

Saving Snow Leopards in Mustang, Nepal



Field Notes, July 2005
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Rodney and I flew half an hour from Kathmandu to Pokhara. The heavy air of pre-monsoon lay hot and humid over the peaceful town. It was another half-hour's early morning flight from Pokhara to Jomsom, climbing above the clouds and slipping through a chute of snowy peaks to land beside the Kali Gandakhi River.

We had sent several messages to our Mustang Field Director, Chhimi Rinzin Gurung, to meet us in Jomsom with horses to carry us and our two duffle bags up into the high, snow leopard country of Upper Mustang. There'd been no response, and when we checked in at the Annapurna Conservation Area Program (ACAP) offices we learned the probable reason: the phone at Lo Manthang—the ancient walled city where Chhimi was born and raised, and the base of operations for SLC's activities in Upper Mustang—wasn't working.

That there is a phone at all in Lo Manthang seems remarkable, given its remote location almost within sight of the Tibetan border, and the centuries of history that you can feel within its high red adobe walls. There are records of events in Lo Manthang as early as the 8th century, but the founding of Lo as a kingdom is attributed to Ame Pal in 1380. According to Stan Armington (one of the first western visitors to Mustang when the region was officially opened for tourism in 1992), the ancestry of the present Mustang Raja can be traced back 25 generations to Ame Pal. Mustang remained a separate principality until 1951, when Nepal's King Tribhuvan peacefully incorporated the region. And peace still prevails, with Mustang being one of a handful of places in Nepal that are free of Maoist insurgents.

We would have to start out walking and hope that Chhimi had in fact gotten word and that we'd meet him on the trail—with luck sooner than later. We

had just sixteen days to spend in Upper Mustang, and even with horses it was a three-day journey each way to cover the sixty miles between Jomsom and Lo Manthang. We hired two porters to carry our bags and walked to Kagbeni with a strong wind at our backs threatening to lift us off our feet.

That evening, Chhimi arrived. For ten days he'd been escorting a group of United Nations Development Program monitors around the Upper Mustang Biodiversity Project sites (with which our activities are affiliated). He'd returned to Lo after seeing them to Jomsom, and turned around the next day to come back for us!

I was really grateful for my little horse called *Kang-ba!* I think I might still be walking up the last pass if not for this "Little Engine that Could." The horses carried us on all but the steepest and rockiest of "ups," and we dismounted and walked the "downs." In that way we covered some twenty miles per day, through country that grew increasingly more awesome the closer we got to Lo. We would start out early each morning and enjoy several hours of calm, sun-drenched riding before the wind began to blast, kicking up great hurricanes of sand. Bliss was a bath in a clean lodge at the end of the day.



Photo by Broughton Coburn

You don't see Lo Manthang until you stand atop the final long pass. Though it's called a city, village or settlement better describes the assemblage far below of sand-colored houses and red-earth temples surrounding a palace painted white. In July, fields of green-gold barley, nearly ready to be harvested,



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stretched upslope and down from the high red walls. Here and there groves of dark-green poplar trees reinforced the miracle of water in a landscape sucked dry by the sun and the searing wind.

Even from our high vantage point we felt dwarfed by the panorama that has helped to give Lo its aura of mystery and fascination as the last hidden kingdom—tier upon tier of treeless ridges washed in the colors of cumin, turmeric, cayenne, charcoal and chalk, separated by deep, hushed gorges.

Chhimi's photo shows LoManthang in winter



And high on the horizon lie the snow-covered Annapurna mountains.

Ten days remained for us to spend in Lo and the surrounding areas where Chhimi has been working with the herders to protect snow leopards.

A Sad Snow Leopard Story

We rode north from Lo for several hours to the village of Sam Dzong. We had learned to our dismay from Chhimi and the staff of ACAP that a villager named Babu had not been so forgiving as our herder friend above. He'd been arrested for poisoning a snow leopard earlier this year. The leopard had killed one of Babu's horses, a loss to the man of at least 20,000 rupees, and possibly as much as 40,000 rupees (\$300-600).

