

Civilizational and Environmental Effects of Mongolia's Transition from a Pastoral to a Market-Driven Economy

Lynn Rhodes
Lynnrhodes2@hotmail.com

We are currently witness to the transformative influence of political power as a timeless pastoral society is driven to conform to a market-driven economy.

In this paper I examine the influences of mining, democracy and a market-driven economy on the traditional, pastoralist lifestyle of Mongolia and show how demography and other descriptors of its society are shifting rapidly as a result. The newly emerged democracy of Mongolia appears to be unable to defend itself from monumental transformation, a change which is likely to result in ecological and cultural implosion.

One observing this phenomenon is forced to ask: Does a pastoralist culture of long tradition have the innate right to continue? Will similar transitions now occurring around the world bring about severe civilizational and environmental consequences everywhere?

History

Mongolian pastoral life, occurring amidst the country's vast, open landscapes, has historically thrived. The land has provided a living commons for a variety of nomadic cultures. But now neither the traditional structure of Mongolia nor its pastoral life, are likely to continue, as current political forces eliminate what is traditional and shape future civilizational aspects of the country and its people.

Mongolia benefits economically from the rapid acceleration of natural resource extractions. Thus, the country's GDP grew by an unprecedented 17.3% in 2011 and by 12.3% in 2012.¹ The majority of growth is due to extraction of coal and minerals, 80% of all its exports, sent primarily to China.²

Mongolian territory, at its height in the 13th century, comprised the largest continuous land empire in history. From an often violent lifestyle, notably exhibited to the world at first by Genghis Khan, the Mongols evolved a nomadic, pastoral life and developed a form of Buddhism that created a relatively stable society.

¹ World Bank 2012 *Mongolia quarterly brief (February 2012)*

² Joel Brinkley, China's Other Environmental Problems, *World Affairs Journal*, April 5, 2013 regarding increasing demands

Today, over half of Mongolia's total population of 2,800,114 live in the capital city of Ulaanbaatar. The rest is scattered across the country; most live as pastoralists in the commons of the countryside. The traditional Mongolian family is the integral unit for nomadic pastoralists. Individual families and small groups of families have historically lived as one with the country's landscape. It is this very culture that is in the midst of a dramatic transformation.

The Tradition of Pastoralism

Mongolia is a large, sparsely populated country landlocked between China and Russia. Winters are severe and long. Pastoral livestock production was the only primary economic activity in the country for centuries and continues to be a primary economic activity today. Pastoral livestock husbandry did not happen by accident in Mongolia. To a large extent it was determined by a convergence of factors: geographical location; soil unfavorable for agriculture; harsh weather conditions; the strength and abilities of the Mongolian people to survive such an environment; and the ready (and primary) commodity exchange of livestock.

Mongolia's harsh terrain, natural and open pastures are the primary source of food for pastoral livestock, which are managed using historic nomadic traditions. Livestock is moved throughout the seasons and amongst varying pastures under traditional pastoral grazing management strategies. These strategies have developed and adapted to Mongolia's ecological conditions and extreme climate. Further, these pastoral management practices, which have evolved over the centuries, remain mostly intact, and are found along with native breeds of livestock well suited to the environment.

The potential to continue pastoral life patterns in Mongolia today is aided by the plethora of both natural resources and traditional pasture management practices. Pastoralism remains an important sector of the Mongolian economy, contributing over 20% of the country's GDP.³ But there are risks and immediate threats to this ancient lifestyle and the economy it helps to support.

First, Mongolian pastoralists face deteriorating social conditions. The living standard for herders is one of the lowest in the world. Despite the flexibility of the herders, their mobility, and their ability to live in harmony with the land, this centuries-old tradition is now endangered.

A major reason is immediate environmental threats: diversion of water supplies, pollution, respiratory illness, and displacement (relocation) largely caused by the mining boom and rapid development.

³ National Statistics Office of Mongolia. 2009 Statistical Yearbook (National Statistics Office of Mongolia, Ulaanbaatar, 2010)

The mining boom is fueling economic growth in the country at a rapid and alarming pace. Thus, mining practices are affecting the governance of rural areas. This has taken on such urgency that local herder-led resistance groups have forged alliances with non-governmental organizations in order to respond to the land degradation of the commons, direct and indirect, that is resulting from the mining.

