



# Conservation & Adaptation in Asia's High Mountains



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**Research:** female snow leopard fitted with GPS collar in Nepal.



Her collar will provide conservationists with valuable information that will help safeguard the future of snow leopards.

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**Saving Snow Leopards:** good news from Mongolia and Pakistan.



Children in Mongolia led a successful campaign to save snow leopards from traps, while Pakistan has been able to reduce snow leopard killings drastically.

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**Climate:** inside a Kyrgyz effort to manage river basins.



Communities are working on a watershed management plan that will safeguard the Chon Kyzyl-Suu river basin in a changing climate.

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**Sustainable Livelihoods:** communities in India and Bhutan taking care of nature.



Whether it is eco-tourism in India, or caterpillar fungus collection in Bhutan, sustainable approaches help communities and nature.

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Participants at the GSLEP workshop. ©WWF-US

## UPDATE FROM GSLEP

### Workshop on Landscape Management Planning to Conserve the Snow Leopard

*Written by Matthias Fiechter, Snow Leopard Trust*

Earlier this spring, experts and representatives from nine snow leopard range countries met in Kathmandu, Nepal, for a workshop on climate smart conservation planning at the landscape level to protect the iconic snow leopard.

Snow leopards use vast home ranges of several hundred square kilometers. To protect them, the twelve snow leopard range countries identified the need to go beyond isolated protected areas and conduct conservation efforts at a larger landscape level.

In October 2013, all 12 range countries came together and unanimously endorsed the Bishkek Declaration on Snow Leopard Conservation that culminated into the Global Snow Leopard and Ecosystem Protection Program (GSLEP).

This workshop was part of the GSLEP process to secure 20 snow leopard landscapes by 2020. The primary tool for securing each of these landscapes are effective participatory management plans. Since unprecedented work is required at such scales, we connected

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GSLEP workshop participants sketch out the effects of climate change at the landscape level. ©WWF-US



Citizen scientist Tashi Sherpa helps set up an omnidirectional antenna for the collaring mission. ©WWF Nepal



Checking signals from the GPS collar before deployment. ©WWF Nepal

## (Continued)

landscape coordinators from range countries to experts to catalyze the processes of developing climate-smart management plans.

Over 40 practitioners from nine countries attended the workshop, which was organized by GSLEP and the Government of Nepal. Participants included representatives of snow leopard range nation governments, NGOs, and researchers.

Working in groups, participants hammered out preliminary risk analyses that will serve as the basis for developing comprehensive landscape management plans addressing key issues and threats, including climate change.

Climate change and conservation planning experts from WWF and Columbia University's Center for Climate Systems Research guided participants through the process of incorporating climate change impacts into their landscape conservation models. Climate change was included as a driver that had direct impacts on the snow leopard, but also exacerbated existing threats like over-grazing, poaching and retaliatory killing.

The groups then prioritized threats and mitigation strategies using criteria such as cost, feasibility, and whether the strategy would be effective in all of the climate scenarios.

The workshop was supported by the Snow Leopard Trust and the WWF Conservation and Adaptation in Asia's High Mountains Project, which is funded by USAID.

## Nepal

### *Tracking the Snow Leopard*

A female snow leopard is fitted with a GPS-collar in Nepal's Himalayas.

In late April, the first female snow leopard to be fitted with a satellite GPS collar in the Nepal Himalaya was captured, collared, and released. This young snow leopard was named Lapchhemba, after the revered local deity of the mountains, whose pet is, fittingly, a snow leopard. Residing amongst the glaciers and perennial snows of the world's third highest mountain, Lapchhemba is a climate ambassador for the soaring ranges of the Kangchenjunga Conservation Area and its residents.

As she navigates adulthood in a changing landscape, her collar will provide conservationists with valuable information on her movements and behavior that will help safeguard the future of snow leopards as well as their mountain home. This collaring expedition was conducted jointly by WWF and the Government of Nepal and was supported by the WWF Asia High Mountains (AHM) Project with funding provided by USAID.



A snow leopard caught on camera in Mongolia. ©WWF Mongolia

## Mongolia

### Children Secure Future for Snow Leopards

An AHM-supported initiative to determine the population and distribution of snow leopards on Mongolia's Jargalant Khairkhan mountain revealed a major issue: snow leopards were caught on camera hobbling, with steel traps on their feet. Further investigation found that herders were setting up these traps to catch other animals, such as marmots, as well to retaliate against snow leopards for killing their livestock. The children of these herders are active in their school eco-clubs, and are guardians of the local environment.

With the help of WWF-Mongolia, these children mobilized to become the catalyst for a local trap exchange campaign, whereby herders exchanged traps for milk cans and other useful household items, greatly reducing the number of traps set on the mountain. The success of this campaign has led the Ministry of The Environment and Green Development to promote this campaign at a national level, thus helping secure a future for snow leopards and other wildlife in Mongolia.

