- The data, focusing on online homebuyer activity, underscores these cities as dynamic hubs set to shape the sector's narrative in the coming months.

Wagh nakh will be brought to state

 The state cultural affairs minister said that the Wagh Nakh claimed to have been used by Chhatrapati Shivaji Maharaj to kill Adilshahi general Afzal Khan will be brought back to Maharashtra.

About:

- It is a tiger claw dagger used by Maratha warrior king Chhatrapati Shivaji Maharaj
- It is set to return to Maharashtra from the Victoria and Albert Museum in London.

Pune, Nashik get 10.3% recovery rate for sugarcane

- The state sugar commissioner's office has fixed the base sugar recovery rate for all five revenue divisions in Maharashtra.
- The recovery rate for Pune and Nashik divisions will be 10.25%, while it will be 9.50% for the remaining three divisions.

 The mills from Pune and Nashik divisions will have to pay Rs 3,150 per tonne to the farmers, while the mills from the three other divisions have to pay Rs 2,920 per tonne

Note:

 A higher recovery rate translates to more sugar extracted from the same amount of sugarcane, leading to higher payments for farmers.

Waste-to-energy plants coming up in Mumbai

- Mumbai is grappling with a waste management crisis, generating over 6,000 metric tons of solid waste daily, 70% of which is organic.
- To address this issue and promote greener practices, the Brihanmumbai Municipal Corporation (BMC) is setting up mini wasteto-energy plants in five major civic-run hospitals.

Key Points:

- Five Hospitals: KEM Hospital, Sion Hospital, Rajawadi Hospital, TB Hospital (Sewri), and Nair Hospital (Mumbai Central) will house these plants.
- Bio-methanation Technology: Each plant will employ bio-methanation technology, which converts organic waste like food scraps and garden trimmings into biogas.
- Waste Capacity: Each plant will process around 2 metric tons of organic waste daily.

India's sugar sector upbeat as MH reports increase in cane yield, sugar production

- India's sugar production for the crushing year 2023-24 is expected to witness a positive trend following a boost in yield from two key sugarcane producing states – Maharashtra and Karnataka.
- Millers in both the states have reported increased per-hectare yield which has led them to revise their production figures by 10 to 15 per cent.
- At the national level, the sugar production is expected to reach 305 lakh tonnes (It) as against the 291.50 It at the start of the season





BKC has poor AQI at 292, Kandivali best at 77

- Mumbai's air quality continues to be a mixed bag, with some areas grappling with unhealthy levels of pollution while others enjoy relatively cleaner air.
- Bandra Kurla Complex (BKC), the city's financial hub, is struggling with a poor Air Quality Index (AQI) of 292, while Kandivali, a western suburb, is breathing easy with an AQI of 77, which falls under the 'moderate' category.

The high AQI in BKC is likely due to:

- Traffic congestion: BKC is a major commercial center with heavy traffic flow, leading to increased emissions from vehicles.
- Construction activity: Ongoing construction projects can generate dust and particulate matter, further impacting air quality.
- Limited green cover: Compared to other areas, BKC has less green space, which helps absorb pollutants and improve air quality.

State News

Chavittu Natakam

- Chavittu Natakam is a colourful and vigorous theatre form
- It is considered to be a folk art form noted for its attractive make-up of characters, their elaborate costumes, detailed gesture, and well-defined body movements.
- It is believed that the art form flourished at Kodungalloor in Kerala with the spread of Christianity.
- The Portuguese are supposed to have introduced this art form in Kerala.
- Chinna Thampi Pilla and Vedanayakan Pilla are considered to be the originators of this art form.

International News

United Nations High Commissioner for Refugees (UNHCR)

The United Nations High Commissioner for Refugees (UNHCR) expressed gratitude to Indian authorities on the Andaman and Nicobar Islands for taking care of 142 Rohingya refugees, whose boat was intercepted by coastal security agencies near Shaheed Dweep

About UNHCR

- The United Nations High Commissioner for Refugees (UNHCR) is a United Nations agency mandated to aid and protect refugees, forcibly displaced communities, and stateless people, and to assist in their voluntary repatriation, local integration or resettlement to a third country.
- It is headquartered in Geneva, Switzerland.
- UNHCR was created in 1950 to address the refugee crisis that resulted from World War II.
- The 1951 Refugee Convention established the scope and legal framework of the agency's work, which initially focused on Europeans uprooted by the war.

