

# WOLTS Project Mongolia

## Dalanjargalan Summary

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This short Summary presents the main findings set out in full in the WOLTS Project Mongolia –  
Dalanjargalan Soum Report, July 2017, available at [www.mokoro.co.uk/wolts](http://www.mokoro.co.uk/wolts).  
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## The WOLTS research and methodology

Mokoro's practical and action-oriented long-term strategic research project, the Women's Land Tenure Security Project (WOLTS), is piloting its methodology through a 'Study on the threats to women's land tenure security in Mongolia and Tanzania'. Working together with People Centered Conservation (PCC) in Mongolia, we have been investigating the state of women's land tenure security in pastoral areas affected by mining investments, through both participatory qualitative and quantitative research to identify the main threats to the land rights of women and vulnerable groups. The WOLTS project's aim is to assess possible means to improve gender equity in land tenure governance and secure the land rights of vulnerable people from internal threats within communities, as well as to support communities as a whole to withstand external threats to their land and natural resources (see our website: [www.mokoro.co.uk/wolts](http://www.mokoro.co.uk/wolts)).

This Summary shares our findings from our research in Dalanjargalan soum between April and November 2016, including initial field visits, a baseline survey and a participatory fieldwork phase. We are grateful for both the overall support of the soum government and the engagement and hospitality of the people of Dalanjargalan throughout.

Our baseline survey was conducted in August 2016 with 10% of households across Dalanjargalan. It included 93 households, of which 74 were randomly sampled and 19 were additional female-headed households. Thus 80% of the total survey sample was randomly sampled (including 57 male- and 17 female-headed households) while 20% comprised deliberately targeted female-headed households (19 households). This was done to boost the total number of female-headed households surveyed so as to help uncover critical gender issues for vulnerable groups. Data from the 19 additional female-headed households have only been included in comparative analysis of male- and female-headed households, and not in all the general baseline analysis.

The participatory fieldwork phase took place in November 2016 and included 14 focus group discussions (FGDs) and 11 individual biographic interviews (BIs), involving over 94 people. Different types of social groups and individuals were specifically sought out for these discussions and interviews, so as to reflect different characteristics and issues that we considered worth exploring further after analysing our baseline results (e.g. widows, miners, married men and women, etc.). FGDs were structured around standard participatory exercises, including natural resource and migration mapping, seasonal labour analysis, and stakeholder analysis and institution mapping. BIs followed structured question guides that were tailored to the circumstances of the individual being interviewed in order to help us learn about people's lives and livelihoods and the ways both gender relations and access to different resources have changed since their childhoods. Our research also included interviews with different local government officials as well as with representatives of some of the mining companies and organisations working in Dalanjargalan.

## Location and population

Dalanjargalan soum is located in Dornogovi aimag, in the Gobi Desert, 288 km south-southeast of Ulaanbaatar. Its total land area is 404,590 ha, which is mainly desert-steppe pastureland; the Trans-Siberian Railway passes through the soum and 44,000 ha of the Ikh Nart Nature Reserve lie within its territory. As at 6 April 2016, 90 mining licences had been granted in the soum, 48 for exploration and 42 for production; Dalanjargalan's main mineral resources are coal, fluorspar, construction materials and iron, along with semi-precious stones (chalcedony).

Dalanjargalan is made up of five baghs, two of them more urbanised and three more rural and physically larger, where most herders live. The total population of the soum as at 28 July 2016 was 2,641 people living in 916 households. Average population density for the soum as a whole was 0.007 people per ha.

Twenty-three per cent of the randomly sampled households in our baseline survey were female-headed. Extrapolating from this suggests that some 211 households in Dalanjargalan were female-headed at the time of our survey. Our survey data also suggest that 36% of Dalanjargalan's population were under 18, 8% were elderly (aged 65 or older), and 56% were working age adults (aged 19 to 64). The population of Dalanjargalan is largely Khalkh and Buddhism is the predominant religion.

## **Recent history of economic and population change**

From the 1960s, after all livestock in Mongolia had been brought under state ownership, herders in Dalanjargalan received regular salaries for their work looking after the negdel (collective) herds and pastureland regulation and management was organised by the soum government.

