



Disaster and ethics of mobility: Case study of a storm in Mongolia in 2008

Takahiro Ozaki, Kagoshima University

This paper aims to discuss the relationship between disaster damage and Mongolian people's recognition of the ethics of mobility, using the case study of a significant storm (*shuurga*) in Mongolia in 2008 as an example. This storm, which caused the most severe damage in Mongolia since the 1980s, with 52 deaths and 243 thousand animals lost, serves as a crucial backdrop for our discussion.

Nomadic societies often regard mobility as an ethical imperative, whereas a sedentary life or less mobility may lead to illness or misfortune. In Mongolian pastoral society, mobility is frequently mentioned as a means to escape disaster, suggesting that mobility can be intimately linked with the sustainability of mobile pastoralism. A typical discussion of this topic is presented in *The End of Nomadism?* (Humphrey & Sneath, 1999), which claims that high levels of mobility among pastoralists and their livestock are necessary to protect the Mongolian steppe environment from desertification – and are thus critical to the sustainability of humans and nature in the Mongolian Plateau. While we agree with this argument, we note that the mobility of pastoralists can cause overconcentration and cannot effectively avoid disasters in specific cases. This paper will critically examine an

Nomadic Studies, Issue 31: Nomads, Ethics, and Intercultural Dialogue. © Copyright 2024. This work is licensed under [Creative Commons Attribution-ShareAlike 4.0 International](https://creativecommons.org/licenses/by-sa/4.0/). Published by the International Institute for the Study of Nomadic Civilizations under the auspices of UNESCO.

extreme case of heavy storm (*shuurga*) in Mongolia to discuss the potential overestimation of the ethic of mobility. This critical analysis is crucial for understanding the complexities of disaster management in nomadic societies.

After the Mongolian socialistic political and economic system collapsed at the beginning of the 1990s, the total number of livestock in Mongolia generally increased. At the same time, it decreased sharply between 2000 and 2002, and again in 2010, with severe cold and snow disasters (*dzud*). Significantly, the 3-year continuous cold and snow disaster period (*dzud*) in 2000–2002 was so severe that a new type of strategy in pastoralism emerged among those who had lost many of their livestock, who were unable to keep extensive herds in the remote pastures where most of the pastoralists lived during the 1990s. Thus, models of pastoralism in Mongolia after 2000 can be described as involving the coexistence of *periurban* and *remote* pasture models. In periurban pastures near cities or main roads, pastoralists can easily sell dairy products such as fermented mare's milk (*airag*) for cash income. In such areas, there is cellular phone service, allowing herders to receive orders quickly from city dwellers who seek to buy dairy products for personal consumption, and easy access to urban markets with lower transportation costs and reduced likelihood of food spoilage in transport, in addition to markets for livestock and cashmere which can be sold traditionally regardless of the place where pastoralists live. They can thus survive as pastoralists with relatively less livestock than in remote pastures. On the other hand, their seasonal movements tend to be shorter and less frequent in remaining close to a city. In contrast, as pastoralists who occupy remote pastures must keep more livestock and live in areas with lower population and livestock densities, their seasonal movements tend to be longer and more frequent to secure large amounts of forage.

As Mongolian law does not admit privatization of pastureland, pastoralists can move to any pastureland they need unless it is already occupied by others who do not allow newcomers to move in. However, the right to exclusive use is surrendered when a pastoralist moves out, making it difficult for pastoralists in periurban pastures to make long-distance and frequent seasonal movements for fear of losing their periurban pasture sites.

The next question will be which model is robust against disasters. Of course, this can depend on the characteristics of the disaster. In Mongolia, common disasters are known

as “4D”: Dust storms (including blizzards in the Mongolian notion of *shuurga*), Drought, *Dzud* (Mongolian word for cold and snow disaster), and Desertification. The timescales of these disasters differ, from hours/days for dust storms, weeks/months for drought and *dzud*, and years for desertification. However, they are mutually interlinked as drought causes grass and water shortage at the ground surface, which leads to dust storms and *dzud*, while ongoing drought contributes to desertification.

On 26–27 May 2008, a powerful storm (*shuurga*) accompanied by a blizzard and sandstorm attacked the eastern area of Mongolia, producing the most severe damage of any storm in Mongolia since the 1980s. Mongolian national emergency headquarters published a special report focusing on the cause of heavy damage (Tsogt et al., 2008); despite that, a warning for the storm was given 3 days before by the Meteorological Office of Mongolia. The following data of this presentation come from this report and the author’s field research in 2009.

The actual situation of the storm was as follows.

1. On May 26, at 14:00, a powerful wind (up to 34m/s) blew in all districts of Khentii prefecture.
2. It was accompanied by 4-12mm precipitation (blizzard / rainy sandstorm) in the northeast districts of Khentii prefecture.
3. In Batnorov district, the highest temperature on the 26th was 22°C. However, the temperature sharply dropped in the evening to -1 °C, while many herders and livestock were out at pasture.
4. According to data for Sukhbaatar prefecture, the blizzard lasted less than 10 hours, though the sandstorm lasted 20-30 hours.