There are also complex institutional innovations at work in rural Mongolia. Until recently, the challenges of governance over the pastoral commons attracted little attention. But, with the entry of the Oyu Tolgoi Mine, containing one of the largest copper deposits in the world and the largest single investment in the history of Mongolia⁴, plus other mine projects such as the Tavan Tolgoi Coal Mine, world-wide attention is now focused on the transformation of the Mongolian commons, its governance and its capacity to handle the resulting challenges.

Threats

Near the formally-designated Protected Area of the Ikh Nart Nature Reserve and the region of the Oyu Tolgoi Mine in south-east Mongolia are found dramatic examples of challenges to management of communally-held lands and resource protection. Although these two areas are not in the same province, they are neighbors and share comparable issues.

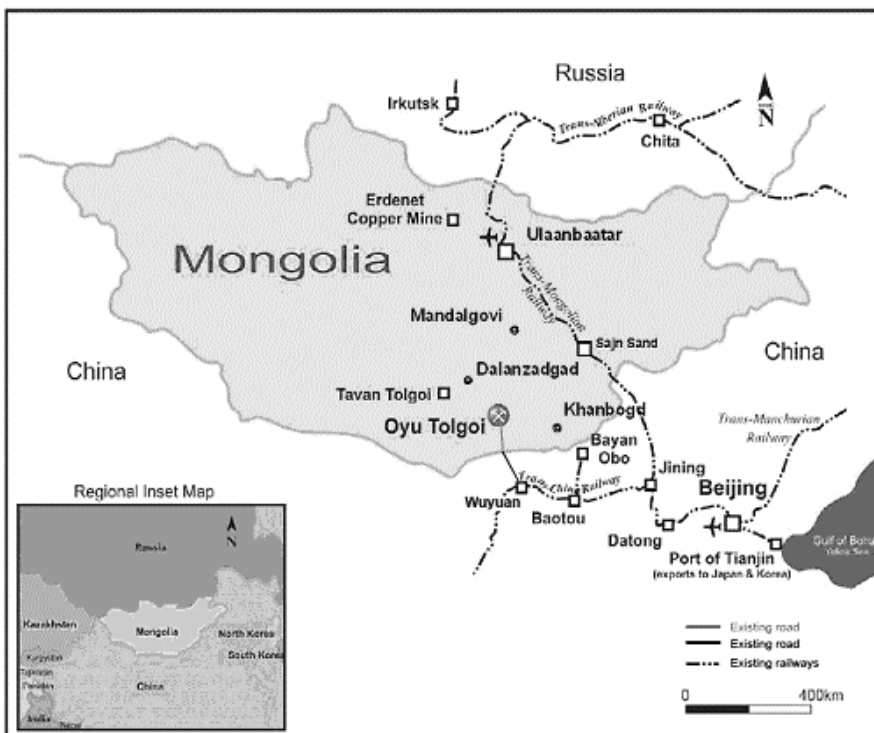
Concerns are being raised by local pastoralists. These concerns have been outlined by a rush of reports issued by the government, the United Nations Development Program, various non-governmental organizations, and industry itself. Included are controversial reports concerning the Oyu Tolgoi Project Management Plan and resource protection plans such as the Special Protected Area Network Plan for the Ikh Nart Nature Reserve.

Major concerns include:

