

From Leh comes a mountain of ideas



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New Delhi: "I would say that the award was for India," said Sonam Wangchuk of the Rolex Awards for Enterprise that he won this year. The honour is conferred on individuals involved in extraordinary projects that have the capacity to improve lives or preserve world culture. Even without the publicity surrounding his latest achievement, the Leh-based mechanical engineer and educationist isn't an unknown name, being popularly considered to have inspired the character of Phunsuk Wangdu, the protagonist of Aamir Khan's film, *3 Idiots*. But mass adulation is far from the 50-year-old's mind. His focus is on helping the people of his desertified Ladakh—from disadvantaged students to farmers despairing over lack of water.

Speaking at the Future Talks event, organised by think tank Future Institute, on Friday, Wangchuk gave a peep into how his mind works. He knew of Padma Shri awardee Chewang Norphel's idea of using artificial glaciers for irrigating the arid fields of Ladakh. But he took it to another level—in the process halting the all-too-quick evaporation of the glacier in the summer sun—by devising a pyramid of ice.

"I constructed a vertical ice structure that is conical in shape and resembles the traditional Buddhist stupa," said Wangchuk. He explained



MAN OF HOPE: Sonam Wangchuk's ice pyramid (top) has come as a game-changer in irrigating fields in the arid Ladakh region

ned that since a cone geometrically has the minimum surface area but the maximum volume, the shape protects the ice from being too exposed to the sun's heat. Ingeniously, he also employed gravitational force to access the water. The meltwater seeps into buried pipes, where the difference in height and pressure causes the water to rise and erupt out from an opening at the top. "The water emerges in droplets that have less latent heat. It would freeze instantly in temperatures of under -20 degrees Celsius," he pointed out.

Wangchuk's stupas have helped villagers irrigate their cropland as well as water the 500 trees planted in the barren expanse.

However, this is not Wangchuk's sole achievement. Since the early 1990s, he had been running the Students' Educational and Cultural Movement of Ladakh

(SECMOL). "It is a self-reliant, solar-powered school that takes in students who are rejected by conventional education," said Wangchuk. Claiming that being forced to study languages such as English and Urdu led to 95% of students failing their exams, Wangchuk said he collaborated with the state government and the village community to reform the government school systems under 'Operation New Hope' and reversed the pass percentage spectacularly.

The innovator hopes to start the Himalayan Institute of Alternatives with the subjects of focus there being mountain development and solutions to problems that mountain people face. "It will offer courses in farming, tourism and businesses suited to mountains and will generate its finances from the innovations of the students," he said.