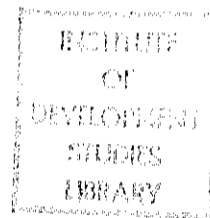


POLICY ALTERNATIVES FOR LIVESTOCK DEVELOPMENT IN MONGOLIA (PALD)

A Research and Training Project



Research Report No. 9

Changing Agricultural Enterprises and Livestock Ownership in Mongolia: A Case Study of Dornogobi and Arhangai Aimags

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GLOSSARY OF MONGOLIAN TERMS

<u>aimag</u>	province
<u>ger</u>	felt tent, household
<u>horshoo</u>	marketing cooperative
<u>khot ail</u>	traditional unit of social and economic organisation at local level
<u>negdel</u>	agricultural cooperative
<u>sum</u>	administrative district
<u>suur</u>	herders base camp
<u>tasag</u>	seasonal team for dairying in Summer

1. INTRODUCTION

This paper examines the impact of privatisation on the pastoral production process in Mongolia during 1991 and 1992. The paper focuses on changes in agricultural enterprises and livestock ownership and considers the consequences of decollectivisation for livestock product processing, marketing and service delivery.

Methods

The findings presented are based on interviews with fifty four households carried out in August and September 1992 in two contrasting ecological areas; Erdene sum in Dornogobi province (a desert-steppe zone in south-east Mongolia), and Tariat sum, in Arhangai province (forest-mountain-steppe zone in the central-west of the country). A full informant summary is found in Appendix One and Two. Research was carried out under the direction of Robin Mearns using Rapid Rural Appraisal methods.¹ Initial interviews were carried out with sum officials in Erdene and Tariat to secure sum level statistics, local maps and information on the pattern of privatisation. From this information a single sample was selected on which to concentrate field research: 106 households in Tsagan Hutul bag, Erdene and 236 households in Booroljuut bag, Tariat. An initial stratification of each sample was carried out using the Wealth Ranking method. This was used to gain a general understanding of 'wealth by local reckoning' and to stratify the households into different wealth categories. The ranking was then used to carry out semi-structured interviews with households from a range of different circumstances. Other rapid methods are explained in the text.

2. CHANGES IN AGRICULTURAL ENTERPRISES AND LIVESTOCK OWNERSHIP

The process of privatisation and democratisation in Mongolia has resulted in significant changes in the organisation of livestock production as well as changes in the structure of local administration. The following sections describe the general pattern of these changes, while subsequent sections consider their specific impact and implications in the two sample areas.

Background

Up until 1990, when Mongolia began the process of economic liberalisation, the rural economy was organised through a range of private and collective production and marketing activities. Since 1959, all members of the rural population were collective (negdel) or state farm employees. The negdel was primarily an economic unit responsible for marketing livestock products, supplying inputs and consumer goods as well as fodder and transport services to its members. The negdel covered the same territory as a single district (sum), itself responsible for providing health, education and veterinary services.

1 See Mearns, R., 1991, Transformation of a Pastoral Economy: a local view from Arhangai and Dornogboi provinces. PALD Working Paper No.2 and Mearns, R., 1991, A Training Course in Rapid Rural Appraisal Field Research Methods for the Analysis of the Mongolian Herding Economy. PALD Working Paper no.1.

Negdels were divided into production brigades or teams, which were further broken down into suuri; individual production units made up of between one and four households. The negdel set production targets for each suur determining the quantity of meat, wool and other products to be supplied according to the annual state procurement order. Each suur was generally involved in the production of single species herds for which a monthly salary was paid. Households also owned a small number of private animals which could be sold or used for their own consumption.²

In August 1991 the negdels were privatised as part of a major programme of economic liberalisation undertaken by the Mongolian government. Privatisation took place in two stages and did not take place uniformly across the country. 30% of negdel assets (animals, wells, shelters etc.) were distributed among negdel members according to their period of negdel membership. A further 10% of negdel assets was distributed to all sum inhabitants (sum administrators, health workers etc.) in the form of animals. The remaining 60% of negdel assets was formed into a limited company. The company took over the major responsibilities of the negdel, leasing animals and providing other services to individual herders who became shareholders.³ The newly created Agricultural Commodities Board took responsibility for the operation of the state procurement order with commodity brokers operating at aimag and sum level. They became responsible for making contracts with companies and individual herders to supply wool meat and other products.⁴ In some areas the limited company remains a popular and viable means of organising herding production. In other areas, companies have broken up to be replaced by more localised units of cooperation among herders. This represents a move back to customary levels of organisation which is necessitated by changes in herding practice brought about by liberalisation.

The primary unit of co-operation is the khot ail - a level of household cooperation which existed prior to collectivisation whereby households move, live and work together as an autonomous herding unit. These units are often, but not necessarily based on kin relations, since associations between people 'with common interests' are just as important.⁵ Just as with the suuri, the size of the khot ail varies according to the seasons and across ecological zones. In the Gobi for example, khot ails often consist of a single household whereas in Arhangai, as many as nine households may group together. A household comprises the occupants of a single ger, usually a husband and wife and their junior and unmarried children.

