Fifty years of transformation: the decline of nomadic pastoralism in China — A case study from Inner Mongolia

Cinquante ans de transformation: le déclin du nomadisme en Chine — Un cas d’étude de la Mongolie-Intérieure

Rita Merkle
There is little doubt that rangeland degradation and desertification is a serious problem in the People’s Republic of China (hereafter China). By the end of the 1990s, desert areas totalled 27.3% of China’s land surface (or 2,622 million km²) with about 400 million people living in these marginal arid and semi-arid lands (Riskin & Wu 1999, p. 74). Despite enormous efforts of the Chinese government to combat desertification, for example through tree planting campaigns or restrictions on herding and farming and the related re-location of herders and farmers, China still had 2,6237 million km² of land affected by desertification by the end of 2009. Zhu Lieke, deputy director of the China State Forestry Administration, admitted that “the desertification trend has not been fundamentally reversed”. The public Chinese discourse shows that pastoralists are seen to be among the chief culprits for land degradation in dry areas. The blame is attributed one-dimensionally to herders based on the idea of an irrational land management. In this article, I will put the apparently fundamental truth of pastoral responsibility for environmental degradation into question and refute the causality of notions attributed to pastoralism, such as land mismanagement and desertification.

To understand present rangeland management a look back to the pre-communist and to the collectivist periods is necessary in order to become aware of the continuities and discontinuities of the system. Major historical changes in China’s mobile pastoral system and how these changes have disrupted the traditional “socio-ecological mode of culture” (Scholz 1995, p. 20) of the nomads are exemplified on the basis of a case study from Inner Mongolia.
The analysis is mainly based on intensive qualitative field research conducted in the years 2000 and 2001. It does not take into account political changes and its effects that took place within the last twelve years. Furthermore Chinese written material including government reports, books and articles provided insights into the political programmes and goals concerning the animal husbandry sector.

The analytical framework is based on Scholz’ theory of nomadism (Scholz 1995) in which two analytical levels are differentiated: 1) the framework level including the physical foundations, the political conditions and the structural framework and 2) the action level representing the ‘active’ reaction of the pastoral herders to the framework. The article will follow these two levels focusing on changes in the political and structural framework and their effects on rangeland management.

The case-study area: Ejina (in Mongolian transcription: Ejene) Banner

Geographical setting

Present-day Ejina Banner is located in westernmost Inner Mongolia covering an area of 102,461 km², or about 8.7% of Inner Mongolia’s total area (fig. 1) and bordering Gansu Province to the east and south-east and the Republic of Mongolia to the north.

Topographically, it belongs to the Alashan (Alaša) Plateau of the Gobi Desert. The Hei River (Heihe 黑河) is the lifeline of the desert region with a total length of about 821 km. Its drainage is entirely endorheic with a delta around two closed-basin lakes, the Gashun Nur (Gasiγun Naγur) and the Sugu Nur (Sub Naγur). However, Gashun Nur dried up in 1961 and Sugu Nur in 1992. The reasons for this will be discussed in more detail later. Starting in the mid-2000s, after the implementation of the Hei River Integrated Management Project, water from the Hei River reaches the lakes again. However, this period is beyond the scope of this study.

The mean annual precipitation is extremely low with only 38 mm on average. On the other hand, the coefficient of variation is extremely high with 39 to 43%. The region can therefore be considered as ‘non-equilibrium’ ecological system.
According to China’s national system of rangeland classification, only one third of the rangeland is regarded as ‘usable’ (ke liyong 可利用). Moreover, rangeland is seriously affected by desertification.

Ejina’s total population has continuously increased since the foundation of the People’s Republic with 2 255 people in 1949 to 16 741 people in November 2000. While the total population has increased, the percentage of non-Han Chinese, mainly Mongols, has at the same time decreased from 78.3% in 1944 to 30.4% in 2000.

This change in the demographic structure is reflected in the local economy. While a traditional nomadic livelihood system characterised the economy in the mid-1940s with about 80% of the total population engaged in nomadism (Dong Zhengjun 1952, p. 49) there were only 15% of the total population engaged in (mobile) pastoralism in the year 2000. But, now as before, it is the Mongol population who is actively working in pastoral livestock production and the primary sector is still of major importance to the local economy contributing 54% to the Gross Domestic Product with animal husbandry contributing more than 56% to the Gross Agricultural Output Value in 1990.

Nomadic life in the 1940s

In the mid-1940s traditional nomadism based on subsistence was the dominating livelihood system in the case-study region. From the total population of about 2 000 persons, 1 700 or 85% were engaged in nomadism, 170 Chinese (or 8% of the total population) worked in the administration or in trade and the remaining 140 persons were lamas. All in all, there were about 46 500 herbivorous domesticated animals in the region with goats and sheep dominating the herds (52% and 28% respectively), 13% were camels and the remaining 6% were horses, donkeys and cattle.
As Owen Lattimore (1980, p. 8) notes the Mongolian society was "truly feudal". Since the end of the seventeenth century, the main unit of Inner Mongolian administration was the banner and had been the fief of the noble whose position as 'prince' (jasay) was hereditary and went on to one of his sons. The banners were more or less administratively autonomous, the prince only had to submit himself under the control of the Manchu emperor. In Ejina, the last prince of the Torgut Mongols, Dawangjiabu (Davangjabu), reigned from 1938 to 1949. Nobles normally held offices in the administration. They usually had high numbers of animals and were obliged to use the labour of others.

