



# THE KAZAKH STEPPE

## Conserving the world's largest dry steppe region

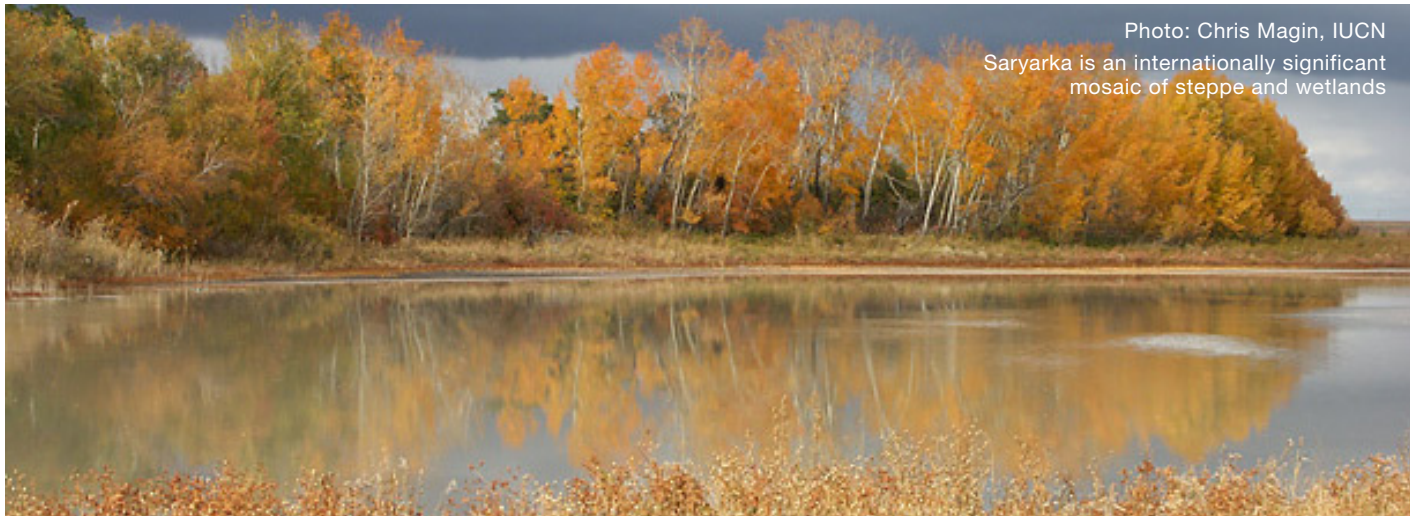


Photo: Chris Magin, IUCN  
Saryarka is an internationally significant mosaic of steppe and wetlands

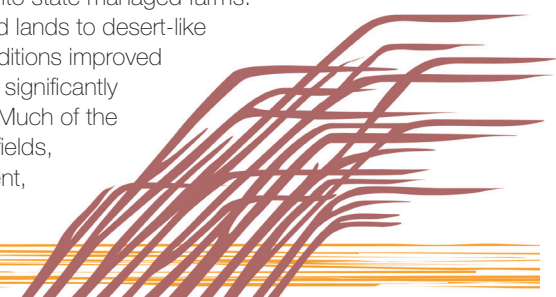
## The Dry Steppe Region

The steppe grasslands of Eurasia were once among the most extensive in the world, stretching from eastern Romania, Moldova and Ukraine in eastern Europe (often referred to as the Pontic steppe) east through Kazakhstan and western Russia). Together, the Pontic and Kazakh steppes, often collectively referred to as the Pontian steppe, comprise about 24% of the world's temperate grasslands. They eventually link to the vast grasslands of eastern Asia extending to Mongolia, China and Siberian Russia, together creating the largest complex of temperate grasslands on earth.

The remaining extent and ecological condition of these grasslands varies considerably by region. Today in eastern Europe, for example, only 3–5 % remain in a natural or near natural state, with only 0.2% protected. In contrast, the eastward extension of these steppes into Kazakhstan reveals lower levels of disturbance, where as much as 36% remain in a semi-natural or natural state. Although current levels of protection in this region are also very low, the steppes of Kazakhstan have the potential to offer significant opportunities for increased conservation and protection.

