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THE HINDU Page 12

UNESCO TENTATIVE LIST
(Syllabus: GS Paper 1 - Art & Culture)

Three more sites added to tentative list of UNESCO

The Hindu Bureau
NEW DELHI

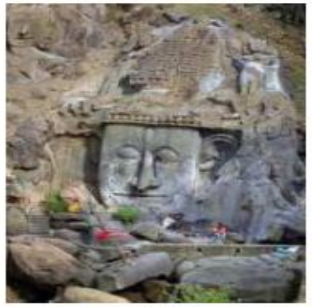
Gujarat's Vadnagar town, the iconic Sun Temple at Modhera, and the rock cut sculptures of Unakoti in Tripura have been added to the tentative list of UNCESO World Heritage Sites.

The UNESCO tentative list is an "inventory of those properties which each State Party intends to consider for nomination".

"With this, India now has 52 sites on UNESCO Tentative List. The list indicates rich cultural and natural wealth of India and shows huge diversity of our heritage," Union Culture Minister G. Kishan Reddy tweeted.

"I congratulate ASI [Archaeological Survey of India] for their role in identifying more monuments and places for the world heritage nomination," he said. The ASI said that the step will provide a big boost to India's cultural heritage.

The Sun Temple at Modhera which is dedicated to the sun god, is the earliest of such temples which set trends in architectural and decorative details, representing the Solanki style at its best.



Unakoti in northeastern Tripura is a holy place associated with Shaiva worship.

Vadnagar is a municipality in Mehsana district of Gujarat. A multi-layered historic town, Vadnagar has a recorded past stretching back to nearly 8th century BC. The town still retains a large number of historic buildings that are primarily religious and residential in nature.

Unakoti is an ancient holy place associated with Shaiva worship. The site is a massive gallery set in a forested area displaying a number of towering low-relief images in a unique style, making it a masterpiece of human creative genius.

Context: Three new cultural sites in India, including iconic **Sun Temple at Modhera, historic Vadnagar town in Gujarat and rock-cut relief sculptures of Unakoti in Tripura,** have been added to the tentative list of UNESCO world heritage sites.

Three new cultural sites

- **Vadnagar**: Vadnagar is a municipality under **Mehsana district of Gujarat.**
  - A multi-layered historic town, the history of Vadnagar stretches back to nearly 8th century BCE.
  - The town still **retains a large number of historic buildings** that are primarily religious and residential in nature.
  - It is the **hometown of Prime Minister Narendra Modi.**
- **Sun Temple, Modhera and its adjoining monuments**: The Sun Temple, Modhera **dedicated to the Sun God,** is one of the remarkable gems of temple architecture in India.
  - It impresses not only with its architectural structure and technological achievements as in position of the temple against to Sun; but also in particular with its **sculpture decoration, representing true artistic mastery.**
  - The temple is an "**exemplary model of Maru-gurjara architecture style of the 11th century of western India** under the patronage of the Solanki dynasty.
  - The age of the temple may be inferred from its style **belonging to the reign of Bhima Deva I (1022-1063 CE)**.
- **Rock-cut Sculptures and Reliefs of the Unakoti, Unakoti Range, Unakoti District, Tripura**: Unakoti - the chiselled **'Angkor Wat of the North-East'** region - contain the series of Shaivite rock sculptures in the northern part of Tripura.
  - **Nestled in the Raghunandan hills,** about 180 km from Agartala, Unakoti is home to giant bas-relief sculptures of the 8-9th century carved out of a huge hill.

Tentative List (TL)

- **About**: The UNESCO tentative list is an **"inventory of those properties** which each State Party intends to consider for nomination".
  - It is **mandatory to put any monument/site on the Tentative List (TL) for one year before** it is considered for the final nomination dossier as per Operational Guidelines, 2019 of UNESCO.
  - Once the nomination is done, it is sent to the World Heritage Centre (WHC).
  - India has **52 sites in the TL as of now.**
- **Procedure**: If a state considers a monument/site has **cultural and/or natural heritage** of outstanding universal value and therefore suitable for inscription on the World Heritage List.
  - Then the state prepares a list of such sites and sends it to UNESCO.
  - The UNESCO after preliminary inspection **accepts/rejects** the monument and form a tentative list.
  - A position on a country's tentative list does not automatically tender that site with world heritage status.

