Prelim Bits 20-12-2023 | UPSC Daily Current Affairs

Operation Prosperity Guardian

Houthi militants from Yemen have attacked or seized commercial ships near the Red Sea amidst the ongoing Gaza war.

- It is a ***multinational security initiative in the Red Sea***.
- **Launched by** – USA
- **Partner countries** – UK, Bahrain, Canada, France, Italy, Netherlands, Norway, Seychelles and Spain have joined and others.
- **Coordinated by** – Combined Maritime Forces, *Task Force 153*.

> ***The Combined Maritime Forces*** *is a multi-naval taskforce with 39 members including India and Pakistan. It was set up in 2022 to improve maritime security in the Red Sea, Bab el-Mandeb and the Gulf of Aden.*

- **Role** – Increased presence of military ships and *joint patrols.*
- While they will not necessarily escort a specific vessel, they will *provide umbrella protection* to as many as possible.

Red Sea
• The *nearly 2,000-km* Red Sea *connects the Mediterranean Sea with the Indian Ocean* via the narrow Suez Canal (since 1869). • **Importance** – According to the US agency, the Suez Canal accounted for *9.2 million barrels per day of total oil flows* in the first half of 2023. • Another estimate says that about 12% of global trade depends on the Suez Canal, compared to 5% on the Panama Canal. • **Impact of attacks** – Oil prices rose fearing about the problems that could confront global shipping and logistics. • The journeys could increase by 2 weeks because of the re-routing through Africa. • A container bound for the Middle East will now attract a war risk surcharge.

> ***The Houthis*** *are Zaydi Shias, a sub-sect of Shia Islam are in civil war with the Yemen government by controlling northern Yemen, including the capital Sanaa while the government now operates out of Aden.*

Reference

The Indian Express| Operation Prosperity Guardian

A Touchscreen

Between 2007 and 2013, capacitive touchscreens overtook resistive touchscreens in the consumer electronics market.

- **Invention** – The ***1st touch screen was invented in 1965*** by E.A. Johnson of U.K, a capacitive device.
- **Function** – It is ***a surface that combines 2 functions***
  - To *receive inputs* for a computer (say, tapping on an app)
  - To *display the output* (launching the app).
- **Working** – It consists of ***3 main components***
- **A touch sensor** – It has an *electrical current* going through it and touching the screen *causes a voltage or signal changes* which are used to determine the location of the touch.
- Main technology used in sensors are
  - Resistive
  - Capacitive
  - Surface Acoustic Wave(SAW)
  - Infrared LED or Optical
- **A controller** – It takes information's from the touch sensor and translates it into information the PC can understand.
- **A software Driver** – It allows the touch screen and computers to work together.
- **Applications** – Smartphones, ATM machines, TVs, refrigerators, e-readers, billing systems, and electronic voting machines (EVMs).

Reference

The Hindu| Working of Touchscreens

Wild Orchids

Epiphytic orchids found in the Dooars and Darjeeling hills are dying out because of deforestation in their natural habitat.

- **Orchids** – A diverse group of flowering plants with vibrant and intricate flowers which belong to the ***family Orchidaceae***.
- **Range** – Tropical rainforests, mountains, and even deserts.
- **Distribution** – India has ***over 1200 species of Orchids***, 388 are endemic to India while *128 are endemic to the Western Ghats*.

> *The hot-spots of orchids in India are Himalayas, North-East India and Western Ghats and they are highest in Arunachal Pradesh followed by Sikkim and West Bengal.*

- **3 Types –** 60% of all orchids found in India are epiphytic, 447 are terrestrial and 43 are mycoheterotrophic.
    - **Epiphytic** – They grow *on another plant* including rock surfaces (lithophytes) merely for physical support, drawing moisture and nutrients from the air, not from the host.
    - **Terrestrial** – They grow *on land and climbers,* found largely in temperate and alpine regions.
    - **Mycoheterotrophic** - They derive *nutrients from mycorrhizal fungi*, attached to roots of a vascular plant.
- **Protection status** – Appendix II of CITES (trade of wild orchid is banned globally).
- **Threat** – ***Habitat loss*** owing to illegal logging and development and the *most endangered are the epiphytic orchids*.
- **Importance** – They are ***natural gauges of air quality*** because they don't grow in polluted air.
- It *helps in cross-pollination* and helps the next generation of *insects to survive and grow* as caterpillars thrive on them for food.
- It has *symbiotic relationship with the indigenous people*.
    - The Oraon and Kharia tribal communities use orchids to treat cuts and fractures, skin diseases, aches and pains, gastrointestinal acidity and so on.