In retaliation Babu had poisoned the carcass. Then, as once was the tradition for anyone killing a snow leopard, he had stuffed the dead leopard's skin with straw and paraded it through nearby settlements, soliciting rewards for his "bravery." Surely Babu acted in the passion of the moment, forgetting the agreement he had signed—as a member of the Sam Dzong Corral Users' Committee—and ignoring the fact that it's illegal to kill an endangered species. Babu could be sentenced to fifteen years in prison and a fine of 100,000 rupees (\$1450), which would take years to pay, if ever. His crime has been covered by the Nepalese radio and other media. Not only has he brought hardship to his family, he has brought shame to himself and to his village. If something good can come out of this, it's that the example being made of Babu will deter others from doing what he did.



With Babu away from the village awaiting trial, we met with Tensing Dandup, leader of the Corral Users' Committee. We wanted to hear his report, on behalf of the community, on the predator-proofed corral constructed in 2003—the first initiative of its kind in Upper Mustang.

Tensing Dandup said the villagers are very pleased with the enclosure, which has successfully resisted at least one attempt at entry by a snow leopard. Yet, as we inspected the corral Tensing confirmed Chhimi's earlier report that it is actually too small to accommodate the entire herd of goats and sheep owned by the 22 households, and that in addition the structure is in need of maintenance. Tensing also mentioned that the herders were unable to agree on how to allocate the dung produced by the corralled animals (used for fertilizer and fuel).

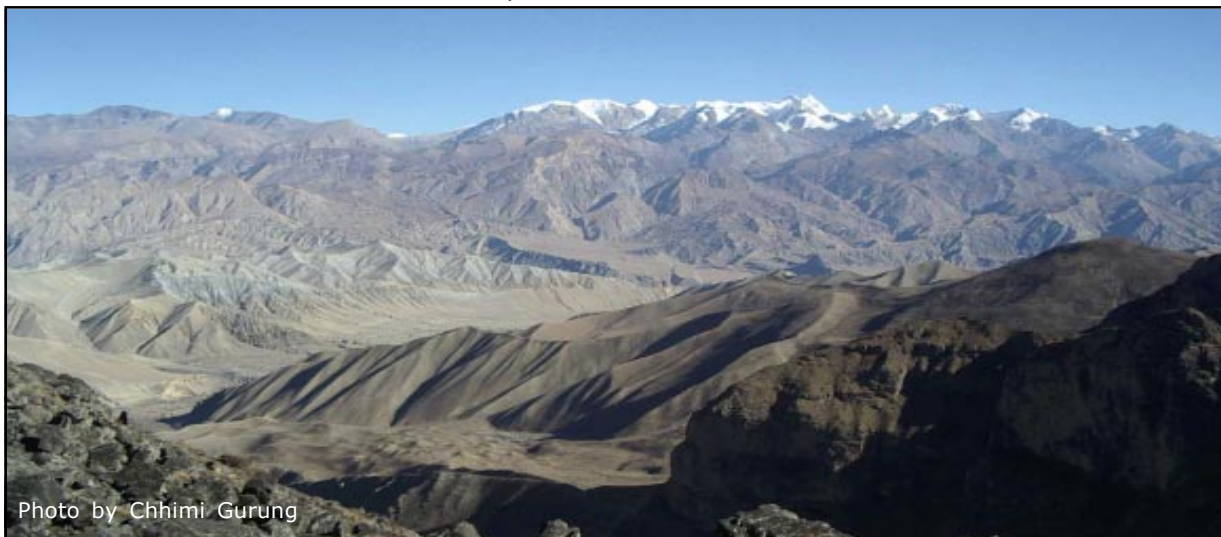


Photo by Chhimi Gurung

This was a learning experience both for Sam Dzong's herders and for the Snow Leopard Conservancy. The herders learned that they should have accurately reported their livestock holdings. Their under-estimation, rooted in the government's efforts to collect a per-head tax, resulted in the undersized corral.



Chhimi will continue to work with the herders to identify ways to reinforce their sense of ownership of the corrals, and to build upon the trust gained through the construction of this corral and our decision for the time being not to suspend them from our program. While we do not blame Sam Dzong village for Babu's actions, this community will have to demonstrate under Chhimi's guidance a firm commitment to protect snow leopards and uphold the contract they signed in 2003.

On our part, the Snow Leopard Conservancy learned that in the future we will have to hire a capable *mistri* (stone mason), and better oversee corral construction (see *Taking a Lesson ... from the Monastery Restoration Program*).