BUSINESS STANDARD

Page 1

SHARE BUYBACKS

(Syllabus: GS Paper 3 - Economy)

Share buybacks through stock exchanges to be phased out

KHUSHBOO TIWARI
Mumbai, 20 December

The Securities and Exchange Board of India (Sebi) board on Tuesday approved phasing out of buybacks through stock exchanges, along with chalking out of governance mechanisms for addressing lapses at market infrastructure institutions (MIIs) like stock exchanges, depositories, and clearing houses.

"We feel the tender route is a more equitable one for buybacks. The other route is vulnerable to favouritism. Except a few, no one knows when the company buyback is going to happen," Sebi Chairperson Madhabi Puri Buch said after the board meeting.

The regulator has given its go-ahead to increase the minimum utilisation of the amount earmarked for buyback through the stock exchange way, from the existing 50 per cent to 75 per cent, until the route is completely phased out by March 2025. Turn to Page 6

SEBI BOARD'S OTHER DECISIONS

- **Board members, key management personnel of MIIs to be held accountable** for not reporting wrongdoings they are aware of
- **Corporate governance norms** to be introduced for REITs and InvITs
- **On-boarding process for registration of FPIs** to be streamlined
- **Enhanced risk management framework** for stock brokers approved



Madhabi Puri Buch, Chairperson, Sebi

Context: The Securities and Exchange Board of India (SEBI) board approved **phasing out of buybacks through stock exchanges**, along with chalking out of governance mechanisms for addressing lapses at market infrastructure institutions (MIIs) like stock exchanges, depositories, and clearing houses.

Share buyback

- **About:** A buyback is a mechanism through which a listed company **buys back shares from the market.**
- **Mechanism**: A buyback can be done either through **open market purchases or through the tender offer route.**
  - Under the **open market mechanism**, the company buys back the shares from the secondary market while under **tender offer**, shareholders can tender their shares during the buyback offer.
  - Historically, most companies had **preferred the open market route.**
- **Reasons**: Buybacks are **typically done when a company has a significant cash reserve** and feels that the shares are not fairly valued at the current market price.
  - Since the shares that are bought back are extinguished, the stake of the remaining shareholders rise.
  - Promoters also use this mechanism to **tighten their grip on the firm.**
- **Benefits**: Since the bought back shares are extinguished, the **earnings per share (EPS) rise by default.**
  - Since a buyback is usually **done at a price higher** than the then prevailing market price, shareholders get an attractive exit option, especially when the shares are thinly traded.
  - It is also more tax-efficient than dividends as a way to reward shareholders.
- **Execution**: A company **can use a maximum of 25% of the aggregate of its free reserves** and paid-up capital for a buyback.
  - A special resolution needs to be passed at a general meeting. However, if the company plans to use less than 10% of its reserves then only a board resolution is required.
- **Limitations**: A company **cannot do a second buyback offer within one year** from the date of the closure of the last buyback.
  - There are **time-bound limitations** on further share issuances like preferential allotment or bonus issue post a buyback.
  - These checks have been put in place so that companies do not misuse the buyback mechanism.
- **For retail investors**: The Securities and Exchange Board of India (SEBI) has revised the buy back regulations that stipulate **15% reservation for retail shareholders in a buy back offer.**
  - This gives retail investors a fair share in the offer, which otherwise could see large institutional investors tendering their shares leaving little or no room for small investors.

INDIAN EXPRESS

Page 1

WHITE TIGER

(Syllabus: GS Paper 3 - Env & Eco)

White tiger cub born at Delhi zoo in Aug dies, another shows similar symptoms

EXPRESS NEWS SERVICE
NEW DELHI, DECEMBER 20

ONE OF the three white tiger cubs born at the Delhi zoo earlier this year has died, zoo authorities said.

The white tiger cubs were born in August after a gap of nearly seven years.

Zoo director Akanksha Mahajan said that the cub died on December 18. "It was showing signs of limping in the left leg and was given supplements. But then the hind portion of the cub was not functioning last week. We began giving medication and laser therapy…but then it collapsed Sunday morning," Mahajan said. Of the three cubs, another cub has also shown similar signs of limping and its hind portion has not been working effectively, she said.



The three white tiger cubs were born in August after a gap of nearly seven years. *Archive*

Blood samples have been sent for examination to the Indian Veterinary Research Institute, Bareilly, and the reports are awaited, Mahajan said.

