UPSC Daily Current Affairs| Prelim Bits 19-02-2025

Project Waterworth

Why in News?

Meta introduced its internet subsea cable Project Waterworth recently.

- It is the ***world's longest undersea cable system*** Project that stretches over ***50,000 km.***
- **Aim -** To predict and mitigate potential disruptions, enhancing the resilience of subsea networks.
- The cable will reach depths of ***up to 7,000 meters*** in deep waters.
- **Introduced by –** Meta, American multinational technology conglomerate.
- **Operational by –** 2030.
- **Connecting Regions -** The initiative will bring industry-leading connectivity to the US, India, Brazil, South Africa, and other key regions.
- **Features** - It will facilitate greater economic cooperation, digital inclusion, and open opportunities for technological development.
- It leverages advanced machine learning models like AI.
- It provides internet connectivity, linking countries and enabling local telecom operators to provide services to customers.
- It will deploy advanced routing techniques and innovative cable burial strategies to protect against damage in high-risk zones, such as shallow coastal waters.

References

1. Business Today | Project Waterworth
2. The Indian Express | Project Waterworth

TrailGuard AI

Why in News?

Recently, the Similipal Tiger Reserve in Odisha was fitted with 100-150 cameras loaded with TrailGuard an Artificial Intelligence (AI) model.

- **TrailGuard AI** – It is an end-to-end, ***camera-based alert system*** and an effective anti-poaching tool.
- **Developed by** – Nightjar Technologies, a social impact enterprise in Gurgaon, Haryana.
- It is designed for enhancing wildlife conservation and promoting human-wildlife

coexistence in remote areas.

- **Deployment along** – *Trails or access points* in areas of interest.
- **Unique Features** – Its ***battery life***, lasts for 6 months to 1 year based on the number of images it sends.
- It transmits human and wildlife activities in remote areas in under *30 seconds.*



- **AI hardware –** It combines durable outdoor hardware, on-the-edge AI algorithms, and real-time transmission capabilities.
- **Real-time Alert system –** It autonomously detects target objects, and transmits real-time alerts that can trigger,
    - Rapid-response to entry by poachers or illegal loggers.
    - Wildlife entering agricultural or pastoral lands.
    - Status of endangered or exotic invasive species.
- **Usage in multiple cases:**
    - Human-wildlife conflict
    - Park intrusion monitoring
    - Wildlife monitoring
    - Illegal logging
    - Mine security
    - Border security.

*Similipal is the **1st reserve** where TrailGuard has shown success as an '**anti-poaching tool**' but it has takers outside Odisha as well. It has also been implemented in the Kanha Tiger Reserve in Madhya Pradesh and Dudhwa National Park in Uttar Pradesh with 20 and 10 cameras respectively.*

References

1. The Hindu| AI-fit cameras in Similipal Tiger Reserve
2. Nightjar| TrailGuard AI

Indian Grey Wolf

Why in News?

Recently, a female Indian grey wolf has given birth to 8 pups at the Bankapura wolf sanctuary, Karnataka.

- **Indian Grey Wolf** – It is a ***subspecies of grey wolf species***.
- **Scientific Name** – Canis lupus pallipes.

- **Habitat** – Open forest, open plain areas, scrub forests, grasslands, arid & semiarid areas, dry- deciduous and degraded planes.
- **Distribution** – *India*, Pakistan, Afghanistan, Nepal, Bhutan, Israel, Turkey, Iran, and Syria.
    - **India** – Eastern parts of Peninsular India especially in the regions of southern west Bengal and Jharkhand.

*Bankapur Wolf Sanctuary is the **1st** ever wolf sanctuary in Karnataka.*

- **Morphology** – Medium in size, shorter fur is greyish intermingled with black on the dorsal crest while the underside is buff.
- Hairs are grizzled with black, sports a dark V-shaped patch around the shoulders and limbs are paler than the body.