With the democratic transition in 1990, the state collectives disintegrated and livestock were privatised across Mongolia. In Dalanjargalan this major transformation not only brought increasing poverty among herders and a growth in the gap between rich and poor herders but was also perceived to have contributed to land degradation. In particular, the ending of free state-provided transportation for seasonal movement has been one factor in herders – who lived very far apart – starting to stay permanently near water points and thus contributing to localised overgrazing. The privatisation process also led to an initial increase in the number of young and inexperienced herders, unused to seasonal movement and associated pastureland management practices and therefore perceived to have contributed further to land degradation in the soum. These new herders were often the children of parents who had been negdel herders; they had moved back to the countryside to take up herding in the general economic chaos of that time.

Mining in Dalanjargalan started around 1996, with at first only a few illegal artisanal miners selling fluorspar to Chinese traders; however, the number soon reached several thousand as unemployed people from all over Mongolia were drawn by this income-earning opportunity to Dalanjargalan. Small and medium-sized mining companies started coming to Dalanjargalan from around 1997 and in 1998 the large-scale Mongolian company, Mongol Alt Corporation (MAK), began its coal mining operations in the soum. As well as numerous mines and the state railway (and its stone crushing factory), Dalanjargalan now also houses a unit of Border Guards and several processing factories.

## **Livelihoods and gender relations**

### **Marriage and family situation**

Our baseline survey suggests that the majority of adults in Dalanjargalan were married, though some of them only informally. Among all the female-headed households surveyed, 36% of household heads were widows, 28% were single and never married, 14% were divorced or separated, a further 14% were headed by a married woman, and 8% were living together informally with a partner.

Fifty-three per cent of the randomly sampled households reported including members who either often lived elsewhere (temporarily for the year) or usually lived elsewhere in the medium to longer term. Most of those absent were children of the household head, largely away for education, as well as parents (usually mothers) staying in soum or aimag centres while their children were at school.

### **Education**

Levels of educational attainment were generally higher among women than men and were also higher in the two more urban baghs. Findings from our baseline survey give particular support to national data on the relatively low levels of education among male herders in the countryside, with concerns expressed by some young male herders that with so many young women moving away for education, it was becoming increasingly difficult for them to find a wife.



## Relative Wealth and Poverty

Forty-nine per cent of the randomly sampled households had a ger (traditional tent), 39% had a house, and 11% had both. Female-headed households were slightly more likely than male-headed households to have a house than a ger as their main residence. The vast majority of randomly sampled households had access to electricity, generally portable solar panels in the rural baghs and mains electricity in the urban baghs; access to sanitation was more limited, but with no major gender differences.

Throughout the year, the most common source of water was from open deep wells nearby, by means of payment. This was followed by communal or shared access to open deep wells nearby. Payment for access to wells was more common for female-headed households and only male-headed households used springs.

There were significant gender differences in access to most modes of transport, with male-headed households much more likely to have access to lorries, cars, motorcycles, bicycles and horses than female-headed households. However, there were very few gender disparities with respect to possessions, and the vast majority of all surveyed households had televisions and mobile phones. The notable exception was silver cups, which were held by herders as a traditional form of wealth and were much more common among male-headed households.

Overall, our baseline survey data on housing type and materials, access to electricity, water, sanitation and transportation, and ownership of certain possessions provided some indications of relatively higher poverty rates among female-headed households, and suggestions of potential areas of vulnerability, particularly for female-headed herder households. This was supported by the findings from our FGDs and BIs, which revealed particular challenges for women.

## Main livelihoods

The two main livelihoods – and top sources of cash income – in Dalanjargalan were herding and formal employment, with 43% and 45% of randomly sampled households in our baseline survey including people involved in them, respectively. A large majority of households had relied on more than one source of cash income in the previous 12 months, with few differences between male- and female-headed households. Herding was reported as the top source of cash income across the three rural baghs, and government employment for households whose head had moved to the soum as an adult. This suggests a distinct axis of socio-economic differentiation within Dalanjargalan's population between longstanding citizens with traditional pastoralist roots and newer arrivals who were more connected to the wider economy through formal employment.

Herding provided multiple sources of cash income, including from cashmere, meat, wool, leather and hides, as well as milk and dairy products. However, many households, especially those headed by older people, just kept animals for their own consumption. Some people, such as 'absentee herders' living in the soum centre, who left a few animals with their relatives or other people in the countryside, did not even consider themselves herders. In general, a higher proportion of male- than female-headed households appeared to be reliant on livestock for their livelihoods, and female-headed households were proportionately more likely not to be keeping any animals at all.