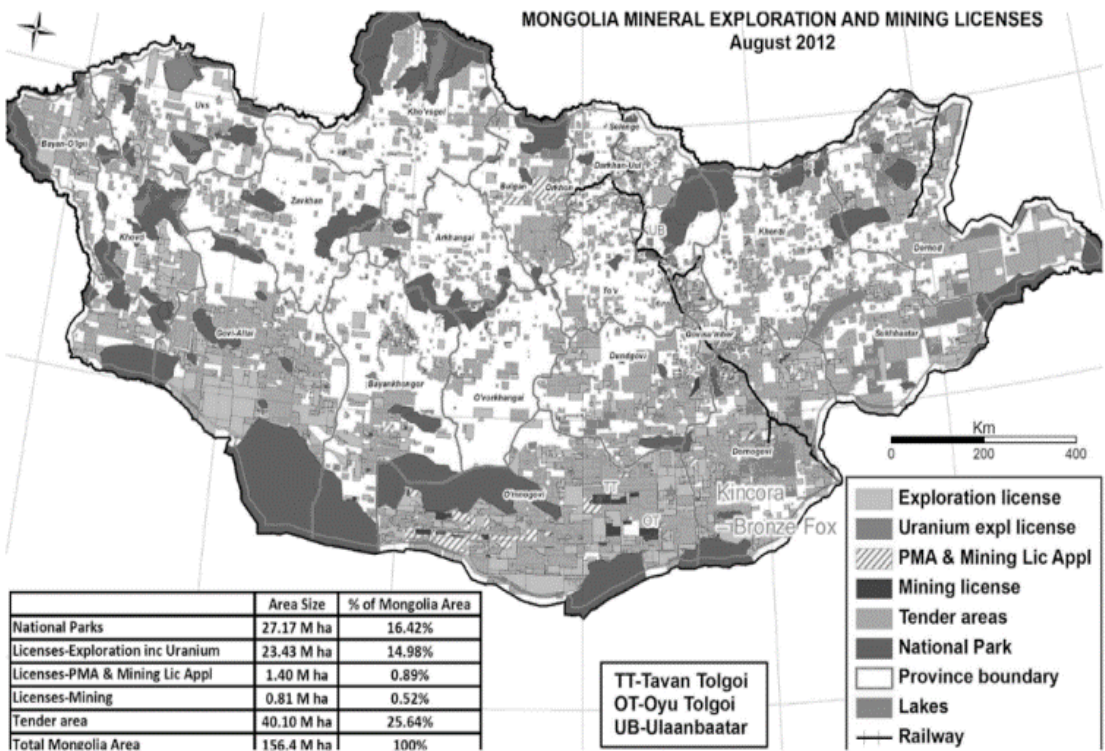
- Land acquisition and resettlement: Herders are worried about having to reduce livestock due to decreasing pasture. The laying of new roads divides pastures and disturbs ground and livestock, affecting herder livelihoods and income. Changes bring increasing competition between herders for pasture and water. Construction of infrastructure and the expansion of mining to yet additional areas may trigger new waves of resettlement.
- Environment: This is happening quickly in Mongolia. There is a loss of vegetation due to soil degradation. The clouds of dust and major noise impacts are felt all along the roads. There is a negative impact on wildlife and a loss and change of vegetation. As a result, cultural resources deteriorate.

⁴ Official Oyu Tolgoi Fact Sheet <http://ot.mn/en/about-us>

- **Economy:** Local companies as well as newly-minted entrepreneurs have a limited understanding when forced to meet high volumes required by mining projects. How should they maintain quality standards? Moreover, neither the country's government nor its private institutions have yet developed the ability to oversee appropriately income, investment and wealth distribution.
- **Water Quality & Quantity:** Water must be protected for human, wildlife and environmental health. Herders report that more water must be made available to maintain pastureland viability. They are concerned with reduction and pollution of water supplies. Shockingly, World Bank researchers have concluded that current known water resources have just 10 to 12 years left, unless additional sources are located and utilized.
- **Cultural Heritage:** The traditional nomadic herding lifestyle is changing rapidly. Pastoralists are uncertain of lifestyle changes, cultural resources, cultural history and their future livelihoods. They want to ensure protection of local culture and keep their historically significant heritage and way of life. Can they?
- **Other Physical Issues:** There are concerns for designated *Protected Areas* arising from the construction of transport corridors in the buffer zones. Migratory animals are being hampered by the impact of new roads in mining areas, by fencing, and by the building of railways. To make matters yet more dire, the Ministry of Industry and Trade is requesting that currently designated Protected Areas, currently pastoral, be declassified so that mining may commence there.



Map of Oyu Tolgoi and Tavan Tolgoi Mine Project Areas



Map of Mining Licenses and Protected Areas

I have interviewed herders, conservationists, mine employees, eco-tourism specialists and local Mongolian officials. In the process I have observed an increased tendency to adopt Western economic and Western conservation-related values concerning pastoralist landscapes and open spaces. These Western practices and values often conflict with the informal, flexible institutions of commons-management traditionally used by pastoralists.

