Pastoral property rights in Central Asia

Factors and actors driving the reform agenda

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Electronic version

URL: <http://journals.openedition.org/etudesrurales/11774>

DOI: 10.4000/etudesrurales.11774

ISSN: 1777-537X

Publisher

Éditions de l'EHESS

Printed version

Date of publication: 1 July 2017

Number of pages: 220-253

ISBN: 978-2-7132-2700-4

Electronic reference

Sarah Robinson, Chantsallkham Jamsranjav and Kramer Gillin, "Pastoral property rights in Central Asia", *Études rurales* [Online], 200 | 2017, Online since 01 July 2019, connection on 16 February 2021.

URL: <http://journals.openedition.org/etudesrurales/11774> ; DOI: <https://doi.org/10.4000/etudesrurales.11774>

Herder family, southern part of Khuvsgul province (Mongolia 2014). Photo: M. Heiner

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Central Asia is overwhelmingly dominated by vast rangelands, of which those classified as usable for grazing cover over 60% of its total area. Governance of this vast resource is an issue of fundamental importance for the rural population, the majority of whom raise livestock either as part of agro-pastoral systems or, in arid regions, as the only viable agricultural activity. Formal property rights systems on pastureland introduced since the collapse of the Soviet system include state management, common property, leasing and private ownership regimes (*table 1*) [Robinson *et al.* 2012]. We seek here to trace the ideas and interests which have influenced the choice of tenure regime by governments, international development organizations (Idos¹) and users themselves. In particular we examine whether an environmental discourse has been paramount to reform, or whether other agendas, such as vested interests or social justice, might have been more important².

The high temporal and spatial variability of Central Asian rangelands dictates substantial levels of seasonal livestock mobility, which was a feature of both historical grazing systems, governed by customary property rights, and the collectivised state-managed systems of the Soviet period [Robinson *et al.* 2016]. However, the transition to a market economy has affected these mobile systems in a number of ways. Although loss of subsidised feed increased the necessity for livestock movement, material support for migration either ceased or declined. Infrastructure in remote pastures fell into disrepair, reducing the means to reach and use these areas. In Kazakhstan, Tajikistan and Kyrgyzstan

1. We would like to thank all those in governments and Idos who agreed to be interviewed for this work.

2. This paper is based on our work as field researchers or policy advisors on pasture management in the case study countries, as well as on interviews conducted for this paper with officials, Idos staff and other participants in reform processes. The material from these interviews is not identified to protect anonymity of sources.

decollectivisation was rapid and accompanied by a collapse in livestock inventories, whilst reform has been more gradual in Turkmenistan and Uzbekistan. Today, in all five republics stock numbers are rising and the vast majority of animals are privately owned. Ownership distributions are characterized by a small number of households with commercial flocks or herds, and a larger number owning fewer animals, often for subsistence. Small flock sizes initially resulted in the loss of economies of scale required for movement, exacerbating the abandonment of remote pastures and concentration of livestock around settlements. Many households resolve this problem through participation in collective herding systems—pooling animals to cover costs of shepherding and transport [Kerven *et al.* 2006; Robinson *et al.* 2010; Vanselow *et al.* 2012a].

During the regulatory vacuum of the 1990s, access to pasture was determined by former state farm boundaries, historical use and ownership of key infrastructure [Behnke 2003; Cariou 2002]. Some spontaneously emerging ‘customary’ arrangements quickly came to exhibit characteristics resembling those of common property regimes, with user groups defined by village residence continuing to use pastures assigned to them during the Soviet period [e.g. Robinson *et al.* 2010]. At the other end of the spectrum, commonly understood definitions of legitimate user groups and pasture boundaries were blurred, and systems exhibited more elements of open access [Behnke *et al.* 2016]. Constraints to livestock movement were initially economic rather than legal or political. So, as inventories recovered, animals became increasingly mobile [Ferret 2015; Kerven *et al.* 2016a].

Livestock were rapidly privatised in Mongolia whilst pastureland, owned by the state, was used informally. Although some customary forms of social organization re-emerged, for example the traditional unit of herding camp known as the *khot ail*, institutions to govern pasture use did not. As economic conditions in urban areas worsened, during the 1990s many former rural citizens claimed a share of privatized livestock and returned to herding [Müller 1995]. Far from crashing, livestock numbers increased from 24 million head in 1989 to over 33 million animals³ in 1999 [Fernandez-Giménez and Allen-Diaz 1999]. After episodes of drought and severe winter (*dzud*) between 1999 and 2002, the national herd declined by 30% and many less experienced herders who had migrated from urban to rural areas lost most of their livestock and moved back to towns. During the next crash, which occurred in winter 2009–2010, about 20% of national herd perished and many more herders returned to urban areas. The national herd then recovered quickly and by the end of 2016, total livestock stood at 56 million head. Overall, in Mongolia livestock numbers have almost tripled since the 1990s, but the number of herders is declining. As in Central Asia, coordinated pasture management systems dis-

3. Mau, G. and J. Chantsallkham, *A Study of Herder groups, their present status, and future potential*, United Nations Development Programme, Mongolia, 2006.

integrated, and grazing patterns became characterized by out-of-season use of reserve and winter pastures, concentrations of herding households near settlements and water points and decreasing mobility. Across the region as a whole, increasing pressure on pastures is now focussing the attention of policy makers on the application of formal legislation to grazing lands.

Country	First wave of Legislation		Subsequent pasture-specific legislation	
	Law	Provisions	Law	Provisions
KAZAKHSTAN	Land Code 2003	Leasing for 49 years or privatisation by purchase	Law on Pastures 2017	Unclear whilst bylaws remain undeveloped
KYRGYZSTAN	Government Resolution 360 (4 June 2003)	Leasing for up to 49 years by public auction	Law on Pastures 2009	Common property regime
TAJIKISTAN	Land Code 1996 & Law on Dekhan Farms 2009	Leasing or permanent heritable use	Law on Pastures 2013	Common management, individual leasing & privatisation all possible
TURKMENISTAN	Presidential decree June 1995; Land Code 2004	Pasture managed by state enterprises, often unregulated in practise for private owners	Law on Pastures 2015	Regulated leasing by individuals or groups
MONGOLIA	Land Law 1994	Camp sites leased, pasture open access.	Draft law on Pastures (not passed)	Long term lease by herding groups.

Summary of legislation regulating pasture access in case-study countries

Environmental discourse: The land degradation narrative

Land degradation on pastures has been perceived as an issue since the late Soviet period⁴ [Babaev 1985]. Livestock levels reached historical highs in the 1980s and a number of authors considered that they had exceeded the limits that could be supported by natural pastures [Asanov and Alimaev 1990; Kharin 2002; Rozanov 1990]. Yet degradation classified as ‘severe’ – compromising the ability of pastures to support livestock production may have covered a relatively small area and feedback effects on the livestock sector itself are difficult to quantify [Robinson 2016; Robinson *et al.* 2003].

4. I. S. Zonn, *et al.*, *Combating Desertification in the USSR: Problems and Experience*, United Nations Environmental Programme, USSR/UNEP Publications and Information Support Project, Moscow, USSR, 1982.

