

# Current Affairs Update (Jan 1-7)

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## National

### Zero Tillage Technology

Zero tillage is an agricultural practice. It maintains permanent soil cover. It increases natural biological processes that occur in the soil. It improves sustained crop production and increases soil nutrition. There is no soil disturbance.

Tillage is land preparation. Tilling of land means agitating the soil particles by overturning, digging and stirring. This is done to kill weeds, crop residues and to aerate the soil. However, tilling destroys natural structure of the soil. If greater soil area is exposed to sunlight (which usually happens while tilling with the help of tractors), the moisture retaining capacity of soil is lost. On the other hand, zero tillage skips the tilling process. Here the crop seed is sown without land preparation. And the seeds are drilled into the soil.

### Benefits of Zero Tillage Technology

It reduces crop duration. Thus, early cropping is obtained. It aids in getting higher yields. It reduces inputs of land preparation. It utilizes residual moisture in the soil reducing the need for external irrigation. It decreases greenhouse effect due to increase in carbon sequestration. It prevents soil erosion, water loss by runoff. Also, it reduces soil compaction. It slows evaporation. This leads to better rainwater absorption. Ultimately land yield increases.

### Telangana – UP Potato Ban

The Telangana Government recently banned the potatoes from Uttar Pradesh. Can a State Government do this? Yes. The Trade and Commerce is a State Subject under the Seventh Schedule of the Constitution.

Around 2,500 kg of potatoes are transported from UP to Telangana every day. Telangana government has now banned the potatoes imported from UP. This was done for two reasons. One, UP is exporting old stocks. Two, Telangana has become self sufficient in potato production. Telangana prefers freshly in grown potatoes (that is potatoes grown within the state) to the old stocks from UP.

### Why is UP sending old stocks?

The farmers in UP sow potatoes during October to November. They harvest during Feb – Mar. They sell only one – fifth of the harvest in Mar. They store the rest in cold storages till November end. They then

export the stored potatoes to other states throughout the year. Thus, UP has enough old stocks to send to other states throughout the year.

### Recent Missions of Tourism Ministry

The Government of India is expecting that the tourism sector is to contribute 500 billion USD towards the country's GDP by 2030. And the government is to work towards achieving this goal.

- **National Green Tourism Mission:** To bring sustainability in tourism
- **National Digital Tourism Mission:** To digitize the tourism industry
- **Sectoral Mission on Skill Development:** To provide qualified manpower and trained professionals to the tourism industry
- **National Mission on Destination Management:** To provide coordination among public and private stakeholder
- **National Mission on Tourism MSMEs:** To facilitate startups and MSMEs

### SHe-Box

The **Ministry of Women & Child Development** has launched **Sexual Harassment electronic Box (SHe-Box)** as an effort to provide a single window access to every woman, irrespective of her work status, whether working in organised or unorganised, private or public sector, to facilitate the registration of complaint related to sexual harassment.

Any woman facing sexual harassment at the workplace can register their complaint through this portal. Once a complaint is submitted to the 'SHe-Box', it will be directly sent to the concerned authority having jurisdiction to take action into the matter.

### GitHub

GitHub is **the world's largest open-source developer community platform** where users upload their projects and code for others to view, edit, and tweak.

It is in the news after **it was used to create and share an offensively named app (Bulli Bai) that sexually harassed Muslim women in India.**

The app used pictures of the women stolen from their social media handles and invited "users" to bid for them.

## International

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## China's border law

It is called the law for **the “protection and exploitation of the country's land border areas”**.

1. Under the law, “the sovereignty and territorial integrity of China are sacred and inviolable”.
2. The state needs to “take measures to safeguard territorial integrity and land boundaries and guard against and combat any act that undermines these”.
3. The law encourages the development of villages for civilians in the border areas.
4. The law also asks the state to follow the principles of “equality, mutual trust, and friendly consultation, handle land border related-affairs with neighbouring countries through negotiations to properly resolve disputes and longstanding border issues.
5. The law lays down four conditions under which the state can impose emergency measures, including border shutdown.

### Rationale behind the law:

- This law reflects **Beijing's renewed concerns over the security of its land border**. It also underscores **the imperative for Beijing to exert greater control over its somewhat porous land border**.
- The law “reflects **Beijing's thinly-veiled worries about the stability of its hinterland bordering Central Asia**” as the withdrawal of the US forces and Taliban takeover “aggravated Beijing's concerns that Afghanistan may become a hotbed for terrorism and extremism that could spread to Xinjiang”.
- **Domestic politics** too may have been a contributing factor, bolstering President Xi Jinping's standing in the lead-up to the 20th Party Congress later this year when he would secure a third term.

### Does it concern India?

Although the law is not meant specifically for India, it is bound to have some impact.

1. China and India share a disputed 3,488-km boundary, the third longest among China's 22,457-km land boundaries with 14 countries, after the borders with Mongolia and Russia.
2. There is a growing suspicion that China may have been stalling further negotiations on the standoff in eastern Ladakh for this new law to come into force. The Corps Commanders last met in October.

3. The new law also prohibits construction of permanent infrastructure close to the border without China's permission. Both, India and China have been building new roads, bridges and other facilities faster since the standoff began; in fact, China had objected to India's workers even before.

### China's construction on Pangong Tso

In the last two months, it has been observed that China is constructing a bridge connecting the north and south banks of the Pangong Lake. Construction of the bridge is significant, as it bridge will facilitate quick induction since it will reduce the distance and time to reach the contested areas at the Pangong Lake. It will connect the two banks and thus allow Chinese forces easy access on either side to combat any threat.

#### Why China is increasing deployment and construction at the LAC?

Possible Reasons are:

1. India's decision to strengthen its border infrastructure (eg- construction of Darbuk-Shyok-Daulat Beg Oldie road).
2. India's tilt towards United States (eg- Quad).
3. China consider India's assertions on Gilgit-Baltistan, as an attack on the China-Pakistan Economic Corridor (CPEC) project of China.

### Trincomalee oil tank farm

Recently, Sri Lanka announced that the Indian Oil Subsidiary Lanka IOC would be given 49% stake in the joint development of **the Trincomalee Oil Tank farm**, with Ceylon Petroleum Corporation keeping 51%.

#### Why has this become a historical deal?

**35-year-old agreement:** If it goes according to plan, India and Sri Lanka would have finally achieved the implementation of an agreement — contained in an exchange of letters between then Prime Minister Rajiv Gandhi and Sri Lankan President J R Jayewardene as part of the annexure to **the India-Sri Lanka Accord of July 29, 1987** — that the tank farm would be developed jointly.

#### Why does Trincomalee matter?

The pre-WWII era oil storage facility has a capacity of nearly 1 million tonnes, which far outstrips the demand in Sri Lanka.

- **Strategic Location in the Indian Ocean:** Located inland from **China Bay**, the facility was meant to be serviced by the natural harbour at Trincomalee.

- **Easily Accessible:** In 2010-2011, officials had pitched for refurbishing the tank farm as an extension of Indian Oil storage on the Indian east coast, or for developing it as a **refuelling facility to small ships**. Trincomalee is **the nearest port to Chennai**.
- **Balancing China:** From India's geostrategic viewpoint, Trincomalee is an important counterbalance to the southern Hambantota Port backed substantially by China.

Therefore, **India's interest is to prevent a third country from entering the 850-acre facility**

#### **About the Indo-Lanka Accord:**

- It is popularly referred to as **the Rajiv-Jayewardene Accord**.
- It was **signed in 1987** on the pretext of the Civil War in Sri Lanka (between Tamils and Sinhala community).
- The accord sought to balance India's strategic interests, interest of people of Indian origin in Sri Lanka and Tamil minority rights in Sri Lanka.
- The accord saw the placement of **the Indian Peace Keeping Force (IPKF)** in Sri Lanka to resolve the Sri Lankan Civil War.
- The accord also resulted in enactment of **the thirteenth Amendment to the Constitution of Sri Lanka and the Provincial Councils Act of 1987**.

### **Bucharest Nine Group**

The Bucharest Nine Group comprises of Poland, Romania, Slovakia, Lithuania, Latvia, Hungary, Czech Republic, Bulgaria and Estonia. The organisation was formed in 2015. It was formed under the initiative of Romania and Poland. It is also called Bucharest Format or B9. The group was formed at the Romania capital and hence the name.

#### **Why was B9 formed?**

Russia annexed Crimea from Ukraine in 2014. The B9 was formed condemning the annexation. The B9 members were either a part of Soviet Union before its disintegration or a sphere of influence. The B9 has proposed to extend the organisation eastward. It wants to include Ukraine, Moldova and Georgia. Ukraine is of great importance to US, EU and B9 because it is the buffer between the western world and Russia.

#### **Why is B9 in news recently?**

Lithuania recently allowed Taiwan to open an embassy equivalent office in its soil. This angered China. According to China, Taiwan is not a separate country and is an integral part. US and B9 countries are supporting Lithuania actions.

## Russia vs NATO in Ukraine

Russia has stationed more than 1,00,000 troops at its border with aspiring **NATO** member **Ukraine**.

### What's the issue? What are the demands by Russia?

- Russia stated that only if NATO withdraws their forces from all countries in Europe that joined the alliance after May 1997, would they de-escalate the military build-up.
- This would effectively mean that NATO cannot operate in any of the Baltic nations that border Russia (Latvia, Estonia, Lithuania), central European states such as Poland, Hungary, and the Czech republic, and Balkan states such as Croatia and Slovenia.
- Russia also wants NATO to drop plans of any further 'enlargement', which means committing to not accepting Ukraine and Georgia as members. Another demand is that NATO must not hold drills in eastern Europe, Ukraine and Georgia without prior approval from Russia.

### Response from the west:

1. The U.S and NATO officials have bluntly stated that Russia's proposals are unrealistic. They insist that Ukraine and every other country has the right to determine its own foreign policy.
2. Citing the principle of sovereignty, they insist that Ukraine, and every other country in eastern Europe, has the right to determine its foreign policy without outside interference and join whichever alliance it wants.
3. They have also dismissed the idea of Russia wielding veto power over who gets to become a member of NATO, and pointed out that NATO would not take decisions affecting eastern Europe without involving the countries concerned

## Kazakhstan Protests and Emergency

The citizens of Kazakhstan are protesting against the sudden fuel price hike. The ruling government resigned due to the rising tensions. Emergency has been declared in the Central Asian country.

