

Changing Political Regime and Mobile Livestock Keeping in Mongolia

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Mongolia belongs to those countries where mobile livestock keeping still plays an important role. Since the end of socialism far-reaching changes have taken place in animal husbandry. The collectively-kept animals of the production cooperatives (negdel) were privatized and distributed to their members in the early 1990s. Many so-called 'new nomads' started mobile livestock keeping. Background and characteristics of the recent change as well as major problems of Mongolian mobile livestock keeping are highlighted. New forms of spatial and social organization arising from market-oriented conditions are discussed. It is concluded that a sustainable rural development can only be achieved by a holistic approach. The major goals are to keep the number of animals at a reasonable amount, introducing new legal regulations for securing a group-oriented ecologically-adapted pasture and water management, establishing small and medium enterprises processing animal raw materials as well as the improving the technical and social infrastructure. Implementation of these recommendations by the Mongolian government will contribute to a viable future of mobile livestock keeping in Mongolia.

Keywords: Mobile livestock keeping, pastoral nomadism, migration, spatial mobility, survival strategies, rural development, transforming country, Central Asia.

Mongolia is a country where a considerable section of the population still relies heavily on mobile livestock keeping/pastoral nomadism for a living (cf. Bold, 1996; Finke, 1995; Janzen, 2002; Janzen and Bazargur, 1999; 2003a; 2003b; Müller, 1994; 1999a; 1999b; Müller and Janzen, 1997).¹ The term 'mobile livestock keeping' will be used in this article because the 'traditional' nomadism that originated in the arid zones—the 'Sozio-ökologische Kulturweise Nomadismus' (Scholz, 1995)—has in most cases lost its original character, and indeed in many places either no longer ex-

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ists or has been allowed to decline.

Seen globally, mobile livestock keeping nevertheless continues to play an important role. Its significance in some countries has even grown, in particular in Sub-Saharan African countries including Somalia, where agro-pastoralism (mobile livestock keeping in combination with farming) is increasing (Janzen, 2001).

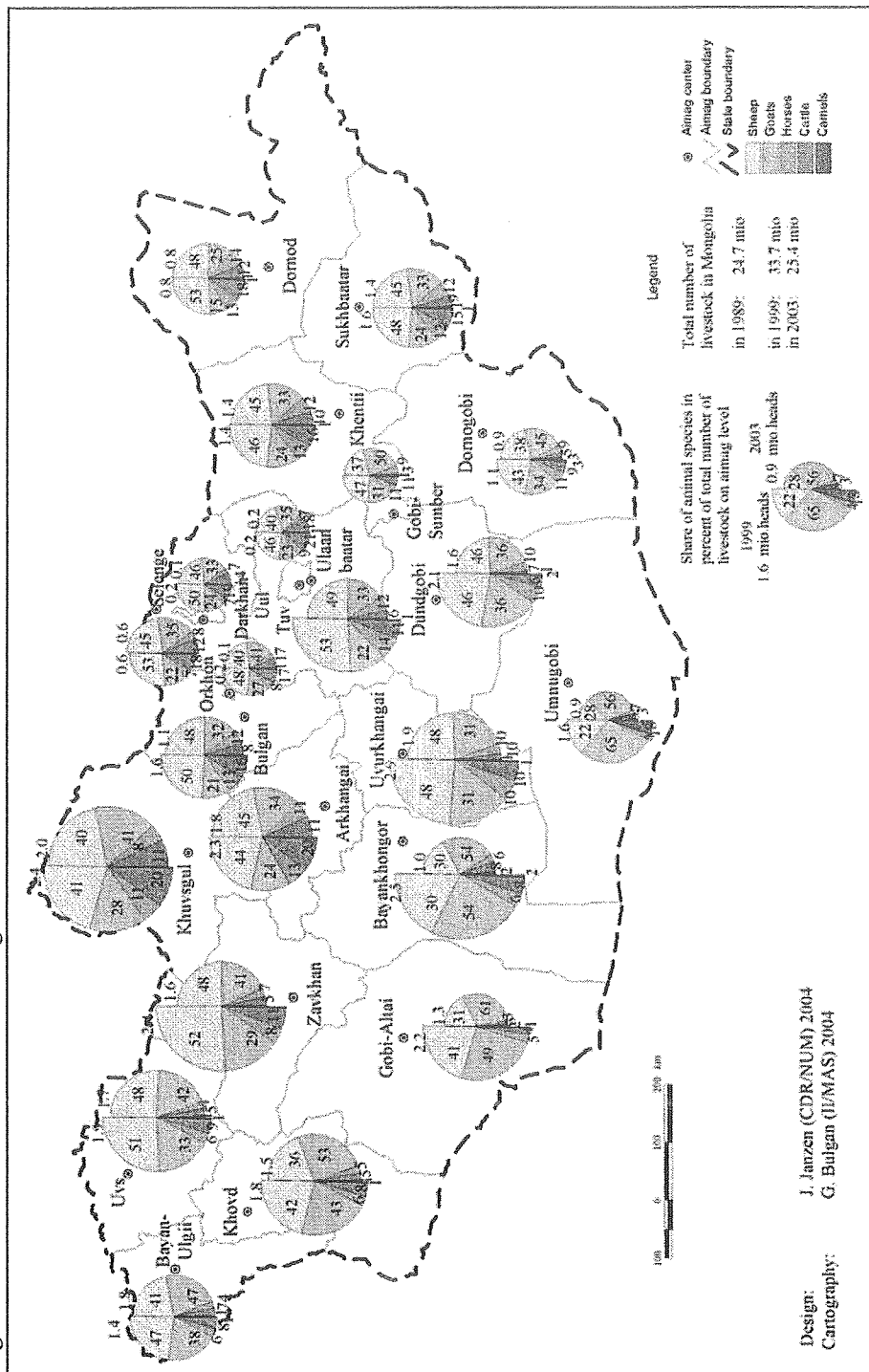
In Central Asia Mongolia is one of the countries where mobile livestock keeping continues to play a prominent role. Despite difficult conditions it is the most important source of income in the rural sector (Figure 1, Table 1). It not only feeds the livestock keepers and many of their urban-based relatives, but also provides an adequate living for most of them through the sale of animals and animal products. Whether the expansion of mobile livestock keeping that took place after the political changes in 1990 is just a temporary phenomenon or whether this widespread use of natural pastures is here to stay will depend to a large extent on the rural development policies of future governments. The present article attempts to define what background factors have led to the recent developments in mobile livestock keeping in Mongolia, what structural changes and problems have emerged in management practices and particularly in stock movement patterns, and whether—and if so under what specific conditions—mobile livestock keeping in Mongolia has a viable future.