Livestock on village pasture (Kostanai province, Kazakhstan 2016). Photo: E. Morgan

Today, in particular where steep declines in livestock numbers occurred together with a loss in mobility, there is a mismatch between livestock and grazing resources, leading to pasture recovery in some areas, and degradation in others [Alimaev *et al.* 2008; Robinson *et al.* 2016; Vanselow *et al.* 2012b]. This situation is particularly extreme in Kazakhstan, although recovery of livestock inventories is slowly leading to a re-colonisation of remote pastures [Ferret 2015; Kerven *et al.* 2016b]. In Turkmenistan, where the state remained engaged in livestock production and numbers have grown, relatively high levels of livestock mobility have persisted and the distribution of animals on the resource is probably more even [Behnke *et al.* 2005; Behnke *et al.* 2016], but at the national level, grazing pressure is perceived to be dangerously high.

Scientific research has revealed the impacts of de-collectivisation to be varied and complex, yet policy makers and international organisations have continued to stress the catastrophic nature of the pasture degradation problem⁵ and there is a general perception that degradation processes worsened following the transition to a market economy [Kharin 2002]. This mismatch between grey literature and peer-reviewed material is also evident in Mongolia. Recent studies suggest that both livestock and climate change have strong effects on Mongolian rangelands at both broad and local scales [Hilker *et al.* 2013; Khishigbayar *et al.* 2015; Liu *et al.* 2013], but the extent and relative impact of these causes is unclear [Addison *et al.* 2012; Sankey *et al.* 2009;

5. S. Saigal, *An Overview: a Regional Synthesis Report on Issues and Approaches to Combat Desertification*, Asian Development Bank, 2003.

Wesche *et al.* 2010]. Long-term empirical studies suggest that although wetter rangelands may be at a tipping point [Khishigbayar *et al.* 2015], effects on the desert steppe are more subtle, and there has been little change in the eastern steppe [Chantsallkham 2015]. Readers of non-scientific literature would be more likely to come away with the impression that ‘desertification’ is both widespread and caused almost entirely by livestock [Addison *et al.* 2012], recalling the catastrophe narrative of desertification in the Sahel [Behnke and Mortimore 2016; Davis 2012].

Overall, the degradation narrative has been rather simplified, firstly in terms of the causality of vegetation change, in which the relative importance of climatic drivers and livestock grazing are often poorly understood. Secondly, the consequences have also been subject to simplification through lack of rigorous definitions. Little distinction is made between largely botanical alterations, of little importance to livestock raisers, losses in pasture productivity affecting individual animal performance but not total meat output per hectare, and overall long-term loss of economic output. The importance of such distinctions in understanding the meaning of pasture carrying capacity has been described by rangeland scientists working in Africa [Behnke and Abel 1996]. In temperate Asia, the issue can be illustrated by evidence suggesting that Mongolian herders do not always equate species changes related to grazing with a loss in suitability of pastures for livestock production [Kakinuma *et al.* 2008].

Whatever the definitions or their accuracy, headline degradation statistics prompted a mobilisation of international funding for the newly independent states. Scientists and policy makers living through economic collapse found that the narrative of degradation became an important leverage for funding. Some of these funds have been directed towards legal reform of pastoral land tenure, based on the idea that property rights are key to sustainable pasture management.

Sustainable pasture management – an evolution in ideas

Academic debates on the impacts of different property rights systems on the sustainable governance of rangeland resources have been well documented and are thus only briefly summarised here, before we discuss whether these ideas have influences policy making in Central Asia.

The first type of discourse, common in the past and still influential today, is based on Hardin’s ‘tragedy of the commons’ [1968]. This idea was based on the assumption that pastures were ‘open access’ systems in which use rights are not associated with a limited set of users, allowing anyone to resource at any time. As the immediate benefit to individuals of placing more livestock on the resource would always be prioritised over the long-term loss of grazing productivity to the group, such a situation was predicted to lead to

degradation. Subsequently, the observation that true open access systems rare and that the ‘tragedy’ was often avoided through forms of common property resource management (CPRM), was formalised into economic theory Ostrom [1990], and applied to all sorts of commonly held resources. E. Ostrom suggested that such systems of governance could only be effective if a set of rules, including defined geographical boundaries and user-group membership, were in place. From this point of view, the near-village ‘common’ pasture existing in Kazakhstan and Tajikistan are not true common property management regimes as, although they are allocated to the specific group of residents, they are not managed by the users themselves, being the responsibility of village mayors (*akims*).

However, there has also been an increasing understanding that in some parts of the world more malleable access rules are also key components of pasture use, particularly where inter-annual variation in pasture productivity or climatic conditions are large [Fernandez-Giménez 2002; Turner 2011]. This emphasis on mobility and flexibility emerged in turn from scientific insights into the nature of rangeland-livestock interactions in Africa [Behnke *et al.* 1993; Ellis and Swift 1988]. These authors found that in highly variable ‘non-equilibrium’ environments climatic factors such as rainfall may have a greater impact on range condition than grazing by livestock. Research attention came to be focussed on better understanding mobile systems of range management and documenting their increasing fragmentation [Reid *et al.* 2008].

Annual rainfall variability in Central Asia is low compared to other comparably arid regions [Gintzburger *et al.* 2005]. In the regional literature on pastoralism, flexibility—in the sense of a climate-driven need to change grazing locations from year to year—does not emerge as a major requirement for pastoralists outside Turkmenistan and Mongolia. But throughout the region, intra-annual or seasonal mobility is certainly key to exploiting peaks in vegetation productivity and avoiding harsh winter snowfall.

Some of these ideas started to influence the policy and practise of Idos in pastoral areas⁶, which moved away from the promotion of ‘ranching’ type systems, towards common property resource management regimes. These conveniently complemented the pro-poor stance of many organisations, as it was also demonstrated that non-exclusive forms of pasture tenure may improve pasture access for poorer households, which are often marginalized under privatization schemes, as they unable to afford the transaction costs to obtain contracts, or the labour required for individual herding effort [Li *et al.*

6. See Bromley, D. W. and M. Cernea, “The Management of Common Property Resources: Some Conceptual and Operational Fallacies”, *World Bank Discussion Papers* 57, 1989; World Bank and De Haan, Cornelis, “An Overview of the World Bank’s Involvement in Pastoral Development”, in *Donor Consultation Meeting on Pastoral Natural Resource Management and Pastoral policies for Africa organised by Unso (United Nations Sudano-Sahelian Office)*, Paris, 1993 (<<https://www.odl.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5431.pdf>>).

2007; Rohde *et al.* 2006]. The practical application of more open access rights into formal property rights systems has been more problematic [Turner 2011], although these ideas have influenced African pastoral code design⁷ and are evident in debates in Mongolia, as we will see.

Some have argued that CPRM is in danger of becoming a new orthodoxy, and that its successful implementation depends on the power relationships between those with a stake in the resource [Meynen and Doornbos 2002]. C. Upton [2009] notes that the imposition of formal CPRM regimes may lead to exclusion when the definition of legitimate users in the formalised system does not correspond to the actual group of rights-holders existing under less formal arrangements. It has been suggested that, in decentralised management systems, the state must continue to play role in regulation and conflict resolution and that, rather than introducing uniform CPRM models, there may be a need for incremental change or local solutions⁸ [Leach and Mearns 1996].

Small stock, summer pastures (Pamir, Tajikistan, 2007). Photo: S. Robinson

7. H.-W. Wabnitz, *The Code Pastoral of the Islamic Republic of Mauritania. Return to the Sources: Revival of Traditional Nomads' Rights to Common Property Resources*, 2007 (<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=906985>).