There were very few cases of reported earnings from mining in our baseline survey despite the presence of numerous mining companies; the mining sector was generally down across Mongolia at the time of our fieldwork, with lack of activity and employment opportunities in the mining companies still operating in the soum. However, our FGDs and BIs also revealed that involvement in mining – and particularly illegal artisanal mining – was in fact very common, and it seemed that some people had been reluctant to speak about their cash incomes from mining in our baseline survey because of the illegal nature of their involvement. For those households who were involved in mining, it undoubtedly made an important contribution to their livelihoods. However, the high

level of reporting of cash incomes from both formal employment and, more significantly, herding, suggests that households in Dalanjargalan at least had those alternatives to fall back on when the mining economy was down. Conversely, crop farming appeared to be of limited significance to local livelihoods, with 84% of surveyed households not growing any crops at all.

## **Gender relations**

The division of labour within herding households was perceived to be naturally regulated, with men in charge of outdoor activities such as fixing fences, herding large livestock, watering them at springs and wells, preparing firewood, slaughtering livestock for winter, and other physically strenuous tasks, and women predominantly responsible for milking and dairy processing as well as taking care of the work inside the house or ger, working mainly within the confines of the khashaa (housing plot). Participants in our FGDs and BIs thus gave us the very strong impression of herding as a family/household activity, with clearly gender-differentiated roles and responsibilities. Children, particularly boys, helped with herding tasks when not at school, and outsourcing took place too. No women at all were reported to slaughter animals; those women who sold meat or used animals for domestic food consumption either asked a male neighbour to carry out the slaughtering or sold their animals live. Women, however, were reported to be actively engaged in household decision-making, although inter-family discussions about access to pasture and water sources were generally held only among men. These traditional divisions of labour made it very difficult for women to engage in herding without male support.

Conversely, it seemed that much of the men's work was shared by women as well, and men in 'split families' were doing a lot more housework through the winter. The issue of split families appeared to be having a major impact on household composition, structure and family relations, the full effects of which were not yet clear. Because the more traditional nomadic herding families were keen for their children to get a better education than many of them had had, in almost every two-parent herding household, the mother would stay in the soum centre with the children throughout the school year, with the father staying in the countryside to take care of animals. Some women took up new cash income-earning activities, for example women living in Dalanjargalan's two urban baghs seemed to have become much more involved in livestock trading through their more ready access to marketing opportunities than would have traditionally been the case for female herders. Another significant phenomenon was that of 'fake' divorces, discussed below, where a husband and wife register as citizens in two different soums in order to get more land.

## **Mining companies and artisanal mining**

Mining in Dalanjargalan includes large-, medium- and small-scale coal and fluorspar production, plus mining of iron and construction materials, illegal artisanal fluorspar and semi-precious stone mining, and cement and fluorspar processing factories. The last two decades have seen a huge mining boom.

Contrary to concerns expressed by participants in our FGDs and BIs about foreigners (outsiders) taking over large parts of the soum for mining, the major investors in mining appeared all to be Mongolian national entities. Official data suggest a total area held under mining licences of 19% of Dalanjargalan's territory, with 71% of the total area licensed for mining production and 81% of the total area licenced for exploration recorded as being owned by national entities. However, it was clear from our FGDs and BIs that local people had limited information about mining in the soum, and there seemed to be a lot of confusion, particularly about smaller operations and mining exploration.

### **Mining companies**

Evidence from our baseline survey confirmed the general lack of awareness about the activities of mining companies that we detected in our FGDs and BIs, particularly in relation to land. People seemed not to feel consulted and involved, with issues raised including that formal bagh meetings

were often not called as legally required to discuss mining licence applications; local people had not seen independent environmental impact reports that mining companies were supposed to provide to the soum governor every two years, nor any evidence of their preparation; they did not trust companies to respect decisions that went against them; and there was a strong perception of foreign and especially Chinese ownership of mines, and of illegal buying and selling of mining licences. However, mining company staff told us that they often felt stuck in the middle between local people and the government when they observed at bagh and soum meetings that many local people appeared not to be aware of the relevant laws and procedures and, therefore, of what all parties' rights and responsibilities were.