Table 1: Total number of Mongolian livestock species, in '000 (1989-2003)

	1989	1991	1993	1995	1997	1999	2001	2003
Camels	558.3	476.0	367.7	367.5	355.4	355.6	285.2	256.7
Cattle	2692.7	2899.0	2730.5	3317.1	3642.9	3824.7	2069.6	1792.8
Goats	4959.1	5249.6	6107.0	8520.7	10265.3	11033.9	9591.3	10652.9
Horses	2199.6	2259.3	2190.3	2648.4	2893.2	3163.5	2191.8	1968.9
Sheep	14265.2	14721.0	13779.2	13718.6	14165.6	15191.3	11937.3	10756.4
Total	24674.9	25527.9	25174.7	28572.3	31292.3	33568.9	26075.3	25427.7

Source: NSOM 2001, 2002, 2004: Mongolian Statistical Yearbook 2000, 2001, 2003, Ulaanbaatar

Figure 1: Number of livestock on aimag level in 1999 and 2003.



Source: NSOM, 2004

BACKGROUND AND CHARACTERISTICS OF RECENT CHANGES IN MOBILE LIVESTOCK KEEPING

After seven decades of dependence on the Soviet Union and virtual isolation in political and economic terms, the reforms introduced in Mongolia since 1990 that were aimed at establishing democracy and a market economy, have brought about far-reaching changes in society and all sectors of the economy. This is particularly true in the sphere of mobile livestock keeping.

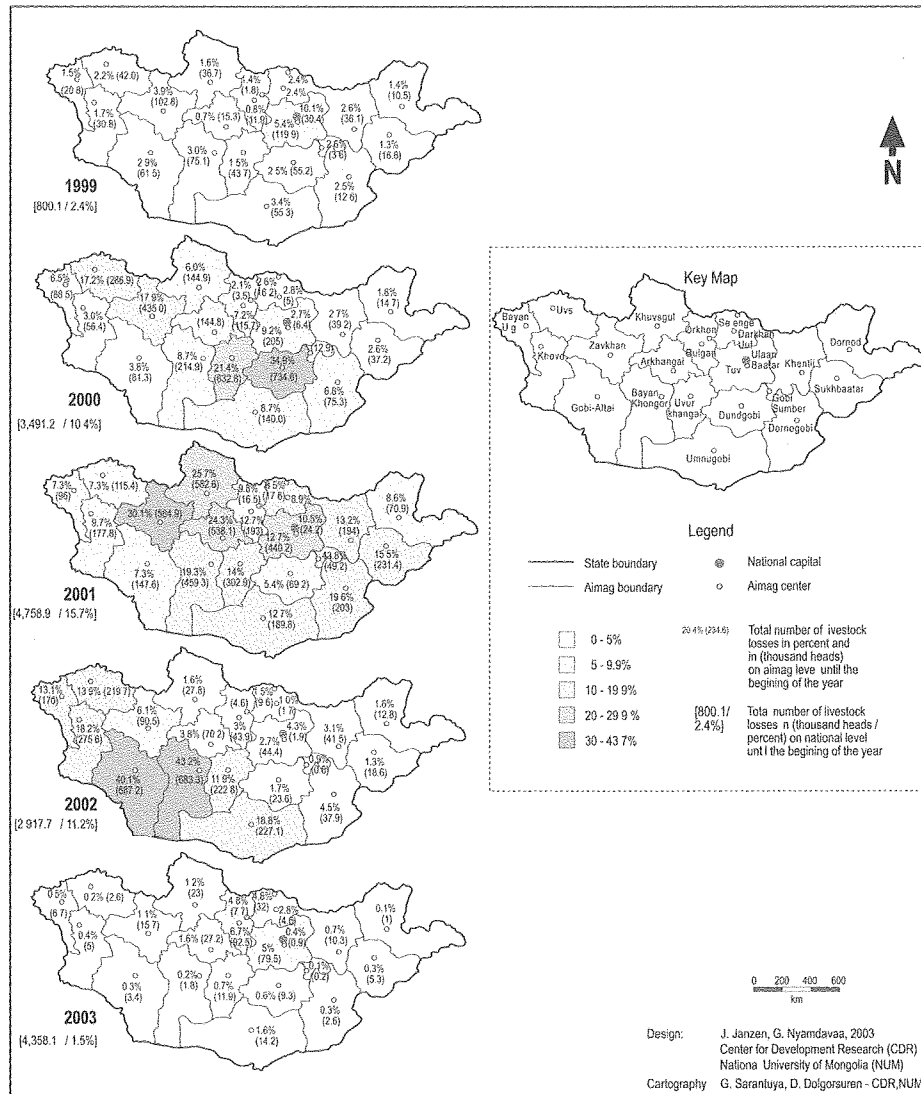
In the 1990s the rural sector was neglected by the government of the day and left to fend for itself in the free-for-all developing market economy. Cancellation of state subsidies corroded the quality of infrastructure and services. Many of the population's needs could not be adequately met. The result was a noticeable deterioration of living and production conditions for most of the rural population.