A report by one company, the Oyu Tolgoi LLC, outlines the impacts of coming water diversion and spring relocation on the region’s water resources, flora and wildlife. See Tables 16, 21 and 27; these are taken from the company’s Undai River Protection and Partial Diversion Project’s “Detailed Environmental Impact Assessment” of 2012⁵. In some cases the only available water source already has been fenced in by mining companies and is no longer available for livestock. Thus, herders, nomads who make up 40 per cent of Mongolia’s population, have seen their sole water source diverted. They say that pollutants are poisoning their livestock.

⁵ Available at:

http://ot.mn/sites/default/files/reports/Detailed_EIA_Oyu_Tolgoi_Undai_River_Protection_2012_EN.pdf

TABLE 16. RISK RANKING OF POTENTIAL IMPACTS ON WATER RESOURCE

Potential Impact	Consequences	Likelihood	Risk Ranking
Loss of Bor ovoo spring	Local impact	Almost certain	H
Interruptions of restriction on the base flow in the wells and springs south of license area (downstream of diversion), e.g., Khukh Khad, Maanit and Burkhant Springs	Local impact	Possible	H
PAF or sediment laden water run-off into the Undai River diversion	Local impact	Unlikely	L
Hydrocarbon spills during construction leading to contamination of water resources	Local impact	Unlikely	L
Groundwater level will decrease around the area including diversion dam to reprovisioned Bor ovoo spring and dry excessively	Local impact	Almost certain	H

TABLE 21. RISK RANKING OF POTENTIAL IMPACTS ON VEGETATION

Impact	Consequence	Likelihood	Risk Ranking
Loss of vegetation associated with surface water features, including Bor Ovoo Spring and vegetation communities associated with the temporary flow of the diverted section of the Undai River with 1.5 ha	Local impact	Almost Certain	H

TABLE 27. RISK RANKING OF POTENTIAL IMPACTS ON FAUNA

Impact	Consequence	Likelihood	Risk Ranking
Destroy wildlife water point and wildlife habitat to be changed	Local impact	Almost certain	M
Elm trees might be destroyed and breeding location for several carnivorous birds to be changed	Local impact	Possible	M
Soil disturbance within project area may impact on insect habitat	Local impact	Almost certain	M

Each of these risks is serious. Yet, the mitigation proposed tends to be minimal.

The process for mitigation of these threats to the environment, when dealing with mining companies, is complex. This is especially true for people who are widely dispersed across the commons and for the most part do not have timely or traditionally organized means of communication.

Here is an example which outlines the steps of one proposed Community Grievance Procedure. Although relatively straightforward in appearance, each step throws huge barriers in the way of herder communities as they try to see the process through to meaningful resolution.

The process is different with each company.

Regulatory and Institutional Framework

In the past decade, the Mongolian government has evolved from being predominately the owner and operator of mines to being a manager and regulator. This transformation set in place a legal framework designed to help guarantee an environmentally sustainable growth of the mining sector. The cornerstones of this framework are the Mongolian laws on environmental protection and environmental impact assessment. These laws include the application of a “polluter-pays” principle and the right of access to environmental information. They also address the promotional roles of governmental, nongovernmental, and international entities in raising environmental awareness through environmental education and technical training programs. Yet these laws contain no provisions for a socioeconomic impact assessment.

The 1997 Mineral Law was designed to accommodate the government’s limited institutional and financial capacity. While it provides a simple framework that takes into account some of the key environmental and social impacts of mining, it fails to formalize public involvement in the permitting process and lacks provisions to ensure sufficient funding for ongoing and future rehabilitation.⁶

Before 1992 and the shift to a market economy, the state-owned Mongolian-Soviet joint ventures with Russia, Bulgaria, Czechoslovakia, East Germany and Hungary dominated the mining industry. Back then, the mining ventures focused primarily on coal, gold, copper, tin, fluorspar, and molybdenum. Since 1992, there has been a growth in the number of local Mongolian companies along with other countries involved in natural resource exploration and mining.

