WCS Business and Biodiversity in Mongolia

Setting the Stage for a Sustainable Future

WCS Mongolia is dedicated to science-based, long-term, and landscape-level conservation. Our mission is the conservation of Mongolia's priority species and its intact landscapes, particularly the vast expanses of the Eastern Steppe and the Southern Gobi.

The Wildlife Conservation Society works with local communities, the Government of Mongolia, and the private sector to prevent biodiversity loss by ensuring connectivity between landscapes, leading efforts to develop sustainable management of living natural resources, and building capacity within institutions to better manage Mongolia's wild heritage. These efforts will result in the preservation of intact landscapes, thriving populations of wildlife, and lead to improved livelihoods of local communities.

Mongolia is one of the few places in Asia where large tracts of unfragmented rangelands and mountainscapes exist and where groups of large terrestrial wildlife can be readily experienced and observed.[1] It encompasses one of the largest continuous temperate grasslands in existence and hosts an array of wildlife species, including large mammals such as snow leopards, khulan, Mongolian and goitered gazelle, ibex, Przewalski's horses, moose, and Bactrian camels. Magnificent birds of prey—including the endangered imperial eagle, saker falcon, golden eagle, steppe eagle, boreal owl, and cinereous vulture—soar through its skies. Extreme temperatures and unpredictable precipitation patterns demand that species are adapted to being capable of making long distance movements and survival on sparsely scattered resources.

[1] Large mammals (>20 kg) have been eliminated from more than 80 per cent of the terrestrial ecosystems in which they were formerly present (Olson 2013, citing Morrison et al. 2007; see also Kaczensky et al. 2006, Mallon & Jiang 2009).

Opportunities for Mongolia

WCS initiated its Extractive Industry Program in Mongolia in 2012. The program's goal is to ensure that the rich biodiversity found in Mongolia is able to thrive while Mongolia continues along its economic development path. Working with the extractive industry as partners in conservation and not adversaries is critical to forging this new way forward. The Mongolia Extractive Industry Program works with companies and stakeholders in the country to:

- monitor the affects of mining, oil and gas, and other development projects on biodiversity and ecosystem services;
- identify and develop appropriate actions to avoid, reduce and mitigate those impacts, including the use of compensation and offset measures;
- outreach to companies and lenders to promote adoption and implementation of best practices for management of biodiversity and ecosystem services;
- coordinate with government to support the establishment of policies and regulations that establish clear mitigation rules for all investors and foster improved land use planning and management; and
- create opportunities for better conservation outcomes from development programs that balance economic and conservation interests.

Oyu Tolgoi Copper Mine The Gobi desert in Southern Mongolia has Tier 1 & 2 Critical Habitat qualifying features as defined in Performance Standard 6 by the IFC. Oyu Tolgoi LLC, Rio Tinto, and the International Finance Corporation have agreed to implement a comprehensive set of responsibilities for managing environmental risks associated with the Oyu Tolgoi mine and to achieve a Net Positive Impact (NPI) on biodiversity. The resulting effort to meet these responsibilities is to achieve a Net Positive Impact on priority biodiversity and critical habitat features in the region. WCS, in partnership with Sustainability SEA, is working with Oyu Tolgoi to implement a Biodiversity Monitoring and Evaluation Program (BMEP). In partnership with Sustainability SEA, WCS is working with Oyu Tolgoi to implement a Biodiversity Monitoring and Evaluation Program (BMEP).

Biodiversity Monitoring

WCS' is monitoring a number of state, pressure, and response indicators of priority biodiversity and critical habitat features across a nearly 100,000 km^2 part of the Gobi desert in Southern Mongolia.


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Khulan and Goitered Gazelle: These species are believed at risk due to obstruction of their seasonal movements, rangeland degradation, and poaching pressure. WCS is monitoring the population size, movements, identifying habitat needs, and poaching pressure for both of these species.

Short-toed Snake Eagle: An isolated population of short-toed snake eagles nests in the gallery forests in dry river valleys in the Gobi. The nearest neighbouring population is ~3,000 km's away. The population could be under threat due to predators attracted to the OT area to scavenge on waste and lead to an increase in predation on short-toed snake eagle eggs and degradation of nesting sites.

Priority plants: A handful of rare priority plant species cling to life in the harshness of the Gobi. We conduct surveys to determine the distribution, population size, and habitats of priority plant species to better assist future reclamation efforts.

Siberian Elm and Saxaul Forests: The elm gallery forests growing along the dry river beds in the Gobi are a significant feature for local people and provide important refugia and nesting sites for many birds. The tall saxaul forests are used as fuel by herding households and helps stabilize fragile Gobi soil. Both are dependent on subterranean water. WCS is monitoring the these trees to assess the affects of the diversion of a spring and the use of deepwater aquifer resources. WCS is also monitoring collection pressure on saxaul to determine if a growing population in the OT mine region is resulting in an increase in collection.

Granite Outcrop Vegetation: Protruding from the surround arid landscape, the Khanbogd Massif creates suitable conditions for vegetation requiring greater amounts of moisture to survive due to the concentration of all precipitation into an extensive network of rivulets and larger drainages. Some species are collected for medicinal use and much of the vegetation is scoured over by herds of ravenous sheep and goats.

Rangeland Condition: Rangelands are the essence of life for people and wildlife in the Gobi.


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A known amount of rangeland has been lost to the mine and needs to be replaced elsewhere, an unknown amount may be affected due to change's in grazing pressure. Monitoring over such a vast area is challenging but essential for understanding the direct and indirect affects of OT's activities in the region are. Oyu Tolgoi has pledged to work towards improving the condition of the surrounding rangelands by 15% and essential to determining if that goal has been reached is a robust monitoring effort.

Mitigation and Offset Implementation

Anti-Poaching: WCS established and trained Mobile Anti-Poaching Units (MAPU) and Multi-Agency Teams (MAT) in Southern Mongolia to reduce poaching pressure. This will be a long-term process for improving environmental law enforcement; protected area management and community engagement activities to mitigate illegal wildlife hunting and trade. WCS has also introduced the Spatial Monitoring and Reporting Tool (SMART) to improve law enforcement effectiveness by providing a standardized tool to collect, store and evaluate data on patrol efforts, patrol results and threat levels.

Sustainable and Wildlife Friendly Cashmere: WCS has partnered with Kering Group to work with cashmere goat herders in the Gobi desert with a mission of establishing an exemplary model of a 'sustainable value chain' that will ultimately be emulated throughout Mongolia. In 2016, Oyu Tolgoi decided to collaborate hence we are developing integrated program to improve the sustainability of cashmere produced in the Gobi region focusing on improving pasture management, adopting wildlife friendly herding practices, improving animal health and productivity, increasing the capacity of cashmere producers through a sustainable cashmere certification system allowing herders to import cashmere at premium price.

Outreach

Ecology and Transportation Study Tour WCS sponsored a delegation to visit the USA to learn about best practice in mitigating the impacts of linear infrastructure on wildlife.

Joint Ministerial Working Group WCS facilitated the formation of a Joint Ministerial Working Group to create solutions that address the barrier effect of linear infrastructure on wildlife movements such as removal of fencing along the trans-Siberian railway that is restricting the movements of khulan, goitered gazelle, and Mongolian gazelle.

CMS Guidelines for Addressing the Impact of Linear Infrastructure on Migratory Ungulates in Central Asia WCS developed guidelines for mitigating the impact of roads, railways, fences, pipelines and related disturbance affecting ungulates in the region.

International Workshop on Implementing Wildlife-Friendly Measures in Infrastructure Planning and Design in Mongolia WCS assisted in bringing together Mongolian government agencies working in the environmental, railroad and infrastructure, and research fields as well as international and national NGO communities to develop the Ulaanbaatar Action Plan on wildlife-friendly infrastructure.