



Current Affairs:24-26.12.2021

JAMES WEBB TELESCOPE

World's largest and most powerful space telescope has been launched successfully into orbit to make breakthrough discoveries on the origins of the Universe and Earth-like planets beyond our solar system.



About:

The James Webb Space Telescope, NASA's premier space observatory of the next decade, was launched in an Ariane rocket from the European Space Agency's base in French Guiana on Christmas Day.

The Webb telescope will reach its destination in solar orbit some 1.5 million km from Earth - about four times farther away than the moon. And Webb's special orbital path will keep it in constant alignment with the Earth as the planet and telescope

circle the sun in tandem. It will see farther into our origins, from the formation of stars and planets, to the birth of the first galaxies in the early Universe. It intends to show humans what the Universe looked like even closer to its birth nearly 14 billion years ago.

Webb, named after one of the architects of the Apollo Moon landings, is the successor to the Hubble telescope. Jointly built by NASA, the European Space Agency, and the Canadian Space Agency, the new observatory is, however, 100 times more powerful.

TASTE THE TV (TTTV)

A Japanese professor has developed a prototype lickable TV screen that can imitate food flavours, another step towards creating a multi-sensory viewing experience.

About:

The device, called Taste the TV (TTTV), uses a carousel of 10 flavour canisters that spray in combination to create the taste of a particular food. The flavour sample then rolls on hygienic film over a flat TV screen for the viewer to try.In the COVID-19 era, this kind of technology can enhance the way people connect and interact with the outside world, said Meiji University professor Homei Miyashita.

The goal is to make it possible for people to have the experience of something like eating at a restaurant on the other side of the world, even while staying at home.

Potential applications include distance learning for sommeliers and cooks, and tasting games and quizzes.

GOOD GOVERNANCE INDEX 2021

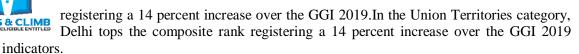
Union Minister of Home Affairs and Minister of Cooperation, Mr Amit Shah released the Good Governance Index 2021 prepared by DARPG on Good Governance Day.

About:

Good Governance Index, GGI 2021 Framework covered ten sectors and 58 indicators.

The sectors of GGI 2020-21 are 1) Agriculture and Allied Sectors, 2) Commerce & Industries, 3) Human Resource Development, 4) Public Health, 5.) Public Infrastructure & Utilities, 6) Economic Governance, 7) Social Welfare & Development, 8) Judicial & Public Security, 9) Environment, and 10) Citizen-Centric Governance.

The GGI 2020-21 categorises States and UTs into four categories, i.e., (i) Other States – Group A; (ii) Other States – Group B; (iii) North-East and Hill States; and (iv) Union Territories. Gujarat, Maharashtra and Goa top the composite rank score covering 10 sectors. Rajasthan has topped the Other States (Group B) category in Judiciary and Public Safety, Environment & Citizen Centric Governance. In the North-East and Hill States category, Mizoram and Jammu and Kashmir have registered an overall increase of 10.4% and 3.7% respectively over GGI 2019. In the Union Territories category, Delhi tops the composite rank





MISSION INDRADHANUSH



Mission Indradhanush which was launched on 25th December 2014 as a special drive to expand full immunization coverage in India has completed seven years.

About:

Under the Mission, 701 districts across the country have been covered and 3 crore 86 lakh children have been vaccinated

Around 97 lakh pregnant women have also been immunized under the Mission.Full immunization coverage among children aged 12 to 23 months have increased to 76.4 per cent.

Timeline

- Immunization Programme in India was introduced in 1978 as 'Expanded Programme of Immunization' (EPI) by the Ministry of Health and Family Welfare, Government of India. In 1985, the programme was modified as 'Universal Immunization Programme' (UIP)
- To strengthen and re-energize the programme and achieve full immunization coverage for all children and pregnant women at a rapid pace, the Government of India launched "Mission Indradhanush" in December 2014.
- To further intensify the immunization programme, Prime Minister Shri Narendra Modi launched the Intensified Mission Indradhanush (IMI) on October 8, 2017.

