

Grasshoppers, mice and pashminas: ecology, economics and the future of pastoralism in Mongolia

Being with others in the world II

- Cambridge, 16th November, 2004.
- MIASU
 - Roger Blench
 - Mallam Dendo Ltd.

Background

- Mongolia has had a whole series of range management projects funded by different donors since the early 1990s. Typically, in the early days, these were designed by Africanists or 'range management' experts from Utah etc.
- Generally speaking, range management worked well in the Soviet period, partly because many traditional principles of herd management were adhered to and overstocking was not permitted.
- There is a strong argument for the 'experts' creating the very problem they came to solve through insisting on privatising free-market solutions to all problems

Background

■ For better or worse, the experts have gone on their way, as part of a general decline in the prestige of ‘technical’ specialism in development. In their place, experts on poverty, governance and sustainable livelihoods now rule.

■ If we were to seek a technical term to describe these people, ‘idiots’ would not be too strong. Driven by top-down and rapidly changing ideology from head office, they have no understanding of pastoral systems and are unwilling to learn

Background

- What about the Mongolians? Why not protest?
- Two reasons. First, there are plenty of people in the Ministry who still think that pastoralism is the past and the way forward is intensive livestock production (Mongolia imports milk from China)
- Second there is a significant body of ex-academics etc. who are part of the consultancy industry who depend on going along with the donors, no matter how stupid their ideas. Of course most of these people, some well-known to MIASU know very well these ideas won't work, but you have to make a living in the new Mongolia

Background

- What about the partners, the foreign experts?

- Development policy and donor strategies change constantly and for a firm to stay in business it has to be fast on its feet. As a consequence, only the most ruthless survive.

- You survive by going after contracts, using any staff you have regardless of expertise. Why can you do this? Because donors don't really read reports, as long as the right buzzwords are in the executive summary

- and the company involved in this one was under pressure to hire at least one person who had some record in pastoralism, but this was just an inconvenience as far as they were concerned

The present project

■ The basic idea is to prevent overstocking through mapping sample sums for carrying capacity and livestock densities based on the 2002 census. HSLPO/CPR has already prepared pasture maps of the *sums* selected for pilot activities, showing summer and winter pastures and movement strategies. The intention is to make these available at *sum* level and for corrections and updating to be made by both herders and administrators. The object is to use these as tools for controlling stocking densities and as a backbone for the proposed contracts between *sum* governors and herding groups.

The present project

■ HSLPO/CPR has already prepared pasture maps of the *sums* selected for pilot activities, showing summer and winter pastures and movement strategies. Stocking densities are based on the 2002 livestock census and carrying capacities for each pasture established. The intention is to make these available at *sum* level and for corrections and updating to be made by both herders and administrators. The object is to use these as tools for controlling stocking densities and as a backbone for the proposed contracts between *sum* governors and herding groups.

What is the situation?

- Personally, last in Mongolia in 1995, though I have tried to keep up with the pastoral literature. But nothing I have been able to read prepared me for what I actually saw.
- We undertook a field trip of some 2600 km. during August 2004 in four southern *aimags*, representing principally the Gobi desert-steppe. Interviews were conducted with a range of herders, representing geographically dispersed households, including rich, poor and one female-headed. Two Herders' Associations (HAs) were contacted and their leaders interviewed. Visits were made to the Gobi Institute of Animal Research and discussions were held with *sum* governors.