The protests began when the ruling government of Kazakhstan lifted the price controls of Liquefied Petroleum Gas. The prices quickly doubled after the lift. Earlier, because of its low price, the citizens had converted their vehicles to run on the fuel. Their plans shattered due to sudden price hike after the price control was lifted. This angered them and they started protesting.

### What is the root cause?

Kazakhstan is an oil rich country. It has huge foreign investments mainly because of its oil. It had a strong economy since its independence (after disintegration of Soviet Union). However, its autocratic form of governance has raised international concerns. The political rifts between the ruling and

opposition creates the unrest. And the authorities often crack down due to the internal protests. Such conditions are always around oil issues. Oil is used as weapon to capture power.

### **Japan – Australia Defence Agreement**

On January 6, 2022, Japan and Australia will sign a defence agreement to boost security and defence cooperation. The signing of the agreement is considered “historic”. This is to anger China. The agreement is to expand Quad agenda. The agreement will reduce Chinese influence in ASEAN. It will aid in achieving free and open Indo – Pacific.

The agreement includes sharing military facilities between the countries, landing rights, securing port access, logistic support, legal regimes, logistic support. This means the advanced F-35s (fighter jet) of Japan can now practice in Australian soil. The Australian submarines can now operate in Japanese waters.

## **Science-Tech & Environment**

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### **New Covid-19 variant ‘IHU’**

Scientists in France have identified a new and more mutated strain of SARS-CoV-2 virus, causing covid-19 disease. New variant of the coronavirus has been named IHU or the B.1.640.2 variant. It was discovered by the academics at institute IHU Mediterranee Infection. It comprises of 46 mutations, more than Omicron, making it more resistant to vaccines and infectious.

### **India’s Non – Fossil Fuel Milestone**

The Ministry of New and Renewable Energy recently announced that India has reached its non – fossil fuel target much ahead of 2030. At the COP21, India had pledged to install 40% of overall electric energy from non – renewable sources. India aimed to achieve this target by 2030. But it has now achieved this well ahead in November 2021.

The total installed electric capacity of India is 392.01 GW. Of this, the total non – fossil- fuel based energy is 157.32 GW. This is 40.1% of 392.01 GW to be precise.

### **7 years of UJALA Scheme**

On January 5, 2022, Unnat Jyoti by Affordable LEDs for All (UJALA) scheme completed 7 years. UJALA Scheme was launched by Prime Minister Narendra Modi on January 5, 2015. It is spearheaded by Energy Efficiency Services Limited. This scheme is considered as world’s largest, in non-subsidized LED lamp distribution projects.

- UJALA scheme has evolved as the world's largest zero-subsidy domestic lighting programme, which addresses concerns such as high electrification cost and high emissions resulting from inefficient lighting.
- Scheme has resulted in significant benefits, through its innovative approach.
- Under the scheme, more than 36 crore 70 lakh LEDs have been distributed so far across India. It has resulted in saving of around 47 thousand Million Kilowatt-hour per annum energy. It has also avoided 9 thousand 565 megawatts peak demand.
- Scheme has also contributed to substantial reduction in carbon dioxide emissions and has reduced household electricity bills.

### DRDO Foundation Day

- 64<sup>th</sup> foundation day of "Defence Research and Development Organisation (DRDO)" was celebrated on January 1, 2022.
- DRDO is the premier agency, working under the Department of Defence Research & Development in Ministry of Defence. It is charged with the military's research and development.
- The organisation is headquartered in Delhi.
- DRDO was established on January 1, 1958 after merging Directorate of Technical Development & Production of Indian Ordnance Factories and Technical Development Establishment, with Defence Science Organisation.
- Current Secretary and Chairman of DRDO is Dr G Satheesh Reddy.

### Regulations on Waste Tyres Management

Ministry of Environment, Forests & Climate Change shared the draft notification for regulations on "extended producer responsibility (EPR) for waste tyres". The regulation will be effective in the fiscal year 2022-23, if finalised.

Draft notification was shared in because, NGT data shows that India discards around 275,000 tyres each year, but there does not exist any comprehensive plan for them. Furthermore, around 3 million waste tyres are imported for recycling.

#### Background

On September 19, 2019, NGT had directed the Central Pollution Control Board (CPCB) to draft a comprehensive waste management plan for waste tyres & their recycling. NGT directed this in a case related to absence of proper management of End-of-Life Tyres/Waste Tyres (ELTs). In this case, petitioner had said that pyrolysis industry in India produces inferior quality products, which should be banned for preventing environmental damage. Petitioner also highlighted that industry emits highly carcinogenic or cancer-causing pollutants, which are harmful for respiratory system.



### **EPR obligations under draft notification**

The draft notification provides for:

1. 2022-23: EPR obligation of 35 per cent of the quantity of tyres manufactured or imported in 2020-2021.
2. 2023-24: EPR obligation of 70 per cent of the quantity of new tyres manufactured or imported in 2021-22
3. 2024-25: EPR obligation of 100 per cent of the quantity of new tyres manufactured or imported in 2022-23.
4. After 2024-25, the EPR obligation will be 100 per cent of the quantity of new tyres manufactured or imported in the preceding year.
5. For units established after April 1, 2022, EPR obligation will start after two years. It will be 100 per cent of the new tyres manufactured or imported in the previous year.

### **What is Extended Producer Responsibility?**

It means responsibility of producer of tyres are entitled to ensure environmentally sound management of such waste tyres in accordance with the provisions of this regulation.

## **Economics**

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### **GST compensation**

The **Constitution (One Hundred and First Amendment) Act, 2016**, was the law which created the mechanism for levying a common nationwide **Goods and Services Tax (GST)**.

While States would receive **the SGST (State GST) component of the GST, and a share of the IGST (integrated GST)**, it was agreed that **revenue shortfalls arising from the transition to the new indirect taxes regime would be made good from a pooled GST Compensation Fund** for a period of five years that is currently set to end in June 2022.

### **How is the GST Compensation Fund funded?**

This corpus is funded through a compensation cess that is levied on so-called 'demerit' goods. The items are pan masala, cigarettes and tobacco products, aerated water, caffeinated beverages, coal and certain passenger motor vehicles.

### **Computation of the shortfall:**

The computation of the shortfall is done annually by projecting a revenue assumption based on 14% compounded growth from the base year's (2015-2016) revenue and calculating the difference between that figure and the actual GST collections in that year.

**Why in news?** Finance Ministers of several States have demanded that **the GST compensation scheme** be extended beyond June 2022.

### Energy Transition Advisory Committee

The Energy Transition Advisory Committee was formed by Ministry of Petroleum and Natural Gas. It is headed by Tarun Kapoor, former Secretary of Petroleum Ministry. It will focus on increasing the share of clean energy sources such as hydrogen, biofuel, nuclear, geothermal, tidal in the energy mix of the country.

#### Why was the committee formed?

- To help India achieve its net zero emission target by 2070.
- To create an energy transition road map (within 6 months).
- To create a step – by – step plan for moving from fossil fuels to green energy.

### What are Payments banks?

Payment banks were established to promote financial inclusion by offering; 'modest savings accounts and payments/remittance services to migratory labour workforce, low-income households, small enterprises, other unorganised sector entities, and other users.'

- These banks can accept a restricted deposit, which is now capped at Rs 200,000 per person but could be raised in the future.
- These banks are unable to provide loans or credit cards. Banks of this type can handle both current and savings accounts.
- Payments banks can provide ATM and debit cards, as well as online and mobile banking.

#### What is a Schedule Bank?

Scheduled Banks in India refer to those banks which have been included in **the Second Schedule of Reserve Bank of India Act, 1934**. Every Scheduled bank enjoys two types of principal facilities: It becomes eligible for debts/loans at the bank rate from the RBI; and, it automatically acquires the membership of clearing house.

**Why in news?** The Reserve Bank of India (RBI) has announced the inclusion of **Airtel Payments Bank Ltd. in the Second Schedule to the Reserve Bank of India Act, 1934**.

# Current Affairs Update (Jan 8-15)

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## National

### Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme

**Launched in 2020**, the scheme will be implemented for five years until 2024-25.

It is for the **Unorganized Sector on All India basis**.

#### Objectives:

1. Increase in access to finance by micro food processing units.
2. Increase in revenues of target enterprises.
3. Enhanced compliance with food quality and safety standards.
4. Strengthening capacities of support systems.
5. Transition from the unorganized sector to the formal sector.
6. Special focus on women entrepreneurs and Aspirational districts.
7. Encourage Waste to Wealth activities.
8. Focus on minor forest produce in Tribal Districts.

#### Salient features:

1. **Centrally Sponsored Expenditure** to be shared by Government of India and States at 60:40.
2. 2,00,000 micro-enterprises are to be assisted with **credit linked subsidy**. Micro enterprises will get credit linked subsidy at 35 per cent of the eligible project cost with ceiling of Rs. 10 lakh.
3. **Beneficiary contribution** will be minimum 10 per cent and balance from loan. Seed capital will be given to SHGs (Rs. four lakh per SHG) for loan to members for working capital and small tools.
4. Cluster approach.
5. Focus on perishables.

## Election Expenditure Limit

The Election Commission of India has raised the expenditure limit for candidates contesting elections.

The following changes have been made:

- The expenditure limit for candidates for Lok Sabha constituencies was increased from Rs 54 lakh-Rs 70 lakh (depending on states) to Rs 70 lakh-Rs 95 lakh.
- The spending limit for Assembly constituencies was hiked from Rs 20 lakh-Rs 28 lakh to Rs 28 lakh- Rs 40 lakh (depending on states).
- The enhanced amount of Rs 40 lakh would apply in Uttar Pradesh, Uttarakhand and Punjab and ₹28 lakh in Goa and Manipur.

## Election Expenditure Limit

Under **Section 77 of the Representation of the People Act (RPA), 1951**, every candidate shall keep a separate and correct account of all expenditure incurred between the date on which they have been nominated and the date of declaration of the result.