The commoners were highly stratified. It was the size of the herd which defined the position in the social hierarchy. In a field report of Mazongshan (Meng Zang wei yuanhui diaochashi bianyin 1938, p. 146) the pastoral households were classified into three categories: 6 rich households with 200 sheep and goats, 10 camels and one to two horses on average, 29 middle-income households with 80 sheep and goats and six camels on average and 19 poor households with 10 sheep and goats and two camels on average. Assuming that a family needed about 80 to 100 sheep and goats (or 100 standard sheep units) to be self-sufficient, it can be deduced that the middle-income households of Mazongshan were self-sufficient, but lived at the subsistence level. They were not rich enough to hire other labour. The poor households were certainly dependent on others. They simply could not survive on the proceeds of their herds. The rich households might have been able to make use of the labour of others depending on their actual situation (family size, age of family members, composition of the herd, etc.).

And there was the clergy. Monastic servants or poor commoners managed the monasteries' livestock.

Older informants stressed the complex nature of these relationships and it is important to note that the feudal order, as Sneath underlines, “for all its rigid hierarchy, supplied formal obligations for both masters and servants, and social superiors had a nominally paternalistic attitude towards their juniors”.

The banner was the most important spatial category for pastoral management. Theoretically, there were no barriers to mobility within the banner. In practice, however, the usufruct rights of the pastures which had been originally distributed by the prince, had developed into established right in the course of time with certain informal rules.

In the river region, the Torgut Mongols made only use of the pastures in the fertile alluvial plain. Traditionally, they did not know how to use the desert pastures of the Gobi. It were the political refugees from the Republic of Mongolia who imported this knowledge in the 1920s. Each family had a more or less fixed winter place, in summer they moved three to four times between different grazing areas. The distances between these temporal grazing sites were generally 4 to 5 km. The winter camp was 10 to 15 km away from the summer camps.

The Mongols in present-day Wentugaole Sumu used the Gobi and the Guazihu depression as pastures and moved up to 80 km between their temporary grazing grounds.
“Eating from the big rice pot” — Part I: Collectivism and its impact on traditional nomadism

Changes in the political and institutional framework

19 The implementation of the Land Reform in Inner Mongolian regions differed widely from place to place. In Ejina, a gradual approach was adopted. One important element of the reform program was the declaration of free access to all rangeland in 1948 aiming at abolishing the monopoly that certain monasteries and nobles had over good areas of pastures. Although informants agreed that these better pastures continued to be respected by the locals, the reform thereby laid the foundations for free grazing. All in all, spatial and social relations did not alter markedly.

20 In 1958, with Mao launching the Great Leap Forward, the situation changed fundamentally. From now on the institutional reorganisation in Ejina had a revolutionary character. Within only 70 days (July to September 1958) the establishment of the Lower Pastoral Producers’ Cooperatives (chuji muye shengchan gongzuoshe 初级牧业生产合作社) was finished. Leaping over the Higher Pastoral Producers’ Cooperatives the 20 Producers’ Cooperatives were overnight organised into three People’s Communes in November. Until 1983, the so-called “three contracts, one reward” system regulated animal husbandry production through a contract system of fixed quotas with the commune’s Supply and Marketing Co-operative (Zhongguo gongchandang Ejina qi lishi da shiji bianzuan weiyuanhui 2001, 21.1.1961). From the beginning until 1966, however, a certain number of livestock could be kept by Ejina’s commune members for their own use.
With the exception of a few rich herders, the vast majority of the herders welcomed the collectivisation because they felt a real amelioration of their material life. Mr. Jiangjiabu, a formerly poor herder, said: “As reason for the collectivisation we were told that we thereby would become a ‘socialist country’ (shehui zhuyi guojia 社会主义国家) with an equal distribution of wealth and with all herders becoming herdlords in the future. Everyone would get a salary according to his efficiency.”

The better economic situation compensated also for the annexation of 30 000 km² of Ejina’s best grazing grounds in the South of the banner for military purposes. In 1958, Ejina was developed as the centre of China’s most important rocket launching site. This necessitated the resettlement of 260 pastoral households with more than 1 100 people (or 46 % of all nomads) and about 70 300 herbivorous animals (or 47 % of the total livestock) from May to September 1958 (Zhongguo gongchandang Ejina qi lishi da shiji bianzuan weiyuanhui 2001).

Although the period until 1983 saw several political changes concerning animal husbandry, the quantitative increase in production had always been the overall economic goal. The local authorities of Ejina changed this goal only in 2001.

Concrete measures and their effects

During the first Five-Year Plan (1953-1957), first technical innovations in pastoral management were introduced: the introduction of veterinary services, the construction of sheds and shelters for small ruminants, irrigation of grazing areas close to the Hei River and the introduction of hey-making for feeding the animals in winter. These changes had mainly positive effects on the traditional pastoral management making pastoralists less vulnerable to climatic stress. It also had a positive impact on the livestock development with a duplication of the livestock total during this period.

Under the second Five-Year Plan (1958-1962), however, herders became more and more marginalised, not only in political terms, but also in economic, social and ecological terms.