One of the leaders of the children's campaign takes a look at the poster on snow leopard conservation, created by his team.  
©WWF Mongolia



## Pakistan

### Snow Leopard Killings Decline

A recent survey conducted by WWF-Pakistan with AHM Project funding has shed light on the changing situation of snow leopards in Pakistan. The survey found that in the period from 2000-2015, 67 snow leopards were reported killed in just two national parks in Gilgit-Baltistan. However, the good news is that snow leopard killings are on a downward trend. Over the first three years of the AHM Project from 2012-2015, only four snow leopards were reported killed, a sharp decline in the reported pre-project rate of about five snow leopards killed per year.

The major cause of this slaughter is retaliatory killing by herders who have lost livestock to snow leopards. In order to reduce human-snow leopard conflict, WWF-Pakistan has introduced mitigation measures to benefit herders. These include livestock insurance schemes to provide compensation for livestock lost to snow leopards, livestock vaccination campaigns to reduce loss of livestock to preventable disease, and introduction of predator-proof corrals with roofs and improved gates to reduce night time snow leopard attacks on livestock inside pens. To deter further killing, these efforts have been accompanied by the launch of a village wildlife guard program and an extensive conservation education campaign on the ecological importance of the endangered snow leopard.

## Kyrgyz Republic

### River Basin Management in a Changing Climate

With support from the AHM Project, four communities in Kyrgyzstan's Chon Kyzyl-Suu river basin came together to discuss development of a comprehensive watershed management plan for the basin. The plan will focus on addressing climate change impacts in the basin, in particular the increasing temperatures and changing precipitation patterns that are already affecting water resource use patterns there.

In addition to farming, the Chon Kyzyl-Suu Valley is also an important livestock grazing area, with about 20,000 head of livestock occupying the valley. Key grazing issues identified will be addressed in the watershed management plan in a manner that addresses long term pasture ecosystem resilience in the face of a changing climate.

## India

### A Community Comes Together to Keep Its Lake Pristine

North Sikkim's sacred Gurudongmar Lake is located about 5150 meters above sea level. Each year it attracts throngs of domestic tourists and pilgrims. However, this has resulted in large amounts of trash being dumped at the lake, which has become a growing problem. In order to address this problem, the Lachen Tourism Development Committee, together with WWF-India started an annual lake cleanup campaign in 2011. That initial cleanup campaign has since led to a series of AHM-supported trash management initiatives in North Sikkim. At Lachen Village, on the road to Gurudongmar, the sale of bottled water was banned in 2012, a village waste collection and management system was put in place, and a zero waste approach to trash management was launched that included establishment of a local recycling center. Other ecotourism development



*A member of the Lachen Tourism Development Committee in North Sikkim adds a sack of waste to the pile retrieved from Gurudongmar Lake. ©WWF India*

activities are also ongoing that aim to encourage domestic tourists to stop in Lachen for a few days on their way to Gurudongmar, and thus contribute to the local economy. This year's lake cleanup campaign was held on June 5 to mark World Environment Day, and once again the local community led the cleanup. But this time around, there was less trash to pick up at the lake, thanks to the sustained cleanup efforts of local residents.

## Bhutan

### Caterpillar Fungus Collectors Learn Sustainable Harvesting Methods



*A caterpillar fungus collection site in Bhutan's Wangchuk Centennial National Park. ©Department. of Forests and Park Services-Bhutan*

Each spring in Bhutan's Wangchuk Centennial National Park (WCNP), hundreds of people from lower villages flock to the park's alpine meadows to collect caterpillar fungus (*Ophiocordyceps sinensis*, known locally as yartsa gunbo). Valued highly in China for its medicinal properties caterpillar fungus is also called "Himalayan Gold" for the astronomical prices it can fetch on the East Asian market. Although the annual caterpillar fungus harvest is an important source of livelihood for many locals, harvest season also brings many problems in the park. These problems include widespread burning of rhododendron shrubs for firewood, dumping of large piles of rubbish in remote alpine meadows, overgrazing by collectors' pack animals, and an increasing number of

collectors getting altitude sickness. For the 2016 caterpillar fungus collection season, the AHM Project supported a sustainable caterpillar fungus harvesting campaign for harvesters in WCNP. This campaign coincided with the official harvesting season and ran for a month, starting in mid-May. The campaign took place in three harvesting areas in the highlands of Wangchuk Centennial National Park, reaching about 450 harvesters in total. As a result, caterpillar fungus harvesting practices in the park are expected to improve, with long term benefits for local ecology and the livelihood security of the park's residents.

*Cover Page Photos: GPS collar ©WWF-Nepal; snow leopard ©WWF-Mongolia; river map ©WWF; cordyceps collector ©DFPS-Bhutan.*