

# TSARAP CHU CONSERVATION RESERVE – ENVIRONMENT

**NEWS:** Recently, Himachal Pradesh notified Tsarap Chu Conservation Reserve under the Wildlife (Protection) Act, 1972.

## WHAT'S IN THE NEWS?

### Overview of Tsarap Chu Conservation Reserve

- Tsarap Chu Conservation Reserve is the fifth such reserve notified in Himachal Pradesh and holds the distinction of being the largest conservation reserve in India, covering an expansive area of 1,585 square kilometres.
- The other four conservation reserves in Himachal Pradesh are Darlaghat, Naina Devi, Potter Hill, and Shilli, which together reflect the state's increasing commitment to biodiversity preservation.
- The declaration of Tsarap Chu as a conservation reserve was made under Section 36A(1) of the Wildlife (Protection) Act, 1972, a provision that empowers state governments to designate ecologically important areas as conservation reserves, particularly where local communities are involved in wildlife protection and ecosystem security.



### Geography and Hydrology of the Tsarap Chu River

- The Tsarap Chu (or Tsarap River) is a remote, high-altitude river that flows through the rugged and dramatic landscapes of the Zaskar region in the Indian Himalayas.

- Its origin lies in glacial streams on the Rupshu plateau, a cold desert area in the Trans-Himalayan region of Ladakh.
- After originating, the river briefly runs along the Manali-Leh highway north of the Baralacha Pass, one of the highest motorable passes in the Himalayas, before turning northwest and flowing through steep mountain terrain.
- One of the most striking features of the river is the deep gorge through which it flows, narrowing down to just 3 metres in width at certain points, highlighting the extreme geographical features of the region.
- The river passes by the renowned Phuktal Monastery, a unique Buddhist monastery built into a cliffside cave, accessible primarily by foot.
- Tsarap Chu joins the Kargiakh River coming from the Shingo-La Pass, and the two together form the Lagnak River, whose name means “dark gorge” – a reference to the narrow, intimidating nature of the landscape.

### Geographical Boundaries and Location

- The Tsarap Chu Conservation Reserve is located in the remote and ecologically sensitive Spiti Valley of Himachal Pradesh.
- It shares its northern border with the Union Territory of Ladakh, and its eastern edge touches the Kibber Wildlife Sanctuary, another important protected area in the Trans-Himalayan region.
- The Kabjima Nala forms its southern boundary, while to the west, it borders the Chandratal Wildlife Sanctuary, establishing Tsarap Chu as a connecting corridor between multiple conservation landscapes.

### Ecological Significance

- The reserve includes the confluence of the Unam River and Charap Nala, which adds to its hydrological and ecological importance by sustaining fragile alpine watersheds.
- Situated within the Trans-Himalayan biodiversity hotspot, the area supports delicate alpine ecosystems characterized by sparse vegetation, extreme climatic conditions, and unique biodiversity.
- The conservation reserve functions as a critical wildlife corridor between Kibber and Chandratal wildlife sanctuaries, enabling gene flow and seasonal movement of high-altitude wildlife.

- It plays an important role in protecting snow-fed river catchments, contributing to climate resilience by maintaining the health of alpine flora and fauna, which are vulnerable to rising temperatures and habitat fragmentation.

### Rich Faunal Diversity

- The flagship species of the reserve is the Snow Leopard, a globally endangered predator often referred to as the “ghost of the mountains” for its elusive and secretive nature.
- Other prominent mammals in the region include the Tibetan wolf, Himalayan ibex, bharal (also known as blue sheep), Tibetan argali (a type of wild sheep), and the kiang, which is the largest wild ass species found on the Tibetan Plateau.
- The reserve is also home to a variety of rare and high-altitude bird species, including the Rose Finch, Tibetan Raven, and Yellow-billed Chough, indicating its significance for avian biodiversity.

### Significance and Benefits of the Conservation Reserve

- The formal notification of the Tsarap Chu Conservation Reserve reinforces efforts to protect endangered Himalayan species and their habitats, particularly those residing in high-altitude, low-disturbance ecosystems.
- It contributes to international conservation targets, such as those outlined in the Convention on Biological Diversity (CBD), by preserving a vital and fragile part of the global alpine ecosystem.
- The reserve is anticipated to generate livelihood opportunities for local communities through the promotion of eco-tourism, trekking, wildlife photography, and scientific research, offering sustainable income streams in a traditionally marginalized region.
- The model promotes community-based conservation, involving local residents as active stewards of biodiversity, and aligns with the idea of people’s participation in environmental protection efforts.
- By combining conservation goals with livelihood development and local involvement, the reserve sets an example of inclusive and sustainable environmental governance in India’s high-altitude landscapes.

Source: <https://www.downtoearth.org.in/wildlife-biodiversity/indias-largest-protected-area-comes-up-in-spiti-valley>