

TARGET4IAS: TOGETHER WE CAN



Target4IAS
Together We Can

Weekly Current Affairs

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Cholistan desert:

In news

The place was in news because of recent shooting of two Great Indian Bustards (GIBs) here.

About Cholistan

- Located in Pakistan.
- The Cholistan Desert, also locally known as Rohi, is a large desert in the southern part of Punjab, Pakistan.
- It forms part of the Greater Thar Desert, which extends to Sindh province and Rajasthan.
- It is one of two large deserts in Punjab, the other being Thal Desert.
- Derawar Fort is located in the Cholistan Desert.

Khajuraho Temples

In news

The Ministry of Tourism organizes a webinar on “ Khajuraho Temples of Architectural Splendour” under DekhoApnaDesh(Objective: create awareness about and promote various tourism destinations in India).

About Khajuraho Temples:

- It is a group of **Hindu and Jain temples** in Madhya Pradesh.
- Built by the **Chandella rulers** between **AD 900 and 1130**.
- The temple site is **situated within Vindhya Mountain range**.
- These Temples got the status of **UNESCO’s World Heritage Sites in 1986**.
- The temples are famous for **their Nagara-style architectural** symbolism and their erotic sculptures.
- These temples are famous for intricate & exceptional carvings and surprising architectural skills.

DRDO develops SpO2 based Supplemental Oxygen Delivery System

In news

Defence Research and Development Organisation (DRDO) has developed SpO2 (Blood Oxygen Saturation) supplemental Oxygen Delivery System for soldiers posted at extreme high-altitude areas.

Key takeaways:

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- Developed by Defence Bio-Engineering & Electro Medical Laboratory (**DEBEL**), Bengaluru of DRDO.
- The system delivers supplemental oxygen based on the SpO₂ (Blood Oxygen Saturation) levels. Thus, it prevents the person from going into a state of **Hypoxia**(a state in which the amount of oxygen reaching the tissues is inadequate).
- The electronic hardware of the system is designed for functioning at extreme altitudes featuring low barometric pressures, low temperatures and humidity.
- The system also has software safety checks in the system to ensure the functional reliability of the system in field conditions.

Aditya-L1

In news

The Indian programme to study the Sun and the region between the Sun and the Earth from space – Aditya-L1 – is due to be launched next year. It **will carry seven payloads** which have been developed by various institutions across the country. Once the mission is launched, there will be a need for a ground support centre to monitor and coordinate the work on its various payloads. This role will be played by the **ARIES facility** situated near Nainital.

About Aditya –L1

- Aditya-L1, the mission, expected to be launched early next year, will observe the Sun from a close distance, and try to obtain information about its atmosphere and magnetic field.
- Aditya L1 as a **400 kg-class satellite**, that will be launched using the Polar Satellite Launch Vehicle (**PSLV**) in **XL** configuration.

What is L1:

L1 refers to Lagrangian/Lagrange Point 1, one of five points in the orbital plane of the Earth-Sun system. **Lagrangian points are the locations in space where the combined gravitational pull of two large masses roughly balance each other.** The L1 point is home to the Solar and Heliospheric Observatory Satellite (SOHO), an international collaboration project of NASA and the European Space Agency (ESA).

Rewaconodon Indicus

In news

The **Tiki Formation in Madhya Pradesh**, a treasure trove of vertebrate fossils, has now yielded a new species and two genera of cynodonts, small rat-like animals that lived about 220 million years ago.

Key takeaways:

- Researchers from the IIT Kharagpur, used scanning electron microscopy to study about 10 teeth samples collected from Shahdol District, Madhya Pradesh.
- The results showed that they had found a new species, and they named it Rewaconodon indicus, indicating India, the country it was discovered from.
- **The team also identified two new genera from the area.**
- The first was named **Inditheriumfloris**, after India and the Latin word **therium** meaning **beast**.
- As the teeth had a flower-shaped crown, it earned the species name floris.
- The second was named **Tikiodonromptoni**, after **Tiki Formation** and Greek word **odon** meaning tooth.
- The species name is after paleontologist A.W. Crompton.

Bat with sticky discs

In news

Meghalaya has yielded **India's first bamboo-dwelling bat with sticky discs**, taking the species count of flying mammals in India to 130.



Key takeaways:

- The **disc-footed bat** (*Eudiscopus denticulus*) was recorded near the **Nongkhylllem Wildlife Sanctuary**.
- The disc-footed bat was also found to be genetically very different from all other known bats bearing disc-like pads.
- Scientists analysed the very **high frequency echolocation calls of the disc-footed bat**, which was suitable for orientation in a cluttered environment such as inside bamboo groves.
- **It has raised Meghalaya's bat count to 66, the most for any State in India.**
- It has also helped add a genus and species to the bat fauna of India.