SHYAMA PRASAD MUKHERJI RURBAN MISSION (SPMRM)

Telangana stood first in the implementation of the Shyama Prasad Mukherji Rurban Mission (SPMRM) that was launched four years ago to stimulate local economic development, enhance basic services and create well-planned clusters.

रयामा प्रसाद मुखर्जी ररवन मिशन

About:

Sangareddy and Kamareddy districts stood in the first two positions among the 300 clusters across the country where the programme was being implemented. Tamil Nadu and Gujarat took the second and third positions respectively. In Telangana, in as many as 17 clusters (12)

non-tribal and five tribal), the programme was being implemented at an estimated cost of ₹1,885.12 crore. The provision of urban infrastructure in rural areas is the main purpose of the Rurban Mission, with Telangana having the highest points due to the outstanding performance of Panchayat Raj and rural development.

MAGNETAR

An international group of researchers has succeeded in measuring for the first time the characteristics of a flare on a distant magnetar.

Stellar fireworks The study characterised a short-live

Stars having around 10-25 times the solar mass eventually shrink to form neutron stars

A small number of neutron stars become the so-called magnetars which possess intense magnetic fields

■ Magnetars emi violent flares. It is only during a flare that they can be observed, and these flares are so short-lives that it presents a major challenge ■ The observed glant flare lasted approximately 160 milliseconds and during this time the flare spewed as much energy that our



Distant star: An artist's illustration of the magnetar which is about 13 million light years away, in the direction of NGC 253, a prominent galaxy in the Sculptor group of galaxies,

• BIRKELAND CENTER FOR SPACE SCIENCE, UNIVERSITY OF BERGEN AND MOUNT VISUAL.

About:

A magnetar is a rare compact type of neutron star teeming with energy and magnetism. The magnetar they have studied is about 13 million light years away, in the direction of the NGC 253, a prominent galaxy in the Sculptor group of galaxies. The flare, which spewed within a few tenths of a second as much energy as the Sun would shed in 100,000 years, was captured accidentally on April 15, 2020, by the Atmosphere-Space Interactions Monitor instrument (ASIM) of the International Space Station. This is the first study to characterise such a flare

from so distant a magnetar.

Magnetars are relatively rare objects, with only about thirty having been spotted within the Milky Way so far. The present magnetar is only the second one to be studied which is located outside the galaxy and is also the furthest, at 13 million light years distance.





WORLD'S OLDEST FAMILY TREE

By conducting archaeological and genetic analysis of the remains of 35 individuals who lived about 5,700 years ago, a team of international scientists has presented what is being called the "world's oldest family tree".



About:

Their study claims to be the first of its kind to reveal in detail how prehistoric (the period before written records existed) families were structured. The team of scientists analysed DNA extracted from the bones and teeth of 35 individuals who were entombed at the Hazelton North cairn in the Cotswolds-Severn region of Britain. The researchers were able to detect that 27 of these individuals were

close biological relatives. Significantly, the study says that most of the people buried in the tomb were descended from four women who had children with the same man.

SULPHUR MOLLY

In the sulfur-infused ponds of Tabasco state in Mexico lives a tiny silver slip of a fish, the sulphur molly.



About

Every few seconds, thousands of these fish will repeat a quick diving motion to generate the wave, sometimes for up to two minutes. The mollies are prey for an array of winged predators, including egrets, kingfishers and kiskadees. When birds dive to attack, the mollies flash and swirl. It seems to be aimed at predators perched on the shore, The sulphur molly (Poecilia sulphuraria),

locally known as molly del Teapa, is a critically endangered species of fish in the family Poeciliidae. It is endemic to Mexico, specifically to the Baños del Azufre (Grijalva River basin) near Teapa, Tabasco.

The Baños del Azufre are sulfidic springs that contain high concentrations of toxic hydrogen sulfide (H2S). Poecilia sulphuraria has apparently evolved the ability to tolerate the toxic conditions. A few other Poecilia species are known from similar habitats in Mexico.

TECHNOLOGY DEVELOPMENT BOARD (TDB)

India will soon develop and manufacture receiver modules essential for the NavIC (NAVigation with Indian Constellation), an application developed by ISRO for constellation of seven satellites that, together, provide navigation support over India and 1,500 km around it.



