

DAILY CURRENT AFFAIRS ANALYSIS

HIGHLIGHTS:

- Food animal tag
- Earth Observation Satellite (EOS-06)
- mRNA lipid vaccine

**GS Subject wise Current affairs
detailed analysis**

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CONTENT LIST

GS 2: POLITY, GOVERNANCE, SOCIAL JUSTICE, INTERNATIONAL RELATIONS/INSTITUTIONS

	Topics	Syllabus	Page No:
1	Legalizing same-sex marriage	Govt Policies & Interventions	3
2	Food animal tag	Govt Policies & Initiatives	4
3	India- Egypt Ties	IR: Bilateral Relations	5
4	China-Indian Ocean Region Forum	IR: Forums & Conferences	5

GS 3: ECONOMY, ECOLOGY, SCIENCE & TECHNOLOGY, DEFENCE, SECURITY AND DISASTER MANAGEMENT

	Topics	Syllabus	Page No:
5	Bluebugging	Technology: IT & Computers	6
6	Earth Observation Satellite (EOS-06)	Space Technology	7
7	Black Corals	Biodiversity: Coastal Ecosystem	8
8	mRNA lipid vaccine	Technology: Vaccines	9
9	James Webb Space Telescope	Space Technology	9

ACS CURRENT AFFAIRS BOOSTERS

1	Revision Topics		9
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GS 2: POLITY, GOVERNANCE, SOCIAL JUSTICE & IR

1. Legalizing same-sex marriage [Govt Policies & Interventions]

Article: *Toward legalising same-sex marriage (Page 8, Text & Context)*

Context:

A Supreme Court Bench led by Chief Justice of India D.Y. Chandrachud on November 25, issued notices to the Centre and the Attorney General of India, seeking their response to two petitions filed by gay couples to allow solemnisation of same-sex marriage under the Special Marriage Act, (SMA) 1954.

What do the petitions say?

- ✓ The SMA provides a civil form of marriage for couples who cannot marry under their personal law, and both the recent pleas seek to recognise same-sex marriage in relation to this Act and not personal laws.
- ✓ There are currently a total of nine petitions pending before the High Court of Delhi and Kerala, seeking to recognise same-sex marriages under Acts such as the SMA, the Foreign Marriage Act and codified personal laws.

About Government's stand

- ✓ Late last year, while responding to the pleas seeking recognition of same-sex marriages in the Delhi High Court, Solicitor General Tushar Mehta for the Centre had said that as per the law, marriage was permissible between a “biological man” and “biological woman”.
- ✓ In its affidavit opposing the pleas, the Centre had said: “The acceptance of the institution of marriage between two individuals of the same gender is neither recognised nor accepted in any uncodified personal laws or any codified statutory laws”.
- ✓ It also argued against the urgency of the pleas by saying nobody was “dying” in the absence of a marriage certificate.

About other countries

- A total of 32 countries around the world have legalized same-sex marriages, some through legislation while others through judicial pronouncements.
- Many countries first recognized same-sex civil unions as the escalatory step to recognize homosexual marriage.
- Civil unions or partnerships are similar arrangements as marriages which provide legal recognition of unmarried couples of the same or opposite sex in order to grant them some of the rights that come with marriage — such as inheritance, medical benefits, employee benefits to spouses, managing joint taxes and finances, and in some cases even adoption.
- The Netherlands was the first country in 2001 to legalize same-sex marriage by amending one line in its civil marriage law.
- In some countries, the decriminalization of homosexuality was not followed for years by the recognition of same-sex marriage, for instance, in the U.S. the former happened in 2003 while the latter in 2015.

2. Food animal tag [Govt Policies & Initiatives]

Article: *Himalayan yak gets food animal tag; milk and meat to be used (Page 9)*

Context:

The Himalayan yak has earned the food animal tag from the Food Safety and Standard Authority of India (FSSAI).

About Food animal tag

- ✓ The Food Safety and Standard Authority of India (FSSAI) has approved the Himalayan Yak as a 'food animal'.
- ✓ The move is expected to help check decline in the population of the high-altitude bovine animal by making it a part of the conventional milk and meat industry.