At the wider neighbourhood and community levels other customary institutions are re-emerging. At the neighbourhood level are neg nutgiinhan (meaning 'people of the same place') which have evolved as a means of regulating access to pasture. Formed along kinship lines, these groups are often defined in relation to the ecological environment and include neg jalqynhan ('people of one valley') or neg usnihan ('people using the same water source') as in the Gobi.⁶ These institutions exist within the wider organisation of the bag, a customary institution again

2 Mearns, R., 1991, Transformation of a Mongolian Pastoral Economy: A Local View from Arhangai and Dornogobi Provinces PALD Working Paper No.2:4.

3 *ibid.* :8.

4 See Swift, J., 1992, PALD Summary Report of Work Undertaken in 1992.

5 Szykiewicz, S., 1977, Kinship Groups in Modern Mongolia, *Ethnologia Polona*, Vol 3:43.

6 See Mearns, 1993.

responsible for pasture allocation and dispute settlement as it was in the pre-collective period. The boundaries of the bag have generally been formed from the territory of the old brigades and it is expected that these units will now assume important pasture and other resource management functions alongside the growing number of horshoo. Horshoo are voluntary marketing cooperatives with economic rather than resource management functions and which are replacing companies in many areas.

The exact role each of these institutions will play in the newly emerging market economy is still unclear. Currently something of an institutional vacuum exists as a range of different organisations attempt to fulfill the functions of livestock marketing, service provision and input supply previously carried out by the negdel.

Erdene sum, Dornogobi

'Shine Amdral' negdel in Erdene sum, Dornogobi was formed in 1957 and comprised two brigades, 136 production units (suuri) and a total of 40610 animals (see table 1). The negdel was responsible for the production, administration and the planning and marketing of livestock products. Each brigade was staffed by a zoo-technician (livestock specialist), veterinarian, accountant and store-keeper and headed by a brigade chief.

The negdel was formed into a company in August 1991. Under the small privatisation animals, shelters and other assets were distributed to negdel members and their children according to the length of negdel membership (see Appendix 3). The value of assets and animals allocated to each person was not less than 3,000 tugrigns and did not exceed 10,000 tugrigns, although original negdel members were given additional assets worth 5,000 tugrigns. The value of fixed assets and animals determined by negdel members is summarised in Appendix 5. Some high value fixed assets such as buildings and wells were allocated to the sum administration for a nominal charge. A total of 11,156 animals were privatised under the small privatisation and the remaining 30,035 animals were herded by lease agreement from the company.

Table 1: 'Amdralyn Zam' Negdel Livestock Statistics

Species	1991 (beginning)	1992 (beginning)	Animals privatised by small privatisation
1. Camel	3.005	1.891	710
2. Horse	2.418	1.879	500
3. Cattle	2.508	1.848	619
4. Sheep	23.402	16.206	6.789
5. Goat	9.283	8.211	2.538
Total	40.610	30.035	11.156

Views on privatisation

Discussions with herders in Tsagaan Hutuul bag found that many were unhappy with the company's management of livestock production and compared it unfavourably with the negdel. It was felt that company control over individual herders had weakened with some herders becoming less responsible and incurring high animal losses as a result. Service provision to herders was seen to be inadequate and there was concern that the company had mismanaged the distribution of important negdel assets during the small privatisation. There was particular concern that property of Tsagaan Hutul Brigade had been sold at a very low price and that negdel buildings including shops, a hotel, social club, and hospital had been allocated to the sum administration free of charge.

These concerns contributed to the majority decision taken in August to liquidate the company at the end of 1992. However, while 76% of company members voted for its dissolution, a small number of wealthy herders with sufficient animals and labour to herd independently, were felt to have had a disproportionate influence on the decision. Many members felt that a level of cooperation between herders should continue, and at the time of research herders from Dorvolj and Tsagaan Hutuul bags were in the process of setting up cooperatives or horshoo. It is expected that these will operate alongside the customary institutions traditionally operating at neighbourhood level. In Tsagaan Hutuul bag, groups of herders sharing the same water source ('neg usniihan') are particularly important. These groups are formed from between two and five khot ail grouped around a single well. They cooperate in a range of labour intensive tasks such as felt making, looking for lost animals, watering animals, and in the repair and maintenance of shelters and wells. In some cases transport services are also pooled.⁷

These institutions are likely to play a critical role in the organisation of herding production in the future and this fact was illustrated in discussion with one herder who was asked to rank the various organisations of negdel, company, horshoo, neg-usniihan, and khot ail according to their importance to the organisation of herding production (see table 2). This was done by giving a score of between 1 and 5 (1 for low ability and 5 for high ability) to each institution for its ability to provide specific services or organise production. A category of 'individual private herder' (ie the market) was also included. The fact that comparisons were made between two different levels of organisation (khot ail/negdel) and between past organisations and potential future activities (negdel/market) means that the subsequent ranking is necessarily skewed.