8. T. Behnke and M. Freudenberger, *Pastoral Land Rights and Resource Governance. Overview and Recommendations for Managing Conflicts and Strengthening Pastoralists' Rights*, United States Agency for International Development, 2011.

The convergence of ideas and interests in the development of property rights legislation

Although this special issue focusses on the steppe regions of the former Soviet Union, those republics in which the new thinking on rangeland governance has most influenced reform processes are the mountainous republics of Central Asia, and Mongolia. We thus examine these cases first, before asking whether changes in those countries have influenced reform in the steppe and desert republics of Kazakhstan and Turkmenistan. The general chronology of reform is summarised for case study countries in Table 1 for comparison.

Kyrgyzstan and Tajikistan: donor-driven experiments in CPRM

In Kyrgyzstan, a leasing mechanism, consisting of rental of spatially defined parcels of land by individuals or legal entities, was initially introduced for pastures. However, it quickly became clear that this system suffered from a number of drawbacks. Collective herding groups characterised by fluid membership were not legal entities and thus found it difficult to register contracts, leading to conflicts between such groups and leaseholders. Transaction costs were high as separate contracts had to be concluded for each seasonal pasture and the system brought in little revenue, as many pastures continued to be used informally⁹ [Steimann 2011]. Kyrgyzstan is a resource-poor country with a policy towards international cooperation which is perhaps the most open in Central Asia. It had already decentralized government to a certain extent, having elected village authorities. This openness, reliance on foreign financing, the beginnings of autonomous local power structures, and the real problems with the leasing system all facilitated an experiment in common property management which was almost entirely conceived from outside.

During the period of the leasing system (2002–2009), a number of donor-funded projects experimented with models of community participation in pasture management including group leasehold contracts and sharing of leased pasture areas [Esengulova *et al.* 2008]. Forms of community-based management were also trialled¹⁰ and such pilot projects may have contributed to winning acceptance of these models amongst policy makers [Bodemayer and Fabian 2015]. However, perhaps just as important was the fact that World Bank investments in pastures were conditional on the existence of pasture

9. A. Undeland, *Kyrgyz Livestock Study: Pasture Management and Use*, World Bank, Bishkek, 2005. (<https://landportal.info/sites/landportal.info/files/kyrgyz_livestock_pasture_management_and_use.pdf>).

10. See S. Bussler, *Community Based Pasture Management in Kyrgyzstan: a Pilot Project in Naryn Region*. Bishkek, GIZ, CAMP alatau, 2011; J. Leake and Y. Azhigaliyev, *Demonstrating Sustainable Mountain Pasture Management in the Suusamyр valley: Mid Term Evaluation*, United Nations Development Programme, 2010; United Nations Development Programme (UNDP), *Community-Based Rangeland Management in Temir Village Project*, Factsheet, 2006.

user associations, contingent on a new law on common property management. This law was largely conceived and designed by external consultants with expertise in CPRM, international and national Bank staff, who made efforts to base it explicitly on local practise. Environmental discourse was a key justification for the new law, with arguments based on the idea that the transaction costs of leasing remote pastures, combined with annexation of other pastures by leaseholders, were barriers to livestock movements, causing degradation of pastures near settlements. Provision of pasture access for owners with small numbers of animals was also an argument. Key actors in Bishkek, such as the Pasture Department staff and parliamentary agricultural committee recognized the issues with the leasing system and some became active supporters of change. Resistance was more pronounced from the district and regional governments which controlled pasture allocation under the leasing system.

On the passing of the Law on Pastures in 2009, leasehold contracts were repealed. Pastures are now allocated to village governments and managed by Pasture Committees (PCs), executive bodies of Pasture User Associations (PUAs), through annual allocation of pasture tickets to members. IDO intervention did not stop there; a large World Bank investment project financed the establishment of Pasture Users Associations and Pasture Committees nationwide and a Union of Pasture Users Associations was established to represent the interests of the users at the national level.

There has been some research into the administrative quality, inclusivity and legitimacy of PCs [Crewett 2015; Dörre 2015; Shigaeva *et al.* 2016] and it is unclear whether active participation of large numbers of livestock producers in such formal groups is yet forthcoming. It has been suggested that the new law is based on simplistic ideas of what constitutes a community, which is in fact made up of heterogeneous actors with very different livestock wealth and interests [Dörre 2015; Jacquesson 2010 ; Kerven *et al.* 2012], although it seems likely that the leasing system exacerbated these even further. Certainly, the law is highly prescriptive regarding the structure, function and responsibilities of Pasture Committees, placing high expectations on these and leading to high turnover of leadership. The new law did not solve problems of livestock mobility overnight as many of these problems had been economic, rather than legal or political [Crewett 2012].

The forms of autonomous pasture management which had started to re-emerge before any laws were applied suggests that CPRM as a concept is unlikely to be utterly alien to users. The unit upon which the law is based, that of the former collective farm, generally reflected both the geographical and membership basis upon which many users had continued to understand how legitimate primary user rights should be defined. What is new, and perhaps alien, is the form in which it has been imposed in terms of the actors on the PC, and that the whole official edifice, from the PUAs and PCs to the pasture department and the 'representatives' of users at national level, has essentially

been introduced from above according to a single template, based on ideas which had perhaps not fully permeated institutional and scientific thinking in the country. It is possible that, rather than taking on the role of democratic organisations representing members' interests, PUAs will be perceived as just another organ of local government control – the fact that village mayors sit on the Pc leads many users to conflate PCs and village government [Shigaeva *et al.* 2016]. This may create issues of trust regarding payment and use of fees, supposed to be invested in pastures and infrastructure. Recent proposals that these fees should be paid to central government are unlikely to be an improvement however.

Kyrgyzstan's reforms influenced those in Tajikistan, where discussions began just after the 2009 law was passed. Here, pasture sector reforms were undertaken by both Idos and government agencies, with substantial, if cosmetic, consultation with other stakeholders. The country's first pasture-specific legislation was ratified in March 2013, but new amendments and revisions to the Law on Pastures are currently undergoing governmental review, pasture-related institutional architecture is still being debated, and diverging strategies for implementing the law are unrolling on the ground.

With post-independence land reform legislation passed in the early and mid-1990s, the same legal framework was applied simultaneously to both arable land and pastures, and encouraged individual exclusive rights. These included long-term leaseholds from the state as in Kyrgyzstan, but also permanent heritable rights which were theoretically impossible to repeal. During this period some pastures were indeed privatized, whilst others remained *de facto* commonly managed, with large regional differences [Halimova 2012; Robinson *et al.* 2010]. This situation had certain social repercussions, and there is evidence that some poorer groups, unable to register land, may have lost access to pasture.

There appears to have been no single impetus for the creation of pasture legislation in the country. In 2010, both the Asian Development Bank (ADB) and the Tajik branch of the United Nations Development Programme (UNDP) began uncoordinated exploratory work related to pasture legislation—the latter reportedly at the behest of UNDP Kyrgyzstan staff seeking a way to alleviate transboundary pasture conflicts between the two countries.

The ADB completed its own draft pasture law in 2011, which included provisions for the creation of pasture user groups that would manage “community pasture lands.” It did not, however, seek to overturn existing legislation that governed privatized pastures on *dehqon* farm land—former collective and state farms that were privatized after independence—so it still allowed for some areas of pasture to be managed privately. Perhaps because officials feared redistribution of pastures held by elites, the parliament initially refused to work on pasture legislation, but later yielded to UNDP-requested pressure from the president's office, and the government formed a working group who met from 2011–2013 with facilitation from UNDP.