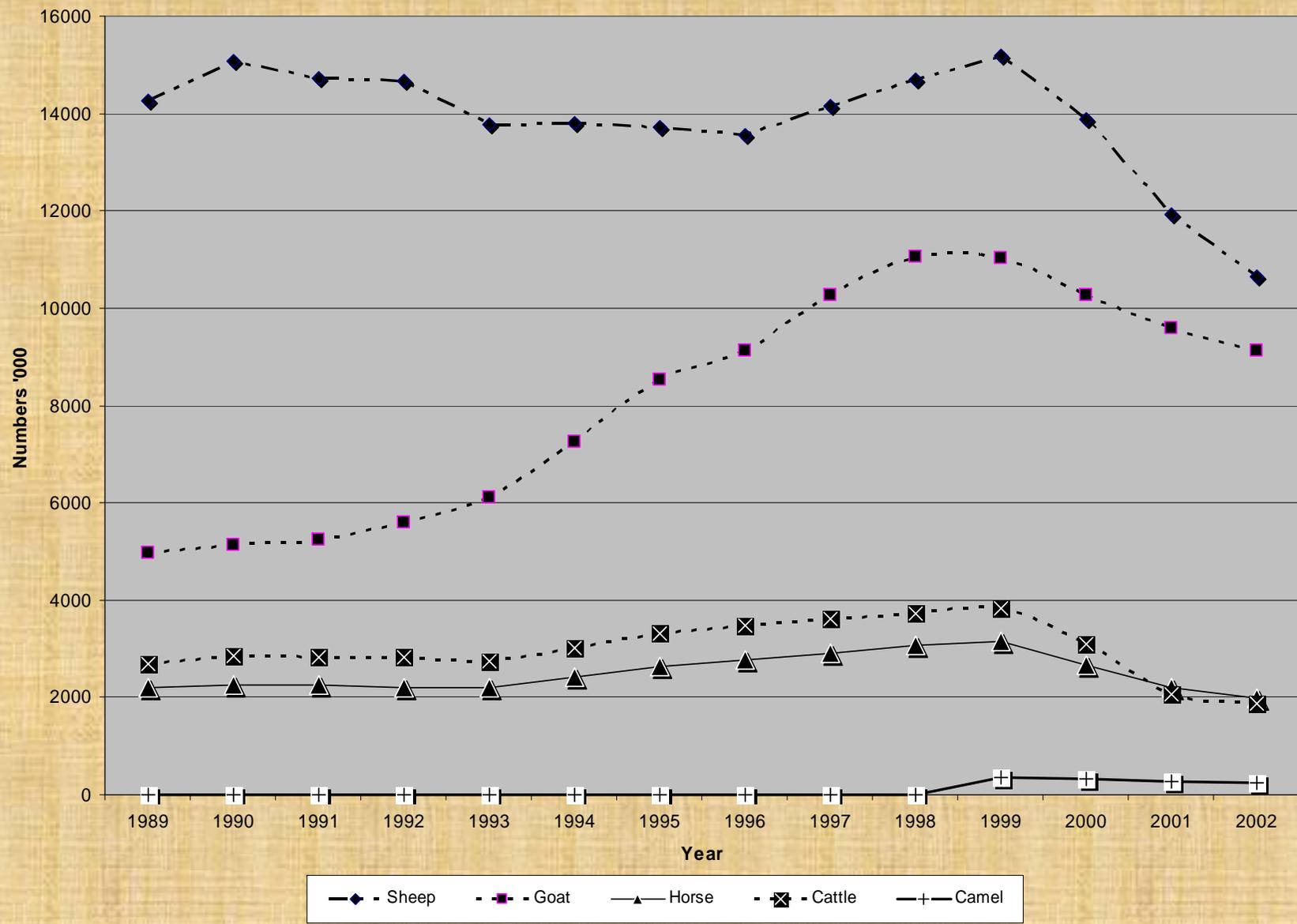
What is the situation?

- Personally, last in Mongolia in 1995, though I have tried to keep up with the pastoral literature. But nothing I have been able to read prepared me for what I actually saw.
- We undertook a field trip of some 2600 km. during August 2004 in four southern *aimags*, representing principally the Gobi desert-steppe. Interviews were conducted with a range of herders, representing geographically dispersed households, including rich, poor and one female-headed. Two Herders' Associations (HAs) were contacted and their leaders interviewed. Visits were made to the Gobi Institute of Animal Research and discussions were held with *sum* governors.

What is the situation?

■ Although 2002 livestock census figures show an increase on 1992, all our interviewees mentioned massive losses in the *dzuuds* of 1999-2001 and claimed herds fell to about half their former size. Even allowing for exaggeration, the livestock population of Mongolia in 1999 was unsustainably high and underwent a major crash in the following years. Importantly, this was responsible for a major re-orientation of herding systems, at least in the south. Almost all herders reported major losses of large species, and horses and cattle/yaks have never recovered. Camels survived better, but are still in overall decline.

Mongolian livestock populations 1989-2002



What is the situation?

■ Following this, goat numbers have increased almost everywhere. Many herders claimed this was simply a consequence of the *dzuud* mortality, but undoubtedly the high prices of cashmere and the ready market have driven up goat numbers. Cashmere prices went very high in the bad period 1999 onwards and saw something of a slump 2001 onwards. But Mongolia is still a small player compared with China and prices remain high for producers in most regions. Ironically, China has had to restrict goat production due to environmental damage. Market analysts say that Western consumers got used to cashmere due to low prices in the 1990s and that overall world demand remains significantly higher than before.

