

Prelim Bits 11-01-2023 | UPSC Daily Current Affairs

Cold Wave

Delhi and other parts of northwest India have been reeling under a cold wave spell.

- Cold wave is a condition of air temperature which becomes fatal to human body when exposed.
- The government of India recognised the cold wave as a natural disaster in 2012.
- Indian Meteorological Department (IMD) conditions for cold wave:
- [Cold wave](#) is defined based on the temperature thresholds over a region in terms of actual temperature or its departure from normal.
- The 'normal' temperature is calculated for every 5 days by taking the average temperature for these days over the past 30 years.

Criteria		Based on actual temperature	Based on Minimum temperature departure from normal
When minimum temperature For plains $\leq 10^{\circ}\text{C}$ For hilly regions $\leq 0^{\circ}\text{C}$	Cold wave	$\leq 4.0^{\circ}\text{C}$	-4.5°C to -6.5°C
	Severe cold wave	$\leq 2.0^{\circ}\text{C}$	$\geq -6.5^{\circ}\text{C}$
For Coastal region		$\leq 15^{\circ}\text{C}$	$\leq -4.5^{\circ}\text{C}$

- Central and northern India are most vulnerable to cold wave.
- Delhi usually records cold wave spells in December and January.
- Northwest India is facing the longest cold wave spell in a decade for 5 consecutive days in 2023.
- **Factors** - large-scale fog cover, low cloud coverage, cold northwesterly winds and western disturbances.

Over the past decade, the number of cold wave days for Delhi in January has ranged from none to 7.

References

1. [Indian Express - What is a cold wave?](#)
2. [Indian Meteorological Department - PDF](#)

Global Partnership for Financial Inclusion

The first 'Global Partnership for Financial Inclusion' meeting of the G20 will begin in Kolkata.

- The 3-day meeting will focus on the principles of digital financial inclusion, remittance costs and SME finance availability.
- Twelve international speakers will attend this G20 meeting, including senior officials from the World Bank, Monetary Authority of Singapore, France and Estonia.
- The Global Partnership for Financial Inclusion (GPFI) was officially launched on 10 December 2010 in Seoul.
- The GPFI is an inclusive platform for all G20 countries, interested non-G20 countries and relevant stakeholders to carry forward work on financial inclusion.
- The GPFI also carry forward the implementation of the G20 Financial Inclusion Action Plan, endorsed at the G20 Summit in Seoul.
- The other GPFI's efforts are
 1. helping countries put into practice the G20 Principles for Innovative Financial Inclusion
 2. strengthening data for measuring financial inclusion
 3. developing methodologies for countries wishing to set targets

References

1. [The Hindu - G20 meeting on financial inclusion](#)
2. [G20 - First Global Partnership for Financial Inclusion](#)
3. [Global Partnership for Financial Inclusion](#)

Blackbuck

A study conducted by the Indian Institute of Science (IISc) has shed light on how blackbuck in India have fared challenges to their survival.

- Blackbuck or *Antilope cervicapra* is also known as Indian Antelope.
- The males have corkscrew-shaped horns and black-to-dark brown coats, while the females are usually hornless.
- It is considered to be the fastest animal in the world next to Cheetah.



- **Spread** - The blackbuck is endemic to the Indian subcontinent and found in India, Nepal and Pakistan.
- The animals are mainly seen in three broad clusters across India that pertain to the northern, the southern, and the eastern regions.
- **Habitat** - Blackbuck inhabits grassy plains and slightly forested areas.
- **Significant trait** - The male blackbuck disperse more than females to maintain the gene flow in the species.
- **Threats** - Habitat destruction, habitat fragmentation, increased anthropogenic

activities.

- **Conservation Status**

1. Wildlife Protection Act-1972 - Schedule-1
2. IUCN - Near Threatened
3. CITES - Appendix III

- [Tal Chhapar Sanctuary](#) is known as the home of blackbuck.
- The [Bishnois](#) sect of people in Rajasthan are called as 'The Protectors of Black Buck'.

