

**25– 03 – 2022**

**News:** World Air Quality Report

- Recently, the 2021 World Air Quality Report was released. The report presented an overview of the state of global air quality in 2021.

## **World Air Quality Index**

- World Air Quality Index is published by IQ Air, a Swiss air quality technology company specializing in protection against air borne pollutants.
- **Delhi remained the most polluted capital city** in the world **for the fourth consecutive year.**
- **New Delhi is followed by Dhaka** (Bangladesh), N'Djamena (Chad) and Dushanbe (Tajikistan) in terms of worst air quality.
- **Air pollution is now considered to be the world's largest environmental health threat,** accounting for seven million deaths around the world every year.
- Only **222 out of 6475 global cities evaluated met the updated PM 2.5 parameters,** where only **4 of 1887 Asian cities met** the same.
- **93 cities had annual PM 2.5 concentrations exceeding 10 times** the WHO norms.

- **India is home to 11 of the most 15 polluted cities** in Central and South Asian countries.
- In 2021, Mumbai had recorded Particulate Matter (PM) 2.5 annual average of 46.4 microgram/cubic metre – nearly nine times above the World Health Organisation (WHO) limit.
- **No country has met the updated annual PM 2.5 guideline value**, which was reduced from 10ug/m<sup>3</sup> to 5ug/m<sup>3</sup>.

#### **News:** World Meteorological Day

- **23<sup>rd</sup> March is celebrated as World Meteorological Day** to commemorate the establishment of the World Meteorological Organization (WMO).
- Being **celebrated since 1961**, the day is also observed to make people aware of **their role in protecting Earth's atmosphere**.

## **World Meteorological Organisation (WMO)**

- The World Meteorological Organisation (WMO) is a **specialised agency of the United Nations**.
- Established in **1950**, the World Meteorological Organisation (WMO) is an intergovernmental **organisation that originated from the International Meteorological Organisation (IMO)**.

- The International Meteorological Organisation (IMO) had its roots from the **Vienna International Meteorological Congress of 1873**.
- It became a specialised agency of the UN in 1951.
- The **United Nations Economic and Social Council is the parent organization** of the UN's WMO.
- WMO celebrated its **70<sup>th</sup> Anniversary in 2020**.

### **News: Artemis Mission**

- Recently, the National Aeronautics and Space Administration (NASA) rolled out its Artemis I moon mission to the launchpad for testing at the Kennedy Space Centre in Florida, United States.

## **Artemis Mission**

- Artemis stands for "**Acceleration, Reconnection, Turbulence and Electrodynamics of the Moon's interaction with the Sun**".
- The goal of Artemis program led by **NASA** is to land "**the first woman and the next man**" on the **lunar South Pole region by 2024**.
- NASA will **establish an Artemis Base Camp on the surface and a gateway (the lunar outpost around the Moon) in lunar orbit to aid exploration by robots and astronauts**.
- Artemis will be an **uncrewed testflight of the Orion spacecraft and SLS rocket**.

- Artemis would be the first step towards the long-term goal of establishing a sustainable presence on the Moon, laying the foundation for private companies to build a lunar economy, and eventually sending humans to Mars.
- The main objective of this mission is to find what happens when the Sun's radiation hits our rocky moon, where there is no magnetic field to protect it.
- NASA recently announced a class of 11 astronauts for upcoming space mission including Artemis, which includes an American Indian, Raja Chari.

#### **Other space agencies are also involved in the Artemis programme**

- **Canadian Space Agency** has committed to providing advanced robotics for the gateway.
- The **European Space Agency** will provide the International Habitat and the ESPRIT module, which will deliver additional communications capabilities among other things.
- The **Japan Aerospace Exploration Agency** plans to contribute habitation components and logistics resupply.
- **The South Pole of the Moon remains unexplored as compared to the other regions due to moon axis and due to a phenomenon called Tidal Locking.**

- Tidal locking (also called gravitational locking, captured rotation and spin-orbit locking), in the best-known case, occurs when an orbiting astronomical body always has the same face toward the object it is orbiting.