In economic terms, the rationalisation of pastoral production was speeded up. In September 1961 Ejina implemented eight maxims in the pastoral sector including among other things the separation of the herds in small and big herbivorous animals. It was assumed that in doing so the efficiency in livestock management could be increased. Nomads thus became specialised pastoralists who kept small ruminants along the Hei River and camels on the Gobi. In addition, a remuneration system with work-points was introduced. However, the quality of the work was neglected so that some commune members fulfilled their work insufficiently leading to an unsustainable use of the natural resource. The members of the collective “ate from the big rice pot” (chi da guo fan 吃大锅饭), i.e. everybody got a share of the cake so that the least incentive for a sustainable rangeland management got lost.

Besides these measures in pastoral production, agricultural production had been speeded up. In 1956 the first state farm was established in Ejina. The agricultural sector produced winter fodder for the animals whilst the pastoral sector provided fertilizer and draught animals for agriculture. Since 1960 when the Grain-first campaign started in Ejina, the best remaining rangeland was reclaimed and opened-up for the cultivation of wheat. In
each commune, wheat had to be cultivated\textsuperscript{24}. By 1979, the total arable land has reached its peak and herd-ers were deprived of their best pastures.

The communist political agenda was very much directed against one feature of pastoral management systems: their mobility. In the Inner Mongolian steppe and desert region, the aim was to produce communities that were “settled with moving herding” (\textit{dingju youmu} 定局游牧) (Hao Pingnan 1962), so that whilst the old and the weak, children and women stayed at fixed dwellings grazing young and weak small ruminants, young and strong men moved with the rest of the flock to distant seasonal pastures. In Ejina first steps to settle nomads began in 1958, from 1965 onwards the sedentarisation was speeded up and an increasing number of herd-ers were given the use of mud-brick houses. In every People’s Commune, schools and veterinary stations were established and Wentugaole even got a hospital. The banner centre of Dalaihubu (Dalayinküib) had become a small town by the mid-1960s with 3 300 inhabitants (Zhongguo gongchandang Ejina qi lishi da shiji bianzuan weiyuanhui 2001, 12.6.1965).

\textbf{Photo 2. Simple mud brick house in Mazongshan of the Made family}

\begin{figure}
\includegraphics[width=\textwidth]{mudbrickhouse.jpg}
\caption{The yurt next to the house of the old couple serves for storing the wool. The youngest son is living close by in a more modern mud brick house with his wife and baby}
\end{figure}
\begin{quote}
Rita Merkle (May 2001)
\end{quote}

\textsuperscript{29} The sedentariness reduced mobility and led to a concentration of herding animals around settlement centres. And as a result of herd splitting, pastoralists were restricted to only one of the natural landscapes. They thus became less and less able to react flexibly to climatic stress\textsuperscript{25}.

\textsuperscript{30} Ejina’s total herd flock actually increased 5.9-fold between 1949 and 1983 from a total of about 30 000 to 170 000 animals. Most of that dramatic growth was due to the rise in the numbers of sheep and goats since those small ruminants have a high reproduction rate. In contrast to other pastoral regions of Inner Mongolia where the proportion of large animals has dropped between 1928 and 1992 (Sneath 2000, p. 134) the number of camels
in Ejina has increased between 1944 and 1983. Camels were seen as a specific location advantage and had therefore been developed primarily.

“Eating from the big rice pot” — Part II: Mobile pastoralism since decollectivisation

Decollectivising the pastoral sector

31 In Ejina, first steps towards decollectivisation were initiated in January 1979 with the approval of the Production Responsibility System (shengchan zeren zhi 生产责任制). Although herders were still obliged to the collective, the system offered an immense incentive for pastoral production. Production was contracted out to individual households and the herders carried out the activities according to a quota set. At the same time, the government forced irrigation of natural rangeland close to the river, constructed dams, separated plots for a controlled movement between seasonal pastures and introduced fences.

32 In March 1983 then, the “Grassland Double Household Responsibility System” (Cao xu shuang chengbao da baogan zeren zhi 草畜双承包大包干责任制) was implemented in Ejina. This was the decisive step towards decollectivisation: direct usufruct rights of the pastures were given to individual households, and the herds were divided between the commune members. At the same time, the herders were obliged to “manage, protect and conserve the rangeland. They are not allowed to sell the use-rights” (Ejina qi zhi bianji weiyuanhui 1998, p. 199).

33 It was seen as a solution to the ongoing rangeland degradation, which fell far behind the construction work, and “led to an aggravation of the contradiction between the rangeland and the herbivorous livestock from day to day all over the banner” (Ejina qi zhi bianji weiyuanhui, p. 198). The idea behind the reforms was that if herders take responsibility for their own pastures it would be in their own interest to maintain it and prevent damage by overgrazing. The new political leadership attributed overgrazing to the problems of communal property, analogous to Garrett Hardin’s ‘tragedy of the commons’-theory where he concludes: “Freedom of a commons brings ruin to all”.