National Climate Vulnerability Assessment

In news

Department of Science and Technology (under Ministry of Science and Technology) has released a 'National Climate Vulnerability Assessment' framework, which **identifies the most vulnerable states and districts in India with respect to current climate risk** and key drivers of vulnerability.

Key takeaways:

- Among all states, **Assam, Bihar, and Jharkhand have over 60% districts** in the category of highly vulnerable districts.
- National climate vulnerability assessment identifies eight eastern states as highly vulnerable. It has identified **Jharkhand, Mizoram, Orissa, Chhattisgarh, Assam, Bihar, Arunachal Pradesh, and West Bengal as states highly vulnerable to climate change**. These states, mostly in the eastern part of the country, require prioritization of adaptation interventions, the report pointed out.
- The assessment **will help policymakers in initiating appropriate climate actions**. It will also **benefit climate-vulnerable communities** across India through development of better-designed climate change adaptation projects.

International Day for Monuments and Sites

In news

- Every year, the United Nations marks **April 18** as the International Day for Monuments and Sites, in many countries also celebrated as World Heritage Day.

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- The theme for this year is “Complex Pasts: Diverse Futures”.
- Globally, the day is promoted by the International Council on Monuments and Sites (ICOMOS)

About ICOMOS

- It is global monument conservation body (non-government organisation) dedicated to promoting the application of theory, methodology and scientific techniques for conservation of architectural and archaeological heritage across the world.
- It is also advisory body to UNESCO for cultural heritage, in particular for implementation of World Heritage Convention.
- It was founded in 1965 in Warsaw (Poland) as a result of the Venice Charter of 1964.
- Headquartered in Paris, France.

Heritage sites in India:

- India is home to **38 UNESCO World Heritage Sites**. Of these, 30 are ‘cultural’ and 7 are ‘Natural’. One is classified as ‘Mixed’, the Khangchendzonga National Park.
- In 2019, ‘Jaipur City’ became the 38th addition to the India list under Culture.
- So far, only China, Italy, Spain, Germany, and France have more locations on the list than India.

World press freedom Index 2021

Key takeaways

- **Produced by:** Reporters Without Borders (RSF), a French nongovernmental organization.
- India’s rank **142nd** out of 180 countries.
- According to report India is one of the world’s most dangerous countries for journalists trying to do their job properly.

Inclusive Internet Index, 2021

Key takeaways

- **India’s Rank: 49th out of 120** countries in the Index.
- Facebook Commissions the Inclusive Internet Index, 2021, and The Economist Intelligence Unit develops the index.
- **India is set to reach one billion internet users by 2025.** There were over 687.6 million internet users in India in 2020.
- The index assessed a country’s Internet inclusion across **four categories:** availability, affordability, relevance and readiness.
- Index measures whether the internet is accessible and affordable, and how much it enables social and economic mobility.

Sudarshan Sen Committee

In news

The RBI set up a **six-member committee** headed by Sudarshan Sen to undertake a comprehensive **review of the working of asset reconstruction companies (ARCs)** in the financial sector ecosystem and recommend suitable measures for enabling them to meet the growing requirements.

About ARC

- It is a specialized financial institution that buys the Non-Performing Assets (NPAs) from banks and financial institutions. It helps banks in cleaning up their balance sheets.
- SARFAESI (Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest) Act, 2002 provides the legal basis for the setting up of ARCs in India.
- As per the SARFAESI Act, ARCs should have a minimum net owned funds of Rs. 100Cr.
- The ARCs also have to maintain a capital adequacy ratio of 15% of its risk-weighted assets.
- An ARC can issue bonds, debentures, and security receipts to meet its funding requirements.

Startup India Seed Fund Scheme(SISFS)

In news

Union Minister of Commerce & Industry launches the Startup India Seed Fund Scheme. It was announced during the Prarambh: the 'Startup India International Summit'. Which marks the 5-year anniversary of the Startup India initiative.

Key takeaways:

- It **aims** to provide financial assistance to startups. Assistance is provided for proof of concept, prototype development, product trials, market entry, and commercialization.
- **An Experts Advisory Committee(EAC)** constituted by **DPIIT** will be responsible for the overall execution and monitoring.
- The Scheme will create a robust startup ecosystem, particularly in Tier 2 and Tier 3 towns of India, which are often deprived of adequate funding.
- **The SISFS scheme will help startups in:**
 - Secure seed funding
 - Inspire innovation
 - Support transformative ideas
 - Facilitate implementation and
 - Start startup revolution.

