



DAILY CURRENT AFFAIRS 27-01-2024

GS-1

1. Why is there no snowfall in Kashmir?
2. Cape Verde

GS-3

3. Gujarat International Finance Tec-City – International Financial Services Centre (GIFT IFSC)
4. NASA's Mars Helicopter Ingenuity
5. Operation Sarvashakti

Why is there no snowfall in Kashmir?

Syllabus: GS-1: Indian Geography – Climate.

Context:

- *Why Kashmir and Ladakh are without snow this winter, its implications.*

Gulmarg Tourism Impact:

- *Lack of snow in Gulmarg, a popular winter tourism spot in Kashmir.*
- *Decrease in tourist numbers and negative impact on ski resorts.*

Tourist Statistics:

- *In January last year, 95,989 tourists visited Gulmarg, including 547 foreigners.*
- *Preliminary data for the current month indicates a significant drop, around 60% lower footfall.*

Snowfall Importance Beyond Tourism:

- *Snowfall is not only a tourist attraction but also essential for various local aspects.*
- *Vital for local climate, winter crops, horticulture, and water availability in streams and rivers.*
- *Plays a significant role in supporting the local economy.*

Dry Winter Impact:

- *Lack of snow is not only in Gulmarg but widespread across Jammu and Kashmir and Ladakh.*
- *Unusual dryness during the winter season.*



Precipitation Deficit:

- *Significant rainfall deficit in Jammu and Kashmir in December (80%) and no rainfall in January.*
- *Ladakh experienced no precipitation in both December and January.*

Changing Snowfall Patterns:

- *Traditional snowfall in the region usually starts in the first half of December and continues through January.*
- *Recent years have shown a declining trend in snowfall.*
- *Factors include a decline in western disturbance events, rising temperatures linked to climate change, and the current El Nino event in the Pacific Ocean contributing to this year's conditions.*

Western Disturbances Overview:

- *Primary cause of winter precipitation in the Himalayan region.*
- *Large eastward-moving wind systems originating beyond Afghanistan and Iran.*
- *Collect moisture from the Mediterranean Sea and even the Atlantic Ocean.*

Role in Indian Rainfall:

- *Major contributors to India's annual rainfall, especially in the post-monsoon and winter months.*
- *Alongside the southwest monsoon (June to September) and the northeast monsoon.*

Winter Western Disturbances:

- *Usually, four to six events occur every month during winters.*

- *This season experienced only one weak event in December and another in January.*

Declining Trend:

- *Western disturbances have been decreasing in frequency in recent years.*
- *Studies show a decline of up to 43% in the mean frequency of strong and extreme Western Disturbances.*
- *The decline in precipitation during winter months in northern regions is attributed to this trend.*

Temperature Impact:

- *Rising temperatures in the region, particularly in upper elevation areas.*
- *Temperature increase more pronounced in higher elevations than in plains.*
- *The comparison of temperatures in Kashmir and Delhi during this winter indicates the warming trend.*
- *The decline in both the frequency of western disturbances and rising temperatures contributes to reduced snowfall.*

El Nino Impact:

- *El Nino has been persisting for the past few months and is expected to continue.*
- *It affects global atmospheric circulation, potentially contributing to the precipitation deficit in the Jammu and Kashmir region.*

Historical Dry Winters:

- *Several years in the last decade, including 2022, 2018, and 2015, have witnessed relatively dry winters in Jammu and Kashmir.*
- *Snowfall has been notably low in these years.*

Role of El Nino:

- *El Nino is considered a contributing factor to the current winter's dry conditions, influencing atmospheric patterns.*
- *El Nino is not the sole reason for the decline in winter precipitation.*
- *Even in years without El Nino, like 2022, 2018, 2015, 2014, 1998, and 1992, there have been instances of low snowfall.*

Climate Change Contribution:

- *Experts, including A P Dimri, suggest that the declining snowfall in Kashmir may be a direct consequence of climate change.*
- *Studies point in the direction of climate change playing a role in the observed trends.*

Short-Term Repercussions:

- **Forest Fires:** *Increase in the likelihood of forest fires due to dry conditions.*
- **Agricultural Drought:** *Shortage of water affecting agriculture.*
- **Crop Production Drop:** *Reduced winter snow impacting crop production.*

Long-Term Implications:

- **Hydroelectricity Generation:** *Expectation of lower generation due to less snowfall affecting water availability.*
- **Glacier Melting:** *Increased rate of glacier melting.*
- **Drinking Water Supply Impact:** *Adverse effects on drinking water supply as scanty snowfall means less groundwater recharge.*