34 The arrangements of the Double Household Responsibility System varied extremely between different localities within China and even in Ejina Banner different models of decollectivisation exist. Broadly, there are two systems of livestock and three systems of rangeland allocation to the commune members in Ejina (fig. 2).
In general, livestock was allocated equally between the pastoral households and the herds were divided either per manpower per household or per members per household. However, only sheep, goats and camels were contracted out, the other herbivorous animals were sold to interested herders. In some collectives of Saihantaolai Sumu (Sayiqantoluyai Sumu) the herds were separated according to the specialisation one has gained during the collectivist period, i.e. camel herders continued to raise camels, small ruminant herders continued to graze small ruminants. Accordingly, camel holders were assigned the pastures on the Gobi, sheep and goats herders got the pastures along the Hei River.
Photo 3. Chinese traders buying camel wool

Chinese traders from Baotou are buying wool directly from herders. On this picture they are loading camel wool on their jeep at a herder’s home in Mazongshan

Rita Merkle (May 2001)

36 Rangeland stayed within the ownership of the state, households were assigned with individuated rights of rangeland. Mobility reduced again drastically with herders — an exception is Wentugaole — being restricted to a single location. In many cases, movement had been eliminated altogether. Herders tended to fence their best rangeland, pastures which have not been fenced so far are, as it was already the case during the collectivist phase, considered as “big rice pot” from which all can eat. Grazing-in-common practices on these pastures have become a major source of disputes.

37 In principle, three patterns of mobility have emerged as a consequence of these arrangements. First, many households do not move anymore and prefer to feed the small ruminants in winter. Either the plots, especially along the Hei, are considered to be too small — 1-2 km² — or the vegetation basis has deteriorated in a way that the movement within one plot is not worth the anticipated extension of the fodder. Second, seasonal migration between summer and winter pastures is practised by all the households in Wentugaole Sumu, and along the Hei, some households even move within their small plot. These are especially those households who can not afford supplementary feeding in winter. And third, in two gacha of Sugunur Sumu (Subnaγur Sumu), new patterns of migration have emerged which had never existed in that way before. In Ceke and Bayinbulage Gacha, the pastures of the Gobi were not distributed among the gacha members, only the pastures along the Hei were contracted out. Since the mid-1990s however, the ongoing degradation forced more and more herders to look for new pastures on the Gobi in order to increase their vegetation basis.
Other political and economic changes and their effects

With the reforms, the economic freedom of the individual pastoral households has increased enormously whereas the possibilities of the state for a direct economic intervention have decreased. Nevertheless the Chinese state continues to control the use of the land and the decision-making process of the herd in indirect measures such as taxes, subventions or laws.

Ejina profits of the new regional development strategy for the western provinces — the “Great Western Development Strategy” (Xibu da kaifa 西部大开发) — which includes stepping up financial support and encouraging enterprises to invest in the region. One goal of the western development is to prevent further ecological deterioration (China Daily 3.7.2001). In Ejina the state finances two development projects aiming at stopping the progressive desertification. One goal will change the mode of life of the pastoral herd: fencing of areas with azonal poplar forests, tamarisk and haloxylon ammodendron stands in the flood plain region to prevent the poplar trees and its sprouts from being bitten by goats and to ultimately recover grassland productivity. In 2006, this policy — Converting Grazing Land back to Grassland — became a priority of the 11th Five-Year Plan (2006-2010) in the ecological reconstruction of the country.

It is stated that the overstocking had led to a severe degradation of the riverine forests and pastures and that the carrying capacity is exceeded up to 63% (Anonymous 2001, p. 2). However, these areas are pastures which had been allocated to individual households in 1983. Therefore, the projects comprise the resettlement of the concerned families — 1 500 persons — and their livestock — 90 000 animals — being termed as “Ecological Resettlement” (Shengtai yimin 生态移民) (fig. 3).

Figure 3. Types of “ecological resettlement” in Ejina

<table>
<thead>
<tr>
<th>Year</th>
<th>I. Resettlement in Gobi regions where areas for fodder cultivation had been designated</th>
<th>II. Resettlement within the borders of a Sumu</th>
<th>III. Resettlement into the depressions of Garunai and Wentuagole or to Mazorghan</th>
<th>IV. Resettlement into the Banner capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Number of resettled population</td>
<td>256</td>
<td>188</td>
<td>56</td>
</tr>
<tr>
<td>2002</td>
<td>Number of resettled livestock</td>
<td>216</td>
<td>236</td>
<td>50</td>
</tr>
<tr>
<td>2003</td>
<td>Number of resettled population</td>
<td>133</td>
<td>289</td>
<td>16</td>
</tr>
<tr>
<td>total</td>
<td>Number of resettled population</td>
<td>605</td>
<td>713</td>
<td>106</td>
</tr>
<tr>
<td>2001</td>
<td>Number of resettled livestock</td>
<td>10,170</td>
<td>10,800</td>
<td>2,100</td>
</tr>
<tr>
<td>2002</td>
<td>Number of resettled livestock</td>
<td>13,900</td>
<td>28,000</td>
<td>500</td>
</tr>
<tr>
<td>2003</td>
<td>Number of resettled livestock</td>
<td>6,000</td>
<td>18,530</td>
<td>--</td>
</tr>
<tr>
<td>total</td>
<td>Number of resettled livestock</td>
<td>30,070</td>
<td>57,330</td>
<td>2,600</td>
</tr>
<tr>
<td>Future mode of production or occupation</td>
<td>Sedentary livestock keeping</td>
<td>Sedentary livestock keeping in combination with controlled grazing</td>
<td>Exchange of sheep and goats with camels → the resettlers become pure camel herd</td>
<td>Occupation in the secondary or tertiary sector</td>
</tr>
</tbody>
</table>

Source: Anonymous 2001, p. 3, 9-11
Most of the herders should be moved from the riverine forests to nearby Gobi areas where they should practice sedentary livestock keeping. Hence, another measure is the reclamation of desert land which will have to be irrigated with groundwater to allow fodder production. The resettlement should start in 2001 and be finished within three years. Most people of the target group had not heard of the measure by July 2001. Those who were informed, however, were ready to move under the condition that the necessary investments for the resettlement were given.