- **Characteristics** – It's a *social species* that lives in a pack of 6-8 animals.
- ***Howling*** is a key form of long-distance communication for wolves, especially when territories are vast.
- It has an *excellent sense of smell*, and often sniffs the air to locate prey.
- **Diet** – It is a carnivores animal feed on antelopes, rodents, hares, and raccoons.
- **Threats**:

    - Changes in land-use patterns
    - Lesser prey animals
    - Human development
    - Fast encroaching.
- **Conservation Status**
    - **IUCN status** – Endangered species.
    - **CITES** – Appendix I.
    - **Wildlife Protection Act, 1972** – Schedule I.

References

1. Down to Earth| Indian Grey Wolf
2. Zoological Survey| Survey of Indian Grey Wolf

Sariska Tiger Reserve (STR)

Why in News?

Sariska Tiger Reserve (STR) will be notified by as an eco-sensitive zone by the end of June, 2025.

- Sariska Tiger Reserve or Sariska National Park is ***one of the biggest Tiger reserve*** located in Rajasthan.
- The tiger reserve is spread over an area of ***Aravalli hills.***
- The Sariska area was first notified as a Wildlife Reserve in 1955, Wildlife Sanctuary in 1958, it came under Project Tiger as Sariska Tiger Reserve in 1979.
- It is the ***1st reserve*** which successfully relocated tigers.
- **Vegetation** - Tropical dry deciduous and tropical thorn forest.
- Dhok (Anogeissus pendula) is the ***dominant tree species*** covering over 90% area of the forest.
- Boswellia serreta and Lannea coromandelica grow in rocky patches. Kathaa (Acacia catechu) and Bamboo are common in the valleys.
- Some valleys support Palas (Butea monosperma) and Ber (Zizyphus species).
- Besides these, some other tree species are Arjun (Terminalia arjuna), Gugal (Commiphora wightii), Kadaya (sterculia urens), Amla (Emblica officinalis), Bahera (Terminalia bellerica).
- **Fauna -** Nilgai (Boselephous tragocamelus), Sambar deer (Cervus unicolor), Spotted deer (Axis axis), Four-horned antelope (Tetraceros quadricorns) and Wild pig (Sus scrofa).
- **Famous places -** Pandu Pol, Bhangarh Fort, Ajaibgarh, Pratapgarh, Siliserh Lake and Jai Samand Lake.

Reference

Times of India | Sariska Tiger Reserve (STR)

One Liners 19-02-2025

Geography

Democratic Republic of Congo (DRC)

• It is the ***2nd largest country in African continent***.
• **Capital** – Kinshasa.
• **Situated** – Astride the equator, West-Central Africa.
• **Coastline** – 25-mile (40-km) on the Atlantic Ocean.
• **Border countries:**
  - **North** – Central African Republic and South Sudan.
  - **East** – Uganda, Rwanda, Burundi, and Tanzania.
  - **Southeast** – Zambia Angola.
• **M23 rebellion** – It is an *armed conflict in DRC's North Kivu.*
• Rwanda-backed M23 rebels has recently captured eastern DRC's 2nd largest city, Bukavu.



Medvedev-Sponheuer-Karnik scale

• It is a *macro seismic intensity scale* used to determine the intensity of the earthquake.
• **Intensity of earthquake** – A value that represents the degree of oscillation of the Earth's surface during an earthquake.
• It is *greater* when the earthquake *closer to the surface* of the earth.
• **Intensity depends on:**
  - Degree of destruction of standard buildings.
  - Witnesses sensations.
  - Changes in topography of the earth's surface.
  - Depth and magnitude of the earthquake source.
• It is known as the *MSK or MSK-64*.

Polity & Governance

Directorate of Plant Protection Quarantine & Storage (DPPQS)

*India has the **2nd largest arable land** of 156.06 million ha. and **ranks 2nd worldwide in farm** output.*

• **DPPQS** – It act as an *apex organization* for advising on all the matters related to *plant protection*.
• **Established in** – *1946*, on the recommendation of Woodhead Commission.
• **Headed by** – Plant Protection adviser.
• **Nodal Ministry** – Ministry of Agriculture and Farmers Welfare.
• **Objectives –** Effective implementation of integrated pest management, plant quarantine and locust control & research, etc.