The mining companies establish industrial cities of various sizes to serve large groups of people and provide support services for resource extraction and production activities. Until recently, mining enterprises had been operating with minimal local recruitment or

⁶ Mongolia Review of Environmental and Social Impacts in the Mining Sector, May 2006, World Bank www.worldbank.org/eapenvironment

input from rural people. Possibly, new cooperation involving human outreach will minimize negative impacts of mining and change the reality that mining activities destroy the environment and make only minimal contributions to the overall economy.

But, lack of trust by rural pastoralists and others affected by mining operations has been intensified because the regulatory and institutional support system(s) have not adequately safeguarded the affected communities. Until recently, collateral involvement and development programs have been undertaken by mining companies as simply incidental initiatives undertaken in order to help the companies improve their relationships with the local herder communities.

Key unresolved issues include:

- complex, historical land-use practices,
- functioning financial policies that would contribute to local communities,
- informal, renegade or “ninja” mining by herders who practice free-lance illegal mining, and
- the capacity of government oversight to ensure compliance with regulations and laws.

Capacity

Mongolia’s Law on the Protection of Cultural Properties states that prior to allowing land to be used in the construction of buildings, hydroelectric stations, industrial mines and infrastructural improvements, a feasibility study must be conducted by authorized historical and archaeological organizations. Costs related to the feasibility study are covered by the organization in charge of such activities. Compliance with the law, especially its requirement for feasibility study oversight and follow-through, is a challenge. It is met with skepticism by government officials, herders, and non-governmental organizations.

In February 2013, the United States refused to endorse the World Bank Mongolia (Oyo Tolgoi) Mine Project. It cited numerous concerns about environmental oversight, unresolved consequences to herders and inadequate governmental oversight capacity.

Due to these and other issues, the United Nations Development Program, with the support of the British embassy in Mongolia, organized a meeting in January of 2013 of government officials, international partners, citizens, academia and the media. According to the UNDP, revenue from mining alone accounts for nearly one-third of Mongolian government revenues, and makes up approximately 22% of the country’s GDP. With the large influx of revenues come opportunities for transformation of a country’s prospects -- and for the fabric of a traditional society.

History tells us that presented with this opportunity, a country's management decisions are critical to failure or success and prosperity. UNDP Resident Representative Sezin Sinanoglu has said "The sheer size of Mongolia's mineral resources and potential revenue flows are staggering, which places a huge responsibility on the government as it faces tough policy choices on how to use this wealth wisely for the benefit of all. When making those choices, the key words will be equity, sustainability and accountability, all of which underscore human development." With funds being accumulated rapidly, perhaps Mongolia can expand the well-being of the people and also provide for future generations. These mean different things to different people and varying interests and require informed governance.

Because Mongolia's economy today is heavily dependent upon mineral exports, there is added risk should an expected revenue stream be interrupted by global prices. To address expected fluctuations in market prices, Mongolia must ensure informed and knowledgeable adaptability in order to safeguard pastoralism and the environment and provide for growth that is compatible with law, policy, traditions and culture. In order to innovate and continue making improvements, both the urban and rural population face a choice: the decline of the pastoralist lifestyle may, in fact, be the offset cost for the financial benefits of mining.

Innovations, Adaptive and Co-Management

Collaborative efforts are being attempted between herders, government officials, non-governmental organizations, and developers in hopes to effectively manage land while addressing livelihood issues contained in the mining v. pastoralist debate.

Dr. Caroline Upton, a researcher from Leicester University, writes that Mongolian herders are facing multiple pressures on their livelihoods, traditionally based on nomadic pastoralism, from climate change, mining, desertification and new policies on land. She was the lead researcher on a recent project where national decision-makers were brought together with affected parties and local stakeholders to evaluate key issues pertaining to nomadic culture, livelihoods and identity in modern Mongolia.

Herders are being encouraged, through government policy and donor interventions, to form herder groups. The groups are designed to collaborate in pasture management, labor sharing, and environmental conservation, as well as marketing of their livestock products, improving local livelihoods and resilience.⁷ One such group with which I work in the region is a woman's collective called Ikh Nart is our Future.