What is the situation?

■ Goat numbers have also increased as a consequence of poverty alleviation programmes (PAPs) which allocated funds for restocking without checking which species the money was to be spent on. Many credits went to the purchase of goats for cashmere rather than rebuilding a balanced herd. When the ‘five species’ were more in balance, allocating labour for goatherding was a problem, as goats had to be managed separately. But if the household herd consists largely of sheep and goats these can be herded together with very low labour requirements.



Economic entanglement

‘In the year 1238, the inhabitants of Gothia (Sweden) and Frise were prevented, by their fear of the Tartars, from sending, as usual, their ships to the herring fishery on the coast of England; and as there was no exportation, forty or fifty of these fish were sold for a shilling, It is whimsical enough, that the orders of a Mogul khan, who reigned on the borders of China, should have lowered the price of herrings in the English market.’

Gibbon quoting Matthew Paris

What is the situation?

■ The increase in goat production may well be the factor responsible for the most salient feature of the survey, the massive degradation of the pasture. They dated this as beginning with the *dzuud* of 1999, but probably it was already underway. The main features are the loss of important pasture grasses such as *Stipa glareosa*, *S. gobica* and *Cleistogenes spp.* and the invasion of Alliaceae such as *Allium polyrrhizum* and *A. mongolicum*. There were also reports of the spread of toxic species (unidentified but likely to be *Stellera chamaejasme* and *Thymus serpyllum*). These processes were identified in the rangelands of Inner Mongolia in the early 1990s and seem to be repeated here (Shan 1996).

Allium mongolicum



Thymus serpyllum



Stellera chamaejasme





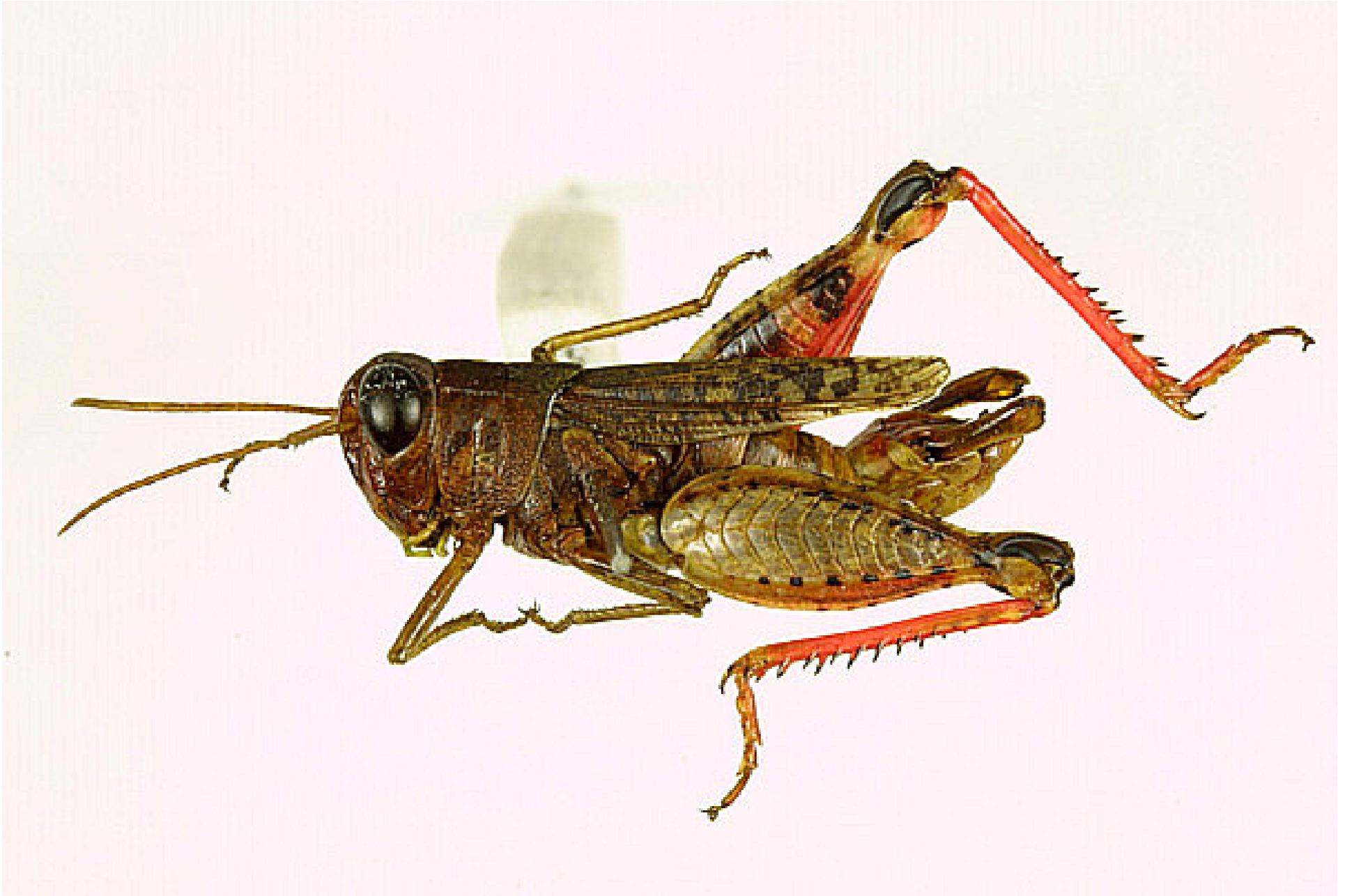
What is the situation?