Table 2 shows the informant felt that some form of cooperation in herding production was necessary and was best organised through customary institutions or the negdel. The negdel was also seen as having been more successful in service provision than the company. This particular informant felt that because the company was not able to achieve the same levels of production as the negdel and was incurring high animal losses he did not want to "continue living at the expense of others and that is why I think it is worth trying to go into private herding."

⁷ For more details see Mearns, R., 1993.

Table 2

Matrix Ranking of Production Units, Erdene sum

	<u>Negdel</u>	Company	Co-op of private herders (horshoo)	<u>Neg Usniihan</u>	<u>Khot Ail</u>	Private Herder
Livestock production	5	1	4	5	5	1
Marketing	4	3	2	-	4	5
Fodder supply	5	5	2	-	4	5
Transport service	5	-	3	3	4	5
Processing of products	-	-	3	-	4	5
Supply of necessary goods	-	4	1	-	-	5
Health service	-	-	-	-	-	-
Cultural service	5	2	-	-	-	-
Repair and maintenance of shelters	-	-	-	-	-	-
Total	24	15	15	8	23	26
Rank	2	4	4	5	3	1

Tariat sum, Arhangai

In Tariat sum the process of privatisation has taken place very differently from Erdene. Yalalt negdel was created during the 1970s following amalgamation of three negdels. In March 1991 Yalalt negdel was broken down into Gerelt Zam negdel (1094 members) and Yalalt negdel (1009 members) following elections to negdel chief. The capital and assets of Yalalt negdel were divided according to the number of members in each negdel, Gerelt Zam received 51.5% and Yalalt 48.5%.

The small privatisation in Tariat sum took place in September and October 1991 with Gerelt Zam negdel becoming a share company in January 1992. All animals and assets worth 7.3 million tugriks were divided between the 1279 members. 30% of all animals were allocated under the small privatisation while the remaining 70% was allocated under the large privatisation in June and July 1992. For animal values at privatisation and privatisation statistics see Appendices 4 and 5. The 30% share of livestock allocated during the small privatisation was divided so that herders who had been negdel members prior to 1960 received an additional allocation of animals.

Yalalt negdel became a horshoo in September 1991. It was decided that 70% of horshoo animals would be distributed through the small privatisation according to length of negdel membership. In May 1992 123 households left Yalalt horshoo to become fully private herders. These households were allocated 27.6% of total animals and a number of fixed assets including a lorry, a tractor and water tanker. The decision to become private herders was made for a number of reasons. Some herders were concerned that the horshoo might misallocate fixed assets in the second privatisation and wanted to gain as much as possible of what they felt they were entitled to. The majority of private herders are located in the three valleys of Upper Booroljuut, Lower Booroljuut and Tsagaan Uul, situated between sum and horshoo centres. There was an expectation that this position would enable them to gain support from both centres. In fact, private herders have received no support from the sum administration, company or horshoo and there is little evidence of collaboration in marketing activities between households. Many expressed the desire for state support in training for production and marketing activities.

A number of herders such as the National Champion Herder, Galbadrakh, who have sufficient labour and capital to become successful private herders encouraged less able herders to do the same. Sandalkhundev, a middle income pensioner said: "I just followed the majority without thinking about the after-effects of being a private herder. But now it seems I parted myself from my support".

Wealthy herders with sufficient labour to manage the production of their own hay and fodder supplies or money to purchase fodder and transport at market prices remain optimistic about the future. One wealthy herder said: "I will make hay and fodder myself or I will buy it on the market where available. In case of a harsh winter I will make long distance movements, for example to Khanui river".

Other herders are unable to afford transport to make the frequent seasonal movements required in this area of high population density. Transport costs are prohibitive; one wealthy private herder paid 140 Tug to move to his spring shelter by tractor and exchanged one sheep for the use of a lorry to move twelve kilometres to his autumn pasture.

In the Hangai region the density of herding households is high. At the time of research, 237 households of Booroljuut bag were located in 5 valleys during the summer and autumn seasons. In the valley of Ikh Jargalan about 8 km long, 74 households were camped in 13 khot ails for the autumn. Khot ail size ranged from two to nine households, with three khot ail of six and three households of seven households, as table 3 shows.

Table 3: Composition of khot ails in Ich Jargalan, Booroljuut bag, Tariat sum

No. of hh in <u>khot ail</u>	No. of <u>khot ails</u>	Total hh
1	-	-
2	1	2
3	1	3
4	2	8
5	1	5
6	3	18
7	3	21
8	1	8
9	1	9
Total	13	74

Yalalt horshoo leaders have made efforts to develop collaboration between herders and have appointed an unpaid valley chief to maintain communication between herders and the horshoo.

3. CHANGES IN LOCAL ADMINISTRATION

Administration of the rural economy takes place at the levels of central government, province (aimag) and district (or sum of which there are 303 in total). Up until 1959 an additional unit, the bag, was responsible for both administrative and production activities below the level of the sum. These functions were subsequently taken over by the brigades and controlled by the negdel, but since democratisation there has been an attempt to separate administrative and production activities, with the reintroduction of the bag as the smallest unit of administration within the sum.