Half of the official working group members were parliamentary officials, with the rest being split between ministerial representatives and sector experts, all Tajik nationals. Non-members, including Ibo staff, communicated their priorities by submitting proposals and reports, presenting to the working group, or meeting privately with official working group members. In general, international staff of IDOs drafted articles for the legislation which were then sent to the Tajik members of the working group for approval, rejection, or editing.

Though the ADB's draft legislation was a starting point for discussions within the working group, it was rejected and the writing process was started anew with help from The German Agency for International Cooperation (GIZ). The notion of pasture user "unions" (PUUs) remained in the final ratified version of the 2013 Law on Pastures. However, the current law provides equal rights to pasture user groups and individuals, both of whom may apply for pasture, decreasing the incentive for common management and ownership. Whilst PUUs may be established, their ability to access land depends on the existence of land available to lease in their locality and on the discretion of district authorities to allocate it to them.

The local experts who participated in the process were Soviet-trained specialists in livestock and botany whose main concerns related to livestock and pasture productivity. As such, rather than having strong opinions about individual versus common management, their main priorities were requiring pasture management plans, restoring pasture land, and maintaining roads and bridges to facilitate mobility. These local experts bemoaned the rent-seeking enclosure of large swaths of pasture by wealthy individuals who didn't own livestock, and strongly recommended that the law require pasture allocation

Spring-Autumn Pastures above village (Rasht Valley, Tajikistan 2016). Photo: K. Gillin

to be carried out in proportion to the number of livestock held by those seeking to acquire land, whether they be individuals or Puus. The 2013 Law on Pastures vaguely states that pastures should be allocated with consideration of livestock numbers, but does not specifically address whether this applies to previously privatized pasture areas. There is evidence that in some regions of the country large areas of pasture have indeed been privatised by a few individuals, but geographical variation is significant and because some privatised farms are in fact still ‘collectives’. The national statistics on pasture areas and private farm ownership do not provide a clear picture of the proportion of the population with legal access to pastures [Halimova 2012].

Though Idos stressed from the beginning the need for stakeholder consultations regarding the law, public feedback did not play a role in the law’s development. UNDP held five large public events for discussion of the law before it was ratified, and a group consisting mostly of parliament members made 46 trips throughout the country to explain the draft law and to receive community feedback about how the Law on Pastures should be implemented. After the law was passed, the International Fund for Agricultural Development (IFAD) inherited UNDP’s role as the primary IDO for institutional development of the pasture sector. IFAD formed a new working group to revise the law, which – unlike before – operated without the involvement of international consultants. In October 2015, the group completed a draft of revisions to the law concerning the creation of new central government bodies for the pasture sector and rules for fee collection by Puus. Notably, the public consultations conducted regarding the first law were not even mentioned during the revision process.

The law’s implementation has been uneven and dependent on IDO participation. Those elements of the law relating to pasture assessment and monitoring cannot be implemented with the current dearth of funding and expertise. Whilst over 300 Puus have been formed nationally, they only exist where IDO projects operate, excluding some of Tajikistan’s most livestock-dependent areas. Different Idos have employed diverse approaches to both the institutional structure of Puus and development of pasture management plans, which are required by law but, perhaps more significantly, must be approved before the Puus receive funding from international donors. Indeed, the importance of Idos’ implementation of the legislation may even eclipse their role in drafting it.

Although some longer migrations were affected by loss of state support, in many parts of the country, pasture access and management look much as they did during the Soviet era, with communities continuing to collectively use pasture lands even after they have been privatized on paper, using traditional communal labour systems (*hashar*) to maintain infrastructure and developing cross-village fodder markets in response to the loss of state provision of fodder. The legislation up to and including the Law on Pastures is perhaps most relevant when imagining future developments rather than

understanding the present. Lacking knowledge of ongoing legislative debates and channels to influence legislation, users are most likely to secure access to pasture through negotiations at the district level.

Mongolian debates: pasture reform as key political issue

In 1994, the Mongolian parliament passed the Land Law, which contained provisions for the regulation and management of pastureland, including leasing of land of up to around 0.5ha around campsites. The working committee consisted of researchers from universities and specialists from the land agency, with little IDO involvement. Implementation of winter campsite leasing started in 2008, four years after the land law was enacted.

Traditionally winter campsites are used not by individual households, but by groups of households known as *khot ail* whose composition varies from year to year and season to season. One troubling aspect of certificate allocation was that often only one name appears on an issued certificate, leading to weaker claims amongst other users [Fratkin and Mearns 2003]. Herders spontaneously perceived pastureland around the campsite to be included in the lease, but poorer herders were largely excluded during lease allocation. Formal user rights led wealthier herders to use the same camp repeatedly every year, a form of increased sedentarisation less commonly observed amongst poorer herders with insecure tenure [Fernandez-Giménez and Batbuyan 2004]. Wealthy herders started using two or more winter campsites, claiming leasing certificates for extra sites in the name of other family members. Some move between these sites frequently; others split both their herd and family members or hire (usually poorer) herding families and use campsites concurrently¹¹.

Following three *dzud* years between 1999 and 2002, during which 30% of the national herd died, an appeal from the Mongolian government led to an influx of aid and of IDOs. Working with herder groups helped donors to reduce transaction costs of aid provision and these were encouraged to register as legal entities, either as NGOs or business cooperatives. Donor organizations working with herding groups, such as the Swiss Agency for Development and Cooperation, the World Bank and UNDP subsequently took a leading role in the design of legislation on pastures and put these groups at the centre of the draft document which eventually emerged.

The draft Pastureland Law provides for long-term leases of pastures by herder groups, including members leasing campsites under the 1994 law, and sets out a legal status for these groups. However, defining ‘herding groups’ in Mongolia is problematic [Undargaa 2017]. In initial drafts, groups were formed based on winter pasture use, but in the latest draft of May 2016, one herder can be a member of several different pasture use groups at different times

11. *Report on Consultation with Herders on the Draft of the Pasture Land Law in Mongolia*, Centre for Policy Research, Ulaanbaatar, 2016.

of the year to accommodate seasonal movement patterns. Proponents of the draft suggested that his type of arrangement would maintain flexibility and mobility, yet clearly significant administrative resources would be required to implement and monitor such a system.

In addition to group user arrangements, a second category – common use – includes reserve, corridor and hay collecting pastures, riparian grazing close to rivers and lakes, and mineral licks. But there is a lack of clarity in the meaning of ‘common use’ and its relation to ‘land use for herder groups’, which may lead to conflicts and accelerate degradation [Fernandez-Giménez and Batbuyan 2004].

A legal expert commissioned by UNDP evaluated conformity of the draft law with international environmental standards and identified issues such as lack of administrative mechanisms to implement key principles, no comprehensive pastureland assessment and planning system, or procedures for community engagement and information provision¹². But given the rapidly increasing livestock numbers and significant warming trend, there was a strong feeling amongst donors that some form of land-use regulation was needed to avoid tipping rangelands into degradation.