After the collapse of the centrally planned economy of the socialist era livestock keeping, formerly largely (export) market oriented, was reduced to little more than a simple subsistence activity in which a stronger market orientation (notably cashmere production) has only gradually gained ground. When the collectively owned herds of the livestock cooperatives (*negdel*) were privatized, all five species (sheep, goats, cattle or yaks, horses and camels) were distributed amongst the members. Because people from all walks of life and not necessarily directly involved in livestock keeping received animals from the *negdel* herds, many families unable to find non-pastoral employment abandoned their settled existence and took up a new life as herdsmen. This caused the number of mobile livestock keeping households, now with mixed herds, to more or less double across Mongolia compared to the socialist era. However, many of these 'new nomads' (Müller, 1997) lack experience in livestock keeping with the consequence that this group is much more vulnerable in the event of adverse conditions than the experienced herdsmen from the former *negdel*. As a result of deteriorating grazing conditions and in the wake of natural disasters the number of these 'new nomads' has been declining since the late 1990s.

Mobile livestock keeping in Mongolia is conducted under the difficult conditions of an extreme continental climate and pastures to match. Natural phenomena such as drought (*gan*) in the summer season and heavy snowfalls accompanied by very low temperatures (*dzud*) in the winter are common. Large areas of west and central Mongolia suffered these extreme conditions over three consecutive years from 1999 to 2003, causing heavy losses of stock (Figure 2). But the vicissitudes of climate alone cannot be blamed for the death of millions of animals. The explanation also lies in the mobile stock keepers' grazing practices, which have altered under the new political, legal and socio-economic conditions of the transformation period and are often not ecologically sound. Despite many rural development projects, agriculture—both farming and livestock keeping—and rural infrastructure were severely neglected in the 1990s. This caused increasing disparity between urban centres, first and foremost the capital Ulaanbaatar, and rural areas. The result has been heavy

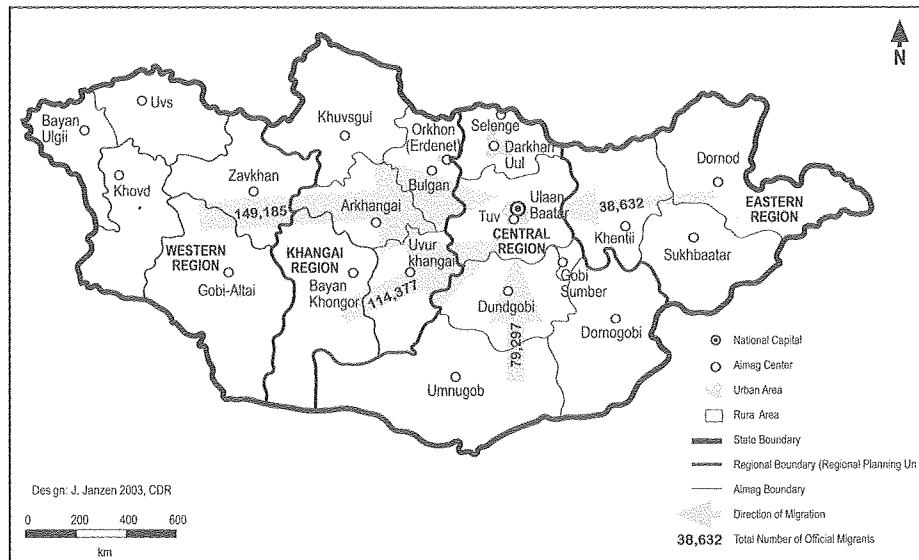
migration from the peripheral lands into the cities (Janzen et al., 2002 and 2005; Figures 3 and 4).

Figure 2: Distribution of livestock losses due to natural hazards in Mongolia, 1999-2003.



Source: Gankhuyag, Ministry of Food and Agriculture, 2003.

Figure 3: Out-migration from rural areas until 2000 (mainly to Ulaanbaatar, Darkhan—Uul and Orkhon/Erdenet).



Source: NSOM, 2002, 14.

The following research results are mainly based on field work carried out in western Mongolia in recent years.

