

L-G VK Saxena launches mega project to revive dying Tso Kar Lake in Ladakh using untapped glacier water

320 Million Litres per day of water from Rupsho Kharnak glacier stream at an altitude of 18,000 feet, channelised into the Lake

Tso Kar has desiccated by nearly 70% in last one decade



Leh, 13 September 2026:

Having successfully channelised 90 million litres of Stok Glacier water into Igoo-Phey and Chuchot village canals to irrigate parched land near Leh, Lieutenant Governor Shri Vinai Kumar Saxena has now taken up a larger project of channelising another glacier stream – Rupsho Kharnak in Changthang District – to revive and rejuvenate the dying Tso Kar Lake, at a high

altitude of nearly 15,000 feet.

The project envisages channelising an average of 132 cusecs or 320 million litres of untapped glacier water per day, from the Rupsho Kharnak stream to the Tso Kar Lake, which has drastically reduced by almost 70% in the last one decade. Incidentally, this entire volume of untapped water, at present, goes to waste into the Sindhu River. Tso Kar, one of the most iconic glacial lakes in Ladakh, which was originally spread over nearly 11,000 acres, has now reduced to just 3200 acres. Consequently, the lake, once a thriving habitat of migratory birds and the famed Black-Necked Crane, is also rapidly vanishing, with only a small number of birds arriving at the site now.

By fully utilising this volume of water, it is expected that the Tso Kar Lake will be revived to its original glory in a period of one year.

This is the first and only attempt of this nature and magnitude in India to revive a dying lake at this high-altitude and in such harsh conditions, where, most of the time, the temperature remains below 10 degrees in summers and in winter, goes down to minus 20 to 30 degrees.

The pioneering water management initiative was conceived by L-G Shri Saxena during his first visit to Tso Kar Lake on 10 August, where the local

villagers informed him that the majestic lake is rapidly shrinking and the avian population too had declined drastically.

The ambitious project focuses on recharging Tso Kar Lake by channelising untapped glacier meltwater from the Rupsho Kharnak stream, situated nearly 11 km from the lake, at a high altitude of 18,000 feet. The peak discharge from the Rupsho Kharnak stream during the summers is estimated at around 132 cusecs or 320 million litres per day.

The plan utilises three natural depressions located along the stream's downward flow, from the glacier towards the lake. The glacial runoff from the Rupsho Kharnak stream is being channelised into the first depression, which is spread over 270 acres. From the first depression, it will be transferred to the second depression, which is spread over 24 acres, and subsequently the water will be channelised to the third depression, which is spread over 10 acres. In each of the three depressions, a check dam with three RCC pipes will be constructed at the outlet to augment the water level and to control the flow downstream.

Finally, the water from the third depression will be regulated to flow directly into the Tso Kar Lake, located just 400 meters from the third depression. The water will be diverted utilising gravity flow through simple, low-cost earthworks, without constructing any concrete channels.

Starting 09 September, 20 cusecs of water from the Rupsho Kharnak glacier stream is being successfully diverted to the first depression, which has already started filling fast. The water is being channelised from the glacier through the earthen channel as well as a concrete canal lying defunct at the site since 1995. In 4 days, around 20 per cent of the area of the first depression has already filled.

Crucially, this cascading system would offer dual ecological benefits. Before the water reaches Tso Kar, the filling of the three natural depressions will create three entirely new, freshwater wetlands and transfer only pure water into the lake, as all sediments will be settled in three newly created water bodies. These newly created water bodies, measuring 270 acres, 24 acres and 10 acres respectively, will hold nearly 1230 million litres of water.

These new water bodies, visible from the adjoining Leh – Manali Highway, will serve as new tourist spots and, additionally, much-needed habitats for migratory birds, effectively strengthening the region's ecological character while simultaneously recharging the main lake.

“The success of the Stok Glacier project has proven that large-scale, sustainable water management is entirely feasible in our cold desert,

using simple engineering. By redirecting the Rupsho Kharnak stream, we aim to bring life back into Tso Kar Lake. The project stands as a vital blueprint for high-altitude ecological restoration. By transforming untapped glacier water into permanent lifelines, Ladakh is taking decisive steps toward agricultural prosperity, revitalised rural economies, and long-term climate resilience. This will ensure that the iconic landscapes like Tso Kar and the life they sustain are preserved for generations to come,” said LG Shri Saxena.

Notably, L-G Shri VK Saxena, during his visit to Tso Kar on 10 August 2026, was informed by the local villagers and Nambardar (village head) that the Lake was once a massive, thriving body of glacial water that sustained centuries of local salt trading and a delicate ecological balance. However, in recent years, the Tso Kar Lake has receded by nearly 70 per cent, leading to the dwindling of bird populations and the loss of grazing land. The vast, dry patches of land can be seen around the lake, where deep waters once stood.

Accordingly, the LG directed the PHE department to conduct a detailed survey of the area. Following 15 days of intensive groundwork and survey, the department submitted its report to the LG on 30 August, suggesting construction of an 11 km RCC channel. However, considering the ecological concerns, LG Shri Saxena suggested avoiding construction of any new RCC water channel in the area, and bringing water to the first depression only through a simple earthen channel. Also keeping in view the winter season ahead, when the water freezes, the work began on a war footing from 02 September to bring water from Rupsho Kharnak stream to the first large pond.

Notably, the revival of Tso Kar Lake will also have a major impact on the livelihood of the local communities. Most of the villagers surrounding Tso Kar Lake are Pashmina goat herders, and with the shrinking of the Lake, the grazing grounds for the Pashmina goats have also vanished. This has forced Pashmina herders to shift 50 to 75 kms away from their homes in search of grazing lands. Revival of this lake will create grasslands, livelihood opportunities for locals and bring even herders back to their homes.

Desiccation of Tso Kar Lake