Snow Leopard Conservation on the High Pastures

From Sam Dzong, we traveled northwards to the high yak pastures (16,500 feet) at Dalung. These rolling uplands support a small but very important population of *kiang* (Tibetan wild ass) and Tibetan gazelle. While we saw only 2 *kiang* and 3 gazelle, an ACAP wildlife team had spotted several dozen animals of both species in the same area three weeks earlier. Further west, a border fence on the Chinese side is

affecting the ability of these animals (Nepal's only populations) from migrating back and forth.

We continued on eastward to the nomadic herder camp, Chhosum, to investigate why the solar electric fence that Chhimi installed there was not working properly. The herder camp is a good place to test whether this type of fencing will prove effective at protecting livestock. If it can be made to work properly to contain the sheep and goats, it will be further tested on "hotspot" pastures where livestock is vulnerable at night to snow leopard predation but where the use of traditional stone-walled corrals is hampered by both a lack of stones and enough people to do the construction.

The solar fence forms an approximate square with each side about 80 feet long. There are five wires 8-12 inches apart. The Chhosum pasture is used by two families from May through September or October. They own 510 sheep and 15-20 goats. The structure easily contains the herd, with about a third of the space being unused.

We determined that the reason the fence was inconsistently delivering a shock was due either to a faulty energizer, improper earthing, or the lack of conductivity in the dry soils of the pasture.



We watched as the three shepherds took about twenty minutes to separate lambs from their mothers and herd the flock into the solar pen for the night.

On later experimentation we discovered that we need more earthing rods. They will be added and some other modifications will be made according to consultation with our expert Broughton Coburn, and this trial will continue through the summer.

Chhimi's photo on the next page illustrates that after 5-7 days, the sheep and goats entered the solar fenced enclosure willingly, and had learned to stay away from the energized wires.



Snow Leopard Education in the Schools

This year Chhimi, with Madhu Chhetri, who manages the Biodiversity Conservation Project, visited two schools in Lo Manthang to teach some 170 students about snow leopards. The program was very popular with both students and teachers, and Chhimi feels it is time to hand the program over to one or two local teachers. Chhimi will use the updated education materials that we provided to train teachers new to experiential learning.



Taking a Lesson for Snow Leopard Conservation from the Monastery Restoration Program

Predator-proofed corrals of the traditional stone and mud construction require regular maintenance. We are helping herders establish a communally managed Corral Maintenance Fund, by requiring that all users pay in a nominal fee of two rupees per year.

An alternative to the traditional construction may lie in the example of the Lo Manthang City Wall Restoration Project, which is repairing the 23-foot-high rammed-earth wall that has enclosed Lo for hundreds of years. Chhimi proposed that we use the rammed-earth technology to build a simpler version of the Lo wall, high enough that a snow leopard couldn't jump over, and that wouldn't need a wire-mesh roof. We met with the wall architect and concluded that—if the community is willing to contribute their labor—we could build corrals in a more sustainable, cost-effective, and longer-lasting

way than our dry stone-wall structures. Chhimi will oversee construction of a trial enclosure this summer.

Improving Rangelands Helps the Natural Prey of the Snow Leopards

The rangelands of Chhoser village, near Lo, are seriously overgrazed. The village became more dependent on animal husbandry after the destruction of most of their fields by a glacial lake outburst seventeen years ago. Livestock was once taken to Tibet during the summer, allowing the home pastures to recover after their heavy winter use. While that is no longer allowed, huge flocks of Tibetan goats destined for Nepal's annual *Desai* sacrifice travel through and graze on Chhoser's pastures.



We urged the subcommittee to visit the trial forage plot in Lo Manthang and submit a proposal to the Community Trust Fund to establish a fodder farm in Chhoser.

Chhoser's Pasture Management Subcommittee members described their current efforts to regulate the harvesting of bushes for fuel, and their attempts at encouraging forage production by the

villagers. Forage farms were first suggested three years ago, when Rodney visited Mustang with rangelands expert Camille Richard. Most of the Subcommittee members are young men who are eager to try new pastoral and agricultural approaches. Now we have to focus on getting the support and agreement of some of the more conservative elders.

What's Next in Saving Nepal's Snow Leopards

With your help, we can continue building on this program by:

- Predator-proofing corrals in ten other hotspots in Mustang;*
- Expanding the program to Manang, Shey-Phoksundo National Park, & the Mt. Everest Area;*
- Purchasing 30 remote cameras and holding a camera-trapping training workshop.*

Thank you for being a partner in saving snow leopards!