Affect on Winter Crops:

- *Winter snow provides crucial moisture to the soil.*
- **Horticulture Impact:** *Reduction in yields of vital crops like apples and saffron.*
- **Economic Impact:** *Adverse effects on the local economy due to the importance of these crops.*

Cape Verde

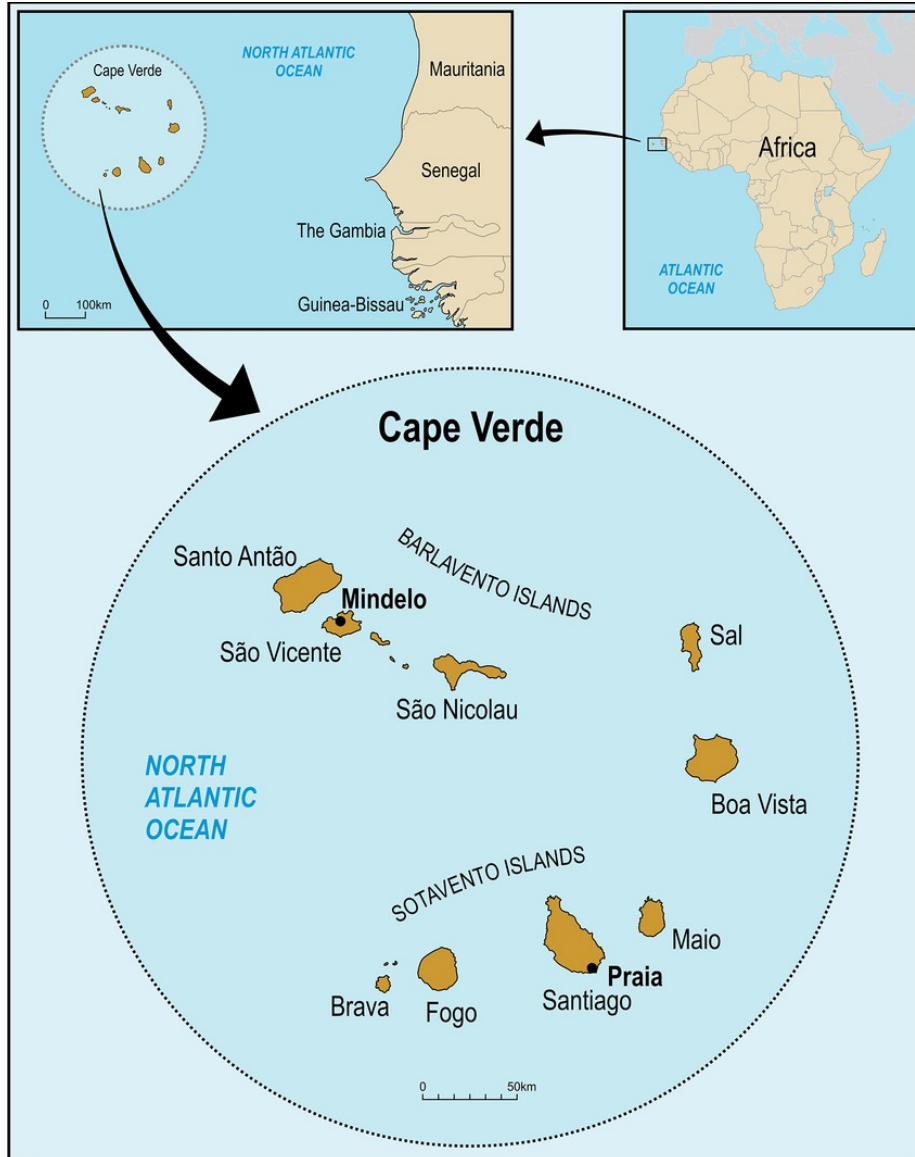
Syllabus: GS-1; Geography- Mapping; GS-3; General Science

Context

- *WHO certifies Cabo Verde as **malaria-free**, marking a historic milestone in the fight against malaria*