Significance of food animal tag

- ✓ The animal plays a multi-dimensional socio-cultural-economic role for the pastoral nomads who rear yaks mainly for earning their nutritional and livelihood security due to virtual inexistence of other agricultural activity in the high reaches of Himalayan region.
- ✓ Traditionally, yaks are reared under a transhumance system which is primitive, unorganised and full of hardship.
- ✓ Yak milk is highly nutritious, rich in fat, contains essential minerals and has medicinal value.
- ✓ Yak farmers produce various traditional meat products. These products are confined to local community level, produced and sold locally.
- ✓ As per the latest census carried out in 2019, India has 58,000 yaks which is around 25 per cent drop from last livestock census carried out in 2012.
- ✓ The decline in yak population could be attributed to less remuneration from yak and so the younger generations are reluctant to continue with nomadic yak rearing.
- ✓ It is mainly because yak milk and meat are not a part of the conventional dairy and meat industry. Their sale is limited to local consumers.
- ✓ FSSAI's recognition of Yak as a food producing animal will help farmers benefit economically for rearing the animal and it will open up several vistas of economic benefits for both farmers and food processors.
- ✓ The Centre has developed a semi-intensive model of yak rearing in which yaks are maintained in open area as well as in paddock round the year.
- ✓ It is widely believed that declaration of yak as a food animal by FSSAI will pave the way for its commercial rearing and consumption by adopting the yak rearing model developed by National Research Centre (NRC) on Yak.
- ✓ ICAR-National Research Centre on Yak is a premier research institute exclusively engaged in research and development of yak (*Poephagus grunniens L.*) in India.
- ✓ The institute was established in 1989 by the Indian Council of Agricultural Research at Dirang, West Kameng district of Arunachal Pradesh.



3. India- Egypt Ties [IR: Bilateral Relations]

Article: *Egyptian President Sisi to be chief guest at Republic Day celebrations (Front Page)*

Context:

Egyptian President Abdel Fateh el-Sisi will be the chief guest at the Republic Day celebrations in January 2023, the Ministry of External Affairs (MEA) announced on Sunday.

About India- Egypt Ties

- ✓ India and Egypt enjoy warm and friendly relations based on civilisational and deep-rooted people-to-people ties.
- ✓ Both countries are celebrating the 75th anniversary of establishment of diplomatic relations this year.
- ✓ Egypt and India were founding members of the movement for non-alignment in international affairs during the 1950s and Egyptian leaders have traditionally maintained cordial ties with New Delhi.
- ✓ The two countries are reinventing a trusted bilateral relationship through newer initiatives such as green energy.
- ✓ In July this year, Egypt signed a Memorandum of Understanding with India's ReNew Power for \$8 billion to build a clean hydrogen facility in the Suez Canal Economic Zone.
- ✓ Egypt, along with Bangladesh, the United Arab Emirates, Mauritius, the Netherlands, Nigeria, Oman, Singapore and Spain, is among the guest countries invited to attend next year's G-20 summit that will be conducted under India's presidency.

4. China-Indian Ocean Region Forum [IR: Forums & Conferences]

Article: *India is the lone absentee at China's Indian Ocean forum of 19 countries (Page 10)*

Context:

China this week convened a first "China-Indian Ocean Region Forum" bringing together 19 countries from the region – and all of India's neighbours, except for India itself, the lone absentee from a new Beijing strategic initiative.

About China-Indian Ocean Region Forum

- ✓ China organized the first high-level China-Indian Ocean Region Forum on Development Cooperation, with 19 countries from the region except for India.
- ✓ The forum was hosted by **China International Development Cooperation Agency (CIDCA)** which according to its website formulates policies and coordinates major foreign aid issues.
- ✓ CIDCA is headed by Luo Zhaohui, the former Vice Foreign Minister and former Ambassador to India.
- ✓ According to a press release issued by CIDCA, high-level representatives of 19 countries, including **Indonesia, Pakistan, Myanmar, Sri Lanka, Bangladesh, Maldives, Nepal, Afghanistan, Iran, Oman, South Africa, Kenya, Mozambique, Tanzania, Seychelles, Madagascar, Mauritius, Djibouti**, Australia and representatives of three international organizations were present at the hybrid forum.

What Has Been Proposed

- ✓ At the China-Indian Ocean Region Forum, China has proposed to establish a **marine disaster prevention and mitigation cooperation mechanism** between China and countries in the Indian Ocean region, the CIDCA press release said.
- ✓ China is ready to provide necessary financial, material, and technical support to countries in need.