- All candidates are required to submit their expenditure statement to the ECI within 30 days of the completion of the elections.
- An incorrect account or expenditure beyond the cap can lead to disqualification of the candidate by the ECI for up to three years, under **Section 10A of RPA, 1951**.

## Article 348 (1)

**Article 348 (1) of the Constitution of India** provides that all proceedings in the Supreme Court and in every High court shall be in English Language until Parliament by law otherwise provides.

Under **Article 348 (2)**, the Governor of the State may, with the previous consent of the President, authorize the use of the Hindi language or any other language used for any official purpose of the State, in the proceedings of the High Court having its principal seat in that State provided that decrees, judgments or orders passed by such High Courts shall be in English.

**Why in News?** A Division Bench of the Gujarat High Court recently asked a journalist facing contempt of court proceedings to speak only in English as that was the language in the higher judiciary.

## How FCRA regulates NGO funding?

**FCRA** regulates foreign donations and ensures that such contributions do not adversely affect the internal security of the country. The Act, first enacted in 1976 was amended in the year 2010 and then 2020.

Section 5 of the **Foreign Contribution (Regulation) Act, 2010** gives the Union government “unchecked and unbridled powers” to declare an organisation as being one of political nature and deny it access to funds from sources abroad.

FCRA is implemented by **the Ministry of Home Affairs**.

A host of entities are barred from receiving foreign funds, including election candidates, those connected with a registered newspaper, judges, government servants or employees of any entity controlled or owned by the government and members of any legislature. Political parties and their office bearers, too, are prohibited from receiving foreign funds.

### **Kochi Water Metro Project**

The Kochi Water Metro Project is a ferry transport project. It provides feeder service to the suburbs. With this Kochi has become the first city in India to launch water metro project.

The transport system is powered by **LTO battery technology**. This is the first time in the world, battery power centrally controlled water system is implemented. LTO is **Linear Titanium Oxide** is a rechargeable battery. It charges at a rapid rate as compared to other lithium – ion batteries.

The boats were constructed at Cochin Shipyard. They are fully air conditioned. They have wide windows providing good view of the backwaters and banks. The project will operate 23 boats. The boats can carry hundred passengers.

### **Jallikattu**

With a steep rise in the daily cases of COVID-19, the district administration in Vellore, Tiruvannamalai, Ranipet and Tirupattur, have banned the conduct of **Jallikattu** events, ahead of Pongal festival, as part of safety measures.

#### **What is Jallikattu?**

- The bull-taming sport is popular in Madurai, Tiruchirappalli, Theni, Pudukkottai and Dindigul districts known as the Jallikattu belt.
- Jallikattu is celebrated in the second week of January, during the Tamil harvest festival, Pongal.
- A tradition over 2,000 years old, Jallikattu is a competitive sport as well as an event to honour bull owners who rear them for mating.
- It is a **violent sport in which contestants try to tame a bull for a prize**; if they fail, the bull owner wins the prize.

## Youth Pravasi Bharatiya Diwas Conference 2022

The Pravasi Bharatiya Diwas is also called Non – Resident Indian Day. It is celebrated on January 9 every year. It is celebrated to encourage the overseas Indian community to reconnect with their roots. On January 9, 1915, Mahatma Gandhi returned to India from South Africa.

There are more than 18 million NRIs located in different parts of the world. They contribute 13% of the global remittances. Remittances is nothing but the money sent by the NRIs to their families and friends in India. These remittances account to 3.2% of Indian GDP.

## India's 73rd Chess Grandmaster

Fourteen-year-old Bharath Subramaniyam became India's 73rd chess Grandmaster. He secured the third and final Grandmaster norm at an event at Cattolica in Italy.

GM is a title awarded to chess players. It is awarded by world chess organization FIDE. It is the highest title a chess player can attain. This title is held for life, once achieved. However, the title has been revoked for cheating, exceptionally. GM title is open to all players regardless of gender.

## Global Surya Namaskar event

The Ministry of AYUSH has decided to organise a “Global Surya Namaskar Demonstration Programme” on **January 14**, 2022, on the occasion of Makar Sankranti.

Surya Namaskar is a practice in yoga as exercise, which incorporates a series of a twelve gracefully linked asanas. It was first recorded as yoga during 20th century. The set of 12 asanas is dedicated to the solar deity Surya.

Exposure to the Sun provides Vitamin D to the human body, which is widely recommended in all medical branches worldwide.

**Makar Sankranti** is the transition day of Sun into the Capricorn. During this phase, the sun moves northwards in the Hindu calendar. It is dedicated to the deity Surya. The day is observed each year when Sun enters the Capricorn zodiac, corresponding with the January month of Gregorian calendar. This day marks the first day of the sun's transit into Makara Rashi.

## Indu Malhotra Panel

The Supreme Court has appointed **an inquiry committee under its former judge Justice Indu Malhotra** to probe the security breach during Prime Minister Narendra Modi's visit to Punjab on January 5. The committee will look into who is responsible for the security breach and suggest what safeguards are necessary for the security of the PM and Constitutional functionaries.

## National Youth Day

**January 12** marks the birthday of Swami Vivekananda. **National Youth Day** is celebrated on this day. Celebrated **since 1984**. The main objective is to promote rational thinking among the youth, believed to be the future of the country.

Born in Kolkata on January 12, 1863 in Kolkata, Swami Vivekananda was known as **Narendra Nath Datta** in his pre-monastic life. He **formed the Ramakrishna Mission in 1897** “to set in motion a machinery which will bring noblest ideas to the doorstep of even the poorest and the meanest.” Netaji Subhas Chandra Bose had called Vivekananda **the “maker of modern India.”**

# International

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## Collective Security Treaty Organization

- It is an **intergovernmental military alliance** (six countries) that came into effect in 2002.
- Its’ origin can be traced to **the Collective Security Treaty, 1992 (Tashkent Treaty)**.
- The headquarter is located in the Russian capital of Moscow.
- **The objectives of the CSTO is** to strengthen peace, international and regional security including cybersecurity and stability, the protection on a collective basis of the independence, territorial integrity and sovereignty of the member states.

**Composition:** Current CSTO members are Armenia, Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation and Tajikistan.

**Why in news?** The **Collective Security Treaty Organisation (CSTO)** has dispatched troops to help quell mounting unrest in Kazakhstan as the police said dozens were killed trying to storm government buildings.

## ‘Gateway to Hell’

Turkmenistan’s President Gurbanguly Berdymukhamedov recently ordered officials to find a method of finally extinguishing the ‘Gateway to Hell’ in the country. Turkmenistan’s Gateway to Hell is the raging flames, burning for five decades in a large natural gas crater.

The Darvaza Crater, which is also called as the Door to Hell, is 225 feet wide 99 feet deep, crater. It has a diameter of 70 metres, across an area of 5.5 square metres. It is a natural gas field collapsed into a cavern near Darvaza in Turkmenistan.

## Henley Passport Index 2022

The index is updated in real time throughout the year. It is prepared on the basis of exclusive data provided by **International Air Transport Association (IATA)**.

**Japan and Singapore** have been ranked 1<sup>st</sup>, with passport holders have accessibility of 192 destinations visa-free. Germany and South Korea have been placed at 2<sup>nd</sup> position, with passport holders able to access 190 destinations visa-free. Finland, Italy, Spain and Luxembourg shared 3<sup>rd</sup> place with a score of 189.

As per the Index, in first quarter of 2022, India has improved its passport power. India has climbed seven places up and has been ranked at **83<sup>rd</sup> position**. In 2021, it was ranked at 90<sup>th</sup> position. Now, India has access to 60 countries without a prior visa.

Afghanistan with access to just 26 countries, emerged as the worst performer. Pakistan have been ranked at 108<sup>th</sup> position with score of 31.

## Science-Tech & Environment

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### Cheetah reintroduction project

The Government is preparing to translocate the first batch of eight **from South Africa and Namibia to Kuno National Park in Madhya Pradesh** soon after the situation linked to the current third wave of Covid-19 becomes normal, and total 50 in various parks over a period of five years.

In this regard, the Union Minister for Environment, Forests and Climate Change has launched **the 'Action Plan for Introduction of Cheetah in India'** under which 50 of these big cats will be introduced in the next five years. The action plan was launched at the 19th meeting of **the National Tiger Conservation Authority (NTCA)**.

#### What is reintroduction and why reintroduce Cheetah now?

- 'Reintroduction' of a species means releasing it in an area where it is capable of surviving.
- Reintroductions of large carnivores have increasingly been recognised as a strategy to conserve threatened species and restore ecosystem functions.
- The cheetah is the only large carnivore that has been extirpated, mainly by over-hunting in India in historical times.
- India now has the economic ability to consider restoring its lost natural heritage for ethical as well as ecological reasons.

### Applications of drones

The Ministry of Civil Aviation (MoCA) has sent a note on use of drones across various sectors to different ministries at the centre.

#### Where all can drones be effectively utilised?



**Ministry of Home Affairs:** For surveillance, situational analysis, crime control, VVIP security, disaster management, etc.

**Ministry of Defence:** Drones for combat, communication in remote areas, counter-drone solutions, etc.

**Ministry of Health and Family Welfare:** Delivery of medicines, collection of samples from remote or epidemic/pandemic-affected areas.

**The Petroleum and Natural Gas, and Power Ministries:** For real-time surveillance of assets and transmission lines, theft prevention, visual inspection/maintenance, construction planning and management, etc.

**Environment, Forests and Climate Change Ministry:** Anti-poaching actions, monitoring of forests and wildlife, pollution assessment, and evidence gathering.

**Ministry of Information and Broadcasting:** For high-quality videography of events and difficult-to-reach places at a fraction of the cost and approvals required. This move would also facilitate low altitude shooting without noise, and prevent dust pollution and risk of accidents.

**Other areas:** To undertake disaster management, incidence response, inspection/maintenance works and project monitoring.