RESPOND Programme

In news

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Recently, Indian Space Research Organization (ISRO) has announced that it will support eight joint research projects mooted by the Space Technology Cell (STC), IIT-Delhi. The ISRO has extended support to the projects under its RESPOND programme.

About RESPOND programme:

- ISRO started the **RESPOND (Research Sponsored) programme in the 1970s**, to encourage academia to participate and contribute in various Space related research activities.
- The main objective is to establish strong links with premier academic institutions in the country to carry out research and developmental projects which are of relevance to Space.
- Enhance academic base, generate quality human resources and infrastructure at the academic institutes to support the Indian Space programme.
- ISRO helps these institutions to establish the necessary technical facilities and also provide fellowships to researchers to work on cutting edge research topics.

The United States Commission on International Religious Freedom (USCIRF)

In news

USCIRF has recommended for the 2nd year in a row that the State Department put India on a list ('Countries of Particular Concern' or CPCs) for the worst violations of religious freedoms in 2020.

About UCSIRF

- It is an **independent bi-partisan commission** of U.S. federal government created by the International Religious Freedom Act (IRFA) of 1998.
- It **researches and monitors international religious freedom issues** and issues an **annual report** after its evaluation of the facts and circumstances of religious freedom violations worldwide.
- **Headquarters:** Washington, D.C.
- The USCIRF **recommendations are non-binding**.

Boao Forum for Asia

In news

Boao Forum was recently held under the **Theme of:** "A World in Change: Join Hands to Strengthen Global Governance and Advance Belt and Road Cooperation."

About Boao Forum for Asia (BFA)

- **Headquarter:** China (Secretariat is based in Beijing).
- It is an international organization jointly initiated by 29 member states.
- It is a **non-profit organisation**.

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- It holds its annual conference in Boao, Hainan, China on a regular basis.
- The Forum is committed to promoting to promote economic integration in Asia.
- It has made positive contributions to the promotion of regional economic integration, common development and the building of a more prosperous and harmonious Asia.
- First conference: Feb. 26-27, 2001
- Described as **Asia's Davos (World Economic Forum)**, the idea of "Asian Forum" was unanimously accepted by the related Asian countries on the proposal of Vice-President of China, Hu Jintao in **1999**.

Earth Day 2021:

In news

Earth Day(22 April), an international event celebrated around the world to pledge support for environmental protection. **This year's theme** for Earth Day is '**Restore Our Earth**'.

About Earth Day:

- It was first observed in 1970.
- In 2009, the United Nations designated 22nd April as 'International Mother Earth Day'.
- The landmark **Paris Agreement**, which brings almost 200 countries together in setting a common target to reduce global greenhouse emissions, was signed on Earth Day 2016.

Space station by Russia in 2025:

In news

Russia's space agency is planning to launch its own **orbital station in 2025** .It considers withdrawing from **the International Space Station programme** to go it alone.

About ISS

- **Launched in 1998 and involving Russia, the United States, Canada, Japan, and the European Space Agency**, the ISS is one of the most ambitious international collaborations in human history.
- The ownership and use of the space station is established by intergovernmental treaties and agreements.
- The ISS serves as a microgravity and space environment research laboratory in which scientific experiments are conducted in astrobiology, astronomy, meteorology, physics, and other fields.
- The station is suited for testing the spacecraft systems and equipment required for possible future long-duration missions to the Moon and Mars.
- **It is the largest artificial object in space and the largest satellite in low Earth orbit, regularly visible to the naked eye from Earth's surface.**
- The ISS circles the Earth in roughly 93 minutes, completing 15.5 orbits per day.

Oxygen on Mars

In news

NASA has announced that a device aboard the Mars Perseverance rover was able to produce oxygen from the thin Martian atmosphere for the first time as it promises hope for future crewed missions that can rely on this technology for astronauts to breathe and return to Earth.

Key takeaways:

- The Mars Oxygen In-Situ Resource Utilisation Experiment (**MOXIE**) **produced 5 grams of oxygen from carbon dioxide in the Martian atmosphere**, enough for an astronaut to breathe for 10 minutes.
- On **Mars, carbon dioxide makes up 96% of the gas in the planet's atmosphere**. Oxygen is only 0.13%, compared to 21% in Earth's atmosphere. **Like a tree on Earth, MOXIE inhales carbon dioxide and exhales oxygen.**
- MOXIE is designed to generate up to 10 grams of oxygen per hour, and is placed inside the Perseverance rover.
- To produce oxygen, MOXIE separates oxygen atoms from carbon dioxide molecules. It does so by using heat at a temperature of around 800 degrees Celsius, and in the process also produces carbon monoxide as a waste product, which it releases in the Martian atmosphere.