"The report will be able to tell us if it's a pathological problem or a genetic one. There are two probabilities—it could be a viral or bacterial disease, or it could be a genetic issue. This can be diagnosed only once the blood report is available. We have prophylactically started medication with antibiotics for the second cub. We sent one report to the local path lab in addition to the one sent to Bareilly. In the report from the local lab, there was an increased leukocyte count. Usually, when there is an infection in the body, the total leucocyte count increases. It is responding to this treatment, but continues to limp," Mahajan said.

The local lab result has helped rule out leptospirosis, she said. "Leptospirosis is common in big cats. There's also canine distemper…but that has different symptoms like swelling of the facial portion. These symptoms have not been observed. If it is not pathological, it could be genetic…white tigers have recessive alleles and inbreeding depression usually takes place. Because of this, there can be genetic anomalies sometimes…congenital defects. If the lab results don't show a pathological issue, we'll take up a genetic analysis," Mahajan said.

The Delhi zoo participates in the conservation breeding of tigers. The three cubs were born to Sita, a seven-year-old white tigress, and Vijay, a white tiger that was brought to the Delhi zoo from Lucknow a few years ago. The births in August had taken the number of tigers at the zoo to 11. Of these, seven, including the cubs, are white.

Context: One of the three **white tiger** cubs born at the Delhi zoo earlier this year has died.

Key Points

- The Delhi zoo participates in the **conservation breeding of tigers.**
- The **three cubs were born to Sita**, a seven-year-old white tigress, and Vijay, a white tiger that was brought to the Delhi zoo from Lucknow a few years ago.
- The births in August had taken the **number of tigers at the zoo to 11.**
- Of these, seven, including the cubs, are white.
- The white tiger cubs were born in August after a **gap of nearly seven years.**

White Tiger

- **About:** White tigers, also known as **bleached tigers**, in India are nothing but a pigmentation variant of the Bengal tiger.
- **Pigment pheomelanin**: These tigers have white fur because of the **lack of the pigment pheomelanin**, which is found in Bengal tigers with orange colour fur.
- **Not a different species**: White tigers are **neither a different species nor a subspecies.**
- **Genetic trait:** They are **descendants of the Bengal tiger**, who have a familiar orange coat with dark stripes.
  - Their white colour is just **a recessive genetic trait** that gives them blue eyes.
  - Occasionally, a white tiger is born when t**wo mating golden tigers carry a recessive gene.**
  - If one or both of the mating tigers are white, the **chances are higher.**

- **Distribution**: In India, white tigers are predominantly found in **Rewa, Madhya Pradesh.**
  - In 2016, **world's first White Tiger Safar**i was inaugurated at Mukundpur in Satna district of Madhya Pradesh.
  - The **first white tiger in Madhya Pradesh's** was spotted in Vindhya region in 1915. However, the rare breed of the big cat spotted for the first time died in 1920.
  - In 1951, a white tiger cub named **Mohan** was captured by Rewa Maharaja Martand Singh.
  - Later the tiger cub became the progenitor of all known white tigers in the world after the **Maharaja arranged for its breeding.**
  - They have been reported in the wild from time to time in the Indian **states of Assam, West Bengal, Bihar.**
  - They are occasionally reported in the **Nilgiri Biosphere Reserve and the Sundarbans region.**

LIVEMINT Page 11

STATE DISASTER RESPONSE FUND
(Syllabus: GS Paper 3 - Disaster Management)



SDRF will provide ex-gratia assistance of ₹50,000 to the next of kin of covid victims. AP

SDRF to be utilized for ₹50k covid aid

The Centre has allowed the states to use the State Disaster Response Fund (SDRF) to provide ex-gratia assistance of ₹50,000 to the next of kin of those who have succumbed to covid-19, the Lok Sabha was informed on Tuesday. Union minister of state for home Nityanand Rai said as per the national policy on disaster management, the primary responsibility for disaster management, including disbursal of relief assistance to the affected people, rests with the state governments concerned. He said the state governments undertake relief measures in the wake of natural disasters with help from the SDRF, already placed at their disposal, in accordance with government approved norms. Rai said keeping in view the spread of coronavirus in India and the declaration of covid-19 as pandemic by the WHO, the central government has allowed the states to use SDRF towards containment measures for the financial years 2019-20, 2020-21 and 2021-22. PTI

Context: The Centre has allowed the states to use the **State Disaster Response Fund (SDRF)** to provide ex-gratia assistance of Rs 50,000 to the next of kin of those who have succumbed to COVID-19.