## INS Vikrant

- INS Vikrant (IAC-I) is **the first aircraft carrier built in India and the first Vikrant-class aircraft carrier built by Cochin Shipyard (CSL)** in Kochi, Kerala for the Indian Navy.
- It has been designed by the Indian Navy's Directorate of Naval Design (DND), and is being built at Cochin Shipyard Limited (CSL), a public sector shipyard under the Ministry of Shipping.
- The IAC-1, the biggest warship made indigenously, has an overall length of 263 m and a breadth of 63 m.
- It is capable of carrying 30 assorted aircraft including combat jets and helicopters.

## Sea Dragon Exercise

India is among the six Indo-Pacific nations participating in **Sea Dragon Exercise**- a multi-lateral anti-submarine warfare exercise in the Pacific Ocean.

**Participants:** Navies of the US, India, Australia, Canada, Japan and South Korea.

**Sea Dragon** is a US-led multi-national exercise designed to practice and discuss Anti-submarine warfare tactics to operate together in response to traditional and non-traditional maritime security challenges in the Indo-Pacific region.

### First Pig heart transplant in Human

Recently, doctors transplanted a pig heart into a patient in a last effort to save his life, in **Maryland hospital in USA**. It was done for the first time in the history of medical science. The patient was **David Bennett** aged 57. Transplant highlighted that heart from a genetically modified animal can function in human body, without immediate rejection.

**Xenotransplantation** or heterologous transplant, is the transplantation of living cells, organs or tissues from one species to another. Such cells, organs or tissues are called xenografts or xenotransplants. The technique of Xenotransplantation of human tumour cells into immunocompromised mice is often used in pre-clinical oncology research.

### IUCN assessment on Red Sanders

The International Union for Conservation of Nature's (IUCN) recently categorised the Red Sanders (or Red Sandalwood) again into the '**endangered**' category in its Red List.

The species, called Red Sanders, is scientifically called as *Pterocarpus santalinus*. It is an Indian endemic tree species and its geographical range is restricted to **Eastern Ghats**. The species is endemic to a distinct tract of forests in Andhra Pradesh.

Red Sanders are known for their rich hue and therapeutic properties. They are highly demanded across Asia, especially in China and Japan, to use them in **cosmetics and medicinal products**. It is also used to make **furniture, woodcraft and musical instruments**.

### Orang National Park

The **Assam** Government has recently decided to increase the size of Orang National Park. The park is to be expanded thrice. The State is to add **200.32 square kilometre** to the Orang National Park. The area to be added consists of Brahmaputra river.

Orang is a major **rhino** habitat. It became a **tiger** reserve in 2016. The other seven national parks in Assam are Dehing Patkai, Dibru – Saikhowa, Manas, Kaziranga, Nameri, Raimona.

The National Parks, Wild Life sanctuaries and other wildlife related subjects were moved to **Concurrent List**. Earlier it was under the state list. In 1976, the 42<sup>nd</sup> constitutional amendment moved these subjects to concurrent list.

### Stockholm Convention on POPs

**European Commission** has proposed to tighten limits for a range of persistent organic pollutants (POPs) to tackle contamination in recycled products, health and environment.

In 1995, the Governing Council of the United Nations Environment Programme (UNEP) called for global action to be taken on POPs, which it defined as "**chemical substances that persist in the environment,**

**bio-accumulate through the food web, and pose a risk of causing adverse effects to human health and the environment”.**

**Uniqueness of POPs:**

- POPs are **lipophilic**, which means that they accumulate in the fatty tissue of living animals and human beings.
- **In fatty tissue**, the concentrations can become magnified by up to 70 000 times higher than the background levels.
- As **you move up the food chain, concentrations of POPs tend to increase** so that animals at the top of the food chain such as fish, predatory birds, mammals, and humans tend to have the greatest concentrations of these chemicals.

**About Stockholm Convention on POPs:**

Signed in 2001 and **effective from May 2004** (Ninety days after the ratification by at least 50 signatory states).

Aims to **eliminate or restrict** the production and use of **persistent organic pollutants (POPs)**.

**The 12 initial POPs under the Stockholm Convention:**

Initially, twelve POPs have been recognized as causing adverse effects on humans and the ecosystem and these can be placed in 3 categories:

1. **Pesticides:** aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene;
2. **Industrial chemicals:** hexachlorobenzene, polychlorinated biphenyls (PCBs); and
3. **By-products:** hexachlorobenzene; polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

Since then, additional substances such as carcinogenic polycyclic aromatic hydrocarbons (PAHs) and certain brominated flame-retardents, as well as organometallic compounds such as tributyltin (TBT) have been added to the list of Persistent Organic Pollutants.

**National Supercomputing Mission (NSM)**

As per the ministry of science and technology's annual year-end review: Under **the National Super-Computer Mission (NSM)**, four new Supercomputers have been installed since July 2021 at IIT-Hyderabad, NABI- Mohali, CDAC-Bengaluru and IIT Kanpur.

**National Supercomputing Mission (NSM)** is being implemented and steered jointly by the **Department of Science and Technology (DST)** and **Department of Electronics and Information Technology (DeitY)**. Implemented by the **Centre for Development of Advanced Computing (C-DAC)**, Pune and the **Indian Institute of Science (IISc)**, Bengaluru.

**Focus of the mission:** The Mission envisages empowering national academic and R&D institutions spread over the country by installing a vast supercomputing grid comprising of more than 70 high-performance computing facilities.

### White Swan Strategic Missile Bomber

- The Russian defence forces recently unveiled a new Tupolev Tu-160M. It is a missile bomber. It is also known as “White Swan”.
- It is a supersonic bomber. It is the largest and heaviest Mach 2+ military bomber built in the world. It was designed by Tupolev and built by Kazan Aircraft Production Association.
- It is capable of delivering largest payload. They have the longest range. It can carry 34 tonnes of load. The bomber can deliver 24 cruise missiles. It can trace 14,000 km without refuelling.

### New Chairman of ISRO

Dr S Somnath is to become the new chairman of ISRO. He is to succeed K Sivan. He is the fourth Keralite to occupy the top most place in ISRO. The previous Keralites were K Radhakrishnan, Madhavan Nair and K Kasturirangan.

### Bio-Restoration of Art Works

The Art restoration processes use laser techniques and chemicals to remove oil, dirt, glue and pollutants from stone works, monuments and paintings. But after 1980s, they have been using microorganisms.

Researchers first used **Desulfovibrio vulgaris** bacteria to clean a marble monument. The monument was obtained from Cave Hill Cemetery located in Louisville, US. In 2013, the same *Desulfovibrio vulgaris* was used to recover the artwork called “Allegory of Death”.

The bacteria used in the process of artwork restoration are called **grim eating bacteria**. The Archaeological Survey of India is looking for options to employ these bacteria to restore the Taj Mahal. The Taj Mahal suffers from discoloration due to pollution. Scientists believe that calcifying bacteria can be used on Taj.

## Economics

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### Asian Infrastructure Investment Bank (AIIB)

Former Reserve Bank of India (RBI) governor Urjit Patel has been appointed vice-president of the Beijing-based **Asian Infrastructure Investment Bank (AIIB)**. Mr. Patel will serve a three-year term as one of the multilateral development bank's five vice-presidents.

Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank with a mission to improve social and economic outcomes in Asia and beyond.

The Parties (57 founding members) to agreement comprise the Membership of the Bank.

It is **headquartered in Beijing**. The bank started operation after **the agreement entered into force on 25 December 2015**, after ratifications were received from 10 member states holding a total number of 50% of the initial subscriptions of the Authorized Capital Stock.

### New IMF Chief Economist

The International Monetary Fund (IMF) have appointed **Pierre-Olivier Gourinchas** as the new Chief Economist. He succeeds Gita Gopinath as its chief economist. Gourinchas is presently the director of Clausen Center for International Business & Policy, at the University of California.

IMF is an international financial institution. It is **headquartered in Washington, D.C.** The institution comprises of 190 countries. It is working to foster global monetary cooperation, facilitate international trade, secure financial stability, promote sustainable economic growth, promote high employment and reduce poverty worldwide. It was created in 1944 but started working formally on December 27, **1945**.

### China's status as a 'developing country' at WTO

**China's status as a 'developing country' at the World Trade Organization (WTO)** has become a contentious issue with a number of countries raising concerns over the upper middle-income nation deriving benefits reserved for developing countries under WTO norms. Moreover, concerns have been raised over **the 'least developed country' (LDC) status**, with Bangladesh potentially losing this tag after surpassing India in terms of GDP per capita.

**Developing Country Status in WTO: There are no WTO definitions** of "developed" and "developing" countries.

**Members announce for themselves** whether they are "developed" or "developing" countries. However, other members can challenge the decision of a member to make use of provisions available to developing countries.

### What are the advantages of "developing country" status?

Developing country status in the WTO brings certain rights. Developing country status ensures special and differential treatment (S&DT) or provisions which allow them more time to implement agreements

and commitments, include measures to increase trading opportunities, safeguard their trade interests, and support to build capacity to handle disputes and implement technical standards.

### **Pradhan Mantri Jan-Dhan Yojana (PMJDY)**

Announced on 15th August 2014, PMJDY is **National Mission for Financial Inclusion** to ensure access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner.

#### **Objectives:**

- To ensure access of financial products & services at an affordable cost.
- Use of technology to lower cost & widen reach.

#### **Basic tenets of the scheme:**

1. **Banking the unbanked** – Opening of basic savings bank deposit (BSBD) account with minimal paperwork, relaxed KYC, e-KYC, account opening in camp mode, zero balance & zero charges.
2. **Securing the unsecured** – Issuance of Indigenous Debit cards for cash withdrawals & payments at merchant locations, with free accident insurance coverage of Rs. 2 lakhs.
3. **Funding the unfunded** – Other financial products like micro-insurance, overdraft for consumption, micro-pension & micro-credit.

**Why in news?** The finance ministry data has revealed that deposits in bank accounts opened under **the Pradhan Mantri Jan-Dhan Yojana (PMJDY)** have crossed the Rs 1.5 lakh crore mark.

# Current Affairs Update (Jan 16-23)

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## National

### Digital Agristack

The Government of India is working on creating a digital stack of agricultural data. That is storing data related to farmers. Apart from farmer details, the digital agristack also holds all information about which seeds to buy, weather updates, what manures and fertilizers to use, insurance, best agricultural practices to maximize the yield.

