Depletion of Ozone Layer

Prelims: *Current events of National and International Importance| Environment*

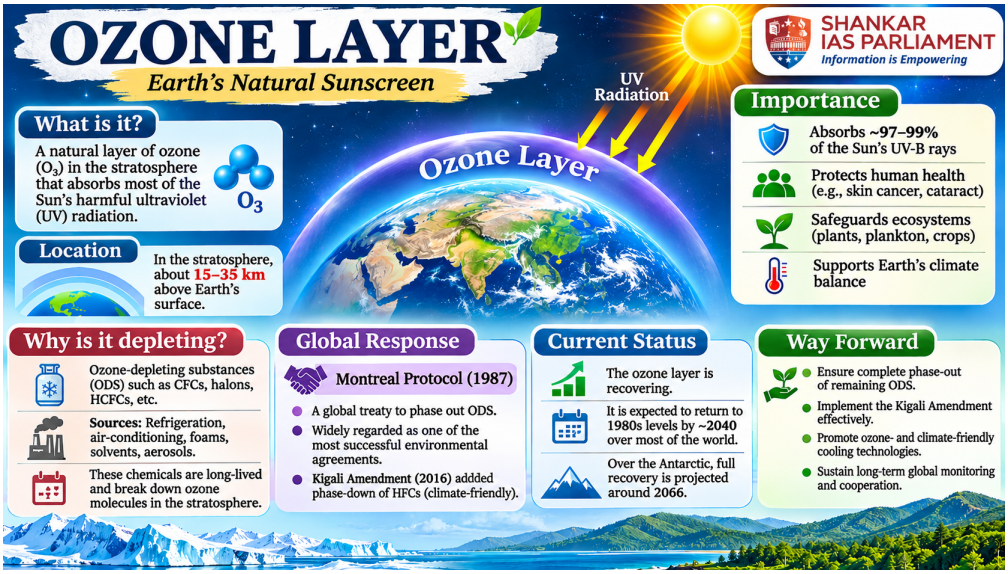
Why in News?

The Antarctic ozone hole expanded to its seventh-largest size in 48 years of observation in 2026, driven by an unusually strong polar vortex rather than a new spike in chemical pollution.

- **Peak Size–** On September 18, 2026, the hole reached its maximum one-day extent of **10.5 million square miles (27.1 million square kilometers)**—larger than the entire continent of North America.
- **Seasonal Average–** Between September 7 and October 13, the average area covered roughly **9.6 million square miles (25 million square kilometers)**, more than twice the size of the United States.
- **Ranking–** It stands as the seventh-largest ozone hole recorded since monitoring began.

What Caused the Growth?

- **Strong Polar Vortex –** A powerful, high-speed belt of wind isolated cold air over Antarctica for a longer duration.
- **Weak Weather Disturbances–** Planetary-scale weather systems that normally rise from the lower atmosphere and break up the vortex were unusually quiet during August and September, letting the cold zone stretch and persist.
- **Chemical Reactions–** Inside the cold vortex, clouds accelerated chemical reactions involving residual chlorine and bromine.



Reference

[Science Daily| Ozone Layer Depletion]

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