State Disaster Response Fund (SDRF)

- **About**: SDRF is the **primary fund available with the state governments** of India to respond to disasters in the respective states.
  - The SDRF was formed in accordance with the **recommendations of the 13th Finance Commission.**
  - The fund is used for providing **immediate relief for notified disasters** that occur within the state.
- **Constitutional status:** Disasters **do not find mention** in any lists in the Schedule VII.
  - It means provisions regarding disaster management comes under the **Residuary Powers of the Union under entry 97 of the Union List.**
- **Legal status**: The State Disaster Response Fund (SDRF) is constituted under Section 48 (1) (a) of the **Disaster Management Act, 2005.**
- **Audit**: It is annually audited by the **Comptroller and Auditor General of India (CAG)**.
- **Funding pattern:** The **Central government contributes 75% to the SDRF** for general category states and UTs while it contributes **90% for special category states and UTs** (Northeast and Hilly states/UTs).
  - The central contribution is **released in two installments annually.**
  - The remaining amount will be c**ontributed by the respective state governments**.
- **Disasters covered under the SDRF**: Notified disasters are cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst, pest attack, frost and cold waves.
- **Local Disasters**: A State Government may use up to **10% of the funds available under the SDRF** for providing immediate relief to the victims of natural disasters that they consider to be 'disasters' within the local context in the State and which are not included in the notified list of disasters of the Ministry of Home Affairs.

ECONOMIC TIMES

Page 3

Assam Tables Bill to Decriminalise Labour Law

Bikash.Singh@timesgroup.com

Guwahati: The Assam government on Tuesday tabled amendment to as many as 10 labour laws.

The Minimum Wages (Assam Amendment) Bill, 2022, seeks to amend the Minimum Wages Act, 1948. It proposes to bring amendment to penalties for certain offences under section 22 and insertion of a new Section 22A compounding of offences with an objective to decriminalise the labour law by bringing in civil penalties.

The rationale behind decriminalisation is that imprisonment is too severe a consequence for economic offences that do not involve mala fide. Legal process around an offence involving imprisonment greatly increases the anxiety among employers and reduced possibility of such processes leads to improved ease of doing business. Criminal penalties, especially the risk of imprisonment are often unintentional offences, a major reason for low business investment.

MINIMUM WAGES ACT, 1948

(Syllabus: GS Paper 2 - Government Policioes & Interventions)

Context: The Assam government tabled amendment to as many as 10 labour laws. The **Minimum Wages (Assam Amendment) Bill, 2022**, seeks to amend the Minimum Wages Act, 1948.

Minimum Wages Act, 1948

- **About**: The Minimum Wages Act, 1948 was enacted by the Indian Parliament to **deal with matters relating to providing the minimum wage** to the workers so that they can afford their basic needs and maintain a decent standard of livelihood.
  - The Act further **ensures a secure and adequate living wage for all labourers** and it also guarantees that an employee earns enough to provide for his family.
  - The Act authorises both **Central and state governments in fixing the rate of minimum wage.**
  - The Minimum Wages Act, 1948 has also **laid down a provision for revision of minimum wages** in order to cope with the changing prices of basic commodities.
- **Applicability**: The Minimum Wages Act, 1948 is applicable to the **whole of India** as laid down in Section 1 of the Act.
  - It **applies to any employment** if it employs 1000 employees in the respective state.
  - However, it **does not apply to any employees in any undertaking owned by the Central Government** or of the federal railway, except with the consent of the Central Government.
- **Key Provisions:**
  - **Minimum rates of wages**: Under Section 3 of the Act, the minimum wages payable to the employees are to be **fixed by the appropriate government.** However, this Section also mentions that the rate of wages shall be revised every five years.
  - **Wages in kind under the Act**: Section 11 of the Minimum wages Act, 1948 mentions **how the wages will be payable to the employees.**
  - **Working hours**: Section 13 specifies that the **appropriate government may fix the working hours of a normal day** including one or more specified intervals.
  - **Penalties for offences**: Section 22 of the Minimum Wages Act, 1948 an employer who fails to provide minimum rates of wages to the employees or contravenes any rule or order made under Section 13 of the Act shall be punished with **imprisonment for a term which may extend to six months or fine not less than five hundred rupees or both.**
  - **Power of the Central Government to make rules**: Section 29 of the Minimum Wages Act, 1948 authorises the **Central Government to make rules by notification** to the Official Gazette in matters relating to the term of office of the members, the manner of voting, and the mode of conducting business by the Central Advisory Board, and other relevant matters.
    - Section 30 of the Act also authorises the **state government to make rules by notification** to the Official Gazette for carrying out the purposes of this Act.
  - **Central Advisory Board:** In the matters of fixation and revision of minimum rates of wages of the employees, the **Central Government shall appoint a Central Advisory Board.**