To legalize the western development strategy and thereby guaranteeing its solid implementation, the national government adapted the legal framework. The National People’s Congress adopted the “Law on the Prevention and Control of Desertification” in August 2001 which went into effect in January 2002. In Art. 12 “desertified areas where conditions are not amenable to restoration... or whose exploitation would be detrimental to ecological protection shall be designated as off-limits protected desertified zones” (U.S. Embassy Beijing 2001) where agriculture and livestock keeping is forbidden. This article provides the legal basis for the enclosure policy and the resettlement measure in Ejina.

Photo 4. Dead poplar tree (*Populus euphratica*) forest 20 km southeast of Dalaihubu

*Populus euphratica* grows along Hei River. It is an excellent indicator species to show the drop of the groundwater table

Rita Merkle (July 2001, Jirigalangtu Sumu)

In economic terms, the liberalisation of the cashmere and wool market induced structural changes in the pastoral economy. In 1992 the cashmere market was opened for import and export and since then, the market has been completely liberalised. Meanwhile China has become the world’s biggest producer of raw cashmere and the prices Ejina’s herders got for one kilogram of cashmere reflect changes on the world market (see fig. 2).
Although not understanding the mechanism of these external economical influences, the local herders have responded to the rising prices of cashmere by increasing the proportion of goats in their flocks to produce more cashmere\textsuperscript{31}. Although aggregate livestock totals for the whole of Ejina Banner did not change substantially between 1983 and 2000 with a stable development on a high level (about 170 000 animals), the economic forces led to a significant change in the composition of the herd flock which has become less and less diversified.

**Figure 4. Average prices per kilogram of cashmere in Ejina, 1983-2001 (in RMB)**

Explanation: One RMB was worth 0.14 € in June 2001
Source: Informant interviews

**Figure 5. Changes in herd composition, Ejina Banner, 1949-1999**

Source: Ejina qi zhi bianji weiyuanhui 1998, pp. 209-211
As figure 5 shows, goats and sheep have always dominated the herds. Since the 1990s the proportion of goats has increased enormously whereas the proportion of camels has decreased and other herbivorous animals (horses and cattle) have more or less disappeared.

Photo 5. Driving home small ruminants in the late afternoon

The composition of the small ruminants herds shows a clear dominance of cashmere goats which, due to the high market price for cashmere, have almost completely replaced sheep
Rita Merkle (July 2001, Jirigalangtu Sumu)

When it comes to agriculture, decollectivisation led to a decline of agriculture in the lower reaches of the Hei River because many agricultural workers gave up agriculture. As a result, a considerable part of farmland fell fallow. On this land a system of free access has emerged with uncontrolled grazing. It is also considered as 'big rice pot' from which all can eat.

On the middle reaches of the Hei in the Hexi Corridor, on the other hand, a massive development in agriculture has occurred. The region has become one of the most important grain production bases of China with more and more oases being set up around reservoirs of the Hei River using mainly surface water for irrigation (Wang & Cheng 1999, pp. 125, 128). As a consequence three of the four main tributaries of the Hei were cut off and do not flow into the river anymore. This effected a drastic decrease in the annual discharge of the Hei River in the lower reaches. The drying up of runoff directly threatens the existence of the two terminal lakes. Gashun Nur desiccated already in 1961 as a consequence of the set-up of the military zone and has remained as a playa and a desert. Sugu Nur has dried up completely in 1992, was recharged with some water in 1996, but this again dried up in the summer of 1997 (**ibid.,** p. 128). In 2000 and 2001, it was also completely dried up. However, it seems that the efforts of the national government to re-establish the affected ecosystem bear fruits and water from the Hei River reaches the lakes again**32.**
A zoom at present pastoral lifeworlds

Let us take Mr. Gabuyatu (Gabiyyatu) and his family as an example to illustrate the circumstances in which young pastoral families found themselves after decollectivisation.

