

## 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.

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- **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 1<sup>st</sup> 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 4<sup>th</sup> 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 6<sup>th</sup> 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 SAMPAD A 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 **1<sup>st</sup> 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 Puliur 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 **1<sup>st</sup> 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 **40<sup>th</sup> position** out of 132 countries.

## INSUQUICK

- Drug firm USV and bio-tech company Biogenomics have launched INSUQUICK, **India's 1<sup>st</sup> 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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