TIMES OF INDIA

Page 12

SOCIAL PROGRESS INDEX

(Syllabus: GS Paper 2 - Polity & Governance)

Puducherry aces social progress index, L'dweep & Goa among top 3

Assam, Bihar & J'khand Score Poorly In Personal Freedom & Choice, Water & Sanitation

Ambika.Pandit
@timesgroup.com

New Delhi: Puducherry has bagged the top slot with the highest score of 65.9 in the country on the 'social progress index' for its remarkable performance across the index's components like personal freedom and choice, shelter, and water and sanitation. Lakshadweep and Goa closely follow it with scores of 65.8 and 65.5, respectively. Assam, Bihar and Jharkhand have scored the lowest, securing 44.9, 44.4, 43.9 respectively out of 100.

The index, formulated by the Institute for Competitiveness and Social Progress Imperative, was submitted to the Economic Advisory Council-Prime Minister (EAC-PM) and released on Tuesday.

The report, titled 'Social Progress Index: States and Districts of India', released by EAC-PM chairman Bibek Debroy also highlights that Aizawl (Mizoram), Solan (Himachal Pradesh) and Shimla (Himachal Pradesh) have emerged as the top three best-performing districts. The index also focusses on the progress in aspirational districts and it comes through that only 27 out of 112 districts under the Aspirational District Programme (ADP) have scored above the national average on the Social Progress Index (SPI).

The report also dwells on India's performance based on the global SPI that is brought out by Social Progress Imperative since 2013. In the latest report released in September 2022, India has been ranked 110th on the index, scoring 60.2/100, and finds itself in the fourth tier of performance. India's aggregate SPI score of 60.2 in 2022 is slightly lower than the world average of 65.2. The index covers 169 nations.

Meanwhile, the index released on Tuesday has assessed states and districts based on 12 components across three critical dimensions of social progress — basic human needs, foundations of well-being and opportunity. Based on the SPI scores, states and districts have been ranked under six tiers of social progress ranging from very high to very low progress.

As far as basic human needs go, Goa, Puducherry, Lakshadweep, and Chandigarh are the top four states with the best performance in water, sanitation and shelter. It also highlights that over 40% of J&K districts belong to the "high social progress category". Shopian has the highest SPI score of 63.1, attributable to the district's achievements across water and sanitation, environmental quality, and inclusiveness.

WHO GOT THE BASICS RIGHT

Social Progress Index		Top scorers	Lowest scorers
Aizawl (Mizoram), Solan (Himachal Pradesh) and Shimla (Himachal Pradesh) have emerged as the top three best-performing districts	Nutrition and Medical Care	Kerala (67.68); Lakshadweep (66.58); Sikkim (65.57)	Bihar (28.86); Uttar Pradesh (33.36); Jharkhand (35.47)
	Water and Sanitation	Goa (85.27), Punjab (81.17), Haryana (80.22)	Jharkhand (31.16); Ladakh (32.17); Odisha (38.50)
	Access to Basic Knowledge	Punjab (62.92); Manipur (60.44); Jammu and Kashmir (59.70)	Dadra and Nagar Haveli and Daman & Diu (44.45), Meghalaya(46.33) Bihar(47.65)
	Access to Information and Communication	Delhi (71.3) Goa (69.77) Sikkim (65.41)	Jharkhand (28.8), Bihar (28.84) Odisha (23.71)
	Health and Wellness	Rajasthan (73.74); Ladakh (68.82); Meghalaya (66.77)	Kerala (34.4); Puducherry (37.1); Andhra Pradesh (39.17)



Context: P**uducherry has bagged the top slot** with the highest score of 65. 9 in the country on the **'social progress index'** for its remarkable performance across the index's components like personal freedom and choice, shelter, and water and sanitation.