Most participants in our FGDs and BIs felt that mining companies had done little for the community as a whole and instead had created many problems. There was a perception that mining companies hired very few local people and only in menial jobs; that they did not pay social insurance for their employees; and that they preferred to hire men because of the heavy labour involved in much of the work. There were also complaints about unhealthy working conditions, especially due to dust. With the exception of MAK, there were perceptions of an overall lack of corporate social responsibility (CSR) from large and medium-sized mining companies in Dalanjargalan. MAK was contrasted favourably with many other companies because it was seen to carry out environmental rehabilitation work, both during and after its mining operations. As part of its CSR efforts, MAK had also built and renovated community facilities and supported vulnerable groups such as female-headed households, elderly people living alone, and poor households with many young children, by helping them with their winter preparations. There were different views about this kind of help, with comments that some CSR efforts were too small and unsustainable, and that more should be done. However, MAK staff reported that they had not received any serious complaints from herders, so it was difficult to know the extent to which people were really distinguishing between the CSR efforts of different companies or were just unhappy with mining companies in general.

Moreover, there clearly were job opportunities for local people in mining, even if some of these were more informal and casual. According to MAK staff, at the time of our fieldwork their biggest coal mine had only about 30 workers but had employed many more in the past, some of whom were local people. At its cement factory MAK had employed around 500 temporary Chinese construction workers but anticipated taking on more local people once it became fully operational. However, MAK staff also raised concerns about problems that sometimes arose with local employees, including alcohol-related absenteeism.

### **Artisanal mining**

At the time of our fieldwork, artisanal miners in Dalanjargalan engaged in both small-scale fluorspar mining and the mining, or, more usually, collection of different-coloured semi-precious stones, which were sold to markets in China for use in making jewellery and decorating buildings. Artisanal fluorspar mining entails either going down into the big deep holes left behind in old mines or digging new holes between 10 and 60 metres deep and going underground, while semi-precious stones are usually found on or just beneath the surface of the land.

Since 2010 the number of artisanal fluorspar miners in the soum had reduced considerably because reserves were becoming exhausted and because people had come to understand the dangers, both from the dusty working environment and from the risk of injury or death from earth walls collapsing. In addition, increased issuance of mining licences to companies reduced the area available to artisanal miners, especially when the companies fenced and patrolled their land. Artisanal fluorspar miners were mostly organised in small family and community groups, including some that were women only. A few groups had registered with the soum government and had legal rights to mine their allocated parcel of land, but the majority were operating illegally. Participants in our FGDs and BIs said that those engaged in artisanal mining were doing so out of necessity rather than choice, but they were aware of the various risks and would have preferred artisanal mining to be a safer and

more legitimate livelihood option. One reason offered for the lack of progress with legalising artisanal mining in Dalanjargalan was fear of the social impacts of another rapid expansion in the number of artisanal miners (including adverse health effects, increasing violence and alcoholism). However, difficulties around formal registration were becoming more pressing to resolve because of the disputes that were arising through fluorspar miners' illegal status, both between different artisanal mining groups and between them and larger companies.

In contrast to the case of fluorspar, miners of semi-precious stones were all mining illegally, were mostly women and were more likely to work as individuals, although in some cases husbands and wives worked together. This type of artisanal mining was very recent and there were reports of some miners having come from outside the soum, and of regular physical fights and verbal abuse.

## Effects of mining

Across Dalanjargalan as a whole the biggest reported effects of mining were negative, especially related to land and natural resources. In rural baghs a majority also saw mining as having had a negative effect on household cash income, probably because of its impacts on the livelihoods of herders. However, some households in urban baghs reported positive cash income effects, for example through creating markets for meat and customers for local shops and services, and work through artisanal mining or formal employment with mining companies.

Several environmental concerns were highlighted by a majority of FGD and BI participants in relation to the activities of mining companies in the soum. First was the creation of uncontrolled, unmaintained roads leading to dust and pastureland degradation, and also livestock being run over at night by company trucks, with no compensation paid. Second was the reported reduction in levels of both surface and underground water, as well as the pouring away on the ground of water used by mining companies, affecting the quality of local water sources. Third, deep holes from mining operations on land that was often not subsequently rehabilitated were reported to have become a main cause of livestock death. Finally, it was reported that the dust and smoke created by mining companies caused health problems among herders and also affected livestock quality.