Agristack has unique number for every farmer in the country. This numbered file will hold personal information of the farmer. This includes his financial data as well. Apart from farmer details, agri stack will also hold information about weather, agricultural commodity prices in the country and abroad, new science and research techniques, agricultural regulation and permissions.

### What is Sir Creek?

Sir Creek is a **96-km strip of water disputed between India and Pakistan in the Rann of Kutch marshlands.**

- Originally named **Ban Ganga**, Sir Creek is named after a British representative.
- The Creek opens up in the Arabian Sea and **roughly divides the Kutch region of Gujarat from the Sindh Province of Pakistan.**

### What's the dispute?

The dispute lies in the **interpretation of the maritime boundary line between Kutch and Sindh.**

Before India's independence, the provincial region was a part of the Bombay Presidency of British India. But after India's independence in 1947, Sindh became a part of Pakistan while Kutch remained a part of India.

1. Pakistan claims the entire creek as per paragraphs 9 and 10 of **the Bombay Government Resolution of 1914** signed between then the Government of Sindh and Rao Maharaj of Kutch.
2. The resolution, which demarcated the boundaries between the two territories, included the creek as part of Sindh, thus setting **the boundary as the eastern flank of the creek popularly known as Green Line.**

3. But India claims that **the boundary lies mid-channel as depicted in another map drawn in 1925, and implemented by the installation of mid-channel pillars back in 1924.**
4. In its support, it cites **the Thalweg Doctrine in International Maritime Law**, which states that river boundaries between two states may be divided by the mid-channel if the water-body is navigable.

### **What's the importance of Sir Creek?**

Apart from **strategic location**, Sir Creek's core importance is **fishing resources**. Sir Creek is considered to be among the largest fishing grounds in Asia.

Another vital reason is **the possible presence of great oil and gas concentration under the sea**, which are currently unexploited thanks to the impending deadlock on the issue.

### **Vote through postal ballot**

The **Election Commission of India** has allowed **journalists to cast their votes through postal ballot facility**.

#### **Procedure to be followed:**

Any absentee voter wishing to vote by postal ballot has to make an application to the returning officer in **Form-12D**, giving all requisite particulars and get the application verified by the nodal officer appointed by the organisation concerned. Any voter opting for postal ballot facility would not be able to cast a vote at the polling station.

Currently, the following voters are also allowed to cast their votes through postal ballot:

1. Service voters (armed forces, the armed police force of a state and government servants posted abroad),
2. Voters on election duty,
3. Voters above 80 years of age or Persons with Disabilities (PWD),
4. Voters under preventive detention.

### **Lipulekh boundary Issue**

India is currently widening the road to the Lipulekh pass. The Nepalese ruling party recently issued a statement objecting this. Also, Nepal has demanded India to withdraw its troops in the region. Nepal also claimed the Lipulekh, Kalapani and Limpiyadhura regions.



In 2020, Nepal published as revised political map. The map incorporated the Limpiyadhura territories, especially the source of Kali river.

**Sugauli treaty issue:** In 1816, British India and Nepal signed a treaty. It was signed after Nepal lost the Anglo – Nepalese war. According to the treaty, the entire lowlands between rivers rapti and kali will belong to British India. However, the treaty did not speak about the ridgeline. The subsequent surveys conducted by the Britishers showed the source of river kali in different regions. The issue between the countries is around demarcating this region.

### Inter-state water dispute

**Art 262** provides for the adjudication of inter-state water disputes. It has two following provisions:

1. Parliament may by law provide for **the adjudication of any dispute or complaint with respect to the use, distribution and control of waters of any inter-state river and river valley.**
2. Parliament may also provide that **neither the Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint.**

Under the provisions of the act, the central government has enacted, **River boards act (1956) and Inter-state water disputes act (1956).**

1. The river board act provides for the establishment of river boards for the regulation and development of the Inter-state River and river valleys. Such a river board is established on the request of the state governments concerned.
2. The inter-state water dispute act empowers the central government to set up an ad hoc tribunal for the adjudication of a dispute between the two or more states in relation to the water of an inter-state river. The decision of the tribunal would be final and binding. Furthermore, the act bars the SC and any other court to have jurisdiction in this matter.

#### **Issues surrounding the interstate Water Dispute Act, 1956:**

**The Inter State Water Dispute Act, 1956** which provides the legal framework to address such disputes suffers from many drawbacks as it does not fix any time limit for resolving river water disputes.

**Delays** are on account of no time limit for adjudication by a Tribunal, no upper age limit for the Chairman or the Members, work getting stalled due to occurrence of any vacancy and no time limit for publishing the report of the Tribunal.

**The River Boards Act 1956**, which is supposed to facilitate inter-state collaboration over water resource development, remained a 'dead letter' since its enactment.

**Surface water is controlled by Central Water Commission (CWC) and ground water by Central Ground Water Board of India (CGWB).** Both bodies work independently and there is no common forum for common discussion with state governments on water management.

### Hybrid terrorists

Hybrid terrorists are those people brought in by the terrorist groups only to carry out one or two missions. They basically assist the terrorist groups. For instance, shopkeepers allowing terrorists to store their arms, passing information, etc are hybrid terrorists. They are like temporary or contract labours. They are not a part of the terrorist group. However, are trained to execute a specific work.

It is highly difficult to trace the location or whereabouts of the hybrid terrorists. Also, it is difficult to stop them or arrest them or neutralise them through encounters. Cyber patrol and technical gadgets are the only two ways to identify hybrid terrorists.


### What is a Cold Wave?

- A cold wave is different for the plains and the mountains.
- According to **the Indian Meteorological Department (IMD)** if the temperature goes below 10 degree and minimum temperature is at 4.5 degree, it is a **cold wave for the plains**. The criteria **for hills** is 0 degree.
- If the temperature is 6.4 degree below normal or down to 2 degree, it is a **severe called wave in the plains**.
- The IMD calls it “a condition of air temperature which becomes fatal to the human body when exposed.”

**WHAT THE APEX COURT SAID**

This government has been scrapping many obsolete laws. We don't know why they are not looking into this law? Continuance of this law is a serious threat to liberty

- The enormous power of misuse of this section can be compared with a carpenter with a saw. Instead of cutting a tree, he cuts the entire forest
- There is no dispute that it is a colonial law and was used by the British to suppress freedom and was used against Mahatma Gandhi... Is this law still needed after 75 years of Independence?



**WHAT IS SECTION 124(A)?**

Under Section 124A of IPC, the offence of sedition is committed when any person brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards, the govt established by law

- The penal provision is punishable with a jail term ranging between three years to life term

**LOW CONVICTION RATE**

- Between 2016 and 2019, the number of sedition cases rose by 160% to 93
- But in 2019, the conviction rate was 3.3%
- This means just 2 of the 93 accused were convicted

## Pandit Birju Maharaj

- Recently, the famous Kathak dancer Birju Maharaj, who took the traditional Indian dance form 'Kathak' to the world stage passed away.
- He was one of India's most famous and favorite artists, belonged to **the Kalka-Bindadin gharana** of Lucknow, a classical Kathak dance form. He was born on February 4, 1938 in Lucknow.
- **Awards:** Padma Vibhushan in 1983, Sangeet Natak Akademi Award and Kalidas Samman.
- Kathak is **the only form of classical dance wedded to Hindustani or the North Indian music.**

## Proposed Changes in IAS (Cadre) rules

The changes were proposed by the Ministry of Personnel and Training on behalf of the Government of India. The ministry has stated that the states are not providing enough number of officers to be appointed centrally. It is mandatory for the states to contribute to the central deputation reserve. Because of this reason, there is shortage of officers at the centre.

The GoI has proposed to amend Rule (6). The central government wants to appoint officers proportionally. Proportional to centre and the respective state. The number of IAS officers to work at the centre from the state will be decided by the central government. The decisions are to be taken after consulting the state governments.

### What are the concerns in the proposed changes?

The proposed changes may affect the administration of the state government. What if the officer is shifted to the centre while he is implementing or administrating programmes of the states? Currently, the Central Government asks the officers willing to go on deputation from the state government to central government. In either case the consent of the specific officer is important. Rule (6) also states that no officer shall be appointed to an organization without his consent.

## Operation Sard Hawa

The Border Security Force, BSF launches Operation Sard Hawa. Under the operation, the BSF increases the surveillance in the Pakistan border. It is usually launched in the Rajasthan border, especially in the Jaisalmer region. It is a regular annual exercise.

The Operation Sard Hawa is conducted during winters and Operation Garam Hawa is conducted during summers. These operations are held to control the infiltration in the borders.

# International

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## US Bill on Rare Earth supplies

The United States Government has recently proposed a bill to end China's "chokehold" on rare – earth metal supplies. The rare earth metals are used almost in every latest technology starting from electric batteries to fighter jets. China has a strong chokehold on all these metals. In 2019, 80% of the US rare – earth metals was from China.

The bill aims to reduce the Chinese dependence on rare – earth metals. This is essential to protect US from threat of rare – earth metal supply disruption. It will encourage the residents to increase domestic production of the rare – earth metals. Ultimately it will reduce the US reliance on China.

The **rare earth metals** are the 17 metals in the periodic table. They are the **15 lanthanides and scandium and yttrium**. They are mainly used in high tech devices such as mobile phones, flat screen monitors and televisions, electric and hybrid vehicles. They are also essential in defence applications such as radar, lasers, sonar systems and electronic displays.

## Volcanic Eruption in Tonga

An underwater volcano erupted in Tonga (a country in the Pacific Ocean) recently. It is called the "**Hunga Tonga Hunga Haapai**" volcano. Also, the eruption created tsunami waves. The volcano in the island is a part of Kermadec Islands Volcanic arc.

Volcanic arc is chain of volcanoes. These volcanoes are formed above the subducting plate. The volcanic arc usually parallel volcanic trench. The Hunga Tonga Hunga Haapai was formed as the Pacific plate subducts the Indo – Australian plate

## Indonesia New Capital

The Indonesians are moving to a new capital. It is **East Kalimantan**. It is now called '**Nusantara**'. Earlier, **Jakarta** was the capital of Indonesia.