In Erdene sum, the two former brigades were reorganised into three bags: Yenshoov, Tsagaan Khotol and Dorvolj with one additional bag for sum centre residents. Each bag has approximately 100 households headed by a bag chief appointed by the sum administration.

Table 4: Tariat sum livestock statistics (at end of 1991)

	household	population	Total Number of Animals					Breeding Females						
			Total	camel	horse	cattle	sheep	goat	Total	camel	horse	cattle	sheep	goat
Tsagaan	Negdel Members	.	9392	.	78	2932	5839	543	5489	.	5	1340	3809	335
	Total	303	13596	.	2135	3984	7056	423	4147	.	553	1048	2400	146
Tsakhir	Negdel Members	.	22988	.	2213	6916	12895	966	9636	.	558	2388	6209	487
	Total	60	2827	.	39	261	2099	428	1582	.	10	151	1165	256
Khorgo	Negdel Members	60	2047	.	296	697	967	87	708	.	87	206	378	37
	Total	60	4874	.	335	958	3066	515	2290	.	97	357	1543	293
Suman	Negdel Members	.	5191	.	58	2161	2517	455	2993	.	5	956	1763	267
	Total	215	10182	.	1725	2545	5820	390	3449	.	376	735	2192	146
Boorljunt	Negdel Members	.	15373	.	1783	4706	8337	845	6442	.	381	1691	3955	413
	Total	205	400	.	56	26	300	18	227	.	20	5	201	1
Moron Nuiur	Negdel Members	205	5750	.	629	1850	3095	175	2053	.	185	575	1239	54
	Total	205	6150	.	685	1876	3395	193	2280	.	205	580	1440	55
Ongot Chuluu	Negdel Members	.	3169	.	322	1333	1157	357	1658	.	94	577	760	227
	Total	263	18446	.	1572	4281	11229	1364	6640	.	370	1369	4402	499
Sum Total	Negdel Members	263	21615	.	1894	5614	12386	1721	8298	.	464	1946	5162	726
	Total	263	4997	.	446	845	2800	906	2573	.	146	316	1677	434
Sum Total	Negdel Members	254	18826	3	1900	4717	10662	1544	6590	2	455	1473	4080	580
	Total	254	23823	3	2346	5562	13762	2450	9163	2	601	1789	5757	1014
Sum Total	Negdel Members	28	464	.	65	290	199	10	187	.	17	71	96	3
	Total	28	464	.	65	290	199	10	187	.	17	71	96	3
Sum Total	1328	5393	96734	3	9176	26069	54433	6739	38959	2	2362	8928	24664	3003

In Tariat sum the former brigades were divided at first into five bags, but were subsequently divided into seven, following an aimag ruling that each bag should have a maximum of 170 households under its control. Table 4 shows the 1991 statistics. The reorganisation of bag territories has not affected the way households live or move together; for example, many households from Suman bag moved to other bags to stay near relatives during the autumn or winter. The 236 households included in this sample belonged to Booroljuut bag.

Discussions with a former bag chief and others who had been in Moron bag between 1948-1958, revealed that during the pre-negdel period the bag played a significant organisational role at local level. During this period Moron sum comprised 10 bags with between 60 and 100 households in each bag. The elected members of the bag comprised the bag chief, a vet, a nurse, a trade agent, and representatives from women's and youth organisations. Each elected member was responsible for a group of households within the bag, amongst whom there was a high level of cooperation in a range of tasks.

The bag chief, usually a respected member of the community, was responsible for the transport service to herders, livestock and livestock product purchasing, and hay making. He also had the power to mobilize labour for herding movements, to collect taxes, and administer fines. He also played an educational role, teaching literacy skills. Presently in Tariat, bag chiefs, vets, doctors and livestock brokers have been appointed by the sum administration for each of the seven bags. The majority of herders felt that both bag and sum administrations had played an insignificant role in implementing state and government policy, organising seasonal haymaking initiatives and taking the lead in decisions regarding pasture allocation. The chief of Booroljuut bag has made efforts to collect fees for pasture use and influence land management decisions. He has also played a role in distributing pensions but herders feel that little effort has been made to organise marketing initiatives.

4. CHANGES IN LIVESTOCK MARKETING

During the negdel period the sum administration was responsible for the fulfillment of private and state procurement orders for the sum. Each suur supplied products from their negdel animals to the negdel and were paid a salary according to the quantity and quality of products supplied. An additional quota of meat, wool, hides, skins was supplied to the sum administration from herders private animals. These were paid according to quality. Since privatisation livestock marketing has been organised through lease agreements with company and horshoo.

Erdene sum, Dornogobi

In Erdene, the Shine Ambral share company markets products through brokering organisations, purchasing wool and cashmere from herders at fixed prices set out in the lease agreement. Previously the negdel marketed products through the state procurement order, but the company now uses brokering institutions. Many herders are choosing not to supply the full quota of products in accordance with their lease agreement since they feel that the company has not made available an adequate supply of basic goods in return.