Department of Science & Technology Government of India

About:

Technology Development Board, a statutory body of Department of Science & Technology, Government of India, has approved financial support to Hyderabad based Manjeera Digital Systems Private Limited (MDS), a Digital Signal Processing (DSP), Research & Development company, which will be essential for the NavIC App. The company has also designed and fabricated a baseband processor using patented Universal Multifunctional Accelerator (UMA). This UMA can be used

in generic Digital Signal Processing (DSP) applications such as Server Acceleration, Edge Computing, Node Computing, Computer Vision, Signal Processing, etc.

VanDhan CHRONICLE

TRIFED Vandhan Chronicle was launched by Arjun Munda, Minister for Tribal Affairs on December 23, 2021.





About:



TRIFED VanDhan Chronicle is an in-depth resource on the Van Dhan Yojana and TRIFED's activities in this important scheme. The chronicle gives an in-depth illustration of the activities undertaken by TRIFED which has impacted the life of almost 16 lakh tribals; including the introduction of Minimum Support Price (MSP) for select forest produces.

Over the past two years, The 'Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain for MFP' has impacted the tribal ecosystem in a major way. The Van Dhan tribal start-ups, a component of the same scheme, has emerged as a source of employment generation for tribal gatherers and forest dwellers and the home-bound tribal artisans. In less than two years, 52,976 Van Dhan Self Help Groups (VDSHGs), subsumed into 3110 Van Dhan Vikas Kendra Clusters (VDVKCs) of 300 forest dwellers each, have been sanctioned by TRIFED.

INS KHUKRI

INS Khukri, the first of the indigenously built Missile Corvettes, was decommissioned after 32 years of glorious service on 23 Dec 2021. The ship solemn ceremony was held at Visakhapatnam.



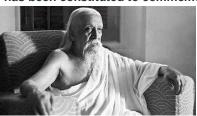
About

The corvette was built by the Mazagaon Dock Shipbuilders on 23 August 1989 and had the distinction of being part of both the Western and Eastern Fleets. During her service, the ship was commanded by 28 Commanding Officers and traversed a distance of over 6,44,897 nautical miles, which is equivalent to navigating around the world 30 times or 3 times the distance between the Earth and the Moon. The ship was affiliated with the Gorkha

Brigade of the Indian Army.

150th BIRTH ANNIVERSARY OF SRI AUROBINDO

The Prime Minister, Narendra Modi today chaired the first meeting of the High Level Committee (HLC) which has been constituted to commemorate 150th Birth Anniversary of Sri Aurobindo in a befitting manner.



About:

The notification of HLC was issued on 20th December, 2021. The Committee comprises 53 members from various walks of life. The Prime Minister said that the two aspects of Sri Aurobindo's philosophy of 'Revolution' and 'Evolution', are of key importance and should be emphasized as part of the commemoration. The youth should be encouraged towards the concept of greatness as embodied in the

philosophy of Nar to Narayan to create a MahaManav as propounded by Sri Aurobindo. The Prime Minister proposed to launch the commemoration celebrations of Sri Aurobindo from Puducherry coinciding with the celebration of National Youth Day. This will encourage the youth to visit Puducherry and learn about his life and teachings, where Sri Aurobindo spent his life from 1910 to 1950.

Sri Aurobindo

- Sri Aurobindo (born Aurobindo Ghose; 15 August 1872 5 December 1950) was an Indian philosopher, yoga guru, maharishi, poet, and Indian nationalist.
- He was also a journalist, editing newspapers such as Bande Mataram.
- He joined the Indian movement for independence from British colonial rule, until 1910 and then became a spiritual reformer.
- At Pondicherry, Sri Aurobindo developed a spiritual practice he called Integral Yoga.





SOYA MEAL

In a bid to cool down the domestic prices of Soya Meal, Government has notified an Order under the Essential Commodities Act to declare 'Soya Meal' as an Essential Commodities up to 30th June, 2022 by amending the Schedule of the Essential Commodities Act, 1955.



About:

Government of India has issued a landmark Order where it has mentioned that in the Essential Commodities Act, 1955, in the Schedule, after serial No. (8), the following item shall be added, "(9) Soya Meal". The decision would empower the Union Government and all States/UTs to regulate production, distribution etc. of Soya Meal and to smoothen the sale and availability of this item in the market. It will stop unfair market practices and enhance the availability for consumers like

Poultry farm and Cattle feed manufacturers.