The Kazakh steppe, also known as the Kirghiz steppe, is itself one of the largest dry steppe regions on the planet, covering approximately 804,500 square kilometres and extending more than 2,200 kilometres from north of the Caspian Sea east to the Altai Mountains. These grasslands lie at the southern end of the Ural Mountains, the traditional dividing line between Europe and Asia. This steppe ecosystem is actually comprised of five different ecological zones, including forest steppe, meadow steppe, dry steppe, desertified steppe and steppe semi-desert, collectively occupying about 59% of the area of Kazakhstan.

Prior to the 1950's, the Kazakh steppe was a contiguous intact grassland used extensively by nomadic Kazakh people for grazing their animals. Through the 1950's, when Kazakhstan was still part of the Soviet Union, approximately 40% of the steppe was ploughed for intensive agriculture. While the remaining 60% continued to be used for grazing domestic livestock, the nomadic patterns of the Kazakh were largely interrupted through the collectivisation of Kazakh livestock into state managed farms. Within less than a decade, drought and wind erosion reduced much of these ploughed lands to desert-like conditions. Considerable reforms took place in agricultural land use practices and conditions improved through the 1970's and 1980's. During the post-Soviet 1990's, agriculture decreased significantly and many ploughed fields were abandoned. Also, nomadic mobility virtually ceased. Much of the original steppe is now a mosaic of agricultural lands, with both active and abandoned fields, and the remaining unploughed steppe. As a result of 40 years of agricultural experiment, between 17% and 36% of the steppe remains in relatively natural condition.





The Kazakh steppe is an eastward extension of the highly impacted grasslands of the Pontic steppe in eastern Europe

## The Challenge and Opportunity to Make a Difference

Over and above the impacts of land conversion through agriculture, a major threat facing Kazakhstan's steppe today is continued habitat degradation associated with changes in ungulate populations and distribution, and hunting pressure. Both the significant declines in ungulate populations and the virtual cessation of the traditional patterns of Kazakh pastoralism, have drastically altered conditions in the steppe. The nomadic way of life involved the seasonal migration of domestic herds which helped to minimize or avoid the overgrazing of specific locations, while ensuring adequate grazing capacity for both livestock and wild ungulates that maintained the grasslands and their characteristic species compositions. The parallel processes of wildlife overhunting and the abandonment of traditional pastoralism have led to dramatic shifts in grazing levels and patterns, with some areas experiencing significant declines in grazing pressure, while others, near what are now permanent settlements, have experienced excessive grazing. In turn, the steppe has seen massive changes in grassland vegetation, with subsequent impacts on many species of mammals and birds, including globally significant steppe breeding birds such as the vulnerable Great Bustard and the now critically endangered Sociable Lapwing.

Kazakhstan's protected area system offers relatively high levels of protection to its mountains, deserts and higher elevation forest steppes (ranging from 8.1% to 17.7%). Protection levels for the remaining four steppe ecosystem types average about 1.5%. The largest protected area in the steppe is the 2.6 million hectare Saryarka – the Steppe and Lakes of Northern Kazakhstan, inscribed on the World Heritage List in 2008. This area protects substantial, largely undisturbed areas of steppe and the largest system of lakes in the Kazakh steppe.

The Korgalzhyn–Tengiz lakes provide feeding grounds for up to 15–16 million birds, including flocks of up to 2.5 million geese. They also support up to 350,000 nesting waterfowl, while the Naurzum lakes support up to 500,000 nesting waterfowl. Saryarka's steppe areas provide a valuable refuge for over half the species of the region's steppe flora, a number of threatened bird species and the critically endangered Saiga Antelope (*Saiga tatarica*).

The steppes of Kazakhstan constitute about 80% of the remaining habitat for the Saiga Antelope. The population of these iconic animals of the Eurasian steppe were decimated by hunting pressure, when their numbers were reduced by 97% during the decade of 1994–2003. Their conservation and protection is essential for the long-term survival of the Eurasian population of this species. The Kulan (*Equus hemionus*), or wild ass, and the Przewalski Horse (*Equus przewalski*) are also near extirpation in these grasslands. Beyond Saryarka, however, only fragments of steppe are protected in two other national parks and 24 zakazniks (special purpose preserves). The vast areas of Kazakhstan's steppe that have not been ploughed can make a significant contribution to the conservation and protection of the steppe and its wildlife and could form the nucleus of a restoration program and an expanded protected area system.