India's Absence

- ✓ **India was not invited to this forum** which is seen by experts as an attempt to challenge India's traditional presence in the region amid apprehensions of politicization of the Indian Ocean region.
- ✓ India has been a traditional partner and supporter of **Indian Ocean Region (IOR) countries**, in addition, to act as a first responder during major crises in the littoral countries.
- ✓ It has been regularly engaging with the Indian Ocean littoral countries through such mechanisms as the Indian Ocean Rim Association (IORA) and Indian Ocean Navies Symposium (IONS) under the vision of "Security and Growth for All in the Region (SAGAR)" as propounded by Prime Minister Narendra Modi during a visit to Mauritius in 2015.

GS 3: ECONOMY, ECOLOGY, SCIENCE AND TECHNOLOGY, DEFENCE, SECURITY AND DISASTER MANAGEMENT

5. Bluebugging [Technology: IT & Computers]

Article: *What is bluebugging, and how is it used to hack Bluetooth-enabled devices? (Page 9, Text & Context)*

Context:

Cybersecurity experts note that apps that let users connect smartphones or laptops to wireless earplugs can record conversations, and are vulnerable to hacks. Even the most secure smartphones like iPhones are vulnerable to such attacks. Any app with access to Bluetooth can record users' conversations with Siri and audio from the iOS keyboard dictation feature when using AirPods or Beats headsets, some app developers say. Through a process called bluebugging, a hacker can gain unauthorised access to these apps and devices and control them as per their wish.

About Bluebugging

- ✓ It is a form of hacking that lets attackers access a device through its discoverable Bluetooth connection.
- ✓ Once a device or phone is bluebugged, a hacker can listen to the calls, read and send messages and steal and modify contacts.
- ✓ It started out as a threat for laptops with Bluetooth capability.
- ✓ Later hackers used the technique to target mobile phones and other devices.
- ✓ Bluebugging attacks work by exploiting Bluetooth-enabled devices.
- ✓ The device's Bluetooth must be in discoverable mode, which is the default setting on most devices.
- ✓ The hacker then tries to pair with the device via Bluetooth.
- ✓ Once a connection is established, hackers can use brute force attacks to bypass authentication.
- ✓ They can install malware in the compromised device to gain unauthorised access to it.
- ✓ Bluebugging can happen whenever a Bluetooth enabled device is within a 10-metre radius of the hacker.
- ✓ Any Bluetooth-enabled device can be bluebugged.
- ✓ Wireless earbuds are susceptible to such hacks.

6. Earth Observation Satellite (EOS-06) [Space Technology]

Article: *PSLV-C54 successfully places nine satellites in multiple orbits (Page 6)*

Context:

In one of its longest missions, the Indian Space Research Organisation (ISRO) successfully placed nine satellites, including an Earth Observation Satellite (EOS-06) in multiple orbits with the help of the space agency's Polar Satellite Launch Vehicle (PSLV-C54).

About the Launch

- ✓ The third generation Indian satellite for monitoring the oceans, formally named as Earth Observation Satellite-6 (EOS-6) was launched by the Indian Space Research Organization (ISRO).
- ✓ Earth Observation Satellite-6 (EOS-6) was launched by ISRO in partnership with Ministry of Earth Sciences (MoES) among others, from its First Launch Pad (FLP) at Satish Dhawan Space Centre (SDSC), Sriharikota.

About Earth Observation Satellite (EOS-06)

- ✓ The ocean observing mission (EOS-06 also known as OceanSat-3) is a follow up to OceanSat-1 or IRS-P4 and OceanSat-2 launched in 1999 and 2009, respectively.
- ✓ The EOS-06 satellite was launched aboard the proven launch vehicle PSLV (Polar Satellite Launch Vehicle) on its 56th flight (24th flight of the PSLV-XL version).
- ✓ The Oceansat-3 was placed in the polar orbit at the height of about 740 kilometers above sea level.
- ✓ Earth Observation Satellite-6 (EOS-6) is carrying three ocean observing sensors viz
 - Ocean Color Monitor (OCM-3),
 - Sea Surface Temperature Monitor (SSTM), and
 - Ku-Band scatterometer (SCAT-3).
- ✓ There is also an ARGOS payload.
- ✓ All these sensors have their own importance for India's blue economy aspirations.

Significance of Earth Observation Satellite-6 (EOS-6)

- ✓ Earth Observation Satellite-6 will provide a bouquet of services every day for lakhs of stakeholders across the nation.
- ✓ Ocean observations such as this will serve as strong foundation for the India's blue economy and polar region policies.
- ✓ this is the first major ocean satellite launch coming from India since the initiation of the UN Decade of Ocean Science for Sustainable Development (UNDOSSD, 2021-2030).
- ✓ EOS-06 satellite will have the capability to make concurrent measurements of Ocean Colour, SST and Sea Surface Winds.
- ✓ It is expected to provide a great boost to the ocean observing capabilities of the global scientific and operational communities in addressing the Ocean Decade objectives and challenges.