Qatar court drops death penalty for eight Indians

- The Ministry of External Affairs confirmed that the Court of Appeals in Doha has commuted the death sentence of Eight Indian nationals to life imprisonment.
- All eight arrested last year were employees of the Dahra Global defense services company.
- The eight men were previously convicted of charges related to the death of a Qatari citizen during a robbery attempt.

Houthi attacks - a threat to global shipping

 The recent drone attacks on merchant vessels in the Red Sea by Houthi rebels have raised concerns about maritime security, disrupting global trade routes and potentially impacting economies.

Key Points:

- These attacks have prompted some shipping companies to reroute vessels, avoid the Red Sea, and increase operational costs
- India heightened its presence, deploying various resources to counter potential threats in the region and monitor maritime activity.
- On December 23, the crisis in the Red Sea reached Indian waters as Liberian-flagged merchant vessel Chem Pluto heading to Mangalore port was hit by a projectile about 271 miles from Porbandar in Gujarat, just outside the Indian Exclusive Economic Zone (EEZ).





 This comes in the backdrop of a sharp rise in missile and drone attacks on commercial shipping in the Red Sea by Houthi rebels in Yemen in the last couple of weeks following Israel's offensive against Hamas in Gaza.

Economy News

Renewable energy investments

- Power Ministry estimates show that India will witness more than 83% increase in investments in renewable energy (RE) projects to about \$16.5 billion in 2024 as the country focuses on energy transition to reduce carbon emissions
- This is in line with India's ambitious target of having 500 GW of renewable energy by 2030 and its resolve to reduce overall power generation capacity from fossil fuels to less than 50%.
- India has committed a net zero emission target by 2070.

Agreement news

India-ASEAN to rejig 15-year trade pact in early 2024

- India and the ten-member Association of South East Asian Nations (ASEAN) will begin negotiations to "modernise" their decade-and-a-half-old free trade agreement (FTA) to bring more balance in the pact currently weighed against New Delhi.
- New areas like labour, environment, Small and Medium Enterprises (SMEs) and gender, are likely to be kept out.
- India has long been pressing for a review of the ASEAN India Trade in Goods Agreement (AITGA), which was signed in August 2009, as the pact resulted in disproportionate benefits for the ASEAN.

Did you know?

The 10-member ASEAN region accounted for 11.3% of India's global trade in 2022-23

About ASEAN

 The Association of Southeast Asian Nations is a regional organization which was established to promote political and social

- stability amid rising tensions among the Asia-Pacific's post-colonial states.
- The motto of ASEAN is "One Vision, One Identity, One Community".
- August 8th is observed as ASEAN Day.
- ASEAN Secretariat Indonesia, Jakarta.
- The 10-member ASEAN includes Indonesia,
 Malaysia, the Philippines, Singapore,
 Thailand, Brunei, Vietnam, Laos, Myanmar and Cambodia

India-Maldives ties on hydrographic survey

- The Maldives Cabinet decided against renewing a Memorandum of Understanding (MoU) with India for cooperation in hydrography.
- The agreement, which was signed in 2019, is due to expire in 2024

About hydrography

- It is the science of studying oceans, seas, and other water bodies, by compiling and analysing data, maps, and charts.
- Branching off from applied sciences, it looks at measuring and describing the physical attributes of water bodies and predicting how they might change over time.
- While it is said to be undertaken primarily for safety of navigation, it also supports other activities, such as economic development, security and defence, scientific research, and environmental protection.
- Hydrographical measurements include tidal, current and wave information.

India's expertise

- India has been an active member of the International Hydrographic Organization (IHO) since 1955.
- The Indian Naval Hydrographic Department (INHD) was established in 1874 in Kolkata.
- It is the nodal agency for hydrographic surveys and has a fleet of indigenously built modern survey ships. India partners with many countries in the Indian Ocean Region and African and East Asian countries such as Mauritius, Seychelles, Tanzania, Maldives, Mozambique, Vietnam, Myanmar, Kenya, and Sri Lanka.
- Personnel from 39 countries have trained at the National Institute of Hydrography, functioning under the INHD.