The sum consumers' cooperative is now responsible for the sum procurement order. It has had difficulty keeping to state production targets since the cost of fuel and vehicle repairs has made it difficult to collect products from herders. It has also had difficulty in supplying goods to herders because of high prices and poor availability of consumer goods. However, despite high interest rates on large bank loans, the cooperative made a profit in 1991.

Herders themselves have had problems marketing wool, cashmere, meat and milk and obtaining basic goods. As a result some herders are bypassing the market altogether and reviving traditional practices for the processing and production of goods previously obtained from the negdel. The most significant development is in felt making, where a number of households are pooling labour to produce felts for their own and other households.

Tariat sum, Arhangai

In Tariat sum, the directors of both the company and horshoo act as brokers for their organisations and are responsible for product marketing. Production quotas of both organisations are made according to the previous year's livestock census statistics. Table 5 shows the livestock productivity statistics for 1992.

Table 5: Livestock productivity statistics (quota/animal), Tariat sum 1992

	measure unit	Fulfilment of previous years					1992 quota
		1987	1988	1989	1990	1991	
Camel wool	gr.	4000	4000	3900	3920	5000	4164
Sheep wool	gr.	1319	1310	1335	1335	1235	1306
Goat wool	gr.	190	191	187	188	180	187
Yak hair	gr.	600	600	623	380	375	515
Cashmere	gr.	246	258	258	258	244	252
Yak tail	gr.	37	37	37	20	.	.
Yak down hair	gr.	618	620	618	618	600	614
Horse and cattle down hair	gr.	250	250	250	250	250	250
Horse neck hair	gr.	300	300	300	300	300	300
Horse tail	gr.	50	50	50	50	30	46
Cattle tail	gr.	5	5	5	5	5	5
Beef	kg	22	24	23	22	24	23
Mutton	kg	5	5	5	4	4	4.6
Goat meat	kg	3	3	3	3	3	3
Cow milk	litre	50	50	50	50	50	50

In 1992, company herders supplied wool and cashmere from their company animals. Yalalt horshoo was unable to find a market to sell sheep wool on behalf of its herders. The sum consumers cooperative and purchased cashmere and sheep wool from private herders and other products such as wool, hides and pelts were purchased through bag brokers. Because both individual brokers and the sum cooperative were only purchasing those goods for which there was a high demand many herders were not able to sell down and hair from their large animals, and were thus burdened with these goods whenever they made moves. In Tariat herders have not reverted back to the tradition of felt making. Where herders made arrangements to sell meat and milk products to the sum cooperative in return for basic goods and cash, the sum cooperative was not able to fulfill the agreement with sufficient goods.

In the Hangai region milk production is more intensive than in the Gobi. In Tariat every household has a minimum of five or six milking cows and herders are usually self-sufficient in milk products. At present, however there is an insufficient market for milk products. A number of private herders from Booroljuut bag joined together to process milk in a dairying cooperative or tasag, using milk processing equipment obtained from Yalalt horshoo. Operating for one month in June and July, the tasag received 16.326 litres of milk from 50 households and made 1.145 kg of butter. Because of the shortage of equipment and raw materials no other products were processed. The butter was sold in Ulaanbaatar and Khar Khorin. This compares with 59.000 litres of milk supplied by 60 households to the negdel tasag in 1991 when 4.214 kg butter was made with equipment, labour, fuel and other raw materials provided by the negdel. Enebishdavaajav, manager of the negdel tasag, felt that : "This year private herders were not well organised: 72 households didn't supply their milk at all; of those who did, none managed to supply the amount of milk agreed. This kind of milk tasag will not be profitable in the future."

5. HOUSEHOLD INCOME AND EXPENDITURE PATTERNS

Household income is made up of both cash income and income in kind. Salaries are the most important source of cash income, followed by pensions and other benefits, and income from the sale of livestock products and gifts. Non-monetary income is derived from food consumed through own production, hunting and other natural resources, gifts and other exchanges of goods and products. There are wide differences in income levels between Erdene and Tariat sums and these are summarised in table 6.

Erdene sum, Dornogobi

(i) Incomes

During the negdel period Tsagaan Hutuul brigade specialised in camel herding. In the last two years, herders have continued to concentrate on camel herding under lease agreement from the company. Each household is responsible for between 70 and 150 camels depending on labour availability as well as a small number of cattle and sheep. For this they are paid 1,500-3,500 tg per month and supply products according to a quota laid down in lease agreements. The dissolution of the company means that herders will no longer receive salaries.

Table 6: Comparison of Income Levels in Erdene and Tariat

	Erdene	(Tugrigs)	Tariat
Salary Range (Monthly)	1500-3500		100-500
Pension (Monthly)	200-500		240-710
Child Benefit (Monthly)	67-250		67-250
	Erdene	(%)	Tariat
Total Income from Livestock Products	100		100
of which:			
% paid in consumer goods	20		12.5
% paid in cash	80		45
% paid in savings	-		42.5

Pensions ranging from 200-550 tg per month are paid according to length of service to the negdel. In addition families with more than four children between 0-16 years of age receive a pension of between 800-3,000 tg.

