



# Solutions

*For a sustainable and desirable future*

Published on *Solutions* (<http://www.thesolutionsjournal.com>)

[Home](#) > How Mongolian Herders Are Transforming Nomadic Pastoralism

## How Mongolian Herders Are Transforming Nomadic Pastoralism

By: [Ronnie Vernooy](#)

Volume 2: Issue 5: Page 82-87: Oct 12, 2011

Mongolia is the country of endless plains and eternal blue skies. Eighty percent of the land area is covered by grassland, giving home to about 35 million horses, cattle, sheep, goats, and camels. Half of the country's population of 2.7 million depends on livestock production, which contributes more than 20 percent of the country's GDP.<sup>1</sup> More than these numbers can tell, nomadic pastoralism is a way of life. For centuries, herders have roamed the grasslands "following our animals," as the herders' adage goes, building, packing, and rebuilding their traditional *gers*, or tents, to make their living from nature's bounty.

And, yet, this ancient lifestyle is under threat. A decade ago, herders first observed the impacts of climate change with the increase in severe weather events like storms, droughts, and extremely harsh winters, known as *zud*. The 2010 *zud* was one of the worst ever, resulting in the death of approximately 8.5 million livestock or 20 percent of the 2009 national herd. Seven hundred seventy thousand herders were affected of which 43,500 were left without a single animal;<sup>2</sup> 164,000 lost more than half of their livestock.<sup>2</sup> Herders and the government alike were not prepared and ill-equipped to deal with the consequences despite ample warning.

The 2009 national assessment on climate change in Mongolia summarized a number of major trends: since 1940, the annual mean temperature has increased by 2.14 degrees Celsius, winter precipitation has increased, and warm season precipitation has slightly decreased.<sup>3</sup> Recent research on climate change projections for the rest of the century suggests that winters will become milder and snowy; summer seasons will become warmer; annual precipitation will increase up to 20 percent; and anomalous climate phenomena, such as extreme winters, will become a common feature.<sup>4</sup> Nomadic livelihoods, which fully depend on the weather, are becoming increasingly vulnerable as a result.

However, increased vulnerability is not only caused by the impacts of climate change. Overgrazing has also played a role in degrading scarce natural resources. Up to 30 percent of Mongolia's grassland biomass production has been lost over the past 40 years. At the same time, the Gobi desert, which dominates the southern half of the country, has been steadily expanding north at a pace of 150 kilometers every 20 years. When traveling through central Mongolia, one can easily observe this process firsthand—where a few years ago there were still pastures and patches of cropland, now only sandy fields remain.

Overgrazing has been stimulated by the collapse, in the early 1990s, of the country's Soviet-style control of agriculture, which had involved a communal system to manage land and herds. Since then, land has remained state owned, but livestock has been privatized, giving herders a strong incentive to increase the size of their herds. Under this trend, combined with a prolonged period of relatively pleasant, soft winters at the end of the twentieth century, the livestock population in Mongolia rapidly reached 30 million head for the first time in its history. The result was disastrous: wide-scale overgrazing and pasture degradation. Since 2006 rural poverty has been increasing, despite overall growth in the Mongolian economy. The provision of social and economic services for rural areas (including health care, education, transportation, communication, and credit) has remained poor or collapsed altogether.

The government has begun to respond to the threat to herders and their way of life. In a number of regions across the country, herders, in collaboration with local governments and researchers, and supported by a number of new policy

measures and laws, are practicing comanagement, a form of adaptive management that builds community resilience. The concept has been popularized by the academic and activist H. Ykhanbai. Since the 1990s, when the scale of Mongolia's degradation became apparent, Ykhanbai has sought an alternative to both top-down and laissez-faire development strategies. Ykhanbai was uniquely suited to the task: raised in a herder family in the far away Altai Mountains, he attended the University of St. Petersburg, Russia, where he studied Garrett Hardin on the "tragedy of the commons" and Elinor Ostrom on collective action. Ykhanbai understood that pastures in Mongolia are a common pool resource shared by many users, while private ownership of livestock allows herders to become real managers of their own businesses. Sustainable management of herds therefore depends on the carrying capacity of pastures and on the interactions between neighboring herders who rely on the same resources.

In Ykhanbai's words, "I gained this knowledge from childhood, as a herder. The limited capacity of herders and local government to sustainably manage pasture resources can be complemented by the participation of other stakeholders at various levels. Together, they can manage the resource base more effectively. The increasing desertification and widespread climate change impacts require action at levels higher than the individual household or single community."