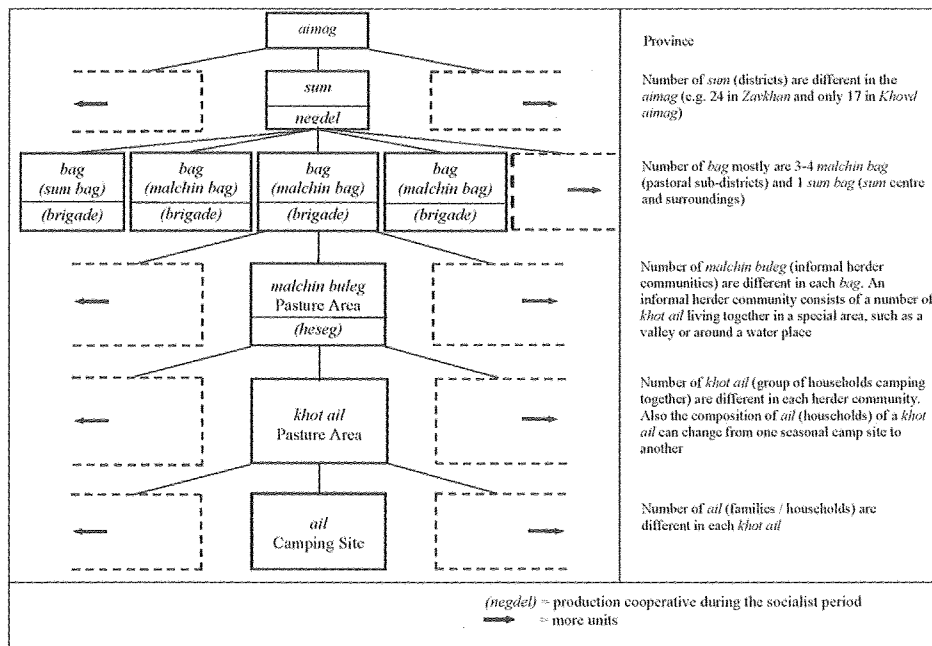
CHANGING SPATIAL ORGANIZATION AND SEASONAL PASTURE USE

A better understanding of the problems and structure of mobile livestock keeping can be gained by examining the changes that have taken place in its spatial organisation. Figure 5 gives an overview of the spatial organisation of a province (*aimag*), which is made up of a number of districts (*sum*). Although the political organisation of a *sum* has changed since the days of the planned economy system, as far as pasture use is concerned the herdsmen are still restricted to a large extent as in *negdel* times to the territory of their respective *sum*. For administration purposes each *sum* is divided into a number of sub-districts (*bag*). The administrative and infrastructural institutions relevant to mobile livestock keeping operate from the *sum* and *bag* centres.

The space and time arrangements for pasture use are mainly made at the *bag* level in cooperation between the *bag* governor, *bag* parliament and the pastoral population as well as representatives of informal groups or communities of herdsmen (*malchin buleg*: loose unions of related and/or friendly livestock keepers). These

groups of herdsmen consist of a number of *khot ail* (camp communities) who usually live grouped together in a particular area, often in a valley or around a water source. Each *khot ail* (Figure 6) consists of several *ail* (households) that have joined forces for reasons of efficiency. In contrast to the socialist era movement across territorial boundaries has increased and should normally be regulated by oral and written agreements between the respective governors. 'Illegal' border crossings often result in disputes over pasture and water.

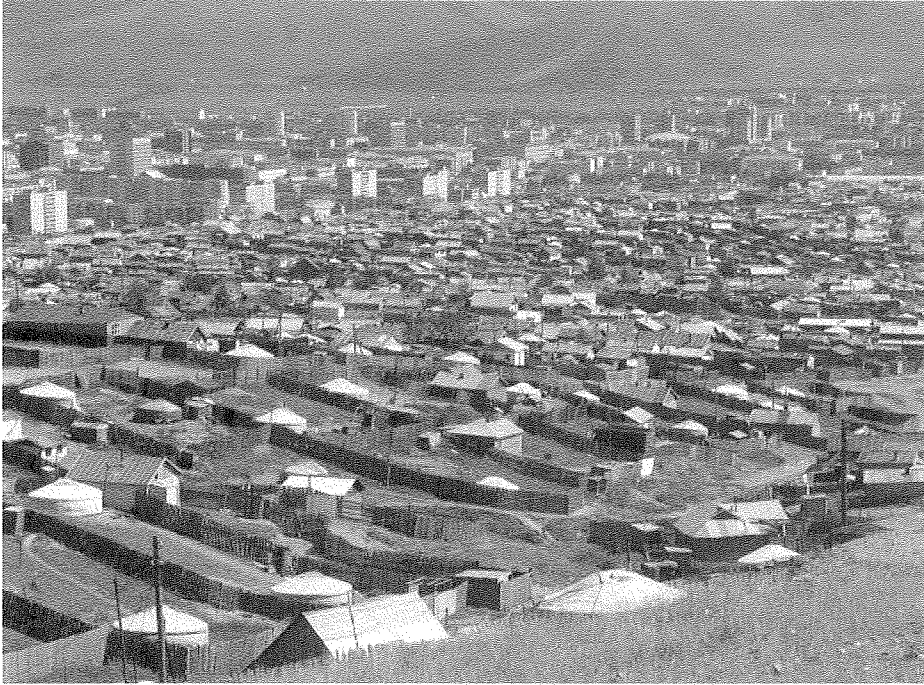
Figure 5: Actual administration/spatial division of the rural aimag.



Source: Janzen, 2002.