Because artisanal mining was smaller in scale, its impact on the environment was considered to be less than that of the large and medium-sized mining companies, with the main complaints raised being about miners not tidying up areas after they had used them and leaving big holes behind. This last issue was said to be a major cause of conflicts between herders and artisanal miners, though it also applied to larger mines. Artisanal mining of semi-precious stones was considered to have the least impact on the local environment because it generally took place in smaller areas and used less environmentally harmful techniques.

People have been attempting to address some of the issues that arose around mining in various ways. Applications for mining licences by two companies had recently been challenged in bagh meetings, and some individuals had raised formal complaints about some of mining's negative effects. However, we learned that the mining companies generally had no authorised staff to receive complaints from local citizens, and we detected a general feeling that complaints were not always satisfactorily resolved.

## Land allocation processes

The main types of land subject to formal land allocation processes in Dalanjargalan were housing plots, under ownership rights, for those living in the two urban baghs, and winter and spring camps, under possession rights, for those living in the three rural baghs. It was women who tended to do the work to apply for land and obtain land titles and possession certificates. In the case of herder households, this was partly because women were now living in the soum centre for most of the year. However, in most cases documents were still titled in the man's name; most female participants in

our FGDs and BIs expressed trust in their husbands and their belief that it did not mean that land belonged just to their husbands. However, local government officials told us that in divorce cases, unless the couple went to court, the person named on the document would keep the land.

The process of applying for housing plots was said to be tedious, unclear and lengthy, and some people felt that not everyone was treated equally. Participants in our FGDs and BIs said that no more land was being allocated in the soum centre for housing plots and that instead people were being allocated land in areas designated for new settlements but which lacked infrastructure. There were concerns expressed that the soum centre was now being considered as an urban area for land allocation purposes, meaning that instead of being allocated 0.07ha, as for winter camps in rural areas, ownership titles for housing plots were only for 0.05 ha.

We recorded no documents relating to private land sales or rentals during our baseline survey, suggesting very limited land market development in Dalanjargalan. Regarding enterprise plots, we learned that it was only possible to obtain one if the soum land officer announced a sale by tender for a particular piece of land.

Nine of the randomly sampled households in our baseline survey reported that they had been involved in a land- or property-related dispute in the previous 12 months, three of which related to mining companies; other disputes were over pastureland degradation and water scarcity, as well as in relation to land titling and land allocation processes. It seemed that there was a lack of well-functioning community level dispute resolution mechanisms, with many issues just sorted out between the individual households concerned, and a low level of confidence in the justice system.

It also appeared that people did not all have an adequate understanding of relevant Mongolian laws, including that women were allowed to own land, that discrimination between men and women as regards land ownership was illegal, and that rights to land did not include rights to minerals under it.

### **Winter and spring camps**

According to local government officials, herders in Dalanjargalan began to be issued possession certificates for their winter and spring camps from 2008, and by 2013 most of those whose families had lived in the area for generations had received their documents. Each herder household was allowed one winter camp, one spring camp, and – to accommodate split families – they were permitted to have a housing plot in the soum centre as well. However, newcomers who had moved to Dalanjargalan in the early 2010s had not received winter camp possession certificates yet, as there appeared to be few sites left available in the soum.

Possession certificates for winter and spring camps were issued to individual households without them having to do their own cadaster mapping because the camps were held under customary rights. Participants in our FGDs and BIs explained that people knew each other well and knew who had lived in different winter camps and had established customary rights over them. After the collapse of socialism, some of those herders had four or five different winter and spring camps, and some families had obtained possession certificates for all of them through putting different family members' names on the documents. However, a by-law that came into effect in 2013 meant that possession rights for winter camps could be cancelled if they were not used for three years; some people said that they had not been aware of this change and were losing their ancestral winter camps as a result.

The land allocation process appeared in general to be more inaccessible and complicated for winter and spring camps than for housing plots. Some herders encountered delays because they did not know that their land overlapped land for which someone else had already been issued with formal possession rights. While most herders seemed to have good relationships with their bagh governors, the bagh governors were not always able to immediately share information with them about their applications because of their busy schedule and the distance that herders lived from each other.

Some participants in our FGDs and BIs told us that they had had winter camps inside the area of the Ikh Nart Nature Reserve for many generations but were unsure they would be able to keep them. However, although herders were not allowed to be allocated possession rights for winter or spring camps inside the protected area, they were allowed to continue living in Ikh Nart, graze their livestock there and hold use rights to winter camps. These and other issues that some herders had with the Reserve appeared to be addressed well in co-operation and collaboration with the reserve area administration.