Key Points

- **About SPI**: The index, formulated by the I**nstitute for Competitiveness and Social Progress Imperative**, was submitted to the Economic Advisory Council Prime Minister (EAC-PM) and released on Dec 20.
  - The index has **assessed states and districts based on 12 components across three critical dimensions of social progress**: basic human needs, foundations of well-being and opportunity.
  - Based on the SPI scores, states and districts have been **ranked under six tiers of social progress** ranging from very high to very low progress.
- **Highlights of the report:**
  - **Top three best-performing districts**: The report, titled **'Social Progress Index: States and Districts of India'** highlights that **Aizawl (Mizoram), Solan (Himachal Pradesh) and Shimla (Himachal Pradesh)** have emerged as the top three best-performing districts.
  - **Aspirational districts**: The index also focuses on the progress in aspirational districts and it comes through that **only 27 out of 112 districts under the Aspirational District Programme (ADP)** have scored above the national average on the Social Progress Index (SPI).
  - **Basic human needs:** Goa, Puducherry, Lakshadweep, and Chandigarh are the top four states with the best performance in water, sanitation and shelter.
    - It highlights that **over 40% of J&K districts belong to the "high social progress category".**
    - Shopian has the highest SPI score of 63.1, attributable to the district's achievements across water and sanitation, environmental quality, and inclusiveness.

- **Based on the global SPI**: The report also dwells on India's performance based on the **global SPI** that is brought out by Social Progress Imperative since 2013.
  - In the latest report released in September 2022, India has been **ranked 110th on the index**, scoring 60. 2/100, and finds itself in the fourth tier of performance.
  - India's aggregate SPI score of 60.2 in 2022 is slightly lower than the world average of 65. 2.
  - The index covers **169 nations.**

PIB

Dec 21

AYURSWASTHYA YOJANA

(Syllabus: GS Paper 2 - Polity & Governance)

Status of centres of excellence scheme 'AYURSWASTHYA Yojana'

Context: Minister of Ayush informed about **AYURSWASTHYA Yojana** in a written reply in Rajya Sabha.

AYURSWASTHYA Yojana

- **About**: The Ministry of Ayush is running a **Central Sector Scheme** namely, AYURSWASTHYA Yojana with two components:
  - AYUSH and Public Health (PHI)
  - **Centre of Excellence (CoE)** from the Financial Year 2021-22 by merging two erstwhile schemes of this Ministry namely:
    - Central Sector Scheme of Grant-in-Aid for **Promotion of AYUSH Intervention in Public Health Initiatives (PHI).**
    - Central Sector Scheme for assistance to **AYUSH organizations (Government / Non-Government Non-Profit)** engaged in AYUSH Education/ Drug Development & Research / Clinical Research etc. for upgradation to Centre of Excellence (CoE).
- **Objectives**: The wider aspect of health care services i.e. preventive, promotive, curative and palliative health care services are provided by the grantee organizations/institutions under the erstwhile **Centre of Excellence scheme and Centre of Excellence component of AYURSWASTHYA Yojan**a all over the country as per the objectives of the projects.
  - These services are provided to the public including **Economical Weaker Section of the society** as per scheme guidelines. Special attentions are provided for quality improvement of these health care services also.
- **Financial assistance**: Under the Centre of Excellence component of AYURSWASTHYA Yojana, **financial assistance is provided to eligible individual organizations/institutes** for establishing and upgrading their functions & facilities and/or for research & development activities in AYUSH.
  - The maximum admissible financial assistance under the Centre of Excellence component of AYURSWASTHYA Yojana, to an organization/institute is **Rs.10.00 crores for maximum period of three years.**
  - The projects are sanctioned and funds are released directly to the eligible individual organizations/institutes **based on the merit of the proposals received from them**, under the Centre of Excellence component of AYURSWASTHYA Yojana.
  - There is **no provision for State/UT-wise sanction/allocation of funds** under the Centre of Excellence component of AYURSWASTHYA Yojana and under erstwhile Centre of Excellence scheme also.
- **Up-gradation to the level of Centre of Excellence**: Under Centre of Excellence component of AYURSWASTHYA Yojana, there is provision to support AYUSH institutions/organizations for their **up-gradation to the level of Centre of Excellence.**
  - Ministry of Ayush consider project proposals for up-gradation of AYUSH institutions, whenever received from the eligible organizations/institutes from all over the country including Puducherry, **based on the merit of the proposal,** as per the provisions of the Scheme guidelines and as per the availability of funds.

