

Evolution of Common Resource Tenure and Governing: Evidence from Pastureland in Mongolia Plateau

Yaoqi Zhang^{1,2}, Amartuvshin Amarjargal^{3,4}

¹School of Forestry & Wildlife Sciences, Auburn University, AL 36849

²<zhangy3@auburn.edu>

³University of the Humanities, Ulaanbaatar, Mongolia

⁴<amarjargal2010@gmail.com>

ABSTRACT

Land tenure is to define who hold the land as well as the relationship between tenant and the lord. Most fundamentally tenure and changing tenure is capturing the value of the resource. The nature of the resource and changing relative scarcity are essential to induce or lead evolution of land tenure. Pasture resources have been held in open access and communal tenure for much of the long history on Mongolia Plateau because of the abundant resource with low population density. Historically pasture tenure in this region has been evolving from open and semi-open access to communal tenure (control) to more private ownership, although other forces like political system can only cause temporary departure from the general patterns. Presently the variety of tenure arrangements largely reflects the scarcity of the pastoral resources: Mongolia is still primarily adopting semi-open access with community governing although state is viewed as sole ownership, while Inner Mongolia is more directing privatization of at least the use rights.

Keywords: economic reform, property rights, privatization, community, central planning

INTRODUCTION

A common pool resource can be divided and exclusively to specific owners or users, but is costly to exclude other users from obtaining benefits from its use. Although common resource is often held in communal tenure (a certain group of people can access) to avoid the huge costs of excluding, it can be owned by public or state, or private individuals or corporations, or simply open access. No single tenure is suitable to all circumstances. Pasture has been viewed as a typical common resource for its costly fencing and dividing relative to the land value. The driving forces of the evolution can be from changes in population density, market, grazing methods, economic structure, and political forces among others. Figure 1 illustrates the general pattern from historical perspective. For a long history, pastoral resources had been in communal tenure with various rules of self-governing. The historical evolution and recent economic reforms on Mongolian Plateau provide a good case for the investigation. Understanding how these changes would be important for policy implication.

When population is spare and pastureland is abundant, open or semi-open access or the best in common tenure of tribal group is likely the best arrangement. In open access,

the private opportunity cost of pasture is close to zero, the herdsmen are to maximize the rent by adjusting the number of animals. Suppose pasture resource is abundant enough to meet what the optimal size of livestock of the herdsmen's, and still not cause conflict. Not all pasture has the same quality and rents will be determined by the most marginal and open accessed pasture land. When the population is increasing and the resource is becoming scarcer, more pastoral land should be changed from open access to regulated access.

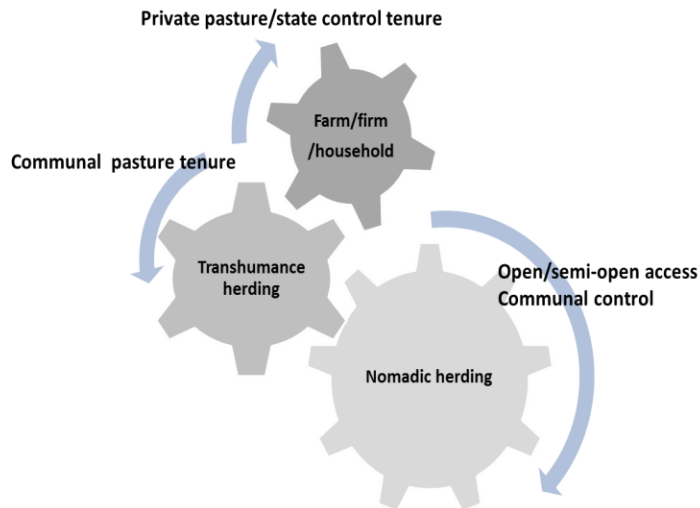


Figure 1. The evolution of herding and pasture land tenure

For the better and regulated pasture, the optimal number will be determined to maximize the rent under given wage. The rent here refers to the value or wealth contributed by the land, while wage refers to best labor income from other activities. If the pasture is also under open access, then more people will flow to the pasture for higher return, and eventually the rent will disappear. In order to protect the land value, some regulation should be introduced, like tribal pasture or other kinds of communal tenure. Not all pasture should be under closed access and most marginal pastureland can be left with open access, only the core and highly valued one should be regulated. Much of the pasture resources for long time had been in communal tenure, like kinship or tribal group on Mongolian Plateau. Pasture with the characters of common resource has its own advantage in communal tenure. For example, the tribe heads provided the protection of the herdsmen (or leadership of the tribal collective action) and set some rules governing the resources from access from other tribes, the herdsmen paid some to the tribe heads.

Privatization does present an important approach: It is when the commons is privatized, divided into parcels, fenced off, and individual responsibility is created. Each herder can now be in full control of the pasture, both the benefits and costs. In fact, most pastureland in developed countries is in private ownership. However, the privatization imposes highest costs of the arrangement. The expected land gain from the land value must justify the costs.