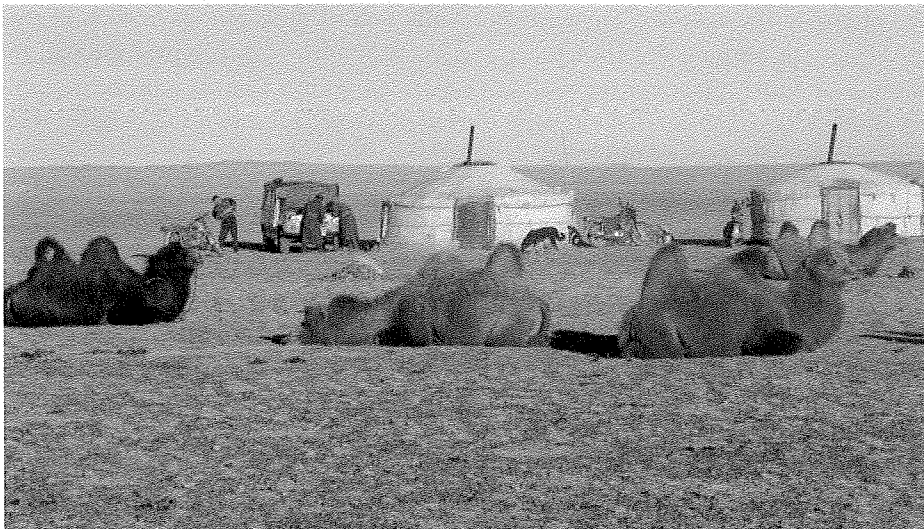
Figure 7 illustrates the spatial organisation of pasture use within a *sum*, showing four ideal seasonal grazing regions for winter, spring, summer and autumn. This model ignores the fact that in many *sum* one of these pasture areas may not exist or may be too small, as is often the case. The four seasonal pasture areas are then divided into smaller units, represented here by circles that are used by the different groups of livestock keepers. The winter grazing area is of major importance and centers around permanent winter sheds or shelters made of wood or stone that in most cases date from the *negdel* era. Occasionally the herders also own shelters in the spring pasture. Whereas the grazing land belongs to the state and the herdsmen only have the user rights of it, these buildings are the registered and transferable property of a livestock keeping family. In most cases there are not enough winter sheds and on average only about 70 percent of families have one. The other 30 percent find

Figure 4: (Ger-) Yurt-Settlements with a high percentage of settled former pastoralists at the fringe of the city, Ulaanbaatar, 2004.



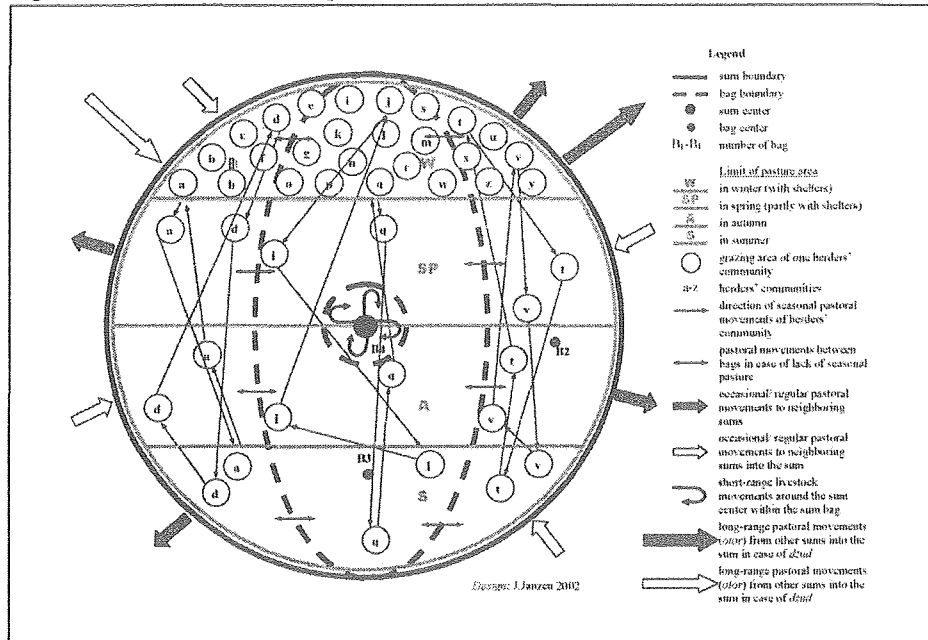
Photograph: Jörg Janzen

Figure 6: Pastoral camping group (khor ail) consisting of two households (ail) living in two yurts (Ger), Khovd aimag/Chandmani sum, 2004.



Photograph: Jörg Janzen

Figure 7: Model of seasonal pasture use of sum level.



accommodation with relatives and friends or move into a *sum* centre for the winter, where many animal herders own land in the form of *khashaa* (rectangular compounds surrounded by wooden fences).

During the other three seasons the herder groups use other specified grazing areas whose boundaries remain more or less constant over longer periods of time. For the sake of clarity the assumed movements of only two of these groups in each of the three livestock keeping *bag* are represented in the model. Migration is supposed to follow a schedule agreed on between the herdsmen groups and the administration. If it is not adhered to conflict can arise during movement through the pasture areas of other livestock keeping groups.

Depending on the spatial distribution of ecological zones long-distance horizontal movement of 100km and more can occur within any one season (Figure 8). This applies in particular for those groups of herdsmen whose areas of activity extend between the steppe zone of the foothills of the high mountain region (*khangai*) and the desert steppe of the lowlands (*gobi*). By contrast, in the mountain valleys of the forest steppe of the high mountain region the vertical migration from one season's grazing area to the next is only a few kilometres. When feed and/or water is short within one seasonal grazing area wide-ranging moves, so-called *otor* migrations, are undertaken to peripheral (reserve) pastures, often in border areas.