PIB

Dec 21

INTERNET OF THINGS

(Syllabus: GS Paper 3 - Sci & Tech)

Internet of Things and Artificial Intelligence in Agriculture

Government has taken up various activities using Internet of Things (IoT) and Artificial Intelligence (AI) in Agriculture

Context: Various activities have been taken up by the government, using **Internet of Things (IoT) and Artificial Intelligence (AI) in agriculture.**

Some of the activities are given below:

- Department of Science & Technology (DST) is implementing a **National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS).**
  - Under the Mission, **25 Technology Innovation Hubs (TIHs) have been set up** in premier institutes of national importance across the country in advanced technology verticals.
  - Three of these TIHs are **involved in the applications of Internet of Things (IoT) and Artificial Intelligence (AI)** in Agriculture with objective of carrying out research, translation and technology development for various technologies including IoT and AI, namely:
- Technology and Innovation Foundation in technology vertical of "**Technologies for Agriculture and Water**" set up at Indian Institute of Technology (IIT), Ropar,
- TIH Foundation of IOT and Internet of Everything (IoE) in technology vertical of "**Technologies for Internet of Things and Internet for Everything**" set up at IIT Bombay
- **AI4ICPS Foundation** in technology vertical "Artificial Intelligence and Machine Learning" set up at IIT Kharagpur.
- Some of the applications of AI and IoT in Agriculture are in the areas of **Precision Farming, Agricultural Drones and Hopping systems, Livestock Monitorin**g, Monitor Climate Conditions, Smart Greenhouses, AI and IoT based Computer imaging etc.

Internet of Things (IoT)

- **About**: IoT is the **interlinking of digital devices, people, machines, appliances, and other objects** with one another through wireless networks.
  - It allows machines and people to be **connected to each other and communicate as well.**
  - It is considered the future of the internet. This version of the internet is about data that is **created by things.**
- **IoT in India:** The government of India envisages using the **Internet of Things (IoT) as part of the Digital India Mission.**
  - The **National Digital Communications Policy** was launched in 2018 to develop and apply IoT, 5G technology, machine to machine (M2M) communication, etc.
  - The government also permitted **100% FDI in the telecom sector.** This should also aid the development of IoT in India.
  - The Department of Electronics and Information Technology (DeiTY) also published a **draft policy for IoT in India.**

DTE

Dec 21

CONSERVATION OF AFRICAN CHEETAHS

(Syllabus: GS Paper 3 - Env & Eco)

Project Tiger, CAMPA funds used to finance cheetah project: Centre

Barda wildlife sanctuary in Gujarat being developed as a second home for Asiatic lions

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By Rajat Ghai
Published: Tuesday 20 December 2022



Context: Funds from **Project Tiger as well as the Compensatory Afforestation Fund Management & Planning Authority (CAMPA)** were used to finance the project to bring African cheetahs to India, the Union government told Parliament on December 19, 2022.

Key Points

- **Other sites for the transfer of African cheetahs**: **Nauradehi Wildlife Sanctuary and Gandhi Sagar Wildlife Sanctuary** in Madhya Pradesh as well as Shahgarh Bulge, Bhainsrorgarh Wildlife Sanctuary and Mukundara Hills Tiger Reserve in Rajasthan had been identified as other suitable areas for the cheetah in India.
- **Lion conservation**: The MoEF&CC was providing **financial assistance to the state of Gujarat for lion conservation activities** including for habitat improvement, water management, grassland development and prey augmentation.
    - **Barda Wildlife Sanctuary** in Saurashtra had been identified and assessed by the Wildlife Institute of India as a potential site for the lions.
- **Issue**: The Barda Wildlife Sanctuary is less than 200 square kilometres in area and **too small to host to a viable population of lions**.
    - Indigenous and forest-dwelling communities country-wide were struggling for sustainable finance. Ideally, **CAMPA funds should be used to empower them.**

Project Tiger

- **About**: It is an **ongoing Centrally Sponsored Scheme** of the **Ministry of Environment, Forests and Climate Change** providing central assistance to the tiger States for tiger conservation in designated tiger reserves.
- **Origin**: The Government of India launched the Project Tiger with the aim of saving the steadily declining population of tigers in India on 1 April **1973 from the Jim Corbett National Park in Uttarakhand.**
- **Nodal agency**: The administrating body for the project is the **National Tiger Conservation Authority (NTCA)**.
    - The NTCA was formed in 2005 as per the r**ecommendations of the Tiger Task Force.**
    - It was given **statutory status by 2006 amendment** of **Wildlife (Protection) Act, 1972.**
    - Under the organisation, there are eight Conservations Units each headed by a director who is responsible for his/her reserve area.