A World Health Organisation report that says 80% of people on this planet depend on traditional remedies and epiphytic orchids add to the value chain of herbal healing.

References

Down To Earth| Disappearing Wild Orchids of West Bengal

Kakori Train Robbery

4 young revolutionary leaders were hanged 96 years ago for the Kakori train robbery incident.

- **Execution in** – 1925 at Kokori (about 15km from Lucknow).
- **Executed by** – Hindustan Republican Association (HRA), 1st major action of HRA.
- They had *looted a train transporting money* (containing approx Rs 4,600) to the British treasury.
- **Objective** – To *fund the HRA and garner public attention* for their work and mission.
- **Punishment** – Out of the *40 men arrested* by the British, *4 were handed death sentences*, while others received lengthy prison terms.
    - In 1927, Rajendranath Lahiri, Ashfaqullah Khan, Ram Prasad Bismil, and Thakur Roshan Singh were hanged.

The only major leader of HRA at this time who evaded arrest after Kokori train

robbery was Chandrashekhar Azad.

Hindustan Republican Association
• **Founded by** – Ram Prasad Bismil, Ashfaqulla Khan, Sachindra Nath Bakshi and Jogesh Chandra Chatterjee. • Chandra Shekhar Azad and Bhagat Singh joined later. • **Cause of formation** - Disillusioned with Gandhi's non-violence and calling off Non-cooperation movement (NCM) in 1922. • **Manifesto** – *Krantikari* (Revolutionary) was released in 1925. • **Objective** – To establish a *federal Republic of United States of India* with universal suffrage and socialist principles *by an organized and armed revolution*.

*In 1928, HRA merged with revolutionary groups of Punjab, Bihar and Bengal and became the **Hindustan Socialist Republican Association (HSRA)**. It had Marxist leanings and stressed upon a struggle by the masses to establish 'the dictatorship of the proletariat'.*

Reference

The Hindu| Recalling Kakori Train Robbery

Global Study on Homicide Report 2023

Recently, the 4th edition of Global Study on Homicide Report was released.

- **Published by** – United Nations Office on Drugs and Crime (UNODC).
- **Objective** - To reveal into the facts behind the violence, to try and identify notable trends and to inform policies and solutions.
- **Data source** - Updated UNODC homicide statistics dataset.

UN Surveys on Crime Trends and the Operations of Criminal Justice Systems (UN-CTS) is conducted annually to collect data from UN member nations along with other pertinent data sources.

- **Covers 3 categories** – Homicides related to criminal activities, interpersonal homicides, and socio-politically motivated homicides.
- **2023 Report** – It *highlights regional and sub-regional trends*, demographics, age, and gender profiles of victims and it considers the *impacts of megatrends* like climate change and even Covid-19.
- It also *examines the criminal justice system's response* to, seeking to identify areas for improvement and intervention.

***SDG Goal 16** of the 2030 Agenda for Sustainable Development is to significantly*

reducing all forms of violence and related death rates.

Key Findings of the Report

- **Increased violence** – Due to disputes over water access and worsening situation with population growth, economic expansion and climate change.
- *Year 2021 was exceptionally lethal* with an estimated 458,000 intentional homicides worldwide, *averaging 52 killings every hour*.
- **India (2019-21)** – 16.8% or every 6th of all murders is due to disputes over natural resources or property.
- About 0.5% or 300 were due to water-related conflicts.