GIS BASED 'AUTOMATIC WATER SUPPLY SYSTEM'

The GIS based 'Automatic Water Supply System' for citizens of Cantonment Boards, 1st of its kind in the country was recently launched by Defence Minister Rajnath Singh on the occasion of Defence Estates Day 2021.



About:

The module of GIS based Water Supply system for Cantonment Boards has been developed by Bhaskaracharya Institute for Space Applications and Geo informatics under the guidance of Defence Secretary and Director General of Defence Estates, Delhi.It is completely automated which provides facility to

its citizen to identify the location of water supply connection. It automatically determines nearest water pipeline. This GIS system is first of its kind in the country. It is based on 'minimum government and maximum governance' concept as there is no manual intervention for clearance or sanction of the water connection.

TOKENISATION

The Reserve Bank of India has extended the implementation date of card-on-file (CoF) tokenisation norms by six months to June 30, 2022.



About:

In September 2021, the RBI prohibited merchants from storing customer card details on their servers with effect from January 01, 2022, and mandated the adoption of card-on-file (CoF) tokenisation as an alternative to card storage. It applies to domestic, online purchases. Tokenisation refers to replacement of actual credit and

debit card details with an alternate code called the "token", which will be unique for a combination of card, token requestor and device. A tokenised card transaction is considered safer as the actual card details are not shared with the merchant during transaction processing.

NMCG-TERI'S CENTRE OF EXCELLENCE (COE) ON WATER REUSE

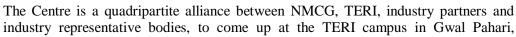


The Director General of National Mission for Clean Ganga (NMCG) and the Director General of The Energy and Resources Institute (TERI) launched the NMCG-TERI's Centre of Excellence (CoE) on Water Reuse at the TERI Headquarters in New Delhi.

About:

The CoE on Water Reuse is the first of its kind to be established in the country through a collaboration between NMCG and TERI.







Gurugram.It will be meeting the objectives of the Ganga Knowledge Centre (GKC) to design and foster research and innovation for low-cost, effective and integrated treatment technologies, which could bridge the current treatment gaps, augment capacities and provide safe treated water for reuse.Hence this CoE is also the first of its kind that will match the activities envisaged under GKC.

GARBAGE FREE CITIES

Ministry of Housing and Urban Affairs (MoHUA), Government of India launched the 'Azadi@75 Star Rating Protocol of Garbage Free Cities- Toolkit 2022', the most important governance tool of waste management – the Star Rating Protocol for Garbage Free Cities.

About:

On 1st October 2021, the Hon'ble Prime Minister launched Swachh Bharat Mission-Urban 2.0, with the overall vision of creating "Garbage Free Cities" (GFC). For achieving this vision, a key objective under SBM-U 2.0 is to make every urban local body at least 3-star Garbage Free as per the Star Rating protocol. Key revisions in the protocol are:

- the earlier 25 components/ indicators have now been reduced to 24, of which only 16 indicators are mandatory for 1-star and 3-star levels. The remaining 8 indicators are aspirational in nature, and will be relevant for 5-star and 7-star aspirants;
- the multi-step calculation of the previous GFC protocol has now been changed to a single step marking, which will help ULB to easily self-assess themselves for applying;
- the revised protocol is aligned with SBM-U 2.0 priorities, with higher weightages (50%) allotted to Door-to-Door Collection, Source Segregation, Waste processing & Dumpsite remediation;

DEFENCE INSTITUTE OF BIO-ENERGY RESEARCH (DIBER) LABORATORY

Raksha Rajya Mantri Shri Ajay Bhatt, visited DRDO's Defence Institute of Bio-Energy Research (DIBER) laboratory, Haldwani and its Field station Pithoragarh, Uttarakhand.

About.