## **Pastureland management**

Only 26% of the randomly sampled households in our baseline survey reported herding as their top source of cash income in the previous 12 months, and 43% reported that they were not grazing (and did not have) any animals at all. At least 50% of all female-headed households in our baseline survey were not grazing any animals at all, compared to 40% of all male-headed households. Our data suggest that female-headed herder households had less capacity to graze livestock themselves, either due to labour constraints or to more limited access to pasture and that they were proportionately more reliant on others to help them with grazing. Households headed by older people were more likely to be using communal grazing land, and to be giving their livestock to others for grazing, while households headed by working age adults were much more likely not to be grazing any animals at all.

Despite this, herding still seemed to provide a very strong sense of cultural identity for many people, and the loss and/or degradation of pastureland was therefore a major worry, as was the issue of access to water. Some herders had started to build their own private wells and either charge others for access or not allow access at all. In addition, we were told that in some places up to 20 households could be using one public (open access) well, causing disputes and increasing the workloads of herders in managing and maintaining the wells. It was said that pasture around such wells was becoming increasingly degraded. Water was still an open resource for common use, but its governance did not seem clear, for example if someone repaired and maintained a public well they might also lock it to prevent others' access.

Mining was widely regarded as the main cause of pastureland degradation and water scarcity, which were said to have contributed to increasing conflicts over winter and spring camps between herders and to changes in traditional nomadic movement patterns towards a more settled way of life.

## **Otor migration and changing movement patterns**

Whereas originally many herders in Dalanjargalan moved as families between three seasonal camps, the main movements of herders seemed nowadays to be between spring/summer and winter camps; some people had become absentee herders, giving their livestock to relatives to pasture rather than moving with them themselves, and otor (long-distance extended) migration was less common. The distances moved were said to have reduced in recent years too, from more than 100km in socialist times (when the state provided free transportation) to possibly only 5 to 15 km now. Many participants in our FGDs and BIs felt that this was not enough to prevent pastureland degradation.

Even though many herders reported having possession certificates for their winter camps, there seemed to be a general reluctance to move from them because of fears either of losing the campsites to mining companies or of having their winter pasture eaten by the livestock of herders from other soums. As a result, in the rural baghs it seemed that most families either stayed in their winter camps year round, or moved only very nearby in order to guard and protect their rights to the pasture around their campsites. Portable fencing has also been used by some herders to protect pasture.



Since the transition from socialism, there had been no regulation of seasonal or rotational pasture and otor movement. We heard accounts of herders from other soums, sometimes as far away as the western aimags, coming to Dalanjargalan to use its small otor area and sometimes settling in the soum. However, in 2015 the soum governor imposed a pasture tax on anyone coming from another soum, which has reportedly encouraged herders from other soums to go elsewhere.

Dalanjargalan herders themselves had also started to move to neighbouring soums in search of good grass, sometimes moving away completely to stay with relatives; others had used the ‘fake’ divorces mentioned above to enable their household to access pastureland in more than one soum. These were cases whereby married couples with large numbers of livestock would get divorced so that one of them could officially register as a citizen of another soum and be given a winter camp there, thus getting round the legal prohibition on households having more than one winter camp in Dalanjargalan.

All these changes appeared to have come about as a direct result of the formalisation of tenure. Disputes over pasture appeared to have become common and sometimes several families claimed ownership over one campsite. It seemed that herders did not want to share pasture with each other, as they had come to see it as private property. Female-headed herder households were particularly affected because they were not taken as seriously in the male-dominated herder environment, and often lost out in disputes.

### **Challenges for women herders and vulnerable groups**

The overall picture that emerged from our 2016 fieldwork was one of complex gender relations and of very different situations facing different women and men, making it difficult to identify the most vulnerable groups in Dalanjargalan today. It seemed clear that female-headed households in rural areas were very vulnerable to descending into poverty and tenure insecurity, given the difficulties facing women such as widows in continuing to herd. However, the husbands in split families, living through each winter alone in the countryside, must also be considered as a vulnerable group.