References

1. Down To Earth| Increased homicide incidents in 2021
2. UNODC| Global Study on Homicide Report 2023

Other Important News
Operation Greens (OG) • It is a ***Central Sector Scheme*** established under ***Pradhan Mantri Kisan SAMPADA Yojana.*** • **Launched by** - Ministry of Food Processing Industries and **Implemented by** - National Agricultural Cooperative Marketing Federation (NAFED). • The scheme aims to stabilize the supply of ***Tomato, Onion, and Potato*** (TOP) crops, in line with the Operation Flood (White Revolution). • It also aims to ensure that these crops are available throughout the year without price volatility.
Pradhan Mantri-Ayushman Bharat Health Infrastructure Mission' (PM-ABHIM) • It is a ***centrally sponsored scheme*** aims to address critical gaps in health infrastructure, surveillance, and health research. • The mission's goal is to help communities become self-sufficient in managing health crises and pandemics. • It is the ***largest Pan-India scheme*** for public health infrastructure since 2005. • It is launched by the Ministry of Health and Family Welfare in addition to the ***National Health Mission.***

Tamilisai Moovars

• **Tamilisai Moovars (Tamil Trinity) -** Muthuthandavar, Marimutha Pillai, and Arunachala Kavirayar, all 3 lived in TamilNadu and contributed to Carnatic music.
• **Kavirayar** was the ***1st to compose musical drama*** in Tamil, his contributions were Rama Natakam, Asomuki Natakam, Sirkazhi Sthala Puranam, and Sirkazhi Kovai.
• **Marimutha Pillai** was a pioneer in composing Ninda Stuti Kritis, his contributions were Puliyur Venba and numerous Padhigams and Kuravanji.
• **Muthuthandavar** composed the cosmic dance of Lord Nataraja called Tandava *Kritis*.

Martian Moon eXploration (MMX)

• It is a space exploration mission led by ***Japan Aerospace Exploration Agency (JAXA)*** expected to reach Martian orbit in 2025**.**
• It is a mission to travel to Mars and survey the ***red planet's 2 moons - Phobos and Deimos*** and finally collect material from its surface before returning to Earth by 2029.

Andriamamelo Cave

• Andriamamelo Cave is located in ***Western Madagascar*** and contains ancient rock art, hints at ancient connections between Africa and Asia.
• The art is the ***1st pictorial art found on the island*** and includes images of nature with human-like and animal-like figures.
• The art includes unique black rock drawings and motifs from Egypt, Ethiopia, Afro-Arab and Borneo.

Net Borrowing limits for states

• Finance Ministry recently announced that States may be able to tap about Rs.2.04 lakh crore as additional borrowings over and above their net borrowing limits for the year.
• The Centre had allowed ***22 States*** to raise additional borrowings of almost Rs.61,000 crore this year on top of their net borrowing ceilings of 3% of Gross State Domestic Product.
• The extra borrowing ceiling was granted to States who met their ***pension liabilities*** by making required contributions to the National Pension System (NPS).

United Earth Amazonia prize

• The United Earth Amazonia prize is a "Green Nobel" prize that recognizes environmental work in the ***Amazon rainforest***.
• The prize highlights projects that help preserve and protect the rainforest and its biodiversity.
• The prize was instituted by ***Marcus Nobel***, a Swedish-American businessman based in Portland, Oregon.
• The prize was inaugurated last year without any monetary reward, but it is set to expand its scope in 2024.

World Intellectual Property Indicators 2023 (WIPI) report

• According to the report of WIPI, 2023 global patent applications has been increased.
• In 2022, applicants based in ***China*** filed around 1.58 million patent applications, followed by the US, Japan, the Republic of Korea, and Germany.
• The WIPI report also includes India as a star performer and secured the ***40th position*** out of 132 countries.

INSUQUICK

• Drug firm USV and bio-tech company Biogenomics have launched INSUQUICK, ***India's 1st biosimilar Insulin*** Aspart recently.

• InsuQuick is a rapid-acting insulin that helps control blood sugar levels and treats diabetes mellitus in children over 2 years old.

• It is a '***Make in India***' product.

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