With Ykhanbai's efforts, comanagement of pasture resources was first introduced in Mongolia at the end of the 1990s in a number of pilot sites across the country, including the dry steppe region, the forest steppe areas, and the high Altai Mountains.<sup>5,6</sup> More recently, comanagement has been introduced for forest resources in regions dominated by forests. The benefits have been striking. Take one herder community as an example: Ikhbulag community of Khotont district is located in the central dry steppe and forest region, in Arkhangai province, about 280 kilometers west of the capital of Ulaanbaatar. The district covers an area of about 2,200 square kilometers and has a population of about 4,400. Ikhbulag is situated in a relatively small mountain valley of about 450 square kilometers, surrounded by the hills and mountains of the Khangai mountain range, with cedar forests on one side, but barren wasteland on the other. The name Ikhbulag or "big spring" refers to the more than 20 springs that used to flow in the area, most of which have now dried up. The small Ikhbulag River, the source of which is in the Berkhe hills, runs through the valley. The ancestors of the local herders may have chosen the valley for its abundant natural resources—forests, water, and pasture for their livestock—as well as for the protection it affords from the wind and the storms during harsh winters.<sup>7</sup>

The area is currently inhabited by about 30 nomadic herding households that graze their livestock in a rotation across four seasonal pastures in and around the valley. The community is scattered around the valley, forming *khot ails* or camps of *gers* consisting of two to eight households, all of which have close kinship ties. These households gather in winter and spring campsites with simple livestock shelters in the valley. They disperse in summer and autumn, following the flow of fresh water and green pasture to neighboring areas, Arjargalant along the Tsagaan Sumiin River to the east and Orkhon to the west.

The first comanagement group in Khotont district was formed in 2001 in Arjargalant, a neighbor community of Ikhbulag. In 2002, inspired by the Arjargalant experience, about 30 Ikhbulag families formed their own comanagement group. Herders gave several reasons for joining, including the need to work together and become better organized, to protect natural resources, and to improve their livelihoods. The comanagement group held many meetings to discuss what they wanted to do together and how. The community then signed a formal comanagement contract with the district government on pasture use according to the Community-Based Natural Resource Management Procedure, approved in 2006 and updated in 2010. In the contract, boundaries for seasonal pasture and forest are agreed to and marked on topographic maps. All regulatory measures as well as responsibilities for protection and use rights are transferred to the community. The contract is reviewed annually and, if deemed necessary by all parties, renewed or adjusted. At the heart of this comanagement process is the establishment of clear and effective roles and responsibilities for the stakeholders, in this case, the community herders, local leaders, and the state, represented through local government as well as through the staff of several ministries, such as the Ministry of Nature, the Environment and Tourism.

Ikhbulag herders explain that their efforts are one way to deal with the major climate changes that they have confronted in recent years. They have noted that the area has become dryer, while the number of extreme weather events, such as storms and *zuds*, seems to be on the rise. In the last ten years, it has rained fewer than ten times each year. Among those dry years, 2002, 2003, and 2009 were the worst. Many rivers have dried up. For the community, there is no major river within 35 miles anymore. One of the herders observed, "Twenty years ago grasses were so tall that you could not see a calf, but now they barely cover the soil. Animals cannot get enough grass to gain fat against the harsh winter. That makes livestock more vulnerable when heavy snow comes. The other reason is that they eat up all the short grasses during the dry summer. Then when winter comes, there is not enough grass left. Stuck in the heavy snow, many animals die." This is exactly what happened in the 2010 *zud*.<sup>8</sup>

In response, the community members agreed to change their practices in the following ways: to collectively prepare hay and fodder; to reduce the number of animals, while improving their quality (for example, professional animal breeders

have assisted with improving goat herds); to move earlier in the year to new camps to allow the badly degraded pastures more time to recuperate; to build better, more numerous shelters; to diversify income sources; and to grow potatoes and vegetables. Women in Ikhbulag play an important role in comanagement. Over the last few years, they have become more outspoken and active in natural resource management, taking the lead in participatory monitoring and evaluation of the community's comanagement efforts and setting up a women's group to encourage income-generating activities, such as handicrafts. They demonstrate their skills to other members of the group and are active in the yearly exhibitions of community products. Recently, they supported the establishment of a community shop that sells local products, thus generating a higher profit margin than sales that require middlemen.