The efforts of DIBER to generate energy from Pine Forest waste, are directed towards finding solutions for space heating and electricity generation in remote areas where grid supply is frequently interrupted due to adverse climatic conditions. The Biodiesel prepared by DIBER, is matching IS 15607 standards. It has been rigorously tested, found suitable and recommended in Army vehicles and Gen Sets at a blend of 20% in Petro - diesel. Another mission mode activity of DIBER is to transfer advanced technologies for cultivation of native and exotic vegetables to farmers located in remote border villages of Uttarakhand.

The technology to grow Ophiocordyceps, an endangered high value medicinal mushroom, by tissue culture, has far-reaching implications in providing nutritional benefits to larger population and also in improving the economy.

The Raksha Rajya Mantri also inaugurated Container-based BSL-III facility at Haldwani. This is the first container-based BSL-III facility of Uttarakhand.

OLIVE RIDLEYS

Scientists have resumed tagging of Olive Ridley turtles at Rushikulya rookery along the Odisha coast, which would help them identify the migration path and places visited by the marine reptiles after congregation and nesting.

About:

Researchers of the Zoological Survey of India (ZSI) are carrying out tagging of the Olive Ridleys at three mass nesting sites — Gahirmatha, Devi River mouth and Rushikulya. The study would also reveal the inter-rookery movement of turtles in Odisha. The migration pattern to other countries would be recorded in detail. The metal tags affixed to turtles are non-corrosive and they do not harm their body. It can be removed later. The tags are uniquely numbered containing details such as the name of the organisation, country-code and email address.



CROSS & CLIMB

If researchers in other countries come across the tagged turtles, they will email their location in longitude and latitude to ZSI.

Key facts:

- Scientific Name: Lepidochelys olivacea.
- Common name: Olive Ridley, Pacific Ridley.
- Arribada: These turtles, along with their cousin the Kemps ridley turtle, are best known for their unique mass nesting
 called Arribada. i.e. thousands of females come together on the same beach to lay eggs.
- The coast of Odisha in India is the largest mass nesting site for the Olive-ridley, followed by the coasts of Mexico and Costa Rica.
- IUCN Red List Status:

ASIGMA

Indian Army launched a contemporary messaging application named ASIGMA.



About:

ASIGMA stands for Army Secure IndiGeneous Messaging Application. It is a new generation, state-of-the-art, web based application developed entirely in-house by team of officers of the Corps of Signals of the Army. The application is being deployed on the Army's internal network as a replacement of Army Wide Area Network messaging application which has been in service for past the 15 years. The application has been fielded

on Army owned hardware. It meets all futuristic user requirements and provides enhanced user experience. It has a variety of contemporary features including multi-level security, message prioritisation and tracking.

This future ready messaging application will meet real time data transfer and messaging requirements of the Army, especially in the backdrop of current geo political security environment.

HIGH-SPEED EXPENDABLE AERIAL TARGET (HEAT) - ABHYAS

DRDO has successfully conducted the flight test of Indigenously developed High-speed Expendable Aerial Target (HEAT) 'Abhyas' from Integrated Test Range at Chandipur off the coast of Odisha.



About:

The vehicle can be used as an aerial target for evaluation of various missile systems. This indigenous target aircraft, once developed, will meet the requirements of High-speed Expendable Aerial Targets (HEAT) for Indian Armed Forces. ABHYAS is designed & developed by DRDO's Aeronautical Development Establishment (ADE), Bengaluru. The air

vehicle is launched using twin under-slung boosters which provide the initial acceleration to the vehicle. It is powered by a gas turbine engine to sustain a long endurance flight at subsonic speed. The target aircraft is equipped with MEMS based Inertial Navigation System (INS) for navigation along with the Flight Control Computer (FCC) for guidance and control. The vehicle is programmed for fully autonomous flight. The check-out of air vehicle is done using laptop-based Ground Control Station (GCS).

ESG FUNDS

Environment, social responsibility, and corporate governance have of late emerged as key themes for investors in India.

About:

The asset size of ESG funds has ballooned nearly five times to Rs 12,300 crore over the last couple of years.

Earlier this week, the National Stock Exchange (NSE) launched NSE Prime, a framework that allows companies to submit to standards of corporate governance that are higher than those required by existing regulations.