East Kalimantan or Jakarta is located in the **Borneo island**. The plan to shift the capital here was announced in 2019. It was announced by President Joko Widodo.

Jakarta has been the capital of Indonesia since 1949. Jakarta is facing environmental and financial issues. Pollution is increasing in Jakarta. It has been consistently ranked as one of the **most polluted cities** in the world. Jakarta is in Java island. And Nusantara is in Borneo island. The size of Borneo island is larger than Java island. Currently, Jakarta is **densely populated**. This is adding to the burden borne by the Indonesian Government. Also, Jakarta is **sinking**. By 2050, most of the Jakarta is expected to go under water. This is mainly because Jakarta is surrounded by several rivers. These rivers are **prone to frequent floods**.

# Science-Tech & Environment

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## State of Forest Report 2021

The **Ministry of Environment, Forests and Climate Change (MoEFCC)** has released the **India State of Forest Report (ISFR) 2021**. The **biennial report** by the Forest Survey of India (FSI) is an assessment of the country's forest resources.

### Highlights of the Report:

- India's forest and tree cover has risen by 2,261 square kilometers in the last two years with **Andhra Pradesh growing the maximum forest cover of 647 square kilometers**.
- The **total tree-and-forest cover in the country** includes an increase of 1,540 square kilometres of forest cover and 721 sq km of tree cover compared to the 2019 report.
- India's total forest and tree cover is now spread across 80.9 million hectares, which is **24.62 per cent of the geographical area of the country**.
- **The top five states in terms of increase in forest cover** are Andhra Pradesh (647 sq km), Telangana (632 sq km), Odisha (537 sq km), Karnataka (155 sq km) and Jharkhand (110 sq km).
- **Among the mega cities in the country**, Ahmedabad has been the biggest loser when it comes to forest cover.

### States with maximum forest cover:

- **Area-wise**, Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.
- 17 states/UTs have above 33 per cent of the geographical area under forest cover.
- Out of these states and UTs, Lakshadweep, Mizoram, Andaman & Nicobar Islands, Arunachal Pradesh and Meghalaya have more than 75 per cent forest cover.

### Mangrove cover in the country:

- There is an increase of 17 sq km in mangrove cover in the country as compared to the previous assessment of 2019. Total mangrove cover in the country is 4,992 sq km.
- **Top three states showing mangrove cover increase** are Odisha (8 sq km) followed by Maharashtra (4 sq km) and Karnataka (3 sq km).

**Classification of forests:** The Forest Survey of India classifies India's forests into three categories:

**1. Very Dense Forest** (with tree canopy density of over 70 per cent)

**2. Moderately Dense Forest** (tree canopy density of 40-70 per cent)

### 3. Open Forest (tree canopy density of 10-40 per cent)

**Scrubs** (tree canopy density less than 10 per cent) are also surveyed but do not fall under the category of forests.

### Indian Space Station

- The Indian space station will be much smaller (mass of 20 tonnes) than the International Space Station and will be used for carrying out **microgravity** experiments (not for space tourism).
- Preliminary plan for the space station is to accommodate astronauts for up to 20 days in space, and the project will be an extension of **the Gaganyaan mission**.
- It will orbit Earth at an altitude of around 400km.
- ISRO (Indian Space Research Organisation) is working on a space docking experiment (Spadex), a technology that is crucial for making the space station functional.

**Other space stations:** The only space station currently in orbit is **the International Space Station (ISS)**. The ISS is backed by the United States, Russia, Europe, Japan and Canada. So far, **China has sent two previous space stations into orbit- the Tiangong-1 and Tiangong-2 were trial stations.**

#### Significance:

- Space stations are essential for collecting meaningful scientific data, especially for biological experiments.
- Provide platforms for greater number and length of scientific studies than available on other space vehicles.
- Each crew member stays aboard the station for weeks or months, but rarely more than a year.
- Space stations are used to study the effects of long-term space flight on the human body.

### What is space anemia?

The space travel damages the red blood cells in human body. Such condition where the RBC count in the body reduces due to space travel is referred to as Space anemia. In simple terms, lower RBC count in space is called space anemia.

The red blood cells are rich in iron. They carry oxygen to different parts of the body. When a human is on the earth, his body creates and destroys two million Red Blood Cells per second. However, when the same person is in space, around three million Red Blood Cells are destroyed per second. This results in loss of 54% more RBCs when the person in space. This lower count of RBC is referred to as space anemia.

### China's Artificial Moon

- After China's artificial Sun reached temperatures five times hotter than the Sun, China is ready with its first artificial moon. Scientists have built an "artificial moon" research facility. The facility

will help them in conducting **low-gravity environments** using magnetism (diamagnetic levitation).

- The research facility will be filled with rocks and dust to resemble it with the lunar surface. It will use powerful magnetic fields inside a vacuum chamber of 2-foot-diameter, for making gravity disappear.
- This experiment will help scientists to **resolve technical issues** and test whether some structures will survive on the moon's surface. It will also help in **assess viability of human settlement** on the moon.

## Sunions

The tearless onions are called "Sunions". These onions were produced by cross breeding onion varieties that are less pungent. The Sunions are sweet onions. They are to be sold in the Waitrose supermarkets of UK. They are ideal for those who have children or sensitive eyes. Sunions can be used in salads and also for cooking. They are not genetically modified.

### Why do eyes tear while cutting onions?

- When cut, the onions produce syn – propanethial S – oxide. It is a chemical irritant. This chemical causes the tears in the eyes. This S – oxide is a lachrymator. Lachrymator is tear producer.
- The sulfenic acid in the onions rearrange themselves to form the S – oxide when cut. The sulfenic acid is highly unstable. When the onions are cut, the enzymes in the onions work to convert the amino acids into lachrymator. More the cut or damage more are the irritants produced. Soaking onions in water dissolves the amino acids in the onion.

## BrahMos Export Order

- India and **Philippines** are expected to sign a \$374.9 million deal in last week of January 2022, for 'BrahMos shore-based supersonic cruise missile systems' supply.
- To sign the deal, an Indian delegation is scheduled to visit Manila. With this deal, first export order for the BrahMos cruise missile will be made, which has a **range of 290 km**. This deal is for shore-based variant of anti-ship missile system.
- It will help in boosting Philippines' defence capability, in the backdrop of increasing Chinese aggression.

## Cryogenic Engine Test for Gaganyaan

Indian Space Research Organisation (ISRO) successfully conducted the qualification test of cryogenic engine for Gaganyaan programme. The test was conducted for 720 seconds at ISRO Propulsion Complex, in Mahendragiri, Tamil Nadu.

Successful long-duration test is a significant milestone for Human Space Programme Gaganyaan. The test ensures the reliability and robustness of cryogenic engine for induction into human-rated launch vehicle for Gaganyaan.

**Payload under the Gaganyaan mission consists of:**

1. **Crew module** – A spacecraft to carry human beings.
2. **Service module** – It is powered by two liquid propellant engines and will be equipped with emergency mission abort and emergency escape.
3. **Launch**– Gaganyaan would be launched aboard the GSLV Mk III, also dubbed as LVM-3 (Launch Vehicle Mark-3)). It is a three-stage heavy lift launch vehicle.

### What are net zero buildings?

A net-zero energy building is one that relies on renewable sources to produce as much energy as it uses, usually as measured over the course of a year.

- Homes and other structures that create almost as much energy as they use are sometimes called near-zero energy buildings.
- It is also possible for a building to produce an energy surplus, sending excess back to the electrical grid.

Net-zero energy buildings start with energy-conscious design. Many features work without an energy source. For example:

1. In cold climates, south-facing buildings with large expanses of windows on that side can produce heat through passive solar gain.
2. On the cold north side of the building, smaller windows can angle to wider openings, permitting more light while limiting heat loss.
3. In warmer seasons, passive ventilation systems can pull cool air up from the lower levels and vent it through the building's highest point.
4. Rooftop systems can collect rainwater to reduce usage of treated water.

### UV-C Disinfection Technology

The Government of India had put Ultra Violet – C Disinfection Technology for testing in Parliament, AC buses and trains. The technology is a huge success. It is now to be rolled out for the public. Also, the technology is to be used during ECI (Election Commission of India) poll meetings



**Developed by:** CSIR-Council of Scientific Instruments Organization under the Ministry of Science and Technology

- Ultra Violet C technology uses wavelength between 100 nm and 280 nm. UV lights namely UV – A and UV – B are transmitted through the atmosphere.
- The UV – B is capable of penetrating the outer layer of skin. It causes skin cancer.
- The UV – C radiation has been used in hospitals for decades to disinfect the air. It is a conventional germicidal treatment.
- UVC disinfection technology cannot be used on surfaces made of plastic, dyed textile and polymers.

### Global Research on Antimicrobial Resistance (GRAM) report

- A comprehensive estimate of the global impact of **antimicrobial resistance (AMR)**, covering 204 countries and territories, was published recently in **The Lancet**.
- 27 million people died in 2019 as a direct result of AMR.
- AMR is now a leading cause of death worldwide, higher than HIV/AIDS or malaria.
- Of the 23 pathogens studied, drug resistance in six (**E coli, S aureus, K pneumoniae, S pneumoniae, A baumannii, and P aeruginosa**) led directly to 9.29 lakh deaths and was associated with 3.57 million.
- Resistance to two classes of antibiotics often considered the first line of defence against severe infections – **fluoroquinolones and beta-lactam antibiotics** – accounted for more than 70% of deaths caused by AMR.

### Eastern swamp deer

The population of **the vulnerable eastern swamp deer, extinct elsewhere in South Asia**, has dipped in **the Kaziranga National Park and Tiger Reserve**. Officials attributed the decrease from 907 individuals in 2018 to 868 during the Eastern Swamp Deer Estimation on January 10 and 11 to two high floods in 2019 and 2020.

