

Pamir-Karakoram Mountains

Prelims: Current events of national and international importance | Geography

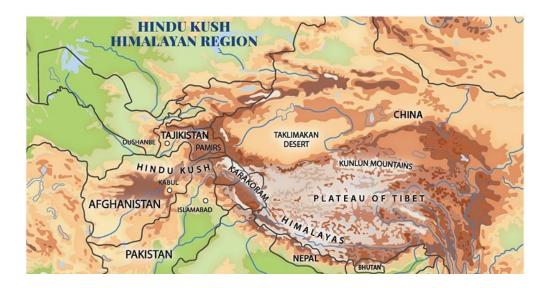
Why in news?

Scientists are studying ice cores from the Pamir Mountains to understand the Pamir-Karakoram anomaly—a rare phenomenon. These ice cores may hold clues to protecting glaciers globally.

- Location It spans the Karakoram range (Pakistan, India, China) and the Pamir mountains (Tajikistan, Afghanistan, China).
- The Pamir Mountains are known as 'The Roof of the World' & Karakoram is often called the "Backbone of High Asia".
- Pamir-Karakoram Anomaly A rare climatic phenomenon where glaciers in the Pamir and Karakoram mountains *resisted melting and even slightly grew*, unlike the global trend of retreat.
- The Pamir-Karakoram region is the *only mountainous area* on Earth where this phenomenon exists.

Location of Expedition - Ice cores were drilled from the **Kon-Chukurbashi ice cap** in the Pamir Mountains, Tajikistan, at an altitude of 5,810 m.

- **Duration** It is observed from the late 20th century until around 2018, when signs of decline began.
- Causes Linked to unique regional climate patterns, including increased winter precipitation, cooler summers, and circulation anomalies that favoured glacier stability.
- UNESCO's List The Karakorum-Pamir region is part of <u>UNESCO's Tentative List</u> submitted by China.
- **Habitats** High-altitude desert and steppe ecosystems.



Other Features

- Pamir Knot It serves as a junction for <u>5 major mountain systems</u> -
 - Himalayas Extend to the southeast.
 - Karakoram Radiate southeastward, between the Himalayas and the Kunlun.
 - Hindu Kush Extends to the west and southwest.
 - Tian Shan Radiates to the north and northeast.
 - Kunlun Extend to the east.
- **Highest Peaks** Includes K2 (8,611 m), Ismoil Somoni Peak (7,495m), Kongur Tagh (7,719 m), Mt. Muztag Ata (7,546 m), and Jiubie Mountains (7,530 m).
- Unique Landforms Mud volcanoes in Muji Valley, alpine lakes (Kalakule, White Sandy).
- **Glaciers** Fedchenko Glacier, which is in the Pamir mountain (the longest outside polar regions) & Siachen and Baltoro glaciers in the Karakoram.
- Other glaciers include the Karakorums, Pamirs, Yinsugaiti (the longest in China), etc.

References

- 1. The Hindu | Scientific expedition on the ice cores
- 2. <u>UNESCO | Karakorum-Pamir</u>