The importance of rangelands to Mongolian culture and history means that any new measure proposing tenure exclusivity is likely generate strong debate in parliament [Himmelsbach 2012]. Attempts were also made to obtain views from herders and a nationwide consultation organized by the Ministry of Food and Agriculture. Herders’ knowledge about the draft Pastureland Law varies. As one rangeland researcher put it: *‘although the Pastureland Law proposal is posted on the Ministry of Food and Agriculture website, I don’t think herders use the internet or send comments’*. But generally the consultation found a lack of support for the draft. Many perceive use contracts over pasture (even for groups), as privatization, to be opposed in any form [Fernandez-Giménez and Batbuyan 2004]. They were concerned that such arrangements would undermine essential strategies in arid rangeland management such as mobility and flexibility, which enable herders to access patchy and temporally available resources [Fernandez-Giménez 2002]. This might explain why opposition was particularly strong in the Gobi region, which has the highest variability in pasture resources. Parliament members elected from rural areas tended to fall behind this opposition in order to gain votes.

Other opponents of the draft Pastureland Law include rangeland researchers, agricultural economists and national NGO representatives, who suggest that it may lead to fragmentation of lands and people and create multiple structures rather solving pasture management issues. These groups, in particular those

12. I. Hannam, *Report to United Nations Development Program Mongolia on Review of Draft Pastureland Law of Mongolia*, United Nations Development Program Sustainable Grassland Management Project, Ulaanbaatar, 2007.

working in the field and community coordinators of some wildlife conservation organizations, suggest that enforcement of existing laws would be sufficient for pastureland management and propose that region-specific pasture use regulation implemented by nested regulatory institutions could govern mobility between counties and provinces. Meanwhile, taxing livestock would reduce livestock numbers and promote productivity improvements.

Kazakhstan and Turkmenistan – nationally-led processes and state control

As we have seen, although not always passed into law, IDOs have made key inputs into draft pasture legislation in Kyrgyzstan, Tajikistan and Mongolia. How have these ideas and debates permeated legislation in Turkmenistan and Kazakhstan? These republics, with their oil and gas reserves, are less dependent on outside support; whilst both decentralisation and public involvement in policy are greater in Kazakhstan, in neither republic have these had much influence on pastoral property rights legislation.

In Kazakhstan although other modalities are available, the vast majority of pasture is accessed by registered private farms through 49-year leasehold agreements. Yet, of the close to 100 million sheep equivalents of livestock in Kazakhstan, around 60% belong to households, which have no formal access to pasture outside municipal lands designated as common grazing for local residents.¹³ Registered private farms, holding around 35% of livestock inventories, leased around 38 million ha of pastureland in 2012 – more than the total of all municipal lands. Over 80 million ha of state reserve lands are partially used or abandoned, but much of this is remote. In contrast to Mongolia or other Central Asian republics, mobile collective herding systems are rare in Kazakhstan so it is mainly larger owners who use these areas [Kerven *et al.* 2016b]. Even amongst larger owners, longitudinal studies suggest that high user turnover and large inter-annual fluctuation in individual herd sizes may also be an argument for flexible, or at least easily exchanged, land use rights [*idem*].

These issues are widely recognised in Kazakhstan and there have been a number of attempts at reform¹⁴. An initial draft law by the National Research Institute for Pasture and Fodder was submitted to the Ministry of Agriculture in 2010 followed by round table discussions in 2012 and 2013 initiated by the Agricultural Committee of the Parliament and the agribusiness firm Association of Agricultural Cooperatives or *AgroSoiuz*. These high-level meet-

13. Municipal lands cover around 21 million ha, of which an unknown proportion, usually covering a defined radius around settlements, constitutes grazing land.

14. I. V. Alimaev, Lervin and A. Sagindykov, *On the theme: Analysis of ongoing reform processes in the pasture sector of Kazakhstan* [Po teme: Analiz tekushchikh protsessov i reform v pastbishchnom sektore Kazakhstana], 2015. Report commissioned for the GIZ Sustainable Natural Resource Use Programme and *Dossier on the Draft Law of the Republic of Kazakhstan 'On Pastures'* [Dos'e na proekt zakona Respubliki Kazakhstan "O Pastbishchakh"], Government of Kazakhstan, Astana, 2016.

ings involved the Minister for Agriculture, oblast deputy governors, deputies, farmers' groups and agribusiness representatives, scientists, and foreign experts.

The law which was finally passed in 2017 includes provisions for the voluntary association of pasture users, pasture management plans to be approved by district authorities, and stricter regulation of village pasturelands. However, whether the basic modes of access foreseen in the Land Code remain, and if so, how individual acquisition via purchase or long term lease can be reconciled with biannual pasture use planning processes remains to be seen. Broader questions are also under discussion – amendments to the Land Code passed in 2015 would abolish leasing arrangements and oblige users to purchase land¹⁵. The expense of land purchase relative to rental means that such changes would have had far reaching consequences had they come into force as planned. However, following public protests in 2016 this clause, amongst others, was put on hold¹⁶, a moratorium which has since been extended to 2021.

International organisations have not themselves produced draft pasture laws in Kazakhstan, but have been involved in demonstration projects with a view to legislative development¹⁷. The World Bank currently plans to invest in community pasture management projects¹⁸ with a view to improving use of remote pastures and improving adaptive capacity in the face of climate change. But such projects are at odds with the legal reality of individual leaseholds and the absence of any formal 'community' pasture to manage beyond the village lands.

Turkmenistan's pastoral property rights arrangements contrast strongly with those in Kazakhstan. Pastures are held in state-owned enterprises, whilst the majority of animals (accounting for 90-95% of output from the livestock sector) are privately owned¹⁹. State animals are managed by private individuals according to a leasehold arrangement which also provides access to pasture [Behnke *et al.* 2005]. For non-leaseholding residents, pasture access (and livestock mobility) varies widely depending on the extent to which their activities are compatible with those of state enterprises. Where livestock raising constitutes the principal activity of an enterprise, access limitations placed on private users may be significant, but those enterprises owning few animals

15. *Idem.*

16. D. Sholk "Kazakhstan's Land Reforms", *The Diplomat*, June 15, 2016.

17. L. Mansour, *Sustainable Rangeland Management for Rural Livelihood and Environmental Integrity Project*, Government of the Republic of Kazakhstan, 2012 (<http://www.thegef.org/sites/default/files/project_documents/3235_3819_Kazakhstan_LD_TE.pdf>).

18. S. Broka, *et al.*, *Kazakhstan Agricultural Sector Risk Assessment*, Washington DC, World Bank, 2016.

19. See *Turkmenistan. Agricultural Sector Review, 2012*, FAO Investment Centre Studies and Reports, Centre Food and Agriculture Organization and State Committee of Statistics of Turkmenistan, Statistical Yearbook of Turkmenistan, Ashgabat, 2014.

in relation to the pasture resources they control, or which focus mainly on cropping activities, tend not to actively regulate pasture access by other users [Robinson *et al.* 2015].

In desert areas, direct relationships between residency, user group membership and physically defined pasture areas are weak and forms of partially open access have emerged in some places. Under these informal arrangements pasture users, although formally identified with the state enterprise in which they live or work, are able in practise to obtain much broader access to grazing across enterprise borders. This may apply to both private and leaseholding livestock herders moving to water points outside their 'home' enterprise in response to changing seasonal needs for pasture and water, and density dependant factors [Behnke *et al.* 2016; Robinson *et al.* 2015]. These moves are achieved through negotiation between herders themselves, historical precedent and personal relationships with local officials. In areas where relatively free movement is possible, there is now empirical evidence that such arrangements naturally lead to a spatial matching of stocking rates to the forage and water resources available [Behnke *et al.* 2016].