Central Board of Film Certification (CBFC)

• **Established in** – *1952.*
• **A statutory body** – Under the provisions of Cinematograph Act 1952.
• **Nodal Ministry** – Ministry of Information and Broadcasting.
• **Headquarters** – Mumbai.
• **Objective –** To *regulate the public exhibition of films* after certified by the Central Board of Film Certification in India.
• **Certification process** – Is in accordance with *Cinematograph (certification) Rules, 1983*, and guidelines issued by the central government.

World Food India (WFI)

• 1st edition of World Food India was held in *2017*.
• **Launched by –** Ministry of Food Processing Industries.
• **Objective** – To introduce the world to rich Indian food culture as well as promote investments in the country's diverse food processing sector.

Economy

National Stock Exchange (NSE)

• According to 2024, Burgundy Private Hurun India 500 report, NSE has claimed the top spot as the most valuable unlisted company in India.
• **NSE** – It has surged by an impressive 201% in value, reaching an estimated worth of Rs 4,70,250 crore.
• **Unlisted companies** – Comprise 22% of the 2024 list, a 4% decline from last year.
*An **unlisted company** is a business whose shares are not traded on a stock exchange.*

Rank	Company	Value (INR Cr)	Value Change (%)	Headquarter	Key Leader
1↑	National Stock Exchange of India	4,70,250	201%	Mumbai	Ashishkumar Chauhan
2↓	Serum Institute of India	2,11,610	10%	Pune	Cyrus Poonawalla
3↑	Zoho Corporation	1,03,760	58%	Chennai	Sridhar Vembu
4↑	Zerodha	87,750	50%	Bengaluru	Nithin Kamath
5↓	Megha Engineering & Infrastructures	77,860	15%	Hyderabad	P.V. Krishna Reddy
6↑	Parle Products	68,640	16%	Mumbai	Vijay Kantilal Chauhan
7↓	Intas Pharmaceuticals	68,150	10%	Ahmedabad	Nimish Chudgar
8↓	Dream11	67,860	13%	Mumbai	Harsh Jain
9↑	Razorpay	63,620	11%	Bengaluru	Harshil Mathur
10*	Amalgamations	56,660	68%	Chennai	Ram Venkataramani

International Financial Services Centres Authority (IFSCA)

• **Established in** – *2020*, under the International Financial Services Centres Authority Act, 2019.
• **Headquarters** – Gujarat.
• **IFSCA** – It is a unified authority for the development and regulation of financial products, financial services and financial institutions in the International Financial Services Centre (IFSC) in India.
• **Objectives:**
- To develop a strong global connect
- Focus on the needs of the Indian economy
- To serve as an international financial platform for the entire region and the global economy as a whole.

Agriculture

BIOFACH 2025

• **BIOFACH** – It is the *world's leading trade fair for organic food*.
• **17th edition, 2025** – It will be the meeting point for the entire organic, natural and millets industry.
• **Held at** – Messezentrum in Nuremberg, Germany.
• **Letter of Intent (LoI)** – Between Agricultural and Processed Food Products Export Development Authority (APEDA) and Nuremberg Messe to make *India the Partner Country of the Year* at BIOFACH 2026.
• **Co-located with** – Natural Expo India and Millets India.

Environment

Bankapur Wolf Sanctuary

A female Indian grey wolf (Canis lupus) has given birth to 8 pups at the Bankapura wolf sanctuary.
• It is the ***1st ever wolf sanctuary*** in Karnataka.
• **Established in** – *2021*.
• **Located in** – Bankapur, Koppal district.
• **Habitat for wolves** – Its open fields and hills, naturally supports wolf populations, including *those outside the sanctuary's* boundaries.
• **Characteristics** – Vast shrub forests and rocky terrains.
• **Other fauna** – It provides conservation of striped hyena, Indian fox, golden jackal and others.

Miscellaneous

Open-Air Art Wall Museum

India's 1st "Open-Air Art Wall Museum" at Mausam Bhawan (India Meteorological Department).
• It is a *unique open-air art museum* depicting to celebrate the 150 years of milestone journey of India Meteorological Department (IMD).
• **Collaboration with** – Delhi Street Art.
• **Showcase** – 38 Murals Depicting IMD's meteorological legacy and impact.