Income from the sale of livestock products varies considerably between households and is largely determined by the number of private animals a household owns. Herders felt the state price for meat was very low and the quota very high which meant that they have difficulties breeding high quality stock. This year 15-25% of payment for meat products was paid in consumer goods such as cloth, candles, tobacco and matches, but both company and sum were unable to provide sufficient supplies to satisfy herders demands.

Only a small proportion of herders' total income comes from wild resources. Some wild plants (especially wild onions) are consumed and antelope are hunted in autumn for meat. Own food production comprises an average of 32.1% of total household income. Meat is consumed throughout the year, while hides and skins are sold or processed for livestock equipment. Overall milk production is low. Cow and camel milk forms the majority of milk production, and sheep and goats are milked for around 40 days during the summer and are processed into a range of products consumed throughout the winter. Table 7 gives four examples of annual household consumption of meat and milk.

Table 7

Annual household consumption meat and milk, Erdene sum

Head of Household	Number of family members	Animals consumed for food (in head)					Milk (litres)
		Camel	Horse	Cattle	Sheep	Goat	
Bayandorj	5	1	-	1	10	8	1200
B. Dorjkhорlow	7	1	-	1	16	2	4800
M. Nyandorj	6	1	-	1	15	9	1200
D. Monkhtagov	6	-	1	2	15	14	4800

(ii) Expenditures

In 1991 all households had a small amount of savings. In 1992, savings have dwindled as salaries have been reduced, marketing opportunities are poor, and prices of consumer goods have increased. The majority of herders' income is used for the purchase of rationed food items. In the absence of cash, many households are paying for consumer goods with animals.

Tariat sum, Arhangai(i) Incomes

During the neqdel period herders looked after between 10 and 40 yak and between 20-80 sheep and goats. Under lease agreement from company and horshoo, herders in 1991 were paid 100-500 tg per month. Pensions range from 240 to 710 tg per month but since May 1992 have not been paid in many cases.

The majority of households supplied meat to company, horshoo and sum organisations during the spring of 1991 but overall product sales have been limited. Payments have been made largely in cash, savings and a small amount in goods such as cloth, candles and soap. The state purchasing price for products was the same as in Erdene sum.

In Arhangai, natural resource potential is higher than in the Gobi so income from hunting and other resources is of greater significance to households. Wild foods such as onion, pine nuts, fruits, mushroom, medicinal plants are widely used while the hunting of marmot, fox and wolf are important sources of income - a single marmot skin is worth 200-300 tg. The use of wild teas and other resources is increasing as availability of these goods decreases in the market.

Own food production comprises 52.3% of household income which is significantly higher than in Erdene sum. Table 8 shows the annual consumption of meat and milk for five households in Tariat sum. The high level of milk consumption in Tariat means that there is less meat

consumption than in Erdene where overall milk production is significantly lower. However, there has been a significant increase in the consumption of milk and meat products among all households in 1992 as a shortage of flour has necessitated significant changes in household consumption patterns. For example Byambatseren, the wife of Dorj, a reasonably wealthy household said: "Last winter we reserved 1.5 cattle, half a horse and 5 sheep for consumption but by June we had finished all of them and slaughtered an extra 5 sheep and 1 goat in July and August".

Table 8

Annual consumption of meat and milk, Tariat sum

Head of Household	Number of family members	Animals consumed for food (in head)				Milk (litres)
		Horse	Cattle	Sheep	Goat	
O. Ochirkhuyag	6	-	2	10	5	6000
Ch. Lkhaasuren	5	-	2	12	3	3000
Ch. Khasbaatar	7	-	2	12	2	6000
T. Lkhamsuren	1	-	0.5	6	-	2400
J. Batjantsan	3	1	1	4	1	1800

(ii) Expenditures

The majority of expenditure is on rationed food items, garments and other necessity goods. Table 9 shows the allocation of rationed food items for one households in each sample area. Flour, rice and sugar are allocated per person while tea, vodka and tobacco is allocated per household. Rations are seldom sufficient for household consumption with the result that the majority of herders buy extra supplies from "speculators" at high cost.

Table 9

Monthly food rations Erdene and Tariat sums (per household)

	Unit	Bayandarj, herder (7 member family) Tsagaan Hotol <u>bag</u> , Erdene <u>sum</u> , Dorngobi <u>aimag</u>	Derj, herder (6 member family) Boordjuut <u>bag</u> , Tariat <u>sum</u> , Arkhangai <u>aimag</u>
Flour	kg	28	18
Rice	kg	2.1	1.2
Sugar	kg	1.4	1.2
Tea	kg	1	1
Vodka	litre	0.5	0.5
Tobacco	packer	1	1

Changing service provision

In both areas the lack of transport, equipment and drugs has meant a sharp reduction in health service provision. Herders stated that in an emergency patients will often contribute to transport costs. In Booroljuut bag one nurse is responsible for 147 households. Social and cultural services, previously supplied by the negdel, are now severely reduced.