This situation, which has arisen without formal property rights for private herders, is the goal of policy makers and rangeland scientists across Central Asia, who generally deplore the mismatch between pasture resources and grazing pressure. But at the same time, livestock numbers are high and growing; overgrazing is perceived to be a serious problem and the now-familiar concentration of livestock owners around larger settlements does also occur in Turkmenistan. The response of governments to such a situation is to attempt some form of regulation.

The National Climate Change Strategy²⁰ lists the development of a law on pastures amongst its highest priorities. This opened a door to a technical cooperation agreement with GIZ, which financed a consultative process and drafting of a law on pastures. Round table discussions in Ashgabat including lawyers, scientists and representatives of government bodies engaged in the agricultural and livestock sectors, revealed that the dominant discourse amongst both researchers and policy makers drew on the idea that only highly secure and long-term land rights could foster environmental protection and investment. A second argument was that providing individuals with concrete long term leasehold contracts over specific areas of pasture land would be the best way of freeing them from the control of state enterprises. Common property systems were little known and the types of decentralisation necessary to ensure their working were considered to be unlikely by a number of participants.

The pasture law had to recognise the *de facto* status of state enterprises as dispensers of pasture use rights, whilst including provisions promoting access

20. *National Climate Change Strategy of Turkmenistan*, Government of Kazakhstan, Astana, Ashgabat, 2012.

for those engaged in collective herding and aimed at avoiding sudden annexation of pastures by a minority. These include the legal possibility for livestock owners to associate and manage pasture in their own right, and provisions for a pasture commission, chaired by local village government, to allocate pasture between private and state users based on a broader planning mechanism. The process of law development was conducted by two international consultants, a national lawyer, and a team of Turkmen researchers who conducted both field research and a consultative process with government departments [Robinson *et al.* 2015]. The draft was submitted to parliament, where it was amended by a parliamentary committee and adopted in August 2015. The amendments tended towards strengthening of individual property rights for users, and reinforcement of the powers of state enterprises in allocation processes. The eventual impact of the law will depend largely on bylaws, which will define the statutes of PUAs and pasture commissions, and details of pasture allocation procedures. The design of these bylaws is to be conducted through a piloting process in the field.

Actors: international organisations, governments and pasture users

In all the republics, the initial approach taken to reform was one of pasture privatisation or leasing – an individualisation of property rights. This occurred despite the re-emergence of collective herding systems based on kinship, residence and historical precedent which have been observed in Tajikistan, Kyrgyzstan Turkmenistan and Mongolia. It is not clear why this was the case, but certainly the first agrarian reforms experienced in the post-Soviet republics concerned individualisation of rights to arable land, and Idos were keen to stress the strongest possible forms of tenure security for new farmers. It seems possible that land codes designed with arable reform in mind were simply applied to pastures by default, perhaps hastened by tax-collection requirements, or that the same arguments about security of tenure and investment were seen to apply equally to arable and pasture lands from the start. Certainly, the idea of the tragedy of the commons had been long internalised by Central Asian scientists and policy makers, leading naturally to the idea that individuals must be legally bound to individual parcels of land in order to manage them properly. Idos have mostly promoted common property regimes, using environmental arguments based on a rather different set of ideas about pastoral systems, stressing the importance of mobility and flexibility.

In all cases, except that of Kazakhstan, Idos either directly produced initial drafts of legislation or participated in the design process, although only in Kyrgyzstan did their proposals pass fully into law. They have been involved with by-law design and the implementation of legal arrangements on the

ground in both Kyrgyzstan and Tajikistan and have also been active in community pasture management projects outside legal frameworks for CPRM²¹ [Upton 2009].

But what of the users themselves? They have so far figured little in our narratives of reform, appearing in 'pilot projects' and as subjects of the research conducted in the field during preparation of draft reforms, for example in Kyrgyzstan and Turkmenistan. Their influence is apparent in Mongolia, where a legal framework conceived by drafters as CPRM, has been rejected as a form of 'privatisation for groups' by herders. Here, consultation appears to have been relatively extensive and some level of political feedback from pasture users was possible through local elections. In this paper, the low number of written local language sources is testament to the problems in transmission of knowledge and ideas from the ground-up.

In Kazakhstan, there was no political engagement by herders when the leasehold system was introduced during the chaotic 1990s. Livestock owners with large or medium-sized herds who have taken out such contracts with the district authorities or the forestry department would certainly like to see these contracts extended or made permanent [Ferret 2013]. But there has been engagement in other ways. Agribusiness firms have been active in policy formulation at the levels of government. Popular protests have put land code amendments on hold, although these were not focussed on pastures and amalgamated a host of additional concerns. In both Tajikistan and Kyrgyzstan and despite the rather different political environments in those two countries, the large number of small livestock owners whose interests would appear to be at odds with privatisation have been politically non-existent at the national level. There have been few organised demands for improved pasture access beyond the village commons, even where collective herding institutions are informally the norm.

Case studies of pastoralist participation in legislative processes stress the role of customary institutions which ensure access, resolve disputes or lobby for legislative change at the national level²². Notable examples, such as those from Niger and Mauritania²³ or of reindeer herders in Russia [Donahoe 2009] are based on a common identity or long history of common property or partially regulated open access regimes. However in Central Asia, pastoralists are not a marginalised minority, or at least are not perceived in this way. Pastoralism is associated with the majority ethnic group, or is practised by all rural inhabitants, but the development of agriculture has reduced its economic

21. See L. Mansour [op. cit.].

22. *The Land we Graze: A Synthesis of Case Studies About How Pastoralists' Organizations Defend Their Land Rights*, 2011, IUCN ESARO office, Nairobi, Kenya.

23. See Réseau des organisations d'éleveurs et pasteurs du Sahel, *L'implication de la société civile pastorale dans l'élaboration de la loi pastorale au Niger. Quels enseignements ?* 2014, (<http://www.inter-reseaux.org/IMG/pdf/RBM_Code_pastoral_Niger.pdf>) and Wabnitz [op. cit.].

importance, and it does not occupy the same place in the national culture as in Mongolia. There are few groups or organisations not set up by IDOs which specifically advocate for grazing rights and none which have a national profile. Still less evident is the presence of any environmental discourse emanating from the users themselves. Several authors working on perceptions of environmental change in Kyrgyzstan, have noted that many pastoralists there do not perceive degradation in itself as a severe problem²⁴ [Liechti 2012; Levine *et al.* 2017]. Lack of access to remote grazing and insufficient winter fodder may result in damage to more easily accessible pastures, and depending on how they are asked, users may mention these underlying issues more often than their effects (for example in certain regions of Tajikistan²⁵). Overall, degradation per se is less likely to be emphasized by herders than by officials, IDOs or academics [Levine *op. cit.*].

In contrast, herders in Mongolia increasingly acknowledge that growing livestock numbers and declining or unplanned mobility are affecting the pastoral resource [Fernandez-Giménez and Batbuyan 2004]. Herders using pastures which are more productive or close to settled areas, perceive damage to pasture resources to be due to overgrazing by *otor* livestock from outside [Bruegger *et al.* 2014]. Thus, on one hand flexibility allows pastoralists to access pastures, but also increases competition for resources, especially if overarching regulatory institutions are weak or absent [Fernandez-Giménez 2002].

The extent to which IDOs or herders have been able to influence change is intimately bound up with the nature of political regime in place in each country, ranging from relatively open, democratic and decentralised regimes in Mongolia and Kyrgyzstan to the authoritarian state apparatus in Turkmenistan.

An environmental discourse?