The migration patterns of the mobile livestock keepers are determined not only

by grazing conditions but also depend to a large degree on the availability of water for animals and humans. During the winter and especially at high altitudes the water supply is guaranteed by snowfall (Figure 9). In low snowfall areas and in the period from spring to autumn the situation is more difficult. Bearing in mind that at present the majority of the *negdel* era wells have been either destroyed or are out of order it is understandable that in the months when there is no snow and little rain the herders keep their animals in the vicinity of the remaining old wells (Figure 10) and the few new ones. In general, stock and humans concentrate anyway near natural springs, watercourses, lakes and permanent settlements.

REASONS AND CONSEQUENCES OF RURAL-URBAN MIGRATION

The difficult living and production conditions in rural Mongolia and the growing gap between rich and poor have resulted in a strong internal migration (Janzen and Bazargur, 2003; 2003b; Figure 3). A large part of these migrants are herders who lost their animals by natural hazards and gave up mobile livestock keeping. The rapid growth of the (*ger*-) yurt-settlements in the large towns of Mongolia, Darkhan, Erdenet and the national capital Ulaanbaatar in particular (Figures 3 and 4) is primarily a consequence of this ongoing rural-urban migration process which in quantity and quality has reached a new dimension in recent years (Janzen et al., 2002; 2005; Meissner et al., 2003; Neupert, 1994; PTRC/NUM, 2001).

These *ger*-areas are quickly growing suburban estates at the fringe of the 'socialist city'. Whereas the city is characterized by multi-story buildings constructed of bricks and/or concrete, the *ger*-settlements in contrast are quarters consisting of compounds surrounded by wooden fences (*khashaa*) mainly containing Mongolian yurts (*ger*), the traditional felt-made nomad dwelling, as well as other buildings made of different construction materials, mainly wood and/or bricks (Figure 4).

The major areas of out-migration in Mongolia are the Western and the Khangai Region of the country. These are the remote and economically as well as infra-structurally underdeveloped areas of the country with a very high share of mobile livestock keepers. The main provinces of origin are Uvs-, Zavkhan-, Gobi Altai-, Khovd-, Khuvsgul- and Arkhangai-*aimag*. In contrast flows from the eastern and central regions to the urban centres are weaker (Figure 4).

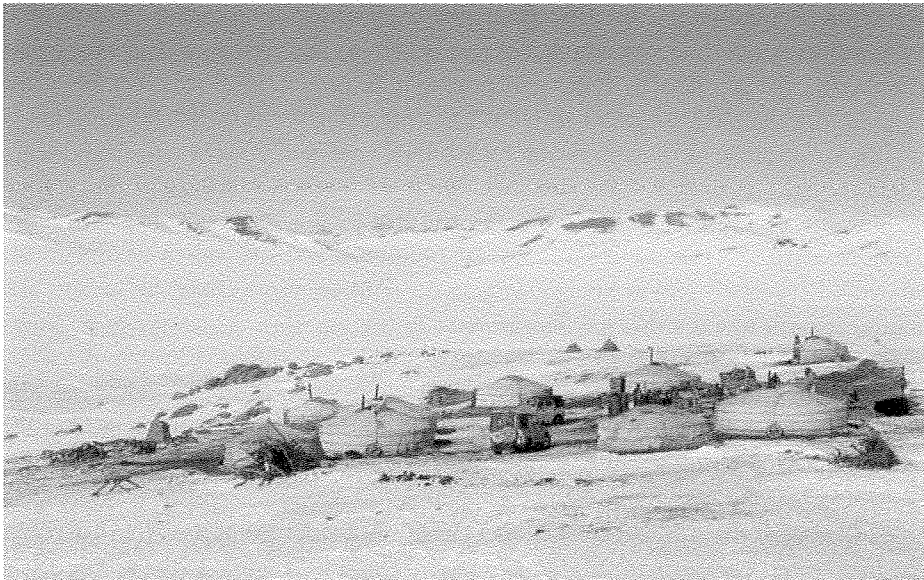
Considerable out-migration took place in 1993 as a result of livestock privatization and dissolution of the *negdel* (livestock production cooperatives). To a large extent out-migration since the end of the 1990s was due to natural hazards (*gan* and *dzud*) and continuing pasture degradation, accelerated by locusts (in Khovd- and Gobi-Altai-*aimag*) and by rodents (in Zavkhan-*aimag*). This resulted in a considerable increase of the number of the rural poor. These disasters caused another rise in the number of rural-urban migrants, many of them belonging to the group of the 'new nomads'.

Figure 8: A herder family moving from summer to autumn pasture with their livestock, Khovd Aimag/Chandmani Sum, 2004.



Photograph: Jörg Janzen

Figure 9: Large winter camp of one seasonal camping group (khot ail) in the Khangai Mountain area, Zavkhan aimag/Yaruu sum, 2002.



Photograph: Jörg Janzen

The majority of the migrants from the rural areas have left their home-*sums*, with the poor technical and social infrastructure, insufficient medical as well as educational facilities and services being the major reasons. The main wishes of the migrants are to facilitate their children a good education and to find a well paid job in the national capital. Having no additional income opportunities, many livestock keepers have only survived in the country side by selling their livestock. After all animals had been sold these former livestock keepers have been forced to move to the large towns and look for work (Janzen et al., 2002 and 2005; PTRC/NUM, 2001).