At the same time, the wives in split families seem to have been growing more powerful and independent. Although it was not directly raised in our fieldwork, evidence from elsewhere in Mongolia suggests that these kinds of changes in gender relations, particularly when linked to mining-related social problems such as alcoholism, can contribute to gender-based violence. Moreover, as some of our participants did raise, changes in gender relations seemed likely to be contributing to increasing separation and divorce, particularly given the relatively high movement of people in and out of the soum, and in general we detected a certain level of instability in family life.

We also detected a core tension between all these social changes and the continuation of traditional practices on the part of most married couples, such as putting men’s names on land documents and considering them as head of the family. This would make married women vulnerable to losing their property if they did get divorced, and a general increase in divorce would mean more women having to survive in the soum centre without male support (where life was not easy and living expenses were high) if they lost access to their winter camps, since these were mostly held under men’s names. Further, while the practice of ‘fake’ divorce may seem beneficial to women, since it would allow them to own winter camps in their own name, there seemed to be a real risk that it would lead to the actual break-up of these families from the strains of having to live separately to protect their rights to two winter camps.

On balance, however, it appeared that most of the changes taking place in Dalanjargalan were creating positive results for women. Women appeared to play an active role in the local society and economy and many local leaders were women. Yet poorer female-headed households still argued strongly for more support from the local government, given the difficulties facing all households that were not of the traditional Mongolian herder family structure.

## Conclusions

Life in Dalanjargalan appeared to have changed quite dramatically over the 20 years since the democratic transition, from being mainly a traditional herding society to one that has witnessed a period of rapid social change linked to a mining and industrial boom. Conflicts and disputes over land and natural resources in the soum seemed to have increased with the development of the local mining sector from the late 1990s, both between miners and herders and among herders themselves. Participants in our fieldwork were almost unanimous in their view that mining has substantially contributed to pastureland degradation and the increasing scarcity of clean water. People shared concerns about social and health effects of mining, as well environmental concerns, with both illegal artisanal miners and mining companies of all sizes generally held in low regard. Lack of information and awareness about the activities of mining companies contributed to these concerns, and we detected a general desire for the local government to take a more proactive role in monitoring mining companies to ensure that mining land is rehabilitated, and that the local environment and local herders' tenure rights to the pastureland are well protected. On the other hand, local people had benefited from markets for their meat, vegetables, shops and services from mining workers and factory employees, and there were some jobs in mining for local people too.

The extent of mining in Dalanjargalan has created a perceived shortage of good quality pasture and disputes over pastureland have become commonplace. Coupled with the formalisation of land tenure through allocation of private rights to housing plots and winter and spring camps, practices such as fencing have started to increase while seasonal movement has simultaneously reduced. This trend towards more settled lifestyles puts further pressure on the sustainability of local pastureland. In particular, since winter and spring camp titling (under possession certificates) – which was intended to help secure the tenure rights of herders over pastureland in areas where their families had had campsites and customary pasture rights for generations – began in 2008, disputes over land have in fact stimulated fears among some herders about losing their land or being left without any titled camps. This has reinforced the trend towards less movement and contributed to newly unfolding changes in traditional land management practices, whose full effects are not yet clear.

The changing social and economic context of life in Dalanjargalan has also contributed to changing patterns in pastoral lifestyles and in gender relations within households and the community. Changes in pastoralist land management away from traditional nomadic migration and towards fencing private areas of pastureland have coincided with changes at the household level between men and women in herder families. We saw this most obviously in the case of split families, with many couples living separately for much of the year in order to support their children's education. Women who stay in the soum centre with their children have gained opportunities to become more informed and increase their independence, in some cases taking advantage of new employment and trading opportunities, while the men who stay behind in the winter camps have to engage in domestic work as well as dealing with the increasing challenges of herding. Even though this new lifestyle brings certain opportunities to the whole family, for example by having a base in the soum centre from which to more easily follow up land applications and link into markets, its full effects have yet to be seen. On the other hand 'fake' divorces provide women with access to winter camps in their own name, but may also put strains on the relationship and lead to a real break-up.

Within marriages there appeared to be a lot of trust between spouses, who were working hard to manage the household enterprise in the more challenging economic environment than many of them had grown up with and worked in during socialist times. However, there were clearly also still ways in which women in general, and certain women (and men) in particular, appeared to be disadvantaged. To address these challenges in gender relations, as well as all the many challenges around mining, it is important to find ways to share information more widely and increase all local people's involvement in the management and governance of land and natural resources in Dalanjargalan, especially those poorer and more vulnerable people within the soum.