Environmental discourse arising from ideas of the tragedy of the commons, economic theories of private property and concerns over security of tenure, the desire to foster the emergence of a 'modern' livestock sector, and interests of large livestock owners with political influence have all been used to promote exclusive property rights over pasture. On the other hand, concerns about ecosystem fragmentation, degradation arising from loss of livestock mobility and social justice, supported by theories of common property economics have tended to favour the promotion of CPRM or more shifting forms of property rights.

24. D. J. Bedunah, *Impact of Land Reform on Pastureland*, Consultant report to ADB under TA 2208, 2006.

25. *Perceptions of Farmers and Farm Workers on Land Reform and Sustainable Agriculture in Tajikistan*, World Bank, USAID, DFID, 2012.

In Central Asia, the reality of informal post-independence pasture management has ranged from something close to common property regimes (such as initially emerged in Kyrgyzstan) to forms of semi-governed open access (as described in the case of Turkmenistan). Such regimes are probably both environmentally and socially appropriate for this arid and spatially variable region of the world, in which a significant part of the livestock inventory is held by large numbers of smallholders.

However although such arguments have been promoted by IDOs, legal frameworks based on individual tenure are more familiar to national policy makers, lawyers and researchers. This can be traced to their immediate experiences of arable land reform and the perception that private property rights and the associated 'ranching' form of pastoralism are modern and more productive. There is also some concern amongst these actors that herders without legally secure tenure would be at risk. In a low-trust environment, with little experience of democratic institutions, to believe that long-term security of access might be available within common property institutions constitutes a leap of faith which few in Central Asia are prepared to countenance. The question of whether low levels of individual investment, perceived by national policy makers to be a risk under CPRM, could be made up for by investments by (potentially corrupt) pasture management institutions, is also a concern.

Environmental concerns are bound up with institutional structures. From the state's point of view, regulation, control and taxation are part of its mandate and all are facilitated by private property regimes. There is a widespread assumption that only enforced adherence to carrying capacity regulations can assure the sustainable management of pastures for generations to come and that this would be easier to enforce under a private property or leasehold system.

The perception that herders lack the knowledge or understanding to manage their pastures properly and must be supported to make the right decisions is held also by many IDO staff and local experts and manifests itself in the form of community pasture management planning. This process consists of a detailed inventory of pasture composition and productivity and estimation of the carrying capacity of different areas in order to decide how many animals should graze there²⁶, a routine process during the Soviet period. User committees are then responsible to implement these plans accordingly, in order to ensure environmental sustainability.

26. United Nations Development Programme, *Pasture Management in an Electronic Format. Best Practice Replication of the "Demonstrating Sustainable Mountain Pasture Management in the Suusamyр Valley, Kyrgyzstan"*, Project implemented by UNPD funded by GEF (2008-2013) in frames of the UNPD - UNEP Poverty and Environment Initiative, 2014, (<https://www.unpei.org/sites/default/files/e_library_documents/Kyrgyzstan_Sustainable_Development_Program_eng_2013-2017.pdf>).

Regardless of tenure regime, lessons from other parts of the world regarding the difficulties of enforcement of fixed stocking rates [Bartels *et al.* 1993], massive margins of error inherent in carrying capacity calculations²⁷ and changing thinking amongst rangeland scientists on the utility of this type of management paradigm [Huntsinger 2016] appear to be absent from the conversation in Central Asia. Few policy makers or rangelands scientists in the region have much faith that pasture users can optimise stocking pressure without the existence of detailed scientifically based grazing plans, or question the time and expense of preparing them.

Yet, there is a growing body of evidence that herders are rational actors. Recent research has shown that where costs (whether social, economic or administrative) to movement are low, herders respond by matching stocking rates to the availability of those resources which they consider of primary importance, and which may include water as well as forage [Behnke *et al.* 2016; Moritz *et al.* 2014; Scholte *et al.* 2006]. Where such matching is not occurring, a suite of biological and economic trade-offs influence decision making in a statistically predictable – and thus rational manner [Kerven *et al.* 2016a; Kraudzun 2012; Robinson *et al.* 2016, 2017].

So where does this leave our environmental discourse? Such a discourse is used by both IDOs and governments to present the problem – which is usually that pastures are degraded. However, both the reasons given: which may be reduced to a ‘tragedy of the commons’ type discourse, and arguments focussing on issues of ecological fragmentation and livestock mobility are quite different. The resulting solutions – forms of individual property rights or regimes based on CPRM – are diametrically opposed. Pasture users appear perhaps less concerned with degradation in itself, but may employ environmental arguments to achieve their aims, which are essentially pasture *access*. This phenomenon of groups invoking international environmental discourses for local political ends can be seen elsewhere [e.g. Sundberg 1998]. As we have seen however, the pastoralist community in Central Asia is highly heterogeneous and lacks a unified agenda. For smaller owners, forms of common property may be in their interest, but these livestock owners tend to be unaware of formal examples of these elsewhere, and are in any case unrepresented. IDOs attempt to represent the supposed interests of these users, but must in effect do so without them, as they participate so little in the process. There is little evidence so far that larger livestock owners with stand-alone herds would lose out in a common property regime, but they are unlikely to specifically promote such a system as they prefer the control associated with exclusive individual rights. Such groups tend to be better connected and informed both legally and politically.

27. J. Dijkman, “Carrying Capacity: Outdated Concept or Useful Livestock Management Tool?” *Livestock; coping with drought*. FAO/ODI, 1998 (<<https://www.scribd.com/document/54098710/dijkman>>).

Central Asian policy makers would have to be convinced that the forms of pasture management and allocation likely to emerge under CPRM would be sufficiently representative, protective of user rights and amenable to control, to prefer such a system over the certainties of leasing or private property arrangements. They would have to be aware of the scientific evidence for negative impacts of such tenure systems on poorly productive heterogeneous rangelands. Much depends on the ability to compare the *relative* benefits of different systems in context. It has been suggested that promotion of CPRM by IDOs is rather naïve, because communities are heterogeneous and elites likely to gain preferential access to pasture [Dörre 2015; Jacquesson 2010]. However, wealth disparities exist in all common property systems, some of which have endured for centuries [Ostrom 1990; Stevenson 1991]. There is not yet any evidence that inequalities of access under CPRM in Kyrgyzstan system are any greater than those associated with the leasing system which came before it, or a system of private property, which would make such disparities permanent.

R. Neudert [2015] suggests that exclusive tenure rights are compatible with mobile pastoralism and that binary categories of exclusive individual or communal tenure may not cover the range of institutional possibilities available. Certainly in Azerbaijan the leasing system described by the author has not inhibited transhumant systems and in Kazakhstan many of the larger livestock owners are increasingly mobile and able to acquire access arrangements in different seasonal pastures [Ferret 2013; Kerven *et al.* 2016b]. However, in both of these cases mobility concerns livestock owners having several hundred sheep equivalents, whilst smaller owners remain clustered around settlements all year around. In much of Central Asia, the discussion around mobility and tenure systems often concerns precisely these smaller owners, who are numerous and collectively own a large proportion (or even the majority) of national inventories [Robinson *et al.* 2012]. Whilst some in this category use collective herding mechanisms to achieve high levels of mobility, others do not, particularly in Kazakhstan where they are largely sedentary (although the reasons for this may be as much economic and social as related to the tenure system [Kerven *et al.* 2016b]).