The internal population movements have positive effects but also far-reaching negative consequences for both areas of origin and areas of destination. Whereas the positive aspects can mainly be found on the personal/private level, the negative effects of this migration are primarily of national concern and differ from area of origin to area of destination. The exodus from the countryside implies a strong skill and brain drain, leading to a lack of qualified workers and highly educated specialists in the rural areas. Consequently the lack of well trained manpower will negatively influence the quality of production and services in the rural settlements. Population density in some rural areas has decreased considerably. This is especially true for those *sums* of Uvs- and Zavkhan-*aimag* along the Russian border where theft of livestock, organized by Tuva-Mongolian gangs, has increased the general insecurity. Therefore a high percentage of the border population has already left their home lands.

The decrease of livestock numbers resulting from herders moving with their animals to ecologically more favourable areas in northern and central Mongolia can be stated as a positive aspect as destocking lowers the pressure on the natural pasture lands in western Mongolia. At the same time new problems arise in the destination areas around the large cities because of ecologically inappropriate and unorganized pasture use.

In the new *ger*-settlements of Ulaanbaatar, Darkhan and Erdenet the widely uncontrolled sedentarization process causes many social, economical, ecological, legal as well as infrastructural and hygienic problems. One of the aspects of major concern relates to employment. The rate of unemployment and poverty is very high in the national capital leading to more alcoholism, bodily harm and crime. Many families settle illegally and are not officially registered. Consequently the adults encounter difficulties in finding work and the children do not have access to the schools of their district. Another problem relates to dwellings. As flat areas for settling are getting scarce, many newcomers erect their dwellings on steep mountain slopes where the danger of landslides is high. Those families settling down in the flood plains of rivers and streams risk being washed away in destructive floods in case of heavy rains. In addition, the extreme concentration of livestock, mainly cattle and small ruminants, in close vicinity of the new *ger*-settlements leads to heavy overgrazing, vegetation degradation and soil erosion. Finally, urban administration

faces great problems in providing sufficient infrastructural services especially enough clean water and electricity. The disposal of waste and excrements is unsolved. The bad hygienic conditions bear a high risk for the health condition of the inhabitants. As building ground is getting rare near the town centre the migrants even settle in close vicinity to the major cemetery of Ulaanbaatar, traditionally a silent place without settlements.

Many of the problems existing in the *ger*-areas of Ulaanbaatar and the other big cities of Mongolia could be reduced by slowing down the uncontrolled out-migration from the countryside. This goal can only be reached by improving the living and production conditions in the rural *aimag* and giving the rural population better prospects for their future.

SUMMARY OF THE MAIN PROBLEMS OF MONGOLIA'S MOBILE LIVESTOCK KEEPING

The current problems in mobile livestock keeping in Mongolia can be summarized as follows:

- a. The rapid rise in animal numbers until 1999 and once again since 2004 (above all, goats for cashmere production; cf. Figure 1 and Table 1), and the often ecologically careless use of natural pastures by the mobile herdsmen, have caused considerable over-grazing problems in almost all parts of the country (Figure 11). Some of the most common reasons for this development are:
 - Mobile herdsmen's ambition to own as large a herd as possible as security against the risk of loss through natural disaster and disease;
 - Lack of at least one seasonal pasture area, above all spring and/or autumn grazing, in the majority of the *sum*, with the necessary consequence of longer grazing on the other seasonal pastures and resulting ecological damage;
 - Administrative boundaries dating from the socialist era (*aimag* and *sum* boundaries are also grazing boundaries) hinder long-distance movement of herds;
 - The concentration and excessive duration of visits of herds at the best locations, with good pastures and water and/or favourable conditions for marketing and supplies (on major roads, rivers and lakes and near permanent settlements), have led to severe over-grazing in many places (Figure 11). In this connection mention should also be made of the numerous new settlements in which mobile herdsmen lead a half-settled life, adding to their earnings from livestock keeping by running small restaurants and kiosks;
 - Non-existent or insufficient water supply (Figure 10) due to decay of the network of wells established during socialism and the recently observed drying up of natural springs as a result of increasing drought;

Figure 10: Hand-driven shallow wells for watering animals and for human consumption, Zavkhan aimag/Yaruu sum, 2002.



Photograph: Jörg Janzen

Figure 11: Soil erosion and vegetation degradation, surroundings of Ulaanbaatar, 2002.



Photograph: Jörg Janzen

- Poor supply situation (inadequate and over-priced goods) and unfavourable marketing possibilities (heavy dependence on mobile traders);
- Under-developed organisation of many groups of herdsmen, continued lack of training and advisory programmes to promote self-organisation and improve the socio-economics of the mobile livestock keeping population;
- b. The absence of non-pastoral employment possibilities (apart from trading activities) in permanent rural settlements as a result of the lack or disappearance of small and medium enterprise, in particular for processing animal products;
- c. The increased vulnerability of mobile herdsmen families, in particular many of the often less experienced 'new nomads' that have appeared since 1992, in times of natural disasters such as *gan* and *dzud* due to pasture degradation (which is often their own fault) and insufficient private hay reserves for the cold season;
- d. Public utilities in the permanent rural settlements (electricity and water supply, traffic and transport facilities) are often badly maintained and poorly equipped; social infrastructure (schools, human and veterinary medicine and cultural institutions) is often inadequate;
- e. An ever increasing drain, as a result of the deficits listed above, not only of impoverished but also more prosperous people with a good education, often with their entire herds, from the rural periphery (mostly from the western *aimag*) into the larger towns and their immediate vicinity, in particular into the areas of Ulaanbaatar, Darkhan and Erdenet (Figures 3 and 4).