- Species change is linked to preferential grazing by small ruminants, leading to marked wind erosion in some places and a loss of grazing potential. This seems to be identified with *gang*, drought, and is probably *not* low rainfall but an inability of the soil to retain water. Although the rains have been adequate this year, it was generally reported that this has not led to a return of *Stipa* spp. This is probably due to changing infiltration characteristics of the soil, over-extraction of subsurface water and loss of seed reserves through faunal pressure.

What is the situation?

- The major problem in many areas is infestations by rodents/lagomorphs and grasshoppers/crickets. Cyclical infestations have begun to appear since about 1999 although reported from Inner Mongolia in 1992. Grasshoppers and crickets are part of the natural fauna of the desert steppe but typically arrive in autumn after the stock have grazed the annual grasses. However, species such as *Calliptamus abbreviatus* are now said to come in great numbers in June and eat the *Stipa* spp. before the livestock can graze it. In some areas, the grasshoppers are so numerous that all stock are prevented from entering.

Calliptamus abbreviatus



What is the situation?

Rodents, pikas and voles also eat grass seeds, thereby reducing the reproduction of annual grasses. The main species are;

Jird *Meriones meridianus penicilliger*

Brandt's vole *Microtus brandti*

Daurina pika *Ochotona daurica*

Research has shown that these infestations are stimulated by short grass and that numbers are reduced when the grass reaches normal height. This strongly confirms the link with overgrazing and high proportions of goats, which keep the grass permanently short.