According to an assessment carried out by Ykhanbai and his team of researchers, since the families in Ikhbulag started to practice comanagement and related activities, not only have their knowledge and skills improved, but annual household incomes have increased as well. Incomes have risen steadily, ranging from 5–10 percent per year. They discovered that the rate of growth in income was higher in households classified as middle and low income, suggesting that the efforts have been able to reach and involve those most affected by the difficult situation the country has faced in the years of transition.<sup>9</sup>

According to Mongolia's new Articles to the Law on Environmental Protection (2005) and the Minister's Decree 114 (2006) on "community procedure for protection, sound use, and allocation of natural resources," comanagement will be scaled up and used in all provinces and districts of Mongolia. Although not easy to implement, comanagement has been shown to be an effective strategy to deal with the multiple vulnerabilities that herders face today. In the case of transitional economies, such as Mongolia, the implementation of comanagement approaches requires adequate time as well as clear stipulation of what the government will and will not do to support the agreements. Community-based pasture management practices have had a positive impact on the natural resource base in the pilot study sites *and* on the livelihoods of herders. As a result, herders in pilot communities and, more recently, beyond these communities, have started paying much more attention to ecosystem sustainability, combating desertification, and dealing with climate change. Comanagement is important for adaptation to climate change and for reducing natural resource degradation because it treats local people as the key social units for their own development.

Mongolia could serve as an inspiring example to others. Neighboring countries in Central Asia, currently undergoing a similar process of transition, have started to study and learn from the Mongolian experience to overcome their own "tragedy of the commons." Researchers are trying to adapt Mongolia's comanagement practices to the more sedentary forms of pastoralism that exist in Central Asia. In several villages in Kyrgyzstan and Kazakhstan, herder-farmers, formerly belonging to state farms, have come together with local government representatives to establish small management groups to jointly plan sustainable forms of livestock management, while maintaining individual ownership of resources. The researchers and herder-farmers asked Ykhanbai to assist them, which he has agreed to do. China could learn a lesson or two as well. China's strategy for privatizing grasslands—parceling and enclosure combined with intensification of land use—has had poor results. Some are now arguing for a radical change in policy and practice: breaking down enclosures; terminating intensive land use (for example, for crop production); and reopening the grassland to collectively managed practices. Comanagement takes time and effort to become operational but, once established, becomes a driver of innovation. Mongolian herders, never afraid of exploring new terrain, show the way.

## References

1. National Statistics Office of Mongolia. *2009 Mongolia Statistical Yearbook* (National Statistics Office of Mongolia, Ulaanbaatar, 2010).
2. United Nations Mongolia Country Team. Mongolia: Dzug appeal [online] (2010). [www.humanitarianappeal.net](http://www.humanitarianappeal.net).
3. Government of Mongolia and UNDP Mongolia. National strategy for climate risk management and action plan for Mongolia (Draft, United Nations Development Program, Ulaanbaatar, 2009).
4. Ministry of Nature, Environment and Tourism. *Mongolia: Assessment Report on Climate Change 2009* (Ministry of Nature, Environment and Tourism, Ulaanbaatar, 2009).
5. Ykhanbai, H, Enkhbat, B, Ulipkan, B, Vernooy, R & Graham, J. Reversing grassland degradation and improving herders' livelihoods in the Altai Mountains of Mongolia. *Mountain Research and Development* 24, 96–100 (2004).
6. Ykhanbai, H & Enkhbat, B. Co-management of pastureland in Mongolia. In *Communities, Livelihoods and Natural Resources: Action Research and Policy Change in Asia* (Tyler, SR, ed), 107–128 (ITDG, Bourton on Dunsmore, and International Development Research Centre, Ottawa, 2006).
7. Enkhbat, B. Securing pastoralism in post-socialist Mongolia: Herders' livelihood strategies in the context of climate change and market uncertainties (MS thesis, Chiang Mai University, 2010).
8. Vernooy, R & Wang Xiaoli. *Climate Risk Management-Technical Assistance Support Project II: Community Profile Mongolia* (United Nations Development Program and Regional Integrated Multi-hazard Early Warning System, Bangkok, 2010).

9. Ykhanbai, H, ed. *Co-management of Natural Resources in Mongolia: Ten Years of Experience* (Admon Publishing House, Ulaanbaatar, 2011).

**Source URL:** <http://www.thesolutionsjournal.com/node/983>