EVIDENCE FROM THE MONGOLIAN PLATEAU

For many thousands of years, the basic herding unit like kinship and tribal group on Mongolian Plateau was at the core of pastoral production and politics. The wealth and power varied from group to group and the leaders of the groups regulated the conflicts within the group and more importantly organized it for defense or aggression against

external enemies. Some pastures were protected only use in the winter times, and the rotation and paths of grazing were coordinated, while other resources were in open or semi-open access. The boundary of the ownership was hard and not necessarily clear and well-defined considering the huge space with small population. Fighting for the territory particularly some core resources was normal and constantly throughout the history (Lattimore, 1940).

It was argued that the emerging state among the nomadic pastoralists might not be for the internal needs, but to deal with highly organized sedentary state societies on a continual basis (Burnham, 1979; Irons, 1979). That means open access might not be the major problem. The argument has been supported by the fact that sub-Saharan Africa were the least formally organized nomads were found until colonial period, while Inner Asia had had the most formally organized nomadic societies where closer to China, the world's largest and most centralized traditional sedentary state (Barfield, 1989, p.7). However, when it was established, the nomadic state took advantage of asymmetrical relationships for the military power as mobility (Khazanov, 1985).

Mongolia Empire ruled by Chinggis Khaan (1162-1227) united the nomadic tribes of the Plateau with over some 1 million people. In order to suppress the traditional causes of tribal warfare, he abolished inherited aristocratic titles. "*At the head of nomadic empire there is an organized state led by an autocrat, yet most of the tribesmen within the nomadic polity seem to retain their traditional political organization, which is based on kinship groups of various sizes-lineages, clans, tribes.*" (Barfield, 1989, p.5). Chinggis Khaan also promoted feudalism pasture tenure system. The Empire built by Chinggis Khan was later divided in a few kingdoms ruled by his grant children. It was even more like feudalism society under Qing dynasty created in Manchuria in the mid-1600s. The "Banners" were military-social units, but also feudalism systems allocated by the emperor rather than bribe communal tenure.

Prior to Ming Dynasty in 1641, nomads moved freely across the territory (Linder, 1981). After Ming Dynasty, pastoral territory was re-allocated to groups of tribes, creating administrative units with fixed territory except during harsh winter or draught (Natsagdorj, 1967). Qing Dynasty (1644) further strengthened hierarchy tenure: The emperor had the ultimate ownership, but tribe heads, religion leaders and landlords held the dominate position for pastureland use rights: 1) tribe heads-owned grasslands in the name of the tribe or nation; 2) herd owner leased grasslands, paying some to the tribe or nation; 3) temples and the temple presides took charge of the usage right of the grasslands. It is important to note that not colonization of the Mongolian Plateaus was motivated until Ming and Qing dynasties. The most fundamental economic reason is that the land was too low value and could not generate rent, while the costs required could not justify the owning. The increasing population in Ming and particularly the Qing Dynasties appreciated the land value, particularly the land potentially valuable for agricultural use along the transition zone.

Collectivization and state central planning regime in both Mongolia and Inner Mongolia was really an episode of departure from the general pattern. Central planning was introduced in Mongolia after 1921, the pastoral rights fully centralized into state. Collectivization was a main tool to achieve that goal. Livestock were pooled into collectives by the end of 1950s after years of struggle and violence (1921-1940) (Hibbert, 1967). State decided where to pasture and when to pasture for all collectives livestock. Herders of the collectives were not permitted to immigrate freely without local administrative units. Mongolia was influenced by Soviet Union to become centrally planned economy. In the 1950s and 1960s, pastures and livestock in Mongolia were collectivized. By the early 1960s, Mongolia had completed the dramatic social transformation from the "communal" ownership into more state-controlled collective economy. Herders were forced to sell livestock products to the state at planned price rather than market determined (Fernandez-Gimenez, 1997). Since 1990 after the collapse of the Soviet Union, the economy started to transit from central planning

economy to market economy. The livestock was distributed to households, but the pasture resources are still in the state. The incentive of private ownership of livestock has significantly increased the number. Due to the abundant resources and pasture, most of pasture resources are very much in open access although the state is the sole ownership. Only some land close to urban area particularly the Ulaanbaatar was allocated to individuals.

In Inner Mongolia, some dramatic changes in policies have taken place since 1949, first in Cooperative period (1954-1958), followed by the People's commune. The livestock products were allocated through the central planning. Since the early 1980s, the livestock, first, then the grassland, was changed toward privatization. When livestock was privatized, pastureland was in communal without regulation; the number of livestock was sharply increasing in the late 1980s. The driving force changed from production regulated by the state and local government to profit maximization of the each household (Gao et al., 2013). This is exactly the case of open access, and the pasture has been widely over-grazed in the late 1980s and early 1990s. Recent studies show that grassland in IM and MG have had degraded to varying degrees and IM is more serious than in MG (Angerer et al., 2008; Jiang et al., 2006). Unlike the earlier history when population was low and pasture was abundant and open access was not a bad choice arrangement, the unregulated pastoral resource use of the scarce resource in the 1980s was damaging and leading to over-grazing immediately. Dividing the pasture with enclosure was induced to prevent the open access since the mid-1990s. Regulation and limiting grazing intensity was called upon by the central government, and a grassland restoration policy enacted in 1998-1999. Several stages of compensation have been implemented across the region.

