SAVING PLATEAU BIODIVERSITY
IN TIBET

保護高原生態

WWF China Tibet Program
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Tibet Plateau

Located in Central Asia, north of the Himalayas, the Tibetan Plateau is the highest and largest plateau on earth. It is also the source of almost all of Asia's major rivers: the Yellow River, the Yangtze, the Mekong, the Salween, the Indus, and the Yarlung Tsangpo, which downstream becomes the Brahmaputra. With elevations that rise above 10,000 feet, it is Earth's most complex grassland steppe, where beautiful alpine meadows stretch into gravelly windblown cold deserts and high altitude wetlands.

In the northwest of this magnificent plateau lies Chang Tang, one of the world's most precious and treasured landscapes. WWF believes that saving this area is crucial to the conservation of global biodiversity. Chang Tang, with its rich and extraordinary biodiversity, natural and breathtaking landscapes with sapphire skies, represents the future of conservation on the Tibetan Plateau. It is the last remaining place where its people - the drokpas - continue the traditions of their ancestors and wild animals roam unfettered.

Chang Tang and Chang Tang Nature Reserve

Chang Tang refers to the northern plain of the Tibetan plateau. Chang Tang is home to Tibet's biggest nomadic community and provides habitat for a unique assemblage of endangered and endemic wildlife. A harsh climate and high altitude make Chang Tang one of the most inhospitable regions of the world. To protect the spectacular and fragile ecosystem, large parts of Chang Tang were brought under protection in 1993 and upgraded to national protection status in 1996.

Chang Tang Nature Reserve covers approximately 300,000km², and has an average altitude of 4500m. It is the second largest nature reserve in the world. Alpine desert, alpine steppe, sparse vegetation, glaciers and bare ground ecological landscape nurture over 100 animal species and 400 seed plants. A large number of animal species found in this region are listed in either Appendix I or II of CITES, and as Class I or 2 species under Chinese legislation such as Tibetan antelope, Tibetan gazelle, wild yak, blue sheep, snow leopard, brown bear, Bengal tiger, and black-necked crane.
**Drokpa: The People of Chang Tang**

Drokpa is a local term for nomads or herders. Tibet’s drokpas developed and carry forward a unique nomadic culture in the Tibetan Plateau. Drokpas live in many parts of Tibet, but Chang Tang’s drokpas represent one of the last great examples of the nomadic pastoral way of life once common in Tibet. Chang Tang provides an outstanding living space that fosters the traditions of thousands of drokpa families. Drokpas and their livestock have lived in harmony with nature for centuries, and adopted and practiced effective strategies to cope with grassland degradation, snowstorms and drought. Drokpas that live inside Chang Tang Nature Reserve have been less effected by outsiders and still carry out and practice their distinctive nomadic culture and traditions.

Chang Tang, spanning an area of 700,000 square kilometers, is the habitat of some of the world’s most endangered wild species such as the Tibetan Antelope (or chiru), white lipped deer, Tibetan wild ass, wild yak, Tibetan gazelle, blue sheep, argali sheep and the impressive brown bear. Several of these animals are prey to the snow leopard, the mystical high-altitude predator of the Himalayas and the Tibetan Plateau.

Abundant and incredibly diverse, the lakes and wetlands of Chang Tang support a wealth of globally important bird life. Thousands of ducks, geese, swans, shorebirds, and wading birds use the lakes and wetlands as breeding grounds, migration stopover sites, and wintering areas. Rare bird species breeding on the plateau include the endangered black-necked crane, the ibis bill, the bar-headed goose, and the ruddy shelduck. Several pheasants, tragopans, and quail inhabit the grassland and steppe habitats.

Locally known as Tibet’s “northern empty place,” Chang Tang has been called an unpeopled area. Naturally created, much of the land remained uninhabited and untouched by people and the wildlife free from exploitation. However, in the recent years, the poaching of wildlife animals, mainly the Tibetan antelope, and the influx of Large number people into Chang Tang has resulted in the degradation of the rangelands and the disturbance of its ecological balance. The degradation is likely to continue and even escalate if this is not regulated and governing measures are not immediately enforced.
If action is not immediately taken, not only are the wildlife and the conditions of the rangelands at risk, but the drokpas also face the dire possibility of losing their culture and way of life. In Chang Tang, WWF sees exciting opportunities to preserve and protect an entire ecosystem before it is exploited, and to study one of the least researched landscapes in the world.

**THREATS**

**Tibetan Antelope**

Tibetan antelope (Chiru) weights up to 40 kg and reaches 65-80 cm in height. Its long and slender horns are a unique feature of Tibetan antelope males. Female antelopes migrate over 300km from their winter mating ground towards the northern plateau in large herds to calve with males in May and June. Female Tibetan antelopes, with their slender legs and distinctive traits such as undertaking long-distance migration and large herds make them one of the symbolic animals of Chang Tang. The Tibetan antelope is endemic to the Tibetan Plateau and it favors alpine steppe and semiarid habitats where elevation ranges from 3,250-5,500m. Tibetan antelopes are also well-known for their wool (Shahtoosh), which is made into scarves and shawls. Shahtoosh has been traded from Tibet to Kashmir for centuries, and remains in demand today. Due to potential enormous commercial gain, tens of thousand Tibetan antelopes have been slaughtered in recent years for their wool.

Virtually untouched for centuries by the furor of development and environmental degradation, Chang Tang is now under threat by a number of factors. The 300,000 sq. km Chang Tang Nature Reserve was established in 1993 to prevent exploitation and to provide incentives and implement initiatives to conserve and protect its rich biodiversity. It is within this reserve that Tibetan antelope make their annual migratory journey following ancient trails and where large herds of Tibetan ass still roam freely. WWF has been working with the Tibet Forestry Department and other relevant partners in addressing the threats. Major threats in the reserve include:
Poaching: Poaching of wild animals is the most pressing threat to the region's wildlife, especially for the Tibetan antelope; the plateau's most endangered species. About 20,000 of the estimated 70,000-100,000 Tibetan antelopes are poached each year for their fine wool (or shahtoosh), which is woven into luxurious shawls. The shawls are especially coveted in western markets, where they boast a high price; the extravagant profit margins have attracted poachers from inside and outside Tibet. If efforts are not made to curtail this extreme poaching, the Tibetan antelope could become extinct within a few years.

**Human and wildlife conflict:**

While overgrazing is not an issue within Chang Tang, grazing competition between livestock and wild asses, as well as damage caused to the grasslands by the wild ass, have led to resentment toward wild animal among the nomads—many of whom have hunted them. The impregnation of female domestic yaks by the wild yak, resulting in hybrid offspring, has angered the nomads. Hence the wild yaks are hunted and killed for their meat. Frequent attacks by the brown bear on people have also made them a target for hunters and poachers. These conflicts between humans and wildlife have resulted in the loss of lives on both sides.

**Changing herding patterns:**

Traditional herding patterns of nomads have been changing as a consequence of existing government policies as well as the changing aspirations of nomads. The shift from traditional pastoralism has contributed to the disruption of ecological patterns in the area. While government strategies are directed towards improving the delivery of social services to the people, they are often in conflict with the goals of maintaining rangeland health and security. For instance, the building of fences on privatized lands results in grassland degradation and the prevention of the free movement of wildlife across the rangeland. The maintenance of the rangeland environment and the preservation of indigenous nomadic pastoral cultures will be under threat in the reserve if alternatives are not sought.
STRATEGY

Chang Tang Nature Reserve has enormous value, not only as a rangeland for drokpas, but also for its rich biodiversity. Chang Tang has been declared a multi-use area by Chinese government and consideration must be given for both the protection of plant and animal species as well as the well-being of residing nomads. Over six decades of experience has proven that conservation itself can break the cycle of poverty and environmental degradation. Accordingly, environmental protection activities must be participatory if they are to be successful. Environmental protection strategies include:

**Strengthen the management of Chang Tang:**

The protection of Chang Tang Nature Reserve will not only benefit the locale but also bring ecological benefits to the world as a whole. Its protection will require the implementation of an effective rangeland management plan with a broad base of stakeholders. Effective management will improve the rangeland, restore degraded areas, protect and improve biodiversity, and secure people's livelihoods. Providing training and guidance in preparation of management plans and communications, as well as providing wildlife monitoring and research equipment to reserve staff and the various program committees are critical for the effective management of Chang Tang Nature Reserve. The presence of well-trained local government officials will also help strengthen the existing management system and develop new strategies for protecting the reserve and its natural resources.

**Minimize poaching in Chang Tang:**

Poverty and the high economic returns that trade in animal parts can bring have combined to increase the threat of poaching in Chang Tang. WWF has assisted in setting up anti-poaching units across the reserve in areas prone to poaching. Despite the presence of anti-poaching units and various campaigns such as the "Don't Buy Shatoosh" campaign, poaching is still rampant in the reserve. New strategies that stress the need for participation and cooperation of the local communities need to be developed to address the threat. Informing the local communities about the cultural significance of wildlife and the benefits accrued from its protection could be a major step. WWF and its partners want to work with local communities in establishing community based anti-poaching units and direct their activities and programs.
Research and Monitoring:

The vastness of Chang Tang makes monitoring wildlife and conservation efforts in the reserve difficult, especially in the absence of baseline data and information. Assistance and training in data collection and monitoring methods will enhance the effectiveness of reserve staff and anti-poaching units. Supplying transportation and communications equipment will also improve the monitoring of wildlife and conservation efforts. The trainings and supply of equipment could go a long way in facilitating the collection of reliable data on the changes in wildlife populations, patterns in vegetation, and changes in landscape. A strong and reliable database will make monitor

Curb human and wildlife conflict:

The human-wildlife conflict in Chang Tang takes place at three levels: competition between wildlife and livestock for grazing, Tibetan brown bear depredation, and the impregnation of female yaks and harm to herders by male wild yaks. There is a need for data collection and research to assess the true magnitude of this conflict and a need to develop strategies for mitigating the conflict. The strategies should involve the participation of local people so as to promote stewardship over wildlife resources. A critical part of the strategies should include the establishment of a compensation fund that will provide an amount equal to the livestock killed or property damaged.

Implement environmental education and awareness raising programs:

WWF realizes that education and awareness on the environment and conservation is critical for the successful outcome of any project. Environmental education is crucial for the effective management of the reserve and the sustainable use of its resources. Training and awareness raising programs that empower local communities in natural resource management, which also link with indigenous knowledge and traditional culture, need to be developed.

Ensuring Success:

WWF along with its partners will continue to dedicate their efforts to the effective management of Chang Tang Nature Reserve by establishing a reliable baseline information database. Maintaining a harmonious and cooperative relationship with its broad stakeholders is also an important part of achieving successful, long-term results that will ultimately conserve the rich natural resources of the reserve.
**WWF's Future Direction:**

WWF has been working in Chang Tang to strengthen local capacity for reserve management and anti-poaching. Thus far, WWF's contribution has made a significant positive contribution to wildlife protection and overall reserve management. Local and international surveys show that illegal poaching has been reduced as result of conservation education and anti-poaching activities, and that reserve management capacity has improved through a series of training programs and workshops at different levels.

However, WWF's goal is not limited to Chang Tang, and its long-term goal is to save Tibet's spectacular biodiversity. The Tibetan plateau is unique for its unparalleled biodiversity and ethnic culture. Due to its Buddhism tradition and low population density, the plateau has become one of the last corners on Earth that has had relatively little human disruption.

Nevertheless, increased human and livestock populations and large economic development activities have already put enormous pressure on nature and wildlife in Tibet. Today, we are losing our natural forests to furniture and housing; grasslands to desert; and endangered animals and plants are being consumed by wealthy people. It is our rightful duty to take action to combat these negative forces, and it is time to conserve Tibet's valuable natural resources for ourselves and for coming generations.

WWF will continue to work in Chang Tang to save the plateau's endemic species, and develop pilot projects in other parts of Tibet to conserve other species and their habitats in order to achieve the overall goal of saving the plateau's biodiversity. Therefore, saving plant and animal species, environmental education, and fighting against the illegal wildlife and plant trade will be WWF's major focus in Tibet.
BACKGROUND INFORMATION

• Three to five Tibetan antelope are killed to make one “shahtooosh” shawl, the renowned “king of wools,” which is so fine the entire shawl can be pulled through a wedding ring. The shawls sell for US$2,000 - $15,000 on the black market, because trading in shahtooosh is illegal. To prevent the possible extinction of the Tibetan antelope, WWF and the Wildlife Conservation Society teamed up on the “Don’t Buy Shahtooosh” consumer campaign, in addition to supporting anti-poaching and education programs.

• At 334,000 square kilometers (about the size of New Mexico), Chang Tang Nature Reserve is the second largest protected area in the world. Its habitats (alpine steppe, alpine desert, high mountain and glacier) and wildlife have been little studied and are under intense pressure from increases in population, poaching and road building. Home to lynx, wolves, snow leopards, brown bears and Tibetan antelope, Chang Tang is also a refuge for pastoral nomads known as drokpas. WWF is working with the Tibet Forestry Department to preserve Chang Tang’s unique wildlife and ecosystems for future generations.

• The Drokpas, the heart of the Chang Tang, are traditional pastoralists and have roamed the vast rangeland for thousands of years, managing the grazing land with a blend of traditional knowledge, instinct and sensitivity to environmental conditions. The nomads move with their livestock (cattle, yak, sheep and goat) between summer and winter pastures allowing for the regeneration of the pastures. Their staple diet includes tsampa, yak meat, milk and milk products such as butter, cheese and hard cheese. Dairy products and yak meat are bartered with farmers for food grains. The nomads also use yak and sheep wool for making their tents, ropes and clothes, and thus are living a simple life - the life of their ancestors. Devout Buddhists, the drokpas have great reverence for their natural environment. Lakes and wetlands play important spiritual roles in the religious lives of the drokpas in addition to being an important source of their livelihood.

• The majestic Black necked crane (Grus nigricollis) is a summer visitor to Chang Tang. Mostly in pairs, this nationally protected bird inhabits marshes and mires in southeast, south and west Chang Tang. After spending its summer in Chang Tang, this beautiful and elegant bird flies south to lower elevations in the Qinghai-Tibet and Yunnan-Guizhou Plateaus in China, Phobjikha, Bomdeling and Bumthang in Bhutan and a few to Arunachal Pradesh.
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