Recognizing this opportunity, in 2000 the Kazakhstan government developed a strategy for the expansion of its protected area system. This strategy acknowledged that steppe ecosystems were significantly under-represented in the existing protected area system and identified as a priority action the establishment of new protected areas in the steppe totalling almost 3 million hectares by 2030.

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Photo: Photographer unknown  
The Kazakh steppe represents 80% of the remaining natural habitat for the endangered Saiga Antelope

During the first phase (2008–2010), Kazakhstan intends to create two new protected areas in the steppe (Altyn Dala State Nature Reservat and Buiratau State National Nature Park) as well as expanding two existing protected areas, for a total increase in steppe protection of 860,000 ha. The second phase of protected areas expansion from 2011–2013 is expected to add more areas in the steppe ecosystems.

The total solution to the restoration and maintenance of the Kazakh steppe, however, goes beyond the establishment of new protected areas to the development of a strategic, landscape-based approach to the management of the larger steppe ecosystem. This approach involves the integration of these new protected areas into the broader landscape through the application of such tools as buffer zones and wildlife corridors. It involves the generation and dissemination of information and knowledge and sufficient capacity among local communities and stakeholders who would assume an active role in the management of both the protected areas and adjacent landscape areas in an ecosystem-based approach.

Much of this work is underway through a United Nations Development Program (UNDP) project, funded by the Global Environment Facility (GEF), that is scheduled for the period 2009–2014. The project documents have noted several barriers to achieving results, including inflexible approaches to protected area establishment, and inadequate tools and institutional capacity for landscape-level management. While the project is designed to address these barriers, the Temperate Grasslands Conservation Initiative (TGCI) can bring added value to this project by:

- Involving IUCN Regional Secretariat, Commissions, institutional members and other key regional partners to seek solutions to the long term health of the Kazakh steppe ecosystem;
- Bringing international recognition to the significance of the Kazakh steppe in the context of temperate grasslands globally;
- Linking grassland professionals, and mobile indigenous peoples from other regions, with those in the Kazakh steppe to share ideas and approaches to community-based resource conservation.

## Scope of the Project

The main goal of the project is **to supplement the work of the UNDP/GEF project and to engage with partners and programs active in the region to develop and implement the necessary strategies for the conservation and sustainable management of the Kazakh steppe, to restore viable populations of steppe wildlife, in particular the Saiga Antelope, and to realize the economic and social potential of these grasslands for the long term sustainability of Kazakhstan's mobile indigenous peoples.**

The objectives of this project are:

1. To promote the adoption of sustainable management land use practices throughout the Kazakh steppe.
2. To identify areas of high conservation value, promote the creation of new protected areas and contribute to the consolidation and effective management of pre-existing protected areas in the Kazakh steppe.
3. To work with existing partners and ongoing initiatives to encourage the maintenance of habitat and the management of human activities to enable the restoration of steppe wildlife.
4. To promote the maintenance of healthy, intact, indigenous grasslands as a foundation for the livelihood and wellbeing of, and the continued provision of valuable economic and ecological services to, Kazakhstan's mobile indigenous people.



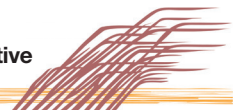
Photo: M. Bethke

## Funding Requirements and Timetable

The approximate budget for this project is \$50,000US per year over five years and is subject to further project development.



### Temperate Grasslands Conservation Initiative



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### Contact:

Temperate Grasslands Conservation Initiative (TGCI)

**Bill Henwood**

Project Director

300-300 West Georgia Street

Vancouver, BC CANADA

V6B 6B4

Tel: 1-604-666-0285

Fax: 1-604-666-0446

Email: [bill.henwood@pc.gc.ca](mailto:bill.henwood@pc.gc.ca)

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