In both Kazakhstan and Tajikistan, in areas where pressure on pastures is low, some users currently gain informal access to pastures through relationships with leaseholders or their shepherds, and other semi-legal collective arrangements. But a leasing system is only likely to provide groups of small owners with formal access to remote pastures if: (i) it includes the possibility to conclude group contracts; (ii) allocation procedures are made on some basis other than ‘first come first serve’; (iv) leasing periods are short and (iii) transaction costs of land registration low. We are not aware of any such system currently working in practice, although attempts have been made to include some of these elements in the new Turkmen law.

Other ways around the binary categorization of tenure systems concern the application of different regimes to different parts of pastoral systems, depending on the value of the resource²⁸ and exist in much of mountainous Europe, where high value or improved pastures are private, and remote, poorly productive or temporary pastures owned by state or local government and managed by users [Stevenson 1991]. It should be noted however that the idea of presenting communities with a choice of leasing or common property on the *same* pasture lands is a false precept, as once leasing is possible, increasing livestock numbers or demand for animal products is likely to result in a rush to rent pasture, [Neudert and Rühls 2013] and a reduction in informal access arrangements with leaseholders [Kerven *et al.* 2016b]. This is one of the obstacles to promotion of incremental change or local solutions – which become problematic once exclusive long term individual property rights become a legal possibility.

Incremental change is perhaps easier where a basic framework for common property management is in place, which could facilitate emergence of multiple forms of pasture user groups and governance systems. In France and Switzerland, transhumant systems bear many parallels to those of mountainous parts of Central Asia, and, as in Kyrgyzstan, pastures are allocated to local government and managed by users. The common and fundamental basis for primary user rights is based on residency and inscribed in law, but user groups formed and organized in different ways over a long period of time, each with its own rules regarding secondary membership rights, exclusion and reciprocity and fees [Eychenne 2006; Stevenson 1991]. In order for even such a loose system to work, minimum conditions had to include a ban on private property, a universal definition or understanding of primary user rights backed by the state, and government-supported mechanisms for conflict resolution and pasture access across administrative boundaries. In Mongolia, where spatial and social boundaries for managing pastoral commons are vague and permeable, such higher level institutions may be particularly important. Although experiences from donor supported herder groups have produced some positive social outcomes [Fernandez-Giménez *et al.* 2015 ; Upton 2008], there is less evidence for positive ecological outcomes. Vegetation and soil studies were conducted on winter grazing pastures of paired districts with formal CBRM and non-CBRM groups. Of between 64 and 71 test comparisons at sites in four ecological zones, only 5-9% showed significant differences concerning vegetation biomass and cover, species richness and diversity, soil surface characteristics, vegetation forage quality or palatability [Chantsallkham 2015].

28. L. Mendes, "Private and Communal Land Tenure in Morocco's Western high Atlas Mountains: Complements, not Ideological Opposites", *Annual Meeting of the Society for Range Management*, held in Boise, Idaho, February 12 1986, 1988 (<<https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5335.pdf>>).

The herder group approach alone, where groups are small and boundaries undefined, may not be sufficient in managing arid rangelands without forms of institutional regulation at higher levels.

In the processes examined here, knowledge has played a crucial role. In Central Asia particularly, policy has not been sufficiently informed by examples and debates from outside the region. Travel costs, language barriers, poor internet penetration and long isolation under the Soviet Union have meant that the only examples available have been those (selectively) brought to the table by IDOs. In Tajikistan, for example, draft pasture laws have been informed by pasture use planning in Mongolia, Afghanistan, a national park in California, and most significantly by Kyrgyzstan's experience. IDO employees in Tajikistan have complained that they repeatedly make "study trips" to Kyrgyzstan without being able to see how pastures are legislated in other countries throughout the world. This has undermined the ability of policy makers to make informed decisions themselves, a problem exacerbated by the speed with which reforms have been designed and implemented. It is notable in Mongolia that the idea of CPRM has long been understood and debated at national level, a principle argument against it being that such systems, far from being too open, are not open enough. Whether or not diverse and strong IDO engagement played a role, the fact that the draft law has still not been passed after more than ten years, is testament to the sophistication of the debate in that country. Collective planning and repair of key infrastructure by IDO-funded herder groups demonstrate that Kyrgyzstan is not the only regional example²⁹ of collective options for rangeland management [Fernandez-Giménez *et al.* 2012].

Conclusion

To conclude, we find that environmental discourse somewhat misses the heart of the problems of pasture property rights regimes; opposing discourses have been used by IDOs and local policy makers to promote completely different tenure systems. The arguments that truly concern resource users centre upon the type of regime that best enables them to maximise benefits from those livestock which they own, not maintain pasture condition *per se*. Of course, these aims are often aligned, but in some cases, neither is attained, at least for a subset of users. In such cases, it is common to suppose that users must be 'made' to manage their pastures properly either through controlled leasing or through training and pasture planning. But it is increasingly understood that herders react to environmental, social and economic circumstances in statistically predictable ways, suggesting that decision making is a response to

29. *Project Annual Report, GreenGold*, Ulaanbaatar, Mongolia, Swiss Agency for Development and Cooperation, 2010.

constraints and not a lack of knowledge or planning. The search for improved legal frameworks is certainly important in this respect, but as we have seen, the introduction of new ideas is extremely difficult. Central Asian policy makers and scientists could be encouraged to consider informal practises in their own countries as potential starting points for legislative development, and to assess potential options in the context of regimes in place elsewhere, according to their environmental and social implications. More broadly, policy should focus less on monitoring of pasture condition, control, regulation and institutional micro-management, and more on understanding and reducing the constraints to pasture access and livestock mobility, whether these be legal, administrative or economic.

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Abstract

Pastoral property rights in Central Asia. Factors and actors driving the reform agenda

This paper examines the roles of the state, international organisations and the public in pastoral land reform in the Central Asian republics and Mongolia. In recent years new legislation has been passed in most of these countries, often driven by environmental concerns. In the development of these laws, international organisations tend to promote common property regimes, whilst governments usually emphasise individual security of tenure, each using environmental arguments taken from quite different bodies of theory. With the exception of Mongolia, pressure for reform from users themselves has been weak and focussed more on social and economic issues than on environmental problems. Across the region informal grazing practices facilitate the matching of stocking pressure to forage resources; legal frameworks which build on these are most likely to lead to sustainable pasture management.

Keywords: Central Asia, environment, land degradation, livestock, pastoralism, property rights

Résumé

Droits fonciers pastoraux et discours environnemental en Asie centrale : facteurs et acteurs influençant les réformes

L'article examine les rôles joués respectivement par l'État, les organisations internationales et la population dans les réformes du régime foncier pastoral en Asie centrale et en Mongolie. Dans ces pays, de nouvelles lois ont été récemment promulguées, souvent motivées par un souci environnemental. Dans la plupart des cas, les organisations internationales promeuvent les régimes de propriété communautaire, tandis que les gouvernements soulignent la sécurité de la propriété individuelle, chacun mettant en avant des arguments écologiques divergents. En dehors de la Mongolie, les usagers des pâtures eux-mêmes n'ont que faiblement influencé ces réformes, leurs préoccupations étant d'ordre économique et social bien plus qu'environnemental. Dans cette vaste région, les pratiques de pâchage informel facilitent l'adéquation entre la charge et les ressources pastorales, aussi les dispositifs légaux basés sur ce principe sont plus à même de conduire à une gestion durable des pâtures.

Mots clés : Asie centrale, environnement, dégradation des terres, bétail, pastoralisme, régime foncier