DISCUSSION AND CONCLUSIONS

While there is no single tenure would be suitable to all circumstances. Variety of scarcity is the most fundamental force in determining the tenure. The great disparity can be found not only between Mongolia and Inner Mongolia but also with each region. More valuable resources like winter pasture or closer to population center had more specific rights and were subject to more regulation, while remote and marginal pasture were left with open and semi-open access. The evolution has generally been evolving from open access to communal control and finally to private control and management. Today the least populated in Mongolia is still open or semi-open access, but more populated area is becoming to subject more regulation.

The centralized pastoral land tenure in Mongolia and Inner Mongolia from the 1940s to 1980s were departure from the general pattern of the evolution and has been proved less efficient and not effective in pastoral resource use and protection. Current reforms taking place are retreating back to match economic development, new technology and productivity. What tenure we should adopt still depends on the relative scarcity. You can simply get or rent the resources with very little costs (a few cents of US dollars per ha per year): open and semi-open access is still the best arrangement. However, some pastoral resource is becoming very valuable in Inner Mongolia and the rental costs can go as high as annual \$30 per ha based on our investigation and household survey in 2014. Open access will cause the rent dissipate.

The pastoral resources have a bundle of rights. In order to capture the value from pastoral land, each right can have its own arrangement. Private owners know best of their management to capture the grazing value, but might not consider its externalities. For example, as grassland has been becoming important in providing ecosystem service which are in the nature of public goods, centralized some pasture resource would be a better arrangement if the market mechanism for ecosystem services like ecosystem service payments have not been developed. Recent policies have been proposed in Inner Mongolia to use ecological compensation to the owners who provide the services

and the benefit receivers in other regions. In sum, the variety of value from the grassland largely determines the tenure designed to better capture the value. Changing value should promote to changing property rights arrangement or complementary policies.

ACKNOWLEDGEMENTS

This work was conducted with financial support from the NSF-CNH project “*Ecosystems and Societies of Outer and Inner Mongolia.*”

REFERENCES

- Angerer BJ, Han G, Fujisaki I, Havstad K. (2008). Climate change and ecosystems of Asia with emphasis on Inner Mongolia and Mongolia. *Rangelands*, 6, 46–51.
- Burnham P. (1979). *Spatial mobility and political centralization in pastoral society, in pastoral production and society*. Cambridge University Press, Cambridge.
- Fernandez-Gimenez M. (1997). *Landscapes, Livestock, and Livelihoods: Social, Ecological, and Land-use Change among the Nomadic Pastoralists of Mongolia*. Ph.D. dissertation, University of California, Berkeley, USA.
- Gao L, Zhang Y, Qiao G, Chen J. (2013). Grassland Degradation and Restoration in Inner Mongolia Autonomous Region of China from the 1950s to 2000s: Population, Policies and Profits. In (Chen J, Wan S, Henebry GM, Qi J, Gutman G, Sun G, Kappas M, eds.), *Dryland Ecosystems in East Asia: State, Changes, and Future*, HEP-De Gruyter, p406-422.
- Hibbert RA. (1967). The Mongolian People’s Republic in the 1960s. *The World Today*, 23(3), 122-130.
- Irons W. (1979). *Political Stratification among the Pastoral Nomads - In Pastoral Production and Society*. Cambridge University Press, Cambridge.
- Lattimore O. (1940). *Inner Asian Frontiers of China*. American Geography Society, New York.
- Jiang H. (2006). Decentralization, Ecological Construction, and the Environment in Post-Reform China: Case Study from Uxin Banner, Inner Mongolia. *World Development*, 34, 1907–1921.
- Khazanov A. (1985). *Nomads and the Outside World*. Cambridge University Press, Cambridge.
- Linder RP. (1981). Nomadism, Horses and Huns. *Past & Present*, 92, 3-19.
- Natsagdorj S. (1967). The Economic Basis of Feudalism in Mongolia. *Modern Asian Studies*, 1, 265-281.
- Wang J, Brown DG, Agrawal A. (2013). Sustainable governance of the Mongolian grasslands: comparing ecological and social-institutional changes in the con-text of climate change in Mongolia and Inner Mongolia, China. In (Chen J, Wan S, Henebry GM, Qi J, Gutman G, Sun G, Kappas M, eds.), *Dryland Ecosystems in East Asia: State, Changes, and Future*, HEP-De Gruyter, p423–444.