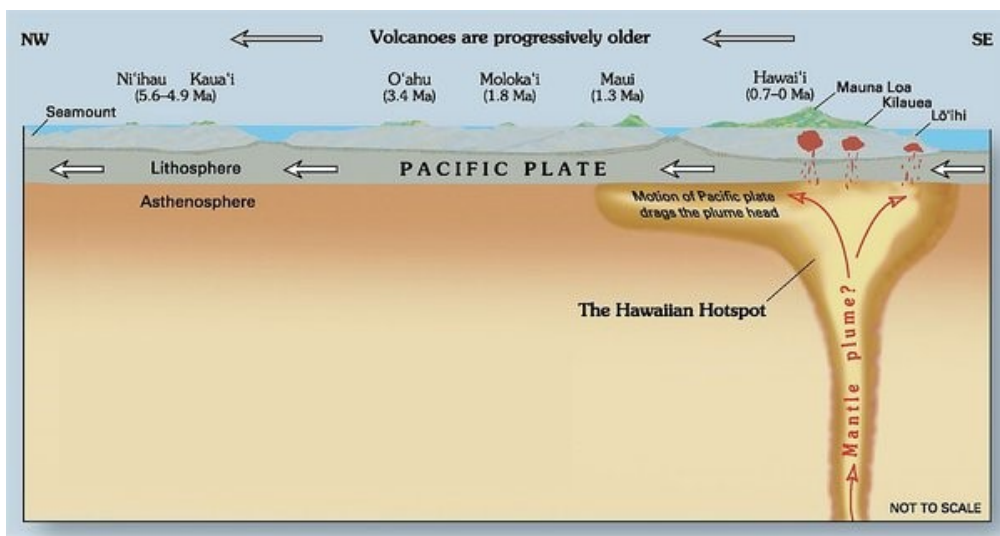
References

1. [The Hindu - How blackbuck survive challenges? - IISc Study](#)
2. [Deccan Herald - Blackbucks beat odds in tough survival game](#)
3. [ENVIS Portal - Blackbuck](#)

Mantle Plumes

A new study shows evidence of an active mantle plume beneath the surface of the Mars.

- Elysium Planitia is a low-lying area on Mars that lies north to the equator.
- The volcanic eruptions and marsquakes at Elysium Planitia may be due to mantle plumes as Mars does not have plate tectonics.
- Mantle plumes are large blobs of molten rock that rise towards the surface from the interiors of a planet.
- They push-through the mantle layers and accumulate at the base of the crust.
- This warm plume material pushes against the surface, uplifting and stretching the crust, causing earthquakes, faulting, and volcanic eruptions.
- Molten rock from the plume then erupts as flood basalts that create vast volcanic plains.
- **On Earth** - This geological phenomenon can also be witnessed on Earth in Hawaii.
- The island chain of Hawaii formed as the Pacific plate slowly drifted over a mantle plume.



References

1. [The Hindu - Evidence of a giant mantle plume found on Mars](#)
2. [Space - Mars sports massive hidden plume of searing rock](#)

Eat Right Schools Initiative

Chandigarh has implemented the 'Eat Right School' initiative and to focus on 100 government schools in the first phase of this initiative.

- Eat Right School was launched by the Food Safety and Standards Authority of India (FSSAI) as part of '[Eat Right India](#)' movement.
- **Aim** - Creating awareness about food safety, nutrition & hygiene among school children, and through them among the community at large.
- The plan is to assess the quality of food served in canteens and replace them with a healthy and nutritious diet.
- It is designed to deliver and reinforce the message of safe and nutritious food through both curricular and co-curricular activities.
- An ***Eat Right Matrix*** a monitoring and evaluation tool has been developed for the schools to be certified as Eat Right School.
- It also ensures an enabling legislative and regulatory in both government and private schools across the country.

Food Safety and Standards Authority of India

- The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006.
- Ministry of Health & Family Welfare is the Administrative Ministry of FSSAI.
- FSSAI enforces various provisions of the 2006 Act, to establish a single reference point for all matters relating to food safety and standards.

References

1. [Indian Express - 'Eat Rights Schools' initiative in Chandigarh](#)
2. [Eat Right School](#)
3. [Food Safety and Standards Authority of India](#)