Kudankulam nuclear power plant

India and Russia signed some "very important" agreements related to the **construction of the future power-generating units** of the Kudankulam nuclear power plant.

Key points

- The Kudankulam nuclear power plant, India's largest, is being built in Tamil Nadu with the technical assistance of Russia.
- The construction began in March 2002.
- Since February 2016, the first power unit of the Kudankulam NPP has been steadily operating at its design capacity of 1,000 MW.
- The plant is expected to start operating at full capacity in 2027.

Russia, NASA agree to continue joint ISS flights until 2025

- Despite ongoing geopolitical tensions, Russia and NASA have agreed to continue joint flights to the International Space Station (ISS) until at least 2025.
- This decision ensures uninterrupted operation of the orbiting laboratory, a landmark example of international cooperation in science and technology.
- The agreement covers delivery of crews by both countries' spacecraft, guaranteeing continued presence of American and Russian astronauts on the ISS.

Centre, Assam sign peace pact with ULFA faction

- The Union Home Ministry and the Assam government signed a memorandum of settlement with the pro-talks faction of the United Liberation Front of Asom (ULFA).
- The Group's cadres have agreed to surrender arms, vacate their camps, and engage in a peaceful democratic process.

About ULFA

- The United Liberation Front of Assam (ULFA) is an armed separatist organisation operating in the Northeast Indian state of Assam.
- It seeks to establish an independent sovereign nation state of Assam for the indigenous Assamese people through an armed struggle in the Assam conflict.

• The Government of India banned the organisation in 1990 citing it as a terrorist organization.

Lithium deal with Argentina

- The Mines Ministry, through the state-owned Khanij Bidesh India Ltd (KABIL), has entered into a draft exploration and development agreement with Argentinan miner CAMYEN for possible acquisition and development of five-odd lithium blocks.
- The company has also entered into a nondisclosure agreement with Chilean miner ENAMI for 'possible exploration, extraction, processing and commecialisation' of the mineral

Did you know?

- Latin American nations, primarily Chile and Argentina, account for 30–35% of the world's supplies.
- Chile, with 11% of the world's lithium reserves, supplies 26% of the requirements; while Argentina with nearly a fifth of the global reserves supplies about 6%.
- Australia is among the other large producers globally.

Summits & Conferences News

Schemes and Committees News

PLI 2.0 for steel sector

The government is working on **Production Linked Incentive (PLI) scheme 2.0** to ensure adequate raw material supply for the steel sector in 2024.

About Production Linked Incentive Scheme 2.0

- The scheme proposes a financial incentive to boost domestic manufacturing and attract large investments in the value chain.
- The target segments under PLI 2.0 Scheme shall include Laptops, Tablets ,All-in-One PCs and Servers and Ultra Small Form Factor.
- Implementation: Companies, both global and domestic, that meet the eligibility criteria specified in the PLI 2.0 Scheme guidelines will receive support for manufacturing goods in India within the specified target segment.





- The classification of applicants into the Hybrid (Global/Domestic) category will be determined by whether the company is domestic or global.
- Tenure: The incentives provided under the PLI
 2.0 Scheme will be applicable for a period of 6 years
- **Base year**: For the calculation of net incremental sales of manufactured goods, the base year will be the financial year 2022-23.

Women account for 49% of Ayushman cards

- The Indian Ministry of Health recently revealed that nearly 49% of Ayushman cards, also known as Pradhan Mantri Jan Arogya Yojana (PMJAY) cards, are held by women.
- This signifies a significant step towards inclusivity and equitable access to healthcare in India.

Key takeaways:

- Increased participation: The figure reflects the growing awareness and utilization of the Ayushman Bharat scheme among women.
- Empowering women: Access to quality healthcare empowers women to take charge of their health and well-being, leading to improved overall health outcomes.
- Focus on women's health: The scheme also includes 141 health benefit packages specifically designed for women, addressing various health concerns and needs.