About

- *Cape Verde officially the Republic of Cabo Verde, is an **archipelago and island country of West Africa** in the **central Atlantic Ocean**, consisting of ten volcanic islands with a combined land area of about 4,033 square kilometres (1,557 sq mi).*
- *The Cape Verde islands form part of the **Macaronesia ecoregion**, along with the Azores, the Canary Islands, Madeira, and the Savage Isles.*
- *The Cape Verde archipelago was uninhabited until the 15th century, when **Portuguese explorers discovered and colonized the islands**, thus establishing the first European settlement in the tropics.*
- *Because the Cape Verde islands were conveniently located to play a role in the **Atlantic slave trade**, Cape Verde became economically prosperous during the 16th and 17th centuries, attracting merchants, privateers, and pirates.*
- *It declined economically in the 19th century after the suppression of the Atlantic slave trade, and many of its inhabitants emigrated during that period.*
- *However, Cape Verde gradually recovered economically by becoming an important commercial center and useful stopover point along major shipping routes.*
- **Cape Verde became independent in 1975.**



More to know

- Cabo Verde is the third country to be certified in the WHO African region, joining **Mauritius and Algeria** which were certified in 1973 and 2019 respectively.
- Malaria burden is the highest on the African continent, which accounted for approximately 95% of global malaria cases and 96% of related deaths in 2021.

Significance

- Certification of malaria elimination will drive positive development on many fronts for Cabo Verde.
- Systems and structures built for malaria elimination have **strengthened the health system** and will be used to fight other mosquito-borne diseases such as dengue fever.

- *This has the **potential to attract more visitors and boost socio-economic activities** in a country where tourism accounts for approximately 25 per cent of GDP.*

Gujarat International Finance Tec-City – International Financial Services Centre (GIFT IFSC)

Syllabus: GS-3; Finance Market

Context

- *The central government issued a notification allowing the direct listing of shares of Indian companies on the international exchanges based at **GIFT City in Gujarat's Gandhinagar**, a move that is likely to boost flow of foreign funds into the country.*
- *As per a notification issued by the union finance ministry, the eligible exchanges are: **India International Exchange and NSE International Exchange.***

Significance

- *This policy initiative, to enable listing of Indian companies in GIFT-IFSC, will **reshape the Indian capital market landscape** and offers Indian companies, especially start-ups and companies in the sunrise and technology sectors, an alternative avenue to access global capital beyond the domestic exchanges*
- *This is expected to **lead to better valuation of Indian companies** in line with global standards of scale and performance, boost foreign investment flows, unlock growth opportunities and broaden the investor base*
- *The public Indian companies will have the flexibility to access both markets i.e. domestic market for raising capital in INR and the international market at IFSC (International Financial Services Centres) for raising capital in foreign currency from the global investors.*
- *This initiative will particularly **benefit Indian companies** going global and having ambitions to look at opportunities for expanding their presence in other markets.*
- *It is also expected to **provide a boost to the capital market ecosystem** at GIFT-IFSC by provision of new investment opportunities for investors, diversification of financial products and by enhancing liquidity.*

About- Gujarat International Finance Tec-City – International Financial Services Centre (GIFT IFSC)

- *GIFT-IFSC is a **tax neutral financial centre**, which aims to compete with hubs like **Singapore** as it provides fiscal incentives and an easier regulatory environment.*

*Exchanges based at the Gujarat International Finance Tec-City (GIFT City) under the regulatory supervision of the **International Financial Services Centres Authority (IFSCA).***

NASA's Mars Helicopter Ingenuity

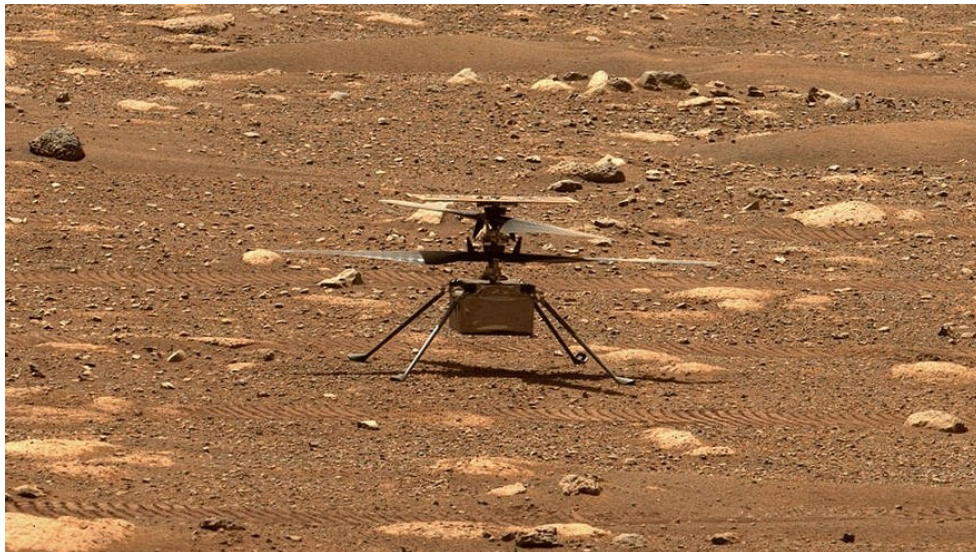
Syllabus: GS-3: Science and Technology – Space.