Ochotonica daurica



Microtus brandti



Meriones meridianus

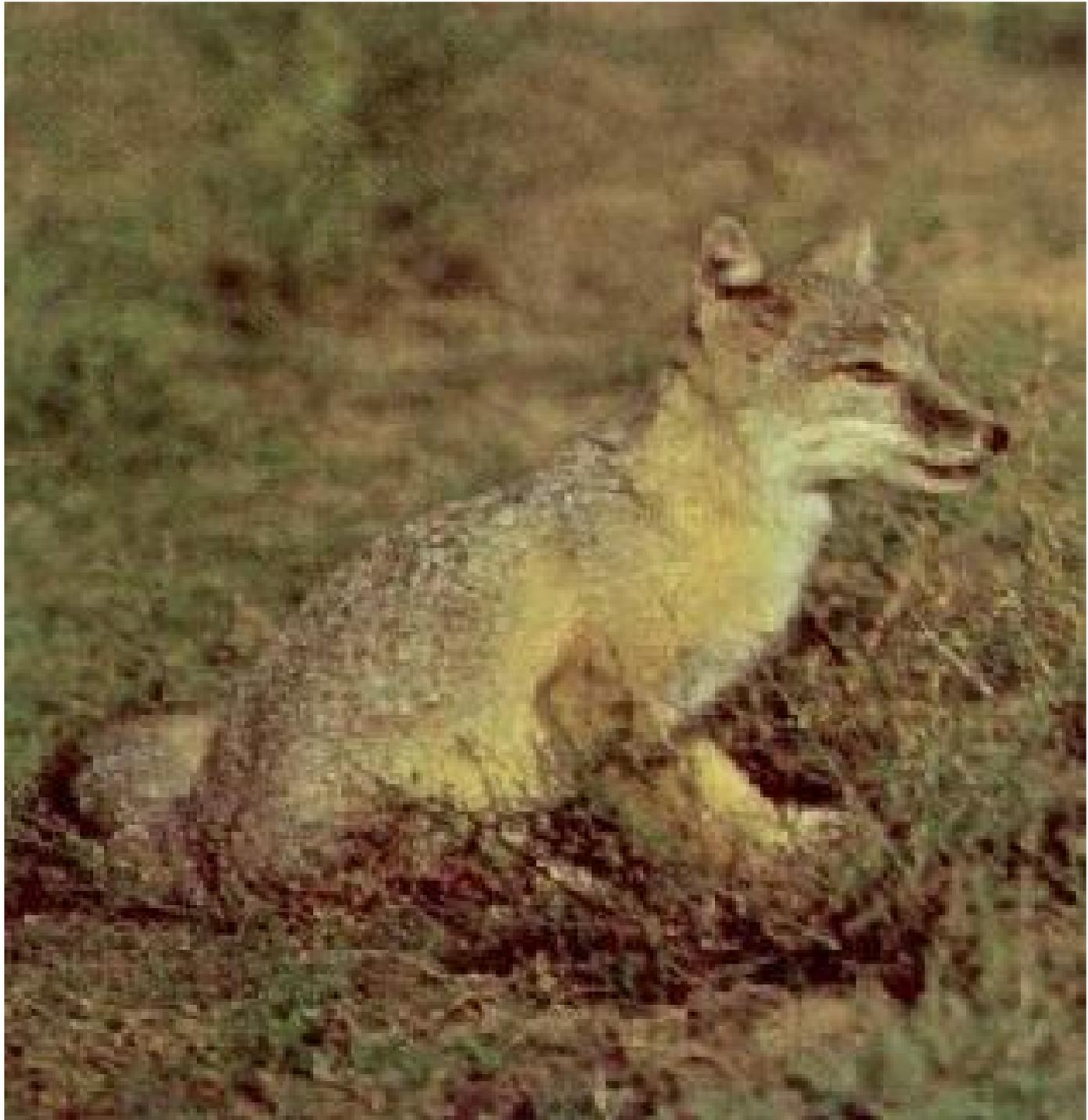
Copyright GIP
Picture by Michael Mettler



What is the situation?

The second reason for rodent epidemics is the disappearance of traditional predators such as the red fox, *uneg* (*Vulpes vulpes*) and the sand fox, *khyars* (*Vulpes corsac*). These have been hunted out in many areas as their skins are bought by Chinese traders for substantial prices.

*Vulpes
corsac*



Vulpes vulpes



What then?

The loss of predators has created an empty environmental niche which is being filled by wolves. Almost all herders reported wolf numbers as increasing every year and occurring in drier regions outside their normal habitat. Wolf populations are growing in northern Mongolia because of the ending of traditional wolf hunts, but this expansion southwards probably reflects the absence of competition from foxes as well as the increase in goat numbers. Wolves are now seizing young small ruminants as well as attacking adult animals.

Wolf



Wolf





Cinereous vulture

The cinereous vulture (*tas*) is following the wolves, stripping the carcasses they leave.

What now?

There is a complete lack of interest in this situation from government and indeed incomprehension. Talk to sum governors and they simply regard it as all the fault of the herders. Pasture degradation and the low biomass available for their stock is compelling herders to increase their opportunistic movement. Whereas the traditional Mongolian transhumance cycle was regular, short distance and determined by the range of the yak cart, many herders now either own or have access to trucks, especially in the Gobi. They are using these to access long-range pasture every year and not only in a crisis. As a consequence, resident herders now complain of the invasions of their traditional pastures whenever these are attractive.



But also...