#### About swamp deer:

- The **barasingha** is also called swamp deer
- **State animal of Madhya Pradesh and Uttar Pradesh.**
- **India:** Assam, Jumna River, Ganges River, Brahmaputra River, Madhya Pradesh, Utter Pradesh, and Arunachal Pradesh
- **IUCN Red List:** Vulnerable

# Economics

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## National Startup Day

Every year the National Startup Day is celebrated on **January 16**. Also India is celebrating Startup India Innovation Week between **January 10, 2022 and January 16, 2022**. The week celebrations are organized by Department of Promotion Industry and Industrial Trade. This is the first time, India is celebrating the day.

In 2022, the National Startup Day is celebrated on six themes. They are sustainable development, technology of future, from local to global, building champions in manufacturing, nudging the DNA and growing from roots.

## What is 'Great Resignation'?

In 2020, resignation rates in United States increased amid the fear and uncertainty caused by the covid-19 pandemic. One year later, the workforce experienced a collective burnout, as a result they left their jobs at unprecedented rates. This phenomenon of mass resignation is being described as Great Resignation.

### What are the causes of Great Resignation?

The Great Resignation was largely fuelled by burnout. Other factors also include:

1. Shift to working from home.
2. Desire to move into a more stable profession.
3. Lack of new challenges.
4. Lack of new opportunities.

## Wealth Tax

A group of hundred billionaires have submitted a plea to the World Economic Forum. The title of the plea is "**Make us Pay more tax**". The group calls themselves as "**Patriotic Millionaires**". They are of the view that the ultra wealthy are not contributing their share towards the global recovery from the pandemic. This is because of unfair tax system. According to them, they have **witnessed wealth gain** while the rest of the world suffered in different angles. And so they want to pay a fair share of their earnings to the global recovery.

Taxing the millionaires earning 5 million USD per year at 2% and taxing billionaires at 5% will bring in 2.52 trillion USD. This is enough to lift 2.3 billion people out of poverty. Also, this amount is sufficient to guarantee social protection and health care.

# Current Affairs Update (Jan 24-31)

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## National

### Hologram Statue of Netaji

The Prime Minister Narendra Modi unveiled a hologram statue of Netaji Subhash Chandra Bose near India Gate in Delhi. The statue was unveiled on Netaji's 125<sup>th</sup> birth anniversary (January 23<sup>rd</sup>)

The hologram technology projects an image. The image is projected in such a way that, it looks so realistic. Also, the image appears 3D.

### Statue of Equality

PM Narendra Modi is all set to unveil **the world's second-largest statue (Statue of Equality) in Hyderabad on February 5**. The **216-foot-tall statue** of 11<sup>th</sup>-century social reformer and saint, Ramanujacharya will be in a sitting position. The world's second tallest statue in a sitting position is made up of '**panchaloha**', meaning a combination of five metals i.e. gold, copper, silver, brass and zinc.

#### Sri Ramanujacharya:

- Born in 1017 CE in Tamil Nadu.
- He is the most respected Acharya in the philosophy of **Sri Vaishnavism**.
- He was also referred to as **Ilaya Perumal** which means the radiant one.
- He is famous as the chief proponent of **Vishishtadvaita** subschool of Vedānta.
- He wrote influential texts, such as bhāṣya on the Brahma Sutras and the Bhagavad Gita, all in Sanskrit.

### What is the 'Justice Clock'?

- It is an LED display of 7 feet by 10 feet, placed at a height of 17 feet from the ground.
- Placed in high court premises. This 'Justice Clock' will exhibit vital statistics of the justice delivery system in Gujarat, to "maximise outreach and visibility" of the work done by the state judiciary.

### Indian Environment Service

The Supreme Court asked the Centre whether it was planning a dedicated Indian Environment Service in India's bureaucratic set-up. In 2014, a committee headed by former **Cabinet secretary TSR Subramanian** had recommended to set up Indian Environment Service. However, prima facie it is doubtful if a mandamus can be issued. Though, an enquiry can be made on whether the government proposes to follow the recommendation of TSR Subramanian committee.

Committee had recommended to set up an Indian Environment Service, as an all-India Service. It can be created on the basis of qualifications and other details prescribed by MoEF&CC or DoPT or UPSC. The committee also proposed for creation of necessary institutional framework for this purpose.

### Revival of Saraswati River

The **governments of Haryana and Himachal Pradesh** have entered into an agreement to build a **dam at Adi Badri** in Yamunanagar district, which, among others, will rejuvenate the mythical Saraswati river. **Adi Badri**, situated in Haryana near the Himachal Pradesh border, is believed to be the river's origin point.

The river flowed through **Haryana, Rajasthan and North Gujarat. It also flowed through Pakistan** before meeting Western Sea through Rann of Kutch and was approximately 4,000 km in length.

The Saraswati River is one of the main Rigvedic rivers mentioned in the scripture Rig Veda and later Vedic and post-Vedic texts. Book 6 of the Rig Veda includes a hymn called **the 'Nadistuti Sukta'**, which sings praises of the Saraswati as being "perfect mother, unsurpassed river, supreme goddess". For 2000 years, between 6000 and 4000 B.C., the Saraswati flowed as a great river.

### Abide With Me

- Abide With Me is the Christian hymn. Penned in the pre-modern world by **Henry Francis Lyte**, a Scottish Anglican minister and son of a naval captain, the hymn, which is known for its simplicity and sombre theme, is often sung to English composer William Henry Monk's evocative tune Eventide, and has been a fixture in **the Indian Beating Retreat ceremony since 1950**.
- It was **recently dropped from Beating Retreat ceremony by the government**.
- Abide With Me has been **replaced by Kavi Pradeep's seminal piece Aye Mere Watan Ke Logon**, which was written in the wake of the Sino-Indian War, and went on to become a tableau of Indian nationalism. The song was first sung on January 27, 1963. Composed by C Ramachandra and sung by Lata Mangeshkar.
- About **Beating Retreat Ceremony**: It officially denotes the end of Republic Day festivities. It is conducted on the evening of 29 January, the third day after the Republic Day. It is organized by the Ministry of Defence.

### Irrational freebies

- A petition has been filed in the Supreme Court seeking a **direction to the Election Commission of India (ECI) to seize the election symbol or de-register a political party** that promises or distributes "irrational freebies" from public funds before elections.
- It said there should be a total ban on such populist measures to gain undue political favours from the voters as **they violate the Constitution** and the ECI should take suitable deterrent measures.

- The plea urged the court to declare that the promise of irrational freebies from public funds before elections unduly influences the voters, disturbs the level playing field and vitiates the purity of the poll process.
- This unethical practice is just like giving bribes to the electorate at the cost of the exchequer to stay in power and must be avoided to preserve democratic principles and practices.

### What is food fortification?

Food fortification is defined as **the practice of adding vitamins and minerals to commonly consumed foods during processing** to increase their nutritional value.

- It is a proven, safe and cost-effective strategy for improving diets and for the prevention and control of micronutrient deficiencies.
- The **Food Safety and Standards Authority of India (FSSAI)**, defines fortification as “deliberately increasing the content of essential micronutrients in a food so as to improve the nutritional quality of food and to provide public health benefit with minimal risk to health”.

**Fortified rice:** According to the Food Ministry, fortification of rice is a cost-effective and complementary strategy to increase vitamin and mineral content in diets.

- According to FSSAI norms, 1 kg fortified rice will contain iron (28 mg-42.5 mg), folic acid (75-125 microgram) and Vitamin B-12 (0.75-1.25 microgram).
- In addition, rice may also be fortified with micronutrients, singly or in combination, with zinc (10 mg-15 mg), Vitamin A (500-750 microgram RE), Vitamin B1 (1 mg-1.5 mg), Vitamin B2 (1.25 mg-1.75 mg), Vitamin B3 (12.5 mg-20 mg) and Vitamin B6 (1.5 mg-2.5 mg) per kg.

### National Voters Day

- Every year, the National Voters Day is celebrated on January 25. The day is celebrated to increase the enrolment of new voters in the country.
- **Theme of National Voters Day 2022:** Making elections Inclusive, Accessible and Participative
- The Election Commission of India (ECI) was established on January 25, 1950. The National Voters Day is observed on this day to mark the creation of ECI.

### How FCRA regulates NGO funding?

- The **Foreign Contribution (Regulation) Act** registration is mandatory for any NGO or association to receive foreign funds or donations.
- The Supreme Court has asked 6,000-odd NGOs to go back to the government for redressal of their grievances on non-renewal of their **Foreign Contribution Regulation Act (FCRA)** registration.
- **FCRA** regulates foreign donations and ensures that such contributions do not adversely affect the internal security of the country.

- The Act, first enacted in 1976 was amended in the year 2010 and then 2020.
- Section 5 of **the Foreign Contribution (Regulation) Act, 2010** gives the Union government “unchecked and unbridled powers” to declare an organisation as being one of political nature and deny it access to funds from sources abroad.
- FCRA is implemented by **the Ministry of Home Affairs**.

## International

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### What is Five-alarm global fire?

- The United Nations recently announced that the world is to face **five major risks in 2022**. These risks are referred to five – alarm global fire. The five alarms are COVID-19, lawlessness in cyberspace, climate crisis, bankrupt global financial system and diminished peace and security.
- The UN has suggested that in order to prevent or reduce these risks, the countries should go into emergency mode. Also, they should go into emergency mode.
- **“Avalanche action”** is the need of the moment to tackle climate crisis. The global emissions should be reduced by 45% by the end of the decade.

### UNSC 3-D Virtual Diplomacy

Members of the United Nations Security Council (UNSC) went on a virtual field trip to Columbia, with the help of **Virtual Reality (VR) technology**. For the first time, UNSC in New York used VR technology in its security council session. This innovative solution will help in understanding conflicts, peacekeeping and peace-building, in a better manner.

Digital diplomacy is also dubbed as **DigiDiplomacy and eDiplomacy**. It is defined as use of new information communication technologies and Internet to achieve diplomatic objectives. It focuses on interplay between internet and diplomacy.

