



WINTER IS COMING

Supplementary feeding of cashmere goats as an adaptive strategy of Mongolian herders



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Introduction

- * **Pastoralists** are the backbone of Mongolia's livestock production
- * Among livestock, **cashmere goats** have the highest **economic** importance
- * Challenge: Rise in **climate hazards** due to climate change and long-term overgrazing → **high livestock mortality during winter/spring**¹

Feed supply: Adaptive strategy to prevent livestock deaths or coping mechanism during severe forage scarcity in winter?

Socio-economic stability (KS):

- Livestock numbers within **rangeland carrying capacity**
- **Collaborative action** and timely preparation in autumn (haying, shed insulation, etc.)
- Sufficient **storage of fodder** for livestock

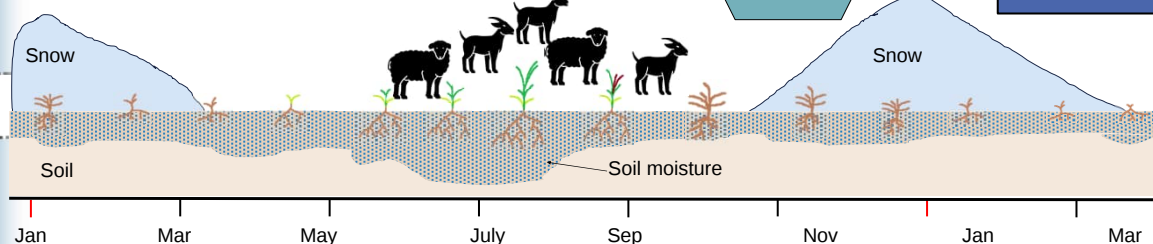
Socio-economic vulnerability (GS):

- Exceeding rangeland carrying capacity
- **Social conflict**
- Lack of **financial means** for feed **purchase** and remoteness
- **Movements** of herd (*otor*) not successful

Summer drought and forage scarcity

Severe winter
-30°C

High livestock mortality



inspired by Nandintsetseg et al. 2018

Methods