Context:

- *NASA's groundbreaking Mars helicopter mission has ended.*

Ingenuity Overview:

- *Autonomous helicopter nicknamed Ginny.*
- *Operated on Mars from 2021 to 2024.*
- *Part of NASA's Mars 2020 mission.*

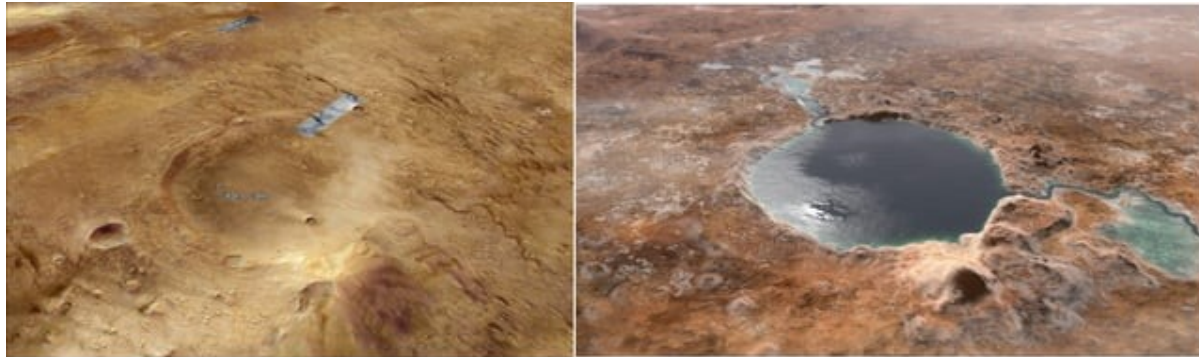


Arrival and Deployment:

- *Arrived attached to the Perseverance rover.*
- *Deployed to the Martian surface on April 3, 2021.*

Mission Start:

- *Began missions at the **Octavia E. Butler Landing site near Jezero crater.***



Historic Flight:

- *Made the first powered, controlled extraterrestrial flight on April 19, 2021.*

Atmospheric Challenges:

- *Demonstrated ability to fly in Mars' thin atmosphere (0.6% as dense as Earth's).*

Autonomous Operations:

- *Operated autonomously due to communication delays between Earth and Mars.*

Operational Scouting:

- *Used for aerial scouting to aid Perseverance rover's exploration.*

Unexpected Success:

- *Exceeded altitude and flight duration specifications.*
- *Performed more flights than initially expected.*

Retirement:

- *Damaged on 72nd flight, retired on January 18, 2024.*
- *Flew a total of two hours, eight minutes, and 48 seconds in 1,004 days, covering more than 10 miles.*

Design and Collaboration:

- *Designed by NASA's Jet Propulsion Laboratory (JPL) in collaboration with AeroVironment, NASA's Ames Research Center, and Langley Research Center.*
- *Key contributors included Lockheed Martin Space, Qualcomm, and SolAero.*

Operation Sarvashakti

Syllabus: GS-3; Defence and Security

Context

- *The Indian Army has decided to launch a large-scale **anti-terror operation**, Operation Sarvashakti, in Jammu and Kashmir, following multiple recent terror attacks in the Poonch and Rajouri regions.*

About

- *The operation incorporates **counter-terrorist attempts** from not one but actually, both sides of the **Pir Panjal range**.*
- *The simultaneous operations will be conducted by security forces such as the **White Knight Corps and the Chinar Corps**.*
- *The operation will be a combined effort of the Special Operations Group, CRPF, and the Jammu and Kashmir Police, and the aim will be to put an end to the revival of terrorism, specifically in the Rajouri Poonch sector.*

Significance

- *The operation recognizes the importance of **winning the hearts and minds of the local populace**.*
- *The operation has led to the **elimination of nearly 100 terrorists**, the seizure of significant arms and ammunition, and the dismantling of 40-50 terrorist hideouts.*

Know more

- **Operation Sarpvinash**, a similar project, also made robust attempts at eliminating terrorists in the area of the Pir Panjal range. The operation was launched in the year 2003.