

Rapid Fire Current Affairs

Record Global Investments in Clean Energy Technology

According to BloombergNEF, for the very first time in history, investment in low-carbon energy technologies worldwide was equal to money spent on fossil fuels. BloombergNEF is a global strategic research service provider.

The amount of investment in cleaner energy technology in 2022 was **USD 1.1 trillion** - a **31% (of USD 261 billion) growth from 2021**. However, the investment in fossil fuels was also simultaneously up USD 214 billion over 2021 levels.

The trillion-dollar investment in energy transition included **renewables** (solar, wind, nuclear), **storage**, **charging infrastructure, hydrogen production, carbon capture** (& utilisation & storage) and technology such as **small-scale solar, heat pumps, and zero-emission vehicles.**

China is still the leading manufacturer of low-carbon technologies. It attracted over half of the trillion-dollar investment at USD 546 billion, followed by the EU at USD 180 billion and the US at USD 141 billion.

Read More - Towards Green Energy Transition

Mughal Gardens Renamed as Amrit Udyan

In keeping with the theme of **Azadi ka Amrit Mahotsav**, the Government of India recently renamed the **Mughal Gardens at Rashtrapati Bhavan as 'Amrit Udyan'**.

Mughal Gardens or now, Amrit Udyan, draw inspiration from the Mughal Gardens of Jammu & Kashmir, the gardens around the Taj Mahal and miniature paintings of India and Persia.

The design of Mughal Gardens was **finalised by Sir Edwin Lutyens in 1917 in collaboration with William Mustoe,** Director of Horticulture.

These gardens were **never officially named Mughal Gardens**; rather, came to be known so owing to the style of architecture - influenced by the Persian gardens, particularly the **Charbagh structure**. Afghanistan, Bangladesh, India, and Pakistan have a number of Mughal gardens.

Mughals were known to appreciate gardens; *Babur Nama* mentions Babur's favourite kind of garden -Persian **Charbagh style which was intended to create a representation of an earthly utopia – jannat.**

Read More - Mughal Architecture, Azadi ka Amrit Mahotsav

India's Newest Butterfly



A **swallowtail butterfly** disappearing from its previously known ranges from **Myanmar** and **southern China** to Vietnam has been recorded for the first time in India.

The butterfly is **"extremely rare" Noble's Helen** (Papilio noblei), identified from three locations in the **Namdapha National Park** (Arunachal Pradesh).

Noble's Helen is also found in Thailand, Laos and Cambodia.

Butterflies are considered vital indicators representing the state of biodiversity and key ecosystem functions.

Note - Arunachal Pradesh also has a state butterfly - Kaiser-i-Hind.

Read More - <u>Namdapha National Park</u>, <u>White Tufted Royal Butterfly</u> (another rare butterfly found in India)

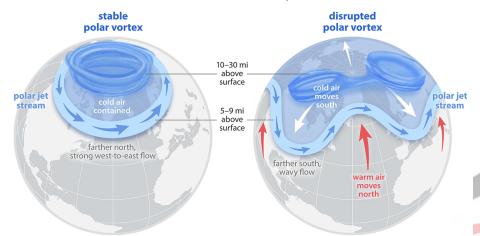


Understanding the polar vortex

The Arctic polar vortex is a strong band of winds in the stratosphere, surrounding the North Pole 10–30 miles above the surface.

The polar vortex is far above and typically does not interact with the polar jet stream, the flow of winds in the troposphere 5-9 miles above the surface. But when the polar vortex is especially strong and stable, the jet stream stays farther north and has fewer "kinks." This keeps cold air contained over the Arctic and the mid-latitudes warmer than usual.

Every other year or so, the Arctic polar vortex dramatically weakens. The vortex can be pushed off the pole or split into two. Sometimes the polar jet stream mirrors this stratospheric upheaval, becoming weaker or wavy. At the surface, cold air is pushed southward to the mid-latitudes, and warm air is drawn up into the Arctic.



According to scientists, the **extremely cold weather that Asia** is witnessing is **largely the result of** what is called a Polar Vortex. The term refers to an **expanse of cold air that generally circles the** Arctic but occasionally shifts south from the North Pole.

The term "vortex" refers to the counterclockwise flow of air that helps keep the colder air near the Poles. It always exists near the poles but weakens in summer and strengthens in winter.

Although there is a lack of consensus, it is believed that **with a warming planet, shifts in the polar vortex are likely to become more frequent** and pronounced.

Read More - Polar Vortex

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