Water is also a major problem in the rangelands; many formerly perennial streams and rivers are dry and lake levels are falling. Legal and illegal gold-mining are blamed for this, but high levels of extraction may well also be responsible. In addition, herders' land rights have been abrogated in many cases without consultation, which hardly sends an appropriate message concerning land management. Many new hand-pumps have been put in, especially by JICA, but as the water table falls, their yield is low. Herders want government to insert new boreholes in presently waterless rangeland; this should be resisted at all costs. Unused rangeland acts as a reserve of faunal and floral biodiversity which repopulates grazed land after *dzuud* or drought. Gold-mining also has negative environmental effects in terms of releasing chemical agents into the ecosystem.

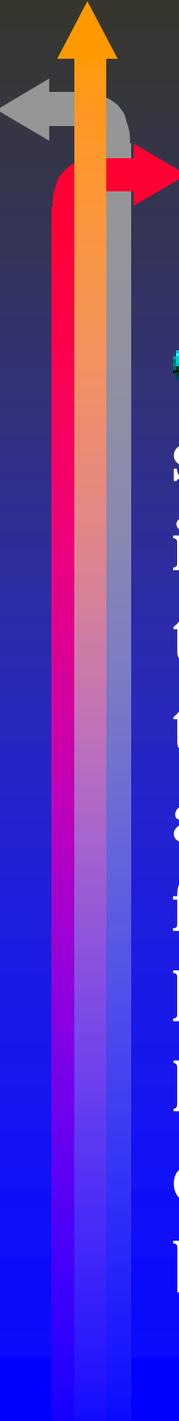


So the donors...

Are pushing the formation of Herders' Associations. More than one interviewee observed sarcastically that the government had broken up all the collective institutions after 1990, which had led to a collapse of trust and now they were coming along saying people should join together again. Almost certainly the push towards HAs is essentially donor-driven, as all the other thrusts of government are to monetarise and increase dependence on cash and to emphasise economic individualism. The rush to cashmere production and the consequent spread of consumer goods in individual households represent the clear economic consequence of this policy.

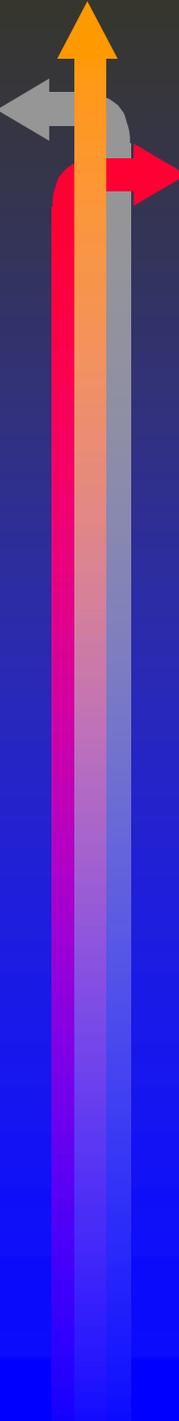
Mixed messages

At present, herders are receiving very mixed messages. Told to form co-operating groups on the one hand, the entire message from the rest of government is that they should become entrepreneurs in a mixed economy. The operation of trade networks of buying and selling primary products in exchange for manufactured goods, which operate through mobile Chinese traders, can only exacerbate this trend, as will the availability of motorised transport. The most important aspect of capacity building is not with the HAs but with local officials, who are increasingly disconnected from the needs and requirements of pastoralists. To be fair, this is not their fault; government continues to press a message of economic individualism in other sectors. They also believe that herders should ideally be told to form groups as part of 'changing their mentality'.

A decorative graphic on the left side of the slide. It features a vertical bar with a color gradient from blue at the bottom to orange at the top. Three arrows are positioned around the bar: a grey arrow pointing left at the top, a red arrow pointing right below it, and an orange arrow pointing up at the very top.

Contraction

● The *sum* authorities are acting on very inadequate scientific information. When asked about their information needs, almost all interviewees mentioned the lack of material on the environmental changes they are observing. It is clear that if the local authorities try to press contracts (which are based on fixed assumptions about carrying capacity) on herders, they may sign them with no intention of keeping them. Unless better understanding of the crisis in the rangelands is apparent, much effort will be put into an enterprise unlikely to succeed.



And the consultant?

🌍 As you can imagine, no consultant will be thanked for saying this sort of thing. Indeed your speaker is presently locked in a titanic battle with the company over the content of the report...

Images...



ДЭЛГЭРХАНГАЙН УУЛАН ДЭЭР ГАРВАЛ ДЭЛХИЙН ЮМ БҮГДЭЭРЭЭ ХАРАГДАНА
С. ДАШДООРОВ