ESG funds-

ESG funds imbibe environment, social responsibility and corporate governance in their investing process. ESG investing is used synonymously with sustainable investing or socially responsible investing. While selecting a stock for investment, the ESG fund shortlists companies that score high on environment, social responsibility and corporate governance, and then looks into financial factors. So, the schemes focuses on companies with environment-friendly practices, ethical business practices and an employee-friendly record.

MINIMUM LEGAL DRINKING AGE (MLDA)

The Haryana government has amended its Excise Act, reducing the legal age to purchase, sell or consume liquor from 25 years to 21 years.



An Amendment Bill with regard to changing the age limit was passed in the Vidhan Sabha on the concluding day of the winter session. The government's reasoning for bringing down the age to 21 is that "many of the other states have prescribed lower age limits".

Scenario in other Indian States:-

The minimum age for purchasing alcohol is 18 in Goa, Himachal Pradesh, Karnataka, Sikkim, and Puducherry.21 years in Andhra Pradesh,

Arunachal Pradesh, Assam, Chhattisgarh, Jammu and Kashmir, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Mizoram, Orissa (Odisha), Rajasthan, Tamil Nadu, Telangana, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal, 25 (now 21 years) in Haryana, Meghalaya, Punjab, Delhi.

Sale of alcohol is prohibited in states including Bihar, Gujarat, Manipur, Mizoram, Nagaland and Lakshadweep.

TIANANMEN SQUARE MASSACRE

Workers at the University of Hong Kong put took down the towering "Pillar of Shame".

About:

The 8-metre (26-foot)-tall sculpture, which was taken away in parts, remembered the victims of China's 1989 crackdown on pro-democracy protests at Beijing's Tiananmen Square. There is more than one Pillar of Shame. It is a series of works by Danish sculptor Jens Galschioet, all the same height and typically made of bronze, copper and concrete. They have been erected in Hong Kong, Mexico and Brazil, and are designed to remind people of events to ensure they don't happen again.

Tiananmen Square Massacre

- The Tiananmen Square protests, known as the June Fourth Incident in China, were student-led demonstrations held in Tiananmen Square, Beijing during 1989.
- In what is known as the Tiananmen Square Massacre, troops armed with assault rifles and accompanied by tanks fired at the demonstrators and those trying to block the military's advance into Tiananmen Square.
- The protests started on 15 April and were forcibly suppressed on 4 June when the government declared martial law
 and sent the People's Liberation Army to occupy parts of central Beijing.
- Estimates of the death toll vary from several hundred to several thousand.

GOODS AND SERVICES TAX (GST)



Goods and Services Tax (GST) authorities are now empowered to initiate recovery proceedings directly for mismatch in sales return GSTR-1 and the monthly summary return GSTR-3B.

About:-

The provision, which was introduced as part of the Finance Act passed by Parliament earlier this year, has now been notified to be implemented from January 1, 2022. This gives tax authorities way more

powers to tackle alleged instances of mismatches in filings, amid concerns regarding the potential for misuse.

So far, show cause notices were issued first and then the recovery process initiated in cases of mismatch in GSTR-1 and GSTR-3B. The move is aimed at curbing the practice of fake billing, where sellers show higher sales in GSTR-1 to enable purchasers to claim input tax credit (ITC) and then report lower sales in GSTR-3B to reduce their GST liability.

KARNATAKA RIGHT TO FREEDOM OF RELIGION BILL, 2021

The Karnataka legislative Assembly passed The Karnataka Right to Freedom of Religion Bill, 2021, commonly referred to as the anti-conversion Bill, amid Opposition protests. The Bill will now go to the Karnataka Legislative Council.

About:-

It prohibits conversion from one religion to another by misrepresentation, force, fraud, allurement or marriage. It, however, provides an exemption in the case of a person who "reconverts to his immediate previous religion" as "the same shall not be deemed to be a conversion under this Act". Complaints regarding conversions can be filed by family members or any other person who is related to the individual who is getting converted. A jail term of three to five years and a fine of Rs 25,000 has been proposed for those violating the law in the case of people from general categories, and a jail term of three to 10 years and a fine of Rs 50,000 has been mooted for those converting minors, women or persons from SC/ST communities. The Bill also envisages payment of a compensation of Rs 5 lakh (on court orders) to victims of conversion by the persons attempting the conversion, and double punishment for repeat offences.