COVID-19-hit MSMEs can tap new relief window from Jan. 1

 Micro, Small & Medium Enterprises (MSMEs) adversely affected by the COVID-19 pandemic can tap new relief window from Jan. 1 This new window will open for them to submit fresh claims under the Vivad Se Vishwas I scheme, offering relief from pending litigation related to taxes, interest, and penalties.

Vivad Se Vishwas I scheme:

- The Vivad Se Vishwas I scheme was launched in 2020
- The aim is to resolve tax disputes between businesses and the government through mutual agreement.

Defense News

Indian Navy unveils new epaulets for admirals

- The Navy unveiled the new design of epaulets for admirals, with the octagon in the new design drawn from the naval ensign and inspired by rajmudra of Chhatrapati Shivaji.
- The new design is a "true reflection of our rich maritime heritage" and reiterates the "resolve to do away with Ghulami ki Maansikta".
- The new epaulets have the golden Navy button top, followed by an octagon, an Indian sword and a telescope crossed, followed by stars indicating the ranks.

Ranks & Reports News

Farming crisis forcing youths to take to illegal migration

- From volatile weather patterns and climate change to plummeting crop prices and rising input costs, the agricultural sector is facing immense challenges.
- This crisis is hitting young people particularly hard, pushing many towards the perilous path of illegal migration.

Reasons for the Exodus:

- Dwindling Profits: Declining agricultural incomes due to factors like unfair market practices and volatile prices leave many young farmers with bleak financial prospects.
- Limited Opportunities: The lack of alternative employment opportunities in rural areas, often characterized by limited infrastructure and education, further amplifies the pressure to seek greener pastures abroad.





- Debt Burden: Many young farmers inherit crippling debts from their families, adding to the financial strain and making migration seem like the only escape route.
- Desire for a Better Life: The allure of higher wages, better living conditions, and access to education and healthcare in developed countries acts as a powerful magnet for young people desperate for a brighter future.

Science and Technology News

Aerogel fibre

- Inspired by the structure of polar bear fur, researchers present a knittable aerogel fibre.
- The fibers are washable, dyeable, durable, and well-suited to be used in advanced textiles.
- This allowed the researchers to test them in a sweater that demonstrated impressive thermal insulation, among other features.
- Aerogels are an ideal material for thermal insulation.
- Encapsulated aerogel fiber has excellent thermal insulation while also being mechanically robust.

Dark Energy

- Dark Energy is a hypothetical form of energy that exerts a negative, repulsive pressure, behaving like the opposite of gravity.
- It is causing the rate of expansion of our universe to accelerate over time, rather than to slow down.
- That's contrary to what one might expect from a universe that began in a Big Bang.

Deep Fakes

- The Ministry of Electronics and Information Technology has send another advisory to social media firms to comply with the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.
- The advisory is aimed at getting social media firms to crack down more forcefully on fabricated 'deepfake' clips of people made with artificial intelligence.

About deep fakes

- Deepfakes are fake content in the form of videos, pictures and audio which are created using powerful artificial intelligence tools.
- The origin of the word "deepfake" can be traced back to 2017 when a Reddit user, with the username "deepfakes", posted explicit videos of celebrities.
- The technology involves modifying or creating images and videos using a machine learning technique called generative adversarial network (GAN).
- This Al-driven software detects and learns the subjects' movements and facial expressions from the source material and then duplicates these in another video or image.

Smart Lander for Investigating Moon (SLIM) spacecraft

- SLIM is a spacecraft built and launched by the Japan Aerospace Exploration Agency (JAXA) from the Tanegashima spaceport.
- It weighed only 590 kg
- SLIM was launched together with XRISM, a next-generation X-ray space telescope, onboard an H-2A rocket.

XPoSat

The Indian Space Research Organisation (ISRO) will launch PSLV-C58 X-ray Polarimeter Satellite (XPoSat) mission.

Key points

- XPoSat is the first dedicated scientific satellite from ISRO to carry out research in spacebased polarisation measurements of X-ray emission from celestial sources.
- It carries two payloads POLIX (Polarimeter Instrument in X-rays) and XSPECT (X-ray Spectroscopy and Timing).
- POLIX has been developed by the Raman Research Institute and XSPECT is by the Space Astronomy Group of URSC, Bengaluru.