6. SUMMARY AND CONCLUSIONS

Changing patterns of livestock ownership and institutional development

The privatisation of livestock production has taken place within a general context of economic dislocation and democratisation in Mongolia. As a result, changes in livestock ownership have taken place without the level of institutional development necessary for effective management of the transition.

In both areas companies are seen as inadequate replacements of the negdel, achieving a poor level of service delivery and organisation. As a result there has been a significant re-emergence of customary levels of cooperation and organisation among herders in both areas. In Erdene groups of neg usiinhan have proved particularly important in this respect, achieving a high level of labour cooperation between khot ail. Labour resource management is a primary concern of herders and was one of the main motivations for the development of cooperatives in Erdene sum following the dissolution of the company. Neighbourhood groups are also likely to form the basis for the organisation of pasture use and transport organisation within the wider organisation of the bag.

The high density herding population in Tariat sum means that the critical functions of pasture regulation and transport organisation require some formal organisation. There is little evidence that these functions have been taken on board at company, horshoo or bag level, with the result that herding movements and pasture use have often been erratic. This is partly because the majority of households are unable to afford herding movements, but also because in the absence of any clear institutional control the social responsibility of individual households has in some cases been replaced by more individualised patterns of behaviour.

However, khot ail and other neighbourhood relationships between households have an important potential for future land tenure and management arrangements alongside the formal institution of the bag. Evidence from Tariat sum shows that this institution played a significant role in local organisation prior to the collective period. While the bag now forms a localised unit of administration within the sum there remains confusion about the exact level of activity to be carried out at bag level.

Livestock marketing and service delivery

In both areas the poor development of infrastructure for livestock marketing is in evidence. Under present conditions, herders are unhappy with fixed prices for livestock products available to them through companies, horshoo and consumer cooperatives and this has affected their willingness to fulfill required quotas. There are few other marketing opportunities available to them. At the same time company and sum organisations are often unable to purchase products, honour cash

agreements or regularly supply consumer goods. While prices are no longer fixed and price incentives for producers should improve the situation, increased prices for staple foods will have negative implications for household expenditure and consumption patterns.

Poor conditions for livestock marketing have resulted in a revival of customary practices of product processing and an increase in non-monetised exchanges of goods* and products between households. In addition, falling household incomes, inadequate supplies and high prices of staple foodstuffs have resulted in an increase of self-provisioning among households in both Erdene and Tariat sums.

Changing patterns of livestock ownership and marketing have had different impacts on different categories of herding households. In Tariat sum, fully private herders have had fewer opportunities for livestock marketing than company or horshoo herders. While some are wealthy herders who are in a strong position to weather this transitional period, poorer herders with a small number of animals are likely to be adversely affected for some time to come.

Wealth differences between herders and across ecological zone are significant and are likely to have increased as a result of privatisation. Overall income levels are higher in Erdene sum than in Tariat largely since the riskier environment of the Gobi commanded high salaries and benefits during the negdel period. In both areas these income sources have been cut or reduced. Overall sale of livestock products has been lower in Tariat than in Erdene, and in Erdene a greater proportion of livestock payments are made in goods rather than cash. As a result, own food production comprises only 32% of total income as opposed to 52% of total income in Tariat (although the greater production of milk products in Tariat partly explains the higher figure). However there is a more significant move towards self-provisioning in Tariat than in Erdene. Currently, the changing income levels and consumption patterns seen in Tariat sum suggests that some households, particularly poorer private herders, are potentially very vulnerable. However, the environment in Erdene is generally more risky and wealth differences between households are considerable.

List of informants, Erdene sum

	Names	Sex	Household	Wealth	Occupation	Topics
1	Tomertogeo	male			Deputy chair- man of sum	New institutions
2	Vkhuaa	"			senior accountant	Privatisation (p2)
3	V. Vkhuaa	"	112	43	pensioner (old age)	Wealth ranking, <u>negdel</u> background
4	Bavun	"	72	43	herder	Wealth ranking (W.R)
5	Bayandorj	"	79	54	herder	Pr, household bud- geting, (H.B.) preference ranking (P.R.)
6	Derjkhorloo	"	84	21	herder	Pr, pasture and movements
7	Hishigsuren	female	84	21	herder	H.B.,
8	M. Aduaswren	"	106	54	herder	H.B.,
9	D.Gombosuren	male	121	21	pensioner	Pr, H.B., health service
10	D.Monkhtogoo	"	110	59	herder	W.R., H.B.,
11	Naranzul	female	54	43	herder	labour allocation metrix ranking (M.R)
12	Tserennadmid	"	110	59	herder	labour calender (women's)
13	Erdene	male			pensioner	private herders, cooperative
14	Shukhert	"			officer the consumer co-op	agricultural marketing
15	Tseren	"			sum security	Pr.
16	Lundaa	"			store keeper cultural centre	cultural service
17	Namjildorj	"			director cultural centre	"

Appendix 1 cont'd/..

