

Pioneering initiative by L-G VK Saxena saves 90 million litres of glacier water daily

Channelises it to Ladakh's parched farmlands



Leh, August 20: In a pioneering and visionary initiative led by the Lieutenant Governor, Shri Vinai Kumar Saxena, the Union Territory has successfully started utilising a massive 90 million litres of glacier water per day for sustainable water and agricultural security in Ladakh. Previously lost as untapped runoff into

the River Indus, this colossal volume of glacial-melt water from Stok village Nallah in Leh is now being directly channelised into the Igoo-Phey Irrigation Canal, catering to nearly 12 villages and augmenting irrigation of over 1000 acres of barren land that earlier remained parched due to paucity of water in the canal.

This landmark initiative uses simple earthwork to channelise and utilise the glacial runoff, without incurring any capital expenditure. This comes as a historic step toward transforming the region's agricultural productivity and realising the vision of a Green, Water-Secure, and Self-Sustaining Ladakh.

While Ladakh is endowed with abundant glacier and snowmelt resources, vast stretches of its cultivable land have historically faced acute irrigation shortages. The imbalance between the large volumes of untapped, draining water and the parched agricultural lands has, for ages, constrained rural livelihoods.

Recognising this critical gap, during his visits to various villages, L-G VK Saxena ideated and spearheaded a comprehensive, systematic campaign by identifying such places where large quantities of glacier water are flowing down the Indus River.

To ensure that every drop of glacier and snowmelt is harnessed for productive use rather than going to waste, the Lieutenant Governor first identified Stok village Nallah as one such place for diverting the glacier water into the existing canal. The Stok Nallah is fed by the Stok Kangri Glacier near Leh.

On the directions of L-G Shri Saxena on the 14th of August, the Irrigation and Flood Control Department successfully diverted excess glacier water

from the main water channel of Nallah to the Igoo-Phey Canal by creating two trenches using a JCB.

The discharge from Stok Nalla, flowing downstream and ultimately into the River Indus, was assessed at approximately 36.60 Cusecs (1 cusec is equivalent to 28.32 litres of water per second, i.e, approx. 90 million litres of water in 24 hours). However, two diversions have been created to channelise an additional 26 cusecs of water – 19 cusecs towards Igoo village (upstream) and 7 cusecs towards Phey village (downstream) – from the Stok Nalla into the Igoo-Phey Canal. Planning is underway to utilise the remaining 10 cusecs of water.

Notably, construction of the 43-kilometre-long Igoo-Phey Canal began in 1979 and was completed in 2005. During that period, about 200 meters of the Canal was constructed underground to allow Stok Nallah water to pass over it without disturbing the Canal's flow. This indicates that water was readily available when the project was conceived 47 years ago.

However, no one ever visualised the potential of this water source or undertook any step to harness this important resource for greater water security, until L-G Shri Saxena ideated this pioneering initiative to channelise abundant water into the canal. As a result of this neglect for decades, the Canal suffered water shortage year after year since its inception, and ultimately it was left defunct.

By intercepting and utilising this daily flow of 90 million litres, the administration has proven the feasibility of large-scale water diversion to bolster the region's cold desert agriculture. Crucially, this intervention will substantially augment the total water flow in the Igoo-Phey Canal, increasing it from the present 50 cusecs to nearly 80 cusecs.

Previously, water from the Igoo-Phey Canal was distributed to villages on a restrictive roster basis due to limited availability of water. Now, with the influx of excess water, supply will be guaranteed on a daily basis to all 12 villages, directly augmenting irrigation across thousands of acres of land.

Consequently, farmers will experience higher crop yields, leading to increased farm incomes, greater employment opportunities, and a revitalised rural economy.

“By successfully saving 90 million litres of glacier water daily and diverting this huge volume of water from the Stok Nallah into the Igoo Phey and Yokyur canals, we have proven that large-scale, sustainable water management is entirely feasible in our cold desert. This is a monumental step toward our vision of a Green, Water-Secure, and Self-Sustaining Ladakh. Our administration's unwavering commitment is to harness every

single drop for irrigation. This successful model is just a blueprint. We will expand these cost-effective interventions across Ladakh, transforming scattered glacier flows into a permanent lifeline for agricultural prosperity, revitalised rural economies, and long-term climate resilience for the people of Ladakh," said LG, Shri Saxena.

The success at Stok Nallah serves as a blueprint for a Union Territory-wide water management revolution. The administration has already identified several other streams in the vicinity of the Igoo-Phey Canal system for similar interventions, including: Matho Nallah, Tuchik Chenmo Nallah, Tuchik Chon Nallah and Stakna Nallah.

All projects will strictly adhere to the principles of cost-effective, gravity-based engineering, minimal wastage, and environmental sustainability.

By integrating scattered glacier flows into a robust irrigation infrastructure, this decentralised water-resource model would guarantee agricultural prosperity through reliable irrigation supplies, expansion of command areas, and improved crop intensity. This would eventually spur economic growth in terms of higher crop yields, leading to increased farm incomes, greater employment opportunities, and a revitalised rural economy.