According to the report, the damage was most severe in Berkh, a small mining town with a population of 4,000 that has been producing fluorspar continuously since the socialist era. Although the mining company was closed in 2000, it remains a mining town because people continue to dig fluorspar as private miners (*ninjas*). Some residents keep livestock in adjacent pastures, maintaining registration as residents of Berkh. According to the statistics, there were 189 households (1,000 people) in Berkh working as pastoralists, while the total number of pastoralist households in Batnorov, an administrative unit including Berkh town, was 736 as of 2008.

In the report, the town mayor of Berkh announced that in Berkh alone (7th bag of Batnorov district), 23,000 livestock out of 47,000 had been lost, and ten herdsmen died during the storm. Many former mine labourers had taken up herding after the mine closed in 2000 and remained relatively young and inexperienced at the time of the storm. Periurban pastoralists are generally less experienced – the periurban herding mode emerged after 2000 – and their seasonal movements are shorter. These factors are the cause of the severe damage. However, if we look at the places where damage occurred, there were apparent differences even within Berkh's periurban pasture. That is, pastoralists living in the eastern periurban pastures experienced the most significant losses, while those who lived in western and southern pastures lost fewer animals. According to the author's interview data with the town mayor of Berkh, most of the herders and livestock died of hypothermia within a blizzard radius of 30-50 km. This fact suggests that the misfortune of a blizzard occurring at this particular location was the cause of the most severe losses, with no relation to pastoralists' preparation or responses to the storm.

In 2009, the author collected case study data from periurban pastoralists, mainly in the northwestern pasture near Berkh, using a random sample. These herders experienced lower losses than those who lived in the east basin of Berkh. Most of them had migrated from sedentary areas after the 1990s, when they retired or left their jobs, and their seasonal movement patterns tended to be shorter, albeit with some exceptions. At that point, they had a similar profile to those who suffered extreme losses on the eastern side. A more appropriate explanation of differential losses is that the blizzard passed through the east basin of Berkh, where population density was extremely high, bringing losses unrelated to the experience or seasonal movement patterns of the herders in those sites.

To analyze the relationship between the damage from this storm and their mobility, we can take Ongon as a comparative example. In Ongon district of Sukhbaatar prefecture, the report pointed out that the sandstorm lasted about 30 hours without blizzard formation. However, eight herdsmen were reported missing, and three of those died. In addition, 16,098 livestock were lost, the fourth-worst damage in Sukhbaatar prefecture. Ongon is located along the border with China and far from urban settlements. As a result, this area is a typical remote pasture area typically associated with frequent and long-distance seasonal movements. Most herders in this area move four times per year, and their seasonal movements sometimes exceed 20 km annually. In contrast, about half of

the pastoralists in Berkh move less than 10 km annually. According to the author's field research data, about 80% of the pastoralists moved away (*otor*) to adjacent districts due to drought conditions for 2-3 years before the storm. In the summer of 2008, they reported that the drought was not severe, but livestock numbers decreased because of the storm (*shuurga*) in spring. In this case, mobility is not linked with losses.

As pastoral mobility itself includes a temporal element (i.e., Distance \times Frequency/Time), it is apparent that disasters with short timescales, such as storms (*shuurga*), tend not to be covered by the ethic of mobility held by Mongolian pastoralists. Thus, misfortune, rather than a lack of mobility, is held as the cause of storm damage (*shuurga*). Nonetheless, mobility can still influence the impacts of drought or *dzud*. For example, an experienced pastoralist in Ongon told the author that he did not go on *otor*, along with most others, to utilize more expansive pasture to feed his herd of more than 1300 animals. From the author's experience, pastoralists recognized for their animal husbandry skills tend not to overestimate the positive effects of mobility but also do not openly link misfortune with a lack of mobility. In this example, the herder benefited from other pastoralists' mobility, demonstrating that mobility was still appreciated. Overall, these findings support the conclusion that a belief in mobility as an ethical imperative is one of the characteristics of nomadic ethics.

REFERENCES

- Humphrey, C. & Sneath, D. (1999). *The End of Nomadism? Society, State and the Environment in Inner Asia*. Durham: Duke University Press.
- United Nations Office for the Coordination of Humanitarian Affairs (OCHA) 2010 Mongolia Dzud Appeal. New York: United Nations.
- Tsogt, J., Monhjargal, Ts. and Sukhbaatar, D. (Supervisor). 2008 Tsag Agaarin Gamshigt Uzegdel. (Meteorological Disaster Event), Ulaanbaatar: Ontsgoi Baidlin Yoronhii Gazar (in Mongolian).