EOS Series Launches

- **EOS-01:** Earth Observation satellite meant for Agriculture, Forestry & disaster management support
- **EOS-02:** Technology demonstration satellite for various new technologies with applications that include agriculture, forestry, geology, hydrology etc. and forming the payload for SSLV-1.
- **EOS-03 :** First Agile Earth Observation satellite in Geostationary orbit and applications which include near real time imaging, quick monitoring of natural disasters, spectral signatures for agriculture, forestry etc.
- **EOS-04 :** Radar Imaging satellite meant to provide high quality images under all weather conditions for applications such as Agriculture, Forestry & Plantations, Soil Moisture & Hydrology and Flood Mapping.
- **EOS-05 :** Earth Observation Satellite in the Geostationary Orbit.
- **EOS-06 :** Earth Observation satellite meant for applications, which include ocean related services and advisories towards potential fishing zone forecast , ocean state forecast.

7. Black Corals [Biodiversity: Coastal Ecosystem]

Article: *Scientists discover new species of black corals near Australia (Page 11)*

Context:

Using a remote-controlled submarine, researchers at Smithsonian Institution, Washington, discovered five new species of black corals living as deep as 2,500 feet (760 metres) below the surface in the Great Barrier Reef and Coral Sea off the coast of Australia.

About Black corals

- ✓ Black corals, or antipatharians, are colonial animals, related to sea anemones and stony corals.
- ✓ They are named for the color of their stiff, black or brownish skeleton.
- ✓ Tiny spines found on the surface of the skeleton are distinctive among corals, and antipatharians are sometimes referred to as “little thorn corals”.
- ✓ The skeleton, often seen in jewelry, is relatively familiar, but the living coral that produces it is not.
- ✓ A thin veneer of animal tissue, called the cenosarc, secretes the tightly-layered central skeleton of horn-like protein.
- ✓ Depending upon the species, the living tissue may be black, red, orange, brown, green, yellow, or white.
- ✓ The gelatinous polyps located in this living “bark” are short and cylindrical, their six, non-retractable tentacles are armed with stinging cells.



8. mRNA lipid vaccine [Technology: Vaccines]

Article: *mRNA lipid vaccine candidate as universal flu vaccine (Page 11)*

About mRNA lipid vaccine

- ✓ Researchers have developed a mRNA lipid nanoparticle vaccine that contains antigens from all 20 known subtypes of influenza A and B viruses.
- ✓ The vaccine produced high levels of cross-reactive and subtype-specific antibodies in mice and ferrets and could protect animals against disease symptoms and death after infection with both antigenically matched and mismatched strains of influenza.
- ✓ Universal vaccine is important as it is difficult to predict which flu strain will cause the next flu pandemic.

9. James Webb Space Telescope [Space Technology]

Article: *James Webb Telescope offers glimpse of the early Universe (Page 11)*

Context:

The James Webb Space Telescope has spotted two leading contenders for what could be the most distant galaxy ever seen.

About James Webb Space Telescope

- ✓ Billed as the successor to the Hubble Space Telescope, the JWST is the largest space observatory ever built.
- ✓ It was launched on Christmas Day 2021.
- ✓ Using its infra-red telescope, the JWST observatory will examine objects over 13.6 billion light-years away.
- ✓ As the JWST is a product of an international collaboration between NASA, the European Space Agency (ESA), and the Canadian Space Agency (CSA), it has many mission goals:
 - Examine the first light in the Universe and the celestial objects which formed shortly after the Big Bang.
 - Investigate how galaxies form and evolve.
 - Study the atmospheres of distant exoplanets.
 - Capture images of planets in our own solar system.
 - Locate evidence of dark matter.
- ✓ Although mostly solar-powered, the JWST needs a small amount of finite fuel to maintain its orbit and instruments.

No	Important Topics in News	Article	Current Affair Date
1	Tea Board of India	<i>Why is the Darjeeling Tea industry in crisis? (Page 12)</i>	
2	Uniform Civil Code (UCC)	<i>Anti-radicalisation cell, UCC feature in BJP's manifesto for Gujarat election (27 Nov, Front Page)</i>	7 November 2022
3	Old Pension Scheme (OPS)	<i>Punjab govt. staff edgy over old pension scheme's restoration (Page 10)</i>	17 October 2022