The migration to towns (Figures 3 and 4) has not only negative consequences for rural areas. One advantage is that the out-migration of herdsmen usually means a reduction of animal numbers. The national animal population of 25.4 million at the end of 2003 (1999: 33.7 million; Figure 1) should, if possible, not be exceeded in order to keep pressure on pasture areas down and so ensure a viable future for livestock keeping through sustainable use of the unique pasturelands of Mongolia.

PERSPECTIVES: A VIABLE FUTURE FOR MOBILE LIVESTOCK KEEPING THROUGH A HOLISTIC APPROACH TO RURAL DEVELOPMENT

The solution of the above problems of mobile livestock keeping in Mongolia will only be possible when regionally adapted rural development programmes are initiated on the basis of a holistic approach incorporating the following main demands:

1. The introduction of new legal provisions for ecologically suitable pasture management on the basis of the amended land law of June 2002, which specifically precludes the privatization of pasture land. Granting long term user rights for winter/spring grazing areas to existing or new groups of livestock keepers is possible and desirable on condition that the pastures will be used in an ecologically sustainable manner in accordance with their carrying capacity.

The ongoing discussion about a territorial reform aiming at the creation of larger administrative units which would allow more long-range, ecologically more adapted pastoral migrations and a more economical use of the available state budgets will hopefully have a positive outcome. The existing pasture management projects of national and international donor agencies already contribute to reduce degradation of the natural environment. A harmonization of the implementation of these projects would be desirable in order to increase their efficiency.

Figure 12: Mobile livestock keepers of the same informal herder community (malchin buleg) gathering in the yurt of their leader in order to discuss a new concept of pasture management, Khovd aimag/Must sum, 2003.



Photograph: Jörg Janzen

Strengthening of herder communities should be another important goal of rural development policy (Figure 12). Many of the herders are aware of the great advantages resulting from a higher level of self-organization. Therefore major attention should be given to this most important target group. Special development activities, such as supporting the creation of small cooperatives, providing advice and training courses, as well as access to credits with low interest rates, should be offered to them.

2. The support of existing and new businesses or cooperatives for processing local animal products in permanent rural settlements in order to achieve greater economic value, create non-pastoral employment with better conditions for supply and marketing and to change the present status of Mongolia as an exporter of raw materials. To this end it will be necessary to develop international markets for meat and processed animal products.

3. The development and extension of reliable technical (water, electricity/renewable energy, traffic network/transportation) and social infrastructure (medical, educational and cultural facilities and services) in rural areas to improve the living conditions for mobile herdsman and the settled rural population in the medium and long term. The improvement of the privatized veterinary services and of the existing governmental extension services for mobile livestock keepers are also of major importance.

It remains to be hoped that the proposed recommendations will be taken in consideration by decision makers for the planning of a future development strategy for rural Mongolia in order to attain a sustainable improvement of the living and production conditions of the pastoral population which may result in a visible slow-down of rural-urban migration.

NOTE

1. Due to the fact that many publications exist in Mongolia which are often difficult to find, a separate list of selected literature is provided here for further reading: Barkmann, U. B. (2000) Landnutzung und historische Rahmenbedingungen in der Äußeren Mongolei/Mongolischen Volksrepublik (1691–1940)–Versuch der Annäherung an ein Thema. National Museum of Ethnology: Senri Ethnological Reports, pp.-17. Osaka; Barfield, T. J. (1992) *The Perilous Frontier. Nomadic Empires and China, 211BC to AD 1757*. Studies in Social Discontinuity, Blackwell, Cambridge MA and Oxford UK; Barfield, T.J. (1993) *The Nomadic Alternative*. New Jersey; Barthel, H. (1988) *Mongolei–Land zwischen Taiga und Wüste*. Geographische Bausteine, Neue Reihe, 8. Gorha; Barbuyan, B. (2003) Verarmung von Nomaden in der Mongolei nach 1990,m Sozialgeographische Probleme eines Transformationslandes. *Geographische Rundschau* 55/Heft 10: 26-32; Bazargur, D. (1988) *Geography of Pastoral Animal Husbandry*. Ulaanbaatar; Bradburd, D. (1984) *Marxism and the Study of Pastoralists*. *Nomadic Peoples*, 16: 3-14; Brunn, O. and Odgaard, O. (1996) *Mongolia in Transition, Old Patterns, New Challenges: Studies in Asian Topics*, No. 22. Nordic Institute of Asian Studies, Richmond; Edström, J. (1993) *The Reform of Livestock Marketing in Post-communist Mongolia: Problems for a Food Secure and Equitable Market Development*. *Nomadic Peoples*, 33: 137-52; Fernandez-Gimenez, M. E. (1997) *Landscapes, Livestock, and Livelihoods: Social, Ecological and Land-Use Change among the Nomadic Pastoralists of Mongolia*, Ph.D. Thesis, University of California. Berkeley; Fernandez-Gimenez, M. E. (2001) *The Effects of Livestock Privatisation on Pastoral Land Use and Land Tenure in Post-Socialist Mongolia*. *Nomadic People*, (NS) Vol. 5, No. 2:49-66; Goldstein, M. C. and Beall, C. M. (1994) *The Changing World of Mongolia's Nomads*. Hong Kong; Griffin, K. (1995) *Poverty and the*

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