Gabuyatu and his wife (both 35 years old) have one son. They married in 1995 and got 20 goats from their parents and 20 goats from the gacha (Saihan'nur - Sayiqan Naγur in Saihantaolai Sumu). However, as all rangeland had been distributed in 1983, the young couple did not get any pastures. His parents had already passed over their pastures to one son while her parents still practice mobile pastoralism on their grazing grounds. Luckily the young couple could graze their animals on the pastures of Gabuyatu’s elder sister for two years before finally getting the pastures of an old couple in 1997 who gave up livestock production. This couple did not have any children and there were no successors for their pastures on the Gobi. Gabuyatu and his family got the 9 m² mud hut where they have lived permanently since then. Until the end of July 2001 he could increase his flock up to 46 goats with 28 mother goats. In one year he has an off-spring of 20 animals. However, one adult person in Ejina consumes 10 sheep or goats on average per year. This explains partly the small herd size of the family. Mr. Gabuyatu himself explains that the main reason for his poor situation is the fact that he does not have the financial means to invest in a motor-driven, 25 m deep well and as a consequence he cannot grow fodder. He therefore has to buy it to feed his animals in winter because the pastures on the Gobi are not producing enough grass in winter. Depending on the cashmere prices the family can earn a more or less high income. In 2000 and 2001 the prices were high and the household could make about 2 400 RMB out of 8 kg of cashmere. Additionally, Mr. Gabuyatu earns some supplementary income as a seasonal worker in agriculture within the boundaries of Ejina (700 to 800 RMB annually). Altogether this is far from being sufficient for surviving. The income is not only inferior to the official poverty line of Ejina of 1 050 RMB net income per person per year, it is also, if one takes the expenditures of the family into account, under the absolute poverty line of 640 RMB. Since 1995 the family therefore has received 50 kg of grains annually.

Political representatives of the banner deduce poverty to mainly bad management on the side of the herders. On second place they mention that some families have become very big, but that the herd size stayed small. Laziness is also a reason for poverty in the eyes of the local cadres. Only a few cited land degradation as a reason for poverty. Degradation concerns all households, they say, and is therefore a problem for everybody.

The example of Gabuyatu, however, has shown that poverty cannot be deduced to simplistic explanations as given by the political representatives. In Gabuyatu’s case, the access to rangeland is the determining factor for the extreme poverty of the family. At present, there are only two possibilities for a young couple in Ejina who has married after 1983 to get rangeland. First, the parents decide to divide their pastures among all the children and not only passing the usufruct rights over to one child. In this case, the stocking rate of the contracted rangeland has increased dramatically. Often the number of goats is now four times as much as it was in 1983. Second, as seen in the example, usufruct rights of pastures are given back to the gacha and passed over to a young family.

In the interviews further reasons for poverty came to light. In the household of Batu Diligir (Batu Delger) (Saihan’nur Gacha, Saihantaolai Sumu), the pump of the well got ruined in 2000, so that the 2 acres of agricultural area cannot be cultivated anymore.
Sideline income through agriculture (melons and cotton) ceased and the fodder the family used to cultivate has to be bought on the market now. And the small area of rangeland which the household received in 1983 (1.5 km²) does not provide possibilities to a flexible rangeland management with seasonal movement anymore.

Furthermore the high costs for public education and the sideline costs for the accommodation of the children in the banner capital where all educational institutions are located temporarily pose a big burden to a family’s budget and might lead to poverty. Also the costs for medical treatment in case of disease cannot be covered by many families anymore.

As it has become obvious, a basic living, and this is true for the four sumu along the Hei River where 77% of all pastoral households are living, is only possible with access to groundwater which allows the cultivation of cash-crops and fodder.

Photo 6. Tilling a field in the poverty area of Ceke Gacha

A privately initiated poverty alleviation programme which is subsidized by the local government allows poor herders from this Gacha to cultivate 0.5-1 ha of corn for fodder

Rita Merkle (May 2001)

Are these conditions not given, a family’s livelihood depends exclusively on (mobile) pastoralism. However, the family of Batu Diligir with its three members cannot survive with 120 goats and 30 camels. The family of Mr. Peirile (Perlee) from Ceke Gacha (Ceke Gacaya) (Sugunur Sumu) with its three members as well cannot survive with 110 goats, 8 sheep and 11 camels. As seen above, before 1949, a household could be self-sufficient with a comparable number of herding animals.

Conclusion

The analysis shows that pastoralism in Ejina is not adapted to the environmental conditions anymore having characteristics of ruinous exploitation. However, herders cannot be blamed for this situation. They are subjected, directly or indirectly, to external
political and economic constraints, administrative procedures and legal framework conditions. The changes are a result of subtle and complex, social and economic, direct and indirect processes, occurring on different levels of society.

At the time of the investigation, the local government adopted its 10th Five-Year Plan (2001-2005). The goal in this 10th Five-Year Plan concerning animal husbandry envisaged sedentary livestock husbandry with an elimination of mobile pastoralism in the Hei River flood plain areas with poplar, tamarisk and haloxylon ammodendron stands. Degraded grassland should be fenced excluding grazing animals in order to recover grassland productivity. This enclosure policy is again based on a technical solution which does neither touch the inflexible land tenure system nor the economic framework. As in the past, but this time under the pretext of environmental protection, the state continues to control the way of life of individual herders, thus further undermining the basic conditions for mobile pastoralism — flexibility, adaptability and mobility.

At present, pastoralism is still practiced in Ejina. According to oral discussions with informants from Ejina, herders in the Hei River region are now sedentary, in the Gobi regions they still move between summer and winter pastures. It can be assumed that pastoralism will continue to exist in the future as well, but the framework conditions — be they ecological, economic, social or political — have fundamentally changed and will presumably continue to change. Wen Jiabao, Premier of the State Council of the People’s Republic of China, announced in May 2012 the “12th Five Year Plan National Nomadic Population Settlement Project” with its objective to settle the remaining nomads who are still mobile, 246,000 households or 1,157,000 people respectively. The objectives are “to promote the change of animal husbandry patterns in rangeland areas and the protection of grassland ecology, to safeguard national unity and stability in border areas and to lay a solid foundation for building a moderately prosperous society” (The Central People’s Government of the People’s Republic of China 2012). So, not only the remaining mobile herders in the Gobi regions should become settled within the present Five Year Plan, but all the other mobile herders in other regions of China as well. It has to be seen, if the Chinese government will reach this objective.