	Names	Sex	Household	Wealth	Occupation	Topics
18	Tuvdenderj	male	74	31	herder	livestock policy
19	Batbayer	"	115	85	herder	labour
20	Maam	female	106	54	herder	production unit structure

List of informants, Tariat sum

	Names	Sex	Household	Wealth	Occupation	Topics
1	D. Soser	male			Talalt co store-keeper	W.R.
2	V. Davaasombun	female	185	85	herder	Pr, movements
3	O. Ochirkhuyeg	male	151	70	herder	Pr, movement, pasture
4	Adyasuren	female	151	70	herder	H.B.
5	Ch. Hkhaasuren	male	110	83	herder	Pr, H.B.
6	Ch. Khasbaatar	"	210	47	herder	Pr,
7	Darragchaa	female	210	47	herder	H.B.
8	T.Lkhamsuren	"	48	53	pensioner	H.B.
9	S.Gombosuren	"	183	83	pensioner	H.B.
10	E. Naidansuran	male	220	47	herder	H.B.
11	E. Namber-saikhau	"	147	92	herder	H.B, pasture
12	D.Boldbaatar	"	102	55	herder	H.B, labour calendar
13	M.Erdene-bileg	female	102	55	herder	labour calendar (LC)
14	B. Dugerjav	male	40	23	pensioner	Pr, HB, P.R.
15	Ch.Burentogtokh	"	100	32		Pr.
16	G.Tsagaach	"	-	-	Talalt senior accountant	Pr.
17	J.Batjantsan	"	12	83	herder	Pr.
18	Lkhanjav	female	12	83	herder	H.B.
19	S.Chuluunbat	"	36	47	pensioner	H.B.
20	Aleksandr	male	60	75	herder/driver	Pr, co-op activity

	Names	Sex	Household	Wealth	Occupation	Topics
21	Tsevegjav	male	231	30	sum chairman	state institutions
22	Tomerochir	"	-	-	chief beeral-juut bag	institutions
23	Jaanai	"	-	-	general zoo technician	Pr.
24	Sandell-khuudev	"	115	55	pensioner	Pr, private herder institutions
25	Chaijil	"	161	60	herder	livestock policy
26	Byambetseren	female	118	45	herder	marketing, goods' supply
27	Baasanmonkh	male	169	60	trade agent	" " "
28	Byambaa	"	152	100	herder	<u>bag</u> structure
29	Evebishda-vaajav	"	117	75	herder	small scale production
30	Byambatseren	"	-	-	nurser	health service
31	Aleksandr		60	75		
32	Gotov		43	20	pensioner	institutions
33	Magsarjalam		237	-	herder	social problems
34	Purevjav		66	50	pensioner	<u>bag</u> activity

Privatisation statistics, "Andralyn Zam" neqdel
Erdene sum

Brigades	Privatised animals						Machinery		Shelters		Buildings		Privatisation coupons given		
	Total	Camel	horse	cattle	sheep	goat	number	value	number	value	number	value	household	small coupon	children
Yenshoov	5476	127	253	286	3310	1500	-	-	60	37760	-	-	87	426	240
Tsagaan Hotel	5680	593	247	333	3479	1038	-	-	57	237800	-	-	97	442	228
Sum Centre	-	-	-	-	-	-	1	29400	-	-	3	89002	95	356	146
Total	11156	710	500	619	6789	2538	1	29400	117	275560	3	89002	279	1224	614

Privatisation statistics, Gerelt Zam and Yalalt neqdels,
Tariat sum

Units	Privatised animals						Shelters		Privatisation coupons given		
	Total	camel	horse	cattle	sheep	goat	number	value	household	small coupon	children
Gerelt Zam	9352	-	966	2035	5986	365	-	-	836	2475	-
Yalalt	15484	-	174	3707	10458	1145	-	-	530	1788	-
Total	24836	-	1140	5742	16444	1510	160	1151664	1366	4263	-

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Appendix 5: Value of animals given by privatisation in Tug 1991

Location		Species	Youngstock	Adult	1 year old		2 year old		3 year old		4 year old		5 year old	
					Male (m)	Female (f)	m	f	m	f	m	f	m	f
Erdene sum	1	Camel	300	3000	600	600	1000	1000	1500	1500	2000	2000	3000	2500
	2	Horse	200	1400	500	500	1000	1000	1400	1400	1500	1500	.	.
	3	Cattle	350	3000	800	800	1800	1800	3000	2500	.	.	.	.
	4	Sheep	100	500	250	250	500	400	.	.	.	.	.	.
	5	Goat	90	300	130	130	300	250	.	.	.	.	.	.
Tariat sum	1	Horse	200	1400	350	350	700	700	1120	1120	1400	1400	.	.
	2	Cattle	.	.	.	.	.	.	.	.	.	.	.	.
	3	Yak	230	2100	560	560	1400	1400	2800	2100	.	.	.	.
	4	Hybrid	300	.	800	800	1600	1600	3500	2800	.	.	.	.
	5	Mongolian (cattle)	300	400	800	800	1600	1600	3500	2800
	6	Sheep	70	420	175	175	350	280
	7	Goat	4	210	90	90	210	175

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