⁷ "Community, Place and Pastoralism: Nature and Society in Post-Soviet Central Asia" Leverhulme Trust, Caroline Upton et al.

The Oyo Tolgoi Mine Cultural Heritage Program coordinated and outlined a series of meetings in August and September of 2010 with local herders to help develop cultural protection efforts. Topics included:

- What is cultural heritage?
- What should we do to preserve and transmit it to future generations?
- Meeting local citizens who are interested in the research work of local historical and cultural properties.⁸

Dr. Joan Schneider, an archaeologist from the California State Parks, coordinates a cultural protection program and team in the Ikh Nart Nature Reserve Protected Area. She is also working with local herder communities, Mongolian and other cultural specialists to identify and protect cultural resources and to minimize negative impacts of mining activity. Her team's work was presented at a conference in Hawaii in early 2013. Dr. Schneider cited the newly developed Ikh Nart Management Plan⁹ as being instrumental in identifying critical areas of focus. Only with on-going and sincere efforts will outcomes from this type of collaboration prove beneficial.

A much debated pastureland law is attempting to strengthen seasonal pasture rights for families and herder groups. In addition to the impacts on mining and development, there are fears that historic pastureland may become privatized. This will mean less ability to move herds in traditional ways based on variable need. Adaptive pastoral management -- a form of co-management in cooperation with local government, researchers and others -- is gaining support and is being replicated in many areas. Adaptive co-management begins at the field or pasture level. Academic activist H. Ykhanbai has said that pastures in Mongolia are a common pool resource shared by many users, while private ownership of livestock allows herders to manage their own business.

Sustainable management of herds depends on the carrying capacity of pastures and on the interactions of those who rely on the same resources. Ykhanbai points out that there is a limited capacity of herders and local government to sustainably manage pasture resources. Other stakeholders, however, from mining, development, education, business, government, and governmental organizations can help. Working together, perhaps many have the ability to manage resources more effectively.

Collaborating in adaptive co-management may give herders a more representative voice when evaluating short and long-term impacts that are crucial to them and the sustainability of their livelihoods and lifestyles. Groups of nomadic herding households can graze their livestock in rotation throughout seasonal pastures. Then they can gather

⁸ Oyu Tolgoi LLC Cultural Heritage Program Phase 1 Report February 2011

⁹ Management Plan for Ikh Nart Nature Reserve 2012-2016 (UNDP SPAN Project)

in winter and spring camps with their livestock sheltered and then return to adjacent areas in summer and autumn with the fresh water and greening pastures.

According to Upton and others, Mongolian government policy is also promoting intensified livestock production. When this occurs it increases tensions between movable and more sedentary livestock production in rural areas. This intensification raises questions about the nomadic pastoral culture and its very identity in a modern Mongolia. Intensification of production requires, among other things, changes in how pastureland is allocated, leases, flexibility and mobility.

Conclusion

Rapid development of mining activity and resource extraction in Mongolia has an immediate impact on the issues of historic pastoral land rights, the survival of the pastoralist culture and environmental sustainability. Mongolia's neighbors -- primarily China and its huge demand for copper, gold, uranium, and other minerals and its political influence -- is a driving pressure for increased resource extraction. The same applies to China's increasing demand in Africa, where it is vigorously pursuing needed natural resources. But the Mongolia case is a conspicuous, dramatic example.

Adaptive co-management groups are becoming more prominent as a solution to evolving questions of land rights, herder relocation, natural resource protection, and the preservation of cultural resources. Both the future of Mongolia's pastoral herding culture and the country's evolving civilizational transformation are linked to evolving policy, the capacity to manage, and decisions being made today. Overall, there is growing recognition of the value of pastoral life and heightened recognition of its cultural, historic and on-going traditions.

History shows that we tend to protect what we value. There are competing civilizational values and there are so-called "global values". Does pastoral life have a right to exist or must it compete with the innovations and demands that arrive with modernity? We know from studying the past that dominant civilizations prevail. The more influential the voice, the more protection is afforded. The voice of pastoralism in Mongolia is talking, but is it destined for extinction or will it continue to be heard?

Recommended Readings

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