Miscellaneous News

Good governance Day

- Good governance is observed annually on December 25.
- The day aims to let the citizens, the students, who are the future of the country know about



- the government's responsibilities and duties that it needs to fulfill.
- The day is also celebrated to commemorate the birth anniversary of India's former Prime Minister, Atal Bihari Vajpayee.

Veer Baal Divas

- Prime Minister will participate in a programme to pay homage to the courage and martyrdom of the sons of Guru Gobind Singh, the 10th and last Sikh 'Guru'.
- The Union government has organised many participative programmes across the country to mark the day which has been named "Veer Baal Divas".
- A digital exhibition detailing the life story and sacrifice of the 'Sahibzades' (martyred sons of Guru Gobind Singh) will also be displayed in schools and childcare institutions across the country.

Key points

- The Prime Minister announced the observation of "Veer Baal Divas", to mark the martyrdom of Guru Gobind Singh's sons Sahibzadas Baba Zorawar Singh Ji and Baba Fateh Singh Ji.
- Veer Baal Divas tells us what is India and its identity and every year, Veer Bal Divas will inspire us to recognise our past and make our future.
- This will also remind everyone about the strength of our young generation.

Tea Board issues order to growers on pesticide use

The Tea Board has asked tea estates and small tea growers across India to avoid using on their plantations chemicals or pesticides that have no label claim.

About Tea Board of India

- It is a statutory body under the Ministry of Commerce that was set up in 1953 for the development of tea industry in India. It started functioning in 1954.
- Its vision and mission is to make the country a leading producer of tea across the globe for which it established several programmes and schemes.
- The Board is constituted of 31 members (including Chairman) drawn from Members of Parliament, tea producers, tea traders, tea brokers, consumers, and representatives of

- Governments from the principal tea producing states, and trade unions
- The Board is reconstituted every three years.
- The board has its headquarters located in Kolkata

West Antarctic Ice Sheet

- Genetic analyses of an Antarctic octopus show that the West Antarctic Ice Sheet (WAIS) collapsed during the Last Interglacial about 1,29,000 to 1,16,000 years ago when temperatures were only about 1 degree C warmer than preindustrial levels.
- The findings suggest that WAIS collapse and resultant sea-level rise could be caused by even the minimal temperature rises.
- Total WAIS collapse would have devastating global ramifications — it could raise the global sea level by roughly 3 to 5 meters.

Pegasus spyware found on journalists' phones after Apple alert

 The recent discovery of Pegasus spyware on the phones of several journalists in India has sparked major concerns about privacy, press freedom, and national security.

Key Points:

- The Security Lab of Amnesty International announced that the founder editor of The Wire news website Siddharth Varadarajan and another journalist in India were targeted with Pegasus spyware this year
- The journalists had received an alert from Apple that they were being targeted by "state-sponsored hacking", following which they provided their phones to the non-profit for testing.

About:

- Pegasus is a sophisticated Israeli-made software that allows attackers to remotely access a phone's data, including messages, calls, emails, and even location information.
- Pegasus attack is also called as a "Zero Click attack"

Person in News: Vijyakanth

• Vijayakant, the charismatic actor and influential politician who transcended the





screen to win over the hearts of millions in Tamil Nadu, passed away at the age of 71.

- He was born in Madurai as Muthuraman
- Vijayakanth made his acting debut in 1976 and quickly rose to stardom with powerful performances in action-oriented roles.
- Vijayakanth, who was known for his action films and philanthropic work, launched the Desiya Murpokku Dravida Kazhagam (DMDK) in 2005 as an alternative to the ruling Dravida Munnetra Kazhagam (DMK) and All India Anna Dravida Munnetra Kazhagam (AIADMK).

11th century Jain sculptures discovered in Mysuru district

- Three 11th century Jain sculptures were discovered at Varuna village in Mysuru district.
- Entire belt comprising Varuna, Varakodu and Vajamangala had been thriving Jain centres in the past.

About Jainism

- Jainism is an ancient religion that is rooted in the philosophy that teaches the way to liberation and a path to spiritual purity and enlightenment through disciplined nonviolence to all living creatures.
- Jainism came to prominence in the 6th century B.C., when Lord Mahavira propagated the religion.
- There were 24 great teachers, the last of whom was Lord Mahavira

