

CASE STUDY 7

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MONGOLIA

Organization: Development Interlink NGO (DI)
Region: Asia

In the Gobi Desert of Mongolia's Ömnögovi province, pastoral communities sustain life in one of the world's most extreme dry-land ecosystems. This landscape of desert plains, sand dunes, rocky massifs, and rangelands is marked by climatic variability and scarce water resources. Here, 6,233 herder households, 43.1 percent of which are led by women, manage over two million livestock, including the country's largest camel population. For generations, herders have stewarded the rangelands through the '*nutag*' system, which recognizes rangelands as both grazing land and cultural territory, with seasonal migration and ecological adaptation at its core. Youth are increasingly engaged, contributing to both continuity and innovation in pastoral life.

The territory faces intensifying pressures from industrial expansion and climate change. Large-scale mining projects, notably *Oyu Tolgoi* (copper-gold) and *Tavan Tolgoi* (coal), have fragmented pastures, depleted groundwater, and heightened governance tensions. By 2024, nearly 945,000 hectares were licensed for mining, creating population densities in affected *soums* three to six times higher than the national district average. Climate change accelerates desertification, alters rainfall patterns, reduces water availability, and drives rising temperatures, further undermining ecological balance. At the same time, rural outmigration and declining youth interest jeopardize the resilience of pastoral systems.

Governance frameworks compound these challenges. State ownership of land, as defined by the 2002 Land Law, and centralized licensing under the 2006 Minerals Law leave little space for herders' input in land governance. Limited coordination between customary and statutory systems creates ambiguities and tenure insecurity, often resulting in open-access pressures and localized overgrazing. Social and health impact assessments for mining remain optional, leaving herders' concerns under-addressed.

Nevertheless, herder communities continue to rely on traditional ecological knowledge and adapt through innovation. The practice of *otor* (seasonal herding) remains a cornerstone of resilience, guided by negotiated social agreements over land use. Communities also engage in ecological restoration, rehabilitating areas around wells in Tsogt-Ovoo, planting oats in Bayandalai, and setting aside significant budgets, such as the MNT 200 million allocated in Mandal-Ovoo, for fodder reserves. Families collectively manage reserves, subsidies, and hayfields to ensure equitable access to feed.

Legal and governance strategies are also evolving. Ömnögovi province has placed 4.5 million hectares under state protection and 4.6 million under local protection, designating national parks, nature reserves, and monuments. Tripartite agreements between mining companies, local governments, and herders offer a framework for negotiating land use, though tensions remain. Herders have also engaged in political mobilization, opposing infrastructure projects such as new ports and roads near Tsagaan Del that threaten grazing lands.

Technology and diversification play an increasing role in resilience. Youth are adopting solar power, mobile phones, GPS, and livestock microchips to improve mobility and market access. While climate adaptation technologies such as cloud seeding remain contested, new monitoring and early warning systems are being piloted, with efforts to integrate them with herders' experiential knowledge. Economic diversification has also become a critical strategy, with herders moving from subsistence toward eco-friendly production of cashmere, dairy, and cultural tourism. Initiatives such as livestock redistribution (*Myangatyn Khishig*), branding campaigns (e.g., "Red Camel"), and communal livestock banks strengthen economic resilience. Local environmental efforts, pasture zoning, greenbelt fencing, well-drilling, and forage restoration, further support sustainable land use.

Movements such as "eco-*soums*" in Sevrei and Bulgan represent integrated approaches that balance urbanization, herding, and infrastructure while resisting unchecked mining expansion. These innovations highlight the adaptability of pastoralists, who continue to view rangelands as both ecological commons and cultural territory. The entire Ömnögovi territory remains natural land, overlapping with several key biodiversity areas, underscoring the global importance of sustaining Mongolian pastoral systems amidst industrial and climatic pressures.