### Peru Environmental Emergency

- Peru is a South American country. The Government of Peru recently declared an environmental emergency due to oil spill. The emergency is to last for 90 – days.
- A tanker of **Repsol**, a Spanish Energy firm, was transporting oil to Vantinalla refinery in Peru. The name of the tanker is **“Mare Doricum”**. It is an Italian tanker. The oil spill occurred due to the explosion of undersea **volcano Tonga**.
- The total economic losses are estimated to be more than 50 million USD.
- The oil spill has threatened the survival of **Humboldt penguins**. These penguins are listed as **“vulnerable”** species by the IUCN.

### Pakistan's first female Supreme Court judge

- Pakistan's first female Supreme Court judge has been sworn in in the capital Islamabad.
- Ayesha Malik, 55, now sits on a bench with 16 other male colleagues in the Muslim-majority country's top court.

### Nordic "clinker boats" in UNESCO Heritage List

- United Nations' culture agency, UNESCO, added the Nordic "clinker boats" to its Heritage List.
- The wooden sailboats have allowed peoples of northern Europe to spread influence, trade and sometime war across continents and seas, for thousands of years.
- Denmark, Iceland, Finland, Sweden and Norway jointly sought the UNESCO designation.
- The term "clinker" is believed to refer to the way its wooden boards were fastened together.

### 2021 Corruption Perceptions Index

- The **Transparency International** recently released the Corruption Perception Index. The rankings were created based on the corruption in the public sector of the countries.
- The index, which **ranks 180 countries** and territories by their perceived levels of public sector corruption according to experts and business people, uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.
- According to the index, **India** ranked **85** among the world countries. India scored 40. India's rank improved by one place.
- **Denmark, Finland & New Zealand** topped the list with the highest score (88).

## Science-Tech & Environment

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### What is SSLV?

- The **Small Satellite Launch Vehicle (SSLV)** is intended to **cater to a market for the launch of small satellites into low earth orbits.**
- It can carry satellites weighing up to 500 kg to a low earth orbit.
- The SSLV is **the smallest vehicle at 110-ton mass at ISRO.**
- It will take only 72 hours to integrate. Only six people will be required to do the job.
- The cost will be only around Rs 30 crore.
- It is best suited for launching multiple microsattellites at a time and supports multiple orbital drop-offs.
- Launch of **small satellites into low earth orbits** has become significant in recent years on account of the need for developing countries, private corporations, and universities for small satellites.



### Chandrayaan 3

**Chandrayaan-3** will be a mission repeat of Chandrayaan-2 but will only include a lander and rover similar to that of **Chandrayaan-2**. **It will not have an orbiter.**

The Orbiter and other instruments of **Chandrayaan-2 mission** have, in two years, gathered a wealth of new information that has added to our knowledge about **the Moon and its environment**.

#### What is the information gathered?

**Presence of water molecules on moon:** The mission has given the most precise information about the presence of H<sub>2</sub>O molecules on the Moon till date.

**Presence of Minor elements:** Chromium, manganese and Sodium have been detected for the first time through remote sensing. The finding can lay the path for understanding magmatic evolution on the Moon and deeper insights into the nebular conditions as well as planetary differentiation.



**Information about solar flares:** A large number of microflares outside the active region have been observed for the first time, and according to ISRO, this “has great implications on the understanding of the mechanism behind heating of the solar corona”, which has been an open problem for many decades.

**Exploration of the permanently shadowed regions as well as craters and boulders underneath the regolith,** the loose deposit comprising the top surface extending up to 3-4m in depth. This is expected to help scientists to zero in on future landing and drilling sites, including for human missions.

### Environment Ministry’s Proposed Changes to Wildlife Act

In December 2021, the Union environment ministry announced a plan to amend the **Wildlife Act**. The Act has been amended several times, in 1982, 1986, 1991, 1993, 2002, 2006 and 2013.

#### Changes proposed:

- The proposed amendment is likely the most expansive so far in scope: it **covers more areas of legislation, from trade in wild species to permitting filmmaking in protected areas and controlling the spread of invasive species.**
- The Bill increases **penalties for wildlife crimes.** For example, offences that attracted a fine of Rs 25,000 now attract Rs 1 lakh.
- There’s a **new and separate chapter on regulating species** involved in international trade according to **the CITES treaty.**
- The Bill **prohibits possessing, trading and breeding species without prior permissions from CITES authorities.**
- The Bill also **recognises threats that invasive alien species pose.**

#### What’s missing in the bill? What are the concerns?

- **The Bill doesn’t include regional invasive species** – some of which may be native to the country but invasive in some parts.
- The amendment Bill has **no separate Schedule for species the Act classifies as ‘vermin’,** so the Centre can directly notify such species and open them up to be hunted – including some of the species currently in Schedule II.
- **The Bill also proposes changes to the Schedules.** Foremost, it reduces the number of Schedules from six to four, to “rationalise” the lists. But the two main substitute Schedules that will specify the protected species are incomplete.
- The Bill will render the existing **‘State Boards for Wildlife’** defunct by replacing it them with set up a **‘Standing Committee’ of the State Board of Wildlife** – headed by the respective state forest minister and 10 members nominated by the minister. (The State Boards of Wildlife currently manage the conservation and protection of wildlife at the state level. The state chief

minister sits atop the board and is supported by 20+ members, including of the state legislature, NGOs, conservationists and representatives of the state forest departments and tribal welfare.)

- Under the proposed amendments, **the commercial sale and purchase of elephants will no longer be prohibited under the Act.** This clause is prone to abuse and can severely impact elephant populations by legitimising live trade of elephants.

### Artemis

- **Artemis**— Acceleration, Reconnection, Turbulence and Electrodynamics of Moon’s Interaction with the Sun.
- It is **NASA’s next mission to the Moon.**
- **Objective:** To measure what happens when the Sun’s radiation hits our rocky moon, where there is no magnetic field to protect it.
- Artemis was **the twin sister of Apollo and goddess of the Moon in Greek mythology.**
- **Significance of the mission:** With the Artemis program, NASA will **land the first woman and next man on the Moon by 2024.**

### Living Root Bridges

A living root bridge is suspension bridge across small streams. They are built using living plant roots. These root bridges are common in Meghalaya. They are handmade. They are built using rubber of fig trees. They are built by the local **Jaintia and Khasi** people. Recently, the India has sought UNESCO World Heritage Tag for these bridges.

These bridges are formed by guiding the roots of **Ficus elastica** across a stream or creek. These roots then grow and strengthen over time.



### 4th Asia Ministerial Conference on tiger conservation

4th Asia Ministerial Conference on Tiger Conservation was recently organized by the **Government of Malaysia and Global Tiger Forum (GTF).**

**Outcome:** The **Kuala Lumpur Joint Statement** was adopted.

**India's statement at the summit:** India will facilitate **Tiger Range Countries** towards finalisation of **New Delhi declaration for the Global Tiger Summit** to be held at Vladivostok, Russia later this year.

**India's efforts in tiger conservation:**

- India has achieved the remarkable feat of **doubling the tiger population in 2018** itself, 4 years ahead of the targeted year 2022.
- **14 Tiger Reserves in India** have already been awarded with **international CA|TS accreditation** and efforts are on to bring in more Tiger Reserves under CA|TS accreditation.
- Approximately 4.3 million man-days of employment are being generated by 51 Tiger Reserves in India and funds from **Compensatory Afforestation Fund Management and Planning Authority (CAMPA)** are being utilized for promoting voluntary village resettlement from core areas of the Tiger Reserves.
- India is one of the Founding members of the intergovernmental platform of Tiger Range Countries – **Global Tiger Forum**, and over the years, GTF has expanded its programme on multiple thematic areas, while working closely with the Government of India, tiger states in India and tiger range countries.

## Economics

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### What is a Deccahorn?

Deccahorns are private firms whose value exceeded over ten billion USD. Recently **Swiggy** has become the fourth Indian company to earn the tag. The other three companies that hold the tag already are **Paytm**, a FinTech, **Oyo** (a hotel aggregator) and **Byjus** (an Edtech). **Facebook** was the first Deccahorn.

The Deccahorns are **startup companies**. They are valued for their potential growth and not for their financial performances. A company that is acquired by other company cannot be called as Deccahorn. For instance, the value of Flipkart is more than 10 billion USD. However, Walmart has acquired Flipkart. So Flipkart cannot be called as Deccahorn. Also, a government company cannot be called as Deccahorn.

- **Unicorn:** Company value is more than 1 billion USD
- **Deccahorn:** Company value is greater than 10 billion USD
- **Hectocorn:** Company value is more than 100 billion USD

## India: Restrictions on Export of Human Hair

The Government imposed restriction on export of human hair. This ban was imposed with the aim of curbing alleged smuggling of products from India. With this decision, exporters would now require permission or licence from **Directorate General of Foreign Trade (DGFT)** to send shipments of hair outside India.

Hair exporters welcomed this decision. It was a long pending demand. This labour-intensive industry was facing a challenge of smuggling of raw human hair to countries like China and Myanmar, which in turn is hurting local industries and exports.

**West Bengal** is the major hub of raw hair industry in India. Apart from West Bengal, industries are there in Telangana, Andhra Pradesh, and Tamil Nadu. Major competitors of India include **Cambodia, China, Vietnam and Myanmar.**

In India, raw human hair is mainly collected from households and temples across the mentioned states. collection of hair primarily caters to the beauty market globally. In India, two types of hair are collected:

1. **Remy Hair**– Remy hair is the best grade. It is collected from temples since pilgrims donate their hair as part of a religious vow. This quality of hair is mainly used to make wigs and hairpieces.
2. **Non-Remy hair**– non-Remy hair is a household waste. It is collected by small groups of people in cities and villages and cities. The hair is then segregate and are sold to dealers.

## IMF on El-Salvador Bitcoin legal tender

The International Monetary Fund recently asked El Salvador to remove the legal status of bitcoin. In September 2021, **El Salvador** became the first country to allow its consumers to use cypto currencies. Fear arose all over the country that bitcoin might bring inflation and instability to the country.

IMF has warned El Salvador that it will be **difficult for the Latin American country to get loan** from the international organization if the latter is not removing the legal status of bitcoin. According to IMF, El Salvador might face large **consumer protection risks, financial instability** by legalising Bitcoin. Also, IMF is of the view that Bitcoin is a controversial currency and it can **fluctuate largely**.