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NOTES
1. See Zhu’s remarks at a News Briefing “Zhu Lieke’s remarks at the News Briefing” on Jan. 6, 2011. Online : http://www.china.org.cn/node_7064105/content_21685541.htm. The figures are based on the fourth national desertification and sandification monitoring. In 2005, the area affected by desertification was at its maximum with 2,674 million km² or 27.9 % of the total land area. See Ci, Yang & Zhang 2005, p. 4.
3. Pastoralism is defined as a mode of production where livestock makes up 50 % or more of the economic portfolio of a small holder. It encompasses a very wide range of production systems and ranges from mobile, to semi-mobile and sedentary styles of animal husbandry. When referring to ‘mobility’, livestock movements can be considered separately from movements by humans. See Niamir-Fuller & Turner 1999, p. 1.
4. The study was conducted within the framework of a PhD programme. The fieldwork comprised 217 qualitative interviews conducted with pastoral households on their summer and winter camps and political representatives of different administrative levels. Furthermore participant observation was conducted during the seasonal migration.
5. China has signed the United Nations Convention to Combat Desertification (UNCCD) in 1994. In 1996, it compiled its National Action Plan to Combat Desertification which had been revised in 2003. Within the framework of this action plan, short-term (1996-2000), mid-term (2001-2010) and long-term objectives (2011-2050) have been formulated and a number of key projects and pilot experiments have been facilitated. The action plan provides the political framework for combatting desertification in China. For a detailed description see Ci, Yang & Zhang 2005.

6. The article uses Chinese transcriptions of Mongolian words, basically because the used primary sources are in Chinese, but will try to give Mongolian transcriptions in brackets at the first occurrence.

7. Ejina has not always been part of Inner Mongolia. It has experienced mind-boggling administrative alterations. After its foundation in 1753 it was under the autonomous administration of the Torgut Mongols. With the beginning of the Republican era it then altered between Ningxia, Gansu and Inner Mongolia several times. Since 1979 it has been under the administration of Inner Mongolia again. For a detailed description of administrative changes see Merkle 2005, pp. 20-25.

8. See Gao Qianzhao & Li Fuxing 1991, p. 1. The endorheic catchment of the Hei River covers about 190 000 km².


10. See Ellis & Swift 1988, Behnke & Scoones 1993. According to this view, arid ecosystems never achieve equilibrium because of the high degree of climatic variability. The ecosystem is constantly changing from one state to another. It is therefore difficult to predict vegetation responses to stresses, such as drought, overgrazing, etc. Therefore a sustainable use of the resources has to be flexible enough to follow the system-immanent climatic changes.

11. See Ejina qi zhi bianji weiyuanhui 1998, pp. 193f. The system is based on a combination of 5 rangeland classes which describe the basic quality of pasture grasses according to their content of proteins and 8 rangeland grades which describe the amount of fresh matter produced by mu. See Secretariat for the Investigation of Rangeland Resources in North-China 1981, quoted in Neimenggu Ejina qi quhua ban & Neimenggu nongmu xueyuan caoyuan kexue 1987, p. 7.

12. Figures on the extent of desertification are not given, but in an internal project report it is mentioned that the vegetation density has decreased by 50 to 80 % within the last 30 years. See Anonymous 2001, p. 2.

13. See Ejina qi zhi bianji weiyuanhui 1998, pp. 152-155 ; Zhongguo kexueyuan hanqu hanqu huanjing yu gongcheng yanjiusuo 2000. It can be assumed that the percentage of the Mongolian population in 1944 was even higher, because there were presumably less Chinese in Mazongshan and in Wentuagaoe than in the region of the banner-centre of Ejina for which the statistics were made.

14. In 1944, Dong Zhengjun conducted, on behalf of the Chinese government, an intensive and excellent study on Ejina in order to provide the political leaders with a solid basis for further exploitation of this more or less unknown part of the country. See Dong Zhengjun 1952. And also for Wentuagaoe and Mazongshan which did not belong to Ejina administratively in Gansu Province, investigations were conducted. See Meng Zang weiyanhui diaochashi bi anyin and Anonymous 1942.

15. This number was given by the informants during the fieldwork. It coincides with the figure given for Alashan Left Banner which borders to the case-study area in the west. See Sneath 2000, p. 56.

16. In the 1940s, Ejina had three monasteries with 141 active monks representing 31 % of the total Mongol male population at the time. See Merkle 2005, p. 73.

17. For a detailed in-depth description of the pre-revolutionary society and economy in pastoral Inner Mongolia, see Sneath 2000, pp. 21-61.

18. The Mongolian transcription might be Jeke Jag-un Obuya.
19. Zhongguo gongchandang Ejina qi lishi bianzuan wei yuanhui 2001, 15.10.1951. The more radical elements of the Party also applied “the land to the tiller” slogan to some of the eastern Inner Mongolian pastoral regions. It led to animals being slaughtered by rich herd owners. Only in 1953 the soft approach was approved as national policy and introduced in all pastoral regions of China.

20. See Ejina qi zhi bianji weiyuanhui 1998, p. 173. In contrast to the usual three-level organisation of the communes, Ejina adopted only a two-level ownership with the People’s Communes being the administrative setting for pastoral life and the Production Team the primary accounting unit and basic unit for rangeland management.

21. China’s first cosmonaut had been launched into space in October 2003 from this rocket launching site. See Frankfurter Rundschau 16.10.2003.


23. The system was based on a combination of temporal and work-specific criteria. For a detailed description of the system see Madsen 1991, pp. 651-652. For the concrete remuneration in Ejina see Merkle 2005, pp. 132-134. In 1966, the “Dazhai work-point system” was introduced in Ejina, comprising additional ‘punishment points’ for those considered to be enemies of the regime. They were deducted from the work-point totals, thus reducing the income of the person. See Ejina qi zhi bianji weiyouhuan 1998, pp. 26f.

24. Since fodder cultivation was not possible in Mazongshan, Guriina and Wentugaole, these three communes got agricultural exterritorial areas in the river region to fulfill this duty. See Ejina qi zhi bianji weiyouhuan 1998, p. 254.

25. Humphrey and Sneath (1999) found that the two processes of sedentarisation of nomads and urbanisation are not directly correlated and that they have different causes and effects. They conclude that sedentarisation of herders certainly seems to be one factor associated with pasture degradation, but the emergence of large central villages does not necessarily result in grassland degradation in pastoral areas. See Humphrey & Sneath 1999, chapter 5. In a comparative perspective, the ECCIA-Project (Environmental and Cultural Conservation in Inner Asia-Project) of the University of Cambridge (England) studied pastoralism in the Inner-Asian step region comprising the Republic of Mongolia, Inner Mongolia and Xinjiang in China and Buryatia and Tuva in the Russian Federation. Its results were published under the authorship of Caroline Humphrey and David Sneath. See also Humphrey & Sneath 1996.

26. In Ejina, the People’s Communes were replaced by the sumu (or administrative village) and the production teams by the gacha (or natural villages) on January 1984. See Ejina qi zhi bianji weiyouhuan 1998, p. 57. Ho describes that the use rights of rangeland were not defined in national law until the 1985 Rangeland Law. However, it was imprecise in defining them leading to different interpretations in the actual implementation. See Ho 1999, pp. 101-102.


28. The financial volume of the two projects sums up to 148 million RMB. The central government contributes more than 90 % of the total volume. The rest has to be covered by the local government by taking a credit. See Neimenggu nongye daxue linye gong cheng she ji yuan 2000 and Anonymous 2001.

29. If, as I was told by a local cadre, only those herders which are comprised in type I, II and IV have to resettle, this would concern 44.2 % of all pastoral households of the four targeted sumu.

30. The breeding of goats began in 1979 in Ejina with the introduction of cashmere goats breed from Liaoning province. However, the 50 imported billy goats could not adapt to the local environment and the attempt failed. In 1985 then, a new attempt was undertaken by importing cashmere billy goats from the neighbouring Alashan Left and Alashan Right banners with a
similar environment. See Ejina qi zhi bianjihu weiyuanhui 1998, pp. 208-209. The breeding succeeded, but local herders stated that in the first years they had higher yields, in later years yields diminished again.

31. Prices for cashmere are far higher than those obtained for wool. In the year 2000 private traders paid only 3 to 4 RMB per kilogram of wool, a price which is only a little bit higher than the one which was paid by the state procurement agency in 1983.

32. See footnote 9. The author of this article could not verify if this is still true at present.

33. After decollectivisation the primary and middle schools which were constructed in each People’s Commune’s centre were closed gradually and, by 1991, have disappeared completely.

RÉSUMÉS
La dégradation des pâturages et leur désertification sont un problème sérieux en Chine populaire. Dans le discours public chinois, les éleveurs pastoraux sont considérés comme les principaux coupables de cette dégradation. Prenant l’extrême ouest de la Mongolie-Intérieure comme étude de cas, l’article met en question cette vérité fondamentale. L’analyse des changements dans le cadre politique et structurel et leurs effets sur la gestion des pâturages montre que l’écosystème pastoral actuel, qui n’est plus durable, est un résultat de processus subtils et complexes, sociaux et économiques, directs et indirects, qui ont lieu sur des échelles différentes de la société. Le présent article est fondé sur les résultats des travaux effectués dans le cadre de la dissertation de thèse de l’auteur (Merkle 2005).

Rangeland degradation and desertification is a serious problem in the People’s Republic of China. In the public Chinese discourse pastoralists are seen to be among the chief culprits of this degradation. Taking westernmost Inner Mongolia as case, the article puts this apparently fundamental truth into question. An analysis of the changes in the political and structural framework and their effects on rangeland management shows that the present unsustainable pastoral ecosystem is a result of subtle and complex, social and economic, direct and indirect processes which occur on different levels of the society. The present article is based on the materials collected and analyzed in the author’s PhD dissertation (Merkle 2005).

INDEX
Index géographique : Chine, Mongolie-Intérieure
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