CAMPA Funds

- **About**: The Compensatory Afforestation Fund Act (CAF Act), 2016 established an independent authority — the Compensatory Afforestation Fund Management and Planning Authority — to execute the fund.
- **Fund sharing:** As per the rules, 90% of the CAF money is to be given to the states while 10% is to be retained by the Centre.
- **Usage of funds:** The funds can be used for treatment of catchment areas, assisted natural generation, forest management, wildlife protection and management, relocation of villages from protected areas, managing human-wildlife conflicts, training and awareness generation, supply of wood saving devices and allied activities.

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PERMAFROST

(Syllabus: GS Paper 3 - Env & Eco)

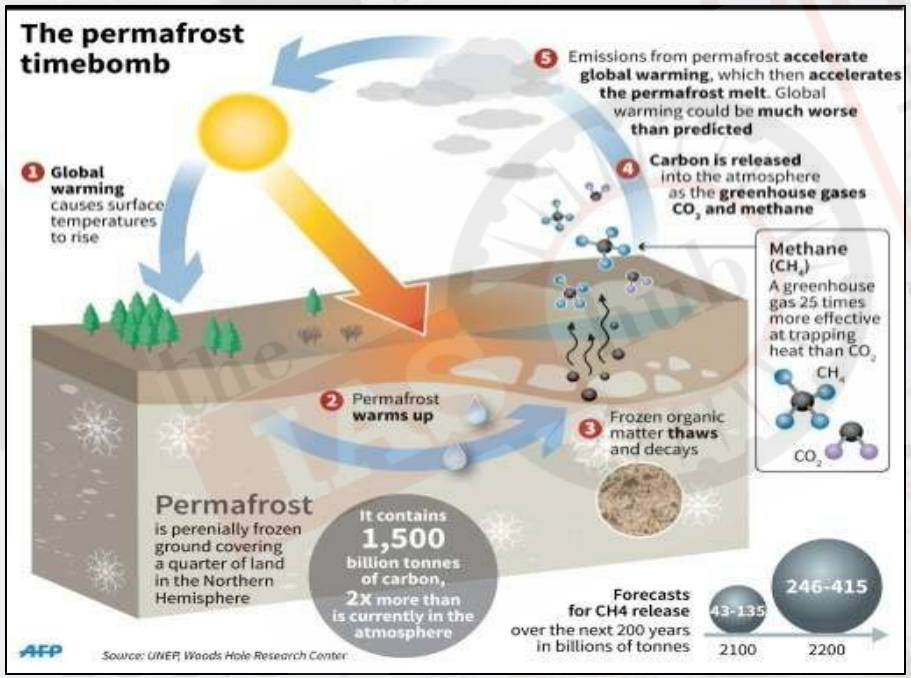


New health threat? Pathogens frozen in permafrost resurface as Earth heats up

In the unlikely scenario where a virus is able to infect mammals and humans, it could be disastrous, say experts

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By Taran Deol
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Context: A warming planet is resulting in the **loss of the Earth's cryosphere** - parts of the planet where water is permanently frozen such as glaciers and ice sheets, and this could be resurrecting **trapped pathogens**, giving rise to potential public health threats, find a new study.

- Noting that **these unknown viruses will eventually be released into the atmosphere**, it remains to be seen how their interaction with outdoor conditions such as ultraviolet light, oxygen and heat unfold, and their potential to infect a suitable host.

Permafrost

- **About**: Permafrost is **any ground that remains completely frozen** - 32°F (0°C) or colder - for at least **two years straight.**
- **Distribution**: These permanently frozen grounds are **most common in regions with high mountains** and in Earth's higher latitudes - near the North and South Poles.
  - Permafrost covers large regions of the Earth.
  - Almost a quarter of the land area in the Northern Hemisphere has permafrost underneath.
  - Although the ground is frozen, permafrost regions are not always covered in snow.
- **Effects of Climate Change on Permafrost:**
  - Permafrost and frozen ground around the world may eventually **thaw and disappear**. The amount and thickness of seasonally **frozen ground would decrease.**
  - More **Taliks (an area of unfrozen ground surrounded by permafrost)** would form, and eventually, very little permafrost would be left.
  - The active layer, where the ground freezes and thaws each year, would get thicker. As the **active layer becomes thicker,** the permafrost layer underneath it gets thinner.
  - Scientists have found that there is **now 10 per cent less frozen ground** in the Northern Hemisphere than in the early 20th century.
  - The ground is **not freezing as deeply as it used to in winter,** and the ground is not staying frozen as long.

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