

How do Mongolians Use Water:

A Geographical and Sociological Approach

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Abstract: “Water and cultural diversity” has become a global topic. In such a multi-ethnic nation as China, water usage and exploitation has embodied cultural diversity and the internal relationship between state, society and individuals. Based on fact-finding researches in different Mongolian areas, this paper attempts to analyze the relationship between traditional usage of water and geopolitics within the “public vs. private” framework. It also tries to reveal the negative impact on such a society from outside forces. In particular, the author maintains that water usage and administration reflects ethnic relationship in the areas co-populated by Mongolians and Hans.

The studies of the grasslands which account for 47% of the earth land, and their ecosystem is always the concern of all humans. According to the world resource report, the pastures provide 30 to 40 million nomads with large amount of foods. However, the grasslands, over-grazed and over-reclaimed, are facing a trend of desertification and degeneration, which is also owing to short term policies and pure economic concept of getting maximum profits. In China, the grasslands occupy 41.67% of its territory, that is, about 4million square kilometers. They take up 13.9% of the grasslands in the world and rank third, only second to Australia and former Soviet Union. There are two types of pastures in China: the northern nomadic zone and the southern agricultural zone. The grasslands are distributed from Dongbei Plain to Qinghai-Tibet Plateau and from Hainan Mountain to Huanghai Coast, with the Inner Mongolian’s grassland as the largest temperate one. Due to many complex factors, the grasslands in China were just exploited without any construction

over a long time. This results that they are low productive and 30% are facing degeneration of different degrees.

In the researches of grasslands in the world, the developing countries in particular, many experts and advocators acknowledge that the economic, social and cultural differences affect the utilization of grasslands constantly, and the improvement of grasslands is a complex social issue as well as a technical one. It's realized that the improvement need the cooperation of local people and the combination of local social structure and traditional culture, particularly in the course of assistance development by relevant governments and NGO.

A Traditional nomadic technique

In a traditional nomad society, water and grass belong to the public, without which livestock there can't survive or reproduce

From everyman's view, nomads do not care too much about the earth land, for they live in boundless land which is bestowed by God. Actually, the Mongolian nomads rather concern about its utilization and protection. That they move about seasonally is, in fact, a choice on efficient grassland utilization. Their choice of pastures is with a close consideration of changes in the nature. The nomads are sharply sensitive to the grasslands' shape and its nature, the way the grass is growing and water networks nearby. Even riding on a horse at nights, experienced elders can even tell the types of nearby grass and the nature of soil by smelling. The vast grassland looks the same to outsiders but quite different to the nomads who know the differences and can tell them apart.

Like farmland, the pasture is a kind of elements for production. It can transform kinds of plant products into animal ones by human's works. The pasture itself is renewable. It can basically self-sustain and maintain energy stably without any human beings' interference. However, the pasture system is basically adopted by the nomads. It roughly prescribes time and space of pastures' utilization. In each pasture system a series of technical measures fix the livestock being grazed, pastures and pasturing time well. There are two major types pasture systems: one is free grazing, and the other is rotational grazing.

In a traditional nomad society, Mongolians have a series of reasonable methods of pasture lands' utilization and protection. They will control grazing with water and grass into consideration. On the aspect of water, pasturing will be only limited to the areas along rivers and lakes. On the aspect of grass, as they know each pasture has a limited capacity of livestock's types and number, Mongolians indeed make efficient uses of the grassland that they graze seasonally in different grasslands. Otherwise, they will not pasture in cold winter, blowing early spring and hot summer with insect pests. The following is the description of nomads' migrate lives: "Following grass and water, the nomads transfer frequently. The whole family is too tired to say goodbye to the place they used to live in. They can not remember where is their hometown ever after getting grey."

Different climate, terrain, water network of each pasturing camp result in different grass and their growing speed. Therefore the Inner Mongolian will change their pasturing camp seasonally according to the climate. In traditional Mongolian pasturing activities, they transfer with their livestock every spring in order to make a rational use of the grassland resources and supply better

forage grass for their livestock in different period of the year. This kind of transfer would be four times a year in some places with comparatively large diversities of climate and vegetation and called four season camps; but will only twice a year in some flat place with smaller diversities of climate and vegetation. They stay in the same camp during winter and spring which is called cold season grassland while the other in summer and autumn which is called warm season grassland. In the four season camp, the summer and winter camps are taken more use than the spring and autumn camps which belong to transition camps. The use time of cold season grassland in two season camps is also more than the warm season grassland. This specific time table is a survival from their nomadic history.

In a long period before 1950s, nomads in Xilingele grassland in Mongolia which the author invested in would choose a day with fewer storms in March of lunar calendar. To provide grass with a better growing environment, they would set fire in distanced pastures before the spring rain time. (However, this so-called backward and destroying action was forbidden after 1950s without considering the regional features.) Nomads would back to the yurt to pasture at the beginning of May, when the forage grass begins to grow. For example, they would divide their horses into groups. Each group contains 500 horses. A pasture of 30 Li can only provide a horse group with 15-day-food. Then they have to transfer to other places. And then after 30 or 15 days, they came back to the previous place. This is called the rational grazing. Nomads would not go back to their yurts with their horses until the water and grass had been exhausted between the later September and the early October. They would not pasture in further places until November when they go to the winter camp. Although the grazing method of other livestock is different, the seasonal move is the same. "Summer in the hillside, winter in the fossa" that is the nomad' climate adjustment to provide a good climate environment for livestock in

animal product industry.

The nomads not only pay attention to the time schedule of pasturing, but also have a scientific knowledge on pasturing space based on folk-custom ecology and folk geography. First of all, they make a perfect use of terrain microclimate. Through their long period of practice, they have learned that the vertical distribution of temperature and water has certain differences between some mountain grasslands and piedmont grasslands. Therefore, when they organize a transfer they would take into consideration of the local microclimate features of medium and small terrains, such as mountains and trend of valleys. Thus the warm season camp usually lies in mountains, hillocks and mesas with high altitude while the cold season camp is usually situated in the sunshine, lee sloping fields, valleys and basins with low altitude. Nomads camp in the basis of terrain and grassland. Each camp is formed by three to five families with a distance of several Li. They mainly live nomadic lives without settling down. Take the Buliyate Mongolians' camp in 1930s for example. Normally each camp of it has three to four families. The common distance between each camp is one to two miles and the nearest distance is 300 meters.

Making a good arrangement of the use of the grasslands according to different seasons, grass qualities and water conditions, nomads divide grasslands into either two sections: winter-spring section and summer-autumn one, or four sections: winter, spring, summer and autumn sections. They will pasture in different sections due to different seasons with features of rotational grazing or semi-free grazing. This is also a great achievement that Mongolians have made in the management of nomadic manufacture that it reduces over-grazing, nomads' contest for the grassland and blindly centralization of the

livestock to a large extent. It is no doubt that this traditional pasture management is helpful for protecting water resource and grassland in great degrees. Besides, their water and grass protect consciousnesses are related to their religions and world views.

B The value of religion and the ethic of environment

The leading religions have crucial impacts on the basic attitudes of a society and its social values. In different culture, the religious activities are not quite the same but all strongly connected with their own lifestyles. Religious thoughts focus on balances between human and nature, and thus produce peace of inner heart. Nowadays, in a new trend, the religious members are more consciously combining religious activities with nature protection. This leads to the religious culture developing in the direction of ecological one by establishing a powerful union of religious power and nature protection power. As one element of the Mongolian nomadic culture, the principles of cause and effect, kindhearted as well as overall perspective in Lamaism give birth to the ecological philosophy on “human-livestock-grass” relations. This philosophy to a certain extent urges people to maintain a balance with nature.

In ancient times, Mongolians believed in Shamanism. Although, since the 13th century (Yuan dynasty), the upper-class of Mongolians have converted their beliefs to Red Hat Lamaism, great amount of nomads still believed in Shamanism. After the 16th century, many nobles began to believe in Gulug (Yellow Hat) Lamaism and popularized it among nomads. In Qing dynasty, especially after Emperor Qianlong period, they adopted policies of comprehensive protection and encouragement of Lamaism. The Qing government not only encouraged each league to construct a lot of temples, but

also built temples under the imperial order of the emperor. Since then Lamaism has gotten popular among Mongolian society. Till now it has also remained the major religion of Mongolians. Moreover, it is incorporated in their values towards nature.

Nomads' thoughts, world values and universal concepts are decided by their simple lifestyle, the grassland and the monotonous nature they live in. Their perceptions of nature and reasonable thoughts are mostly based upon the above elements. Grazing and hunting at that time have to carry out in a manner of cooperation and this affects largely on the forming of Mongolians' collective concept and cooperating spirit. The environments they live in make them be in harmony with nature and form the value of obeying nature.

In various commandments of Lamaism, the first important one is that man should avoid "taking life". In the minds of Mongolians, everything is zoetic, including humans, other animals and plants. Therefore, they cherish everything embracing the water resource on which everything relies to live as much as they cherish humans' lives. "Taking life" is guilty in the eyes of Mongolians.

Before Lamaism came into Mongolian society, the traditional folk religion was Shamanism. And the Shamanism is the foundation of nomadic culture. Even if the Lamaism becomes the state religion, Shamanist culture still exists in the custom of common nomadic people.

According to Shamanism, everything in the universe including visitation on the earth is governed by Gods. Besides, God of Earth and God of Heaven take important positions in the manito system of Shamanism. For example, God of

earth, also called Daughter of Mother Earth, takes control of the growth of everything, so nomads pray to her for harvest and safety. Tenggeli, God of Heaven is in charge of everything on the earth. In addition, Aobao, a kind of soil hill which is piled up with stones or sands near hummock, mountaintop and roadside and is inhabited with many Gods, such as the God of Heaven, Earth, Rain, Wind, Goat, Ox and Horse. Aobao in Mongolian is literally translated into Dui. Each year the nomads will hold seasonal rituals directed by the Dean of Shamanism. They pray to Aobao for good animal husbandry. The Nomadic people look for their residence following water and grass. Whenever they arrive at a new place, they would first circle in the direction of sun for three times or put a stone on the Aobao and read the following sentences aloud: “13 Aobaos become the golden symbol of pastureland between two Nutuke. People and livestock in these 13 Aobao have come back safely.” When they pray to Aobao, they ask God of Heaven for seasonable weather for the crops and God of Earth for ample grain harvests and thriving of the livestock. According to the *Mongolian culture* written by Luobusanguedan, the Nomads also pray to Aobao for children. The childless couples will be brought to Aobao by the old and whipped for three blows, then promising that if they give birth to a boy the next year, they will bring him to visit Aobao.

Living in dry and semi-dry grassland area, Mongolians value water very much. Praying rain towards Aobao became an important ritual. When Gobi grassland drought for a long time without rain, people will pray for rain in front of the Aobao and ask God for rain. They believe only god can make rainfall for them. Actually they pray for prosperous grassland when they pray for rain

Mongolians often take the nature to be equal with God because they believe

the theory that everything has a life. Thus they cherish the nature very much and are the environment protectors naturally. Mongolians have an excellent traditional sense of protecting the environment which opposes polluting and overusing grasslands, forests, lakes, rivers. It is such kind of sense that keeps the Mongolian nomadic zones a fantastic picture of “while cloud in the blue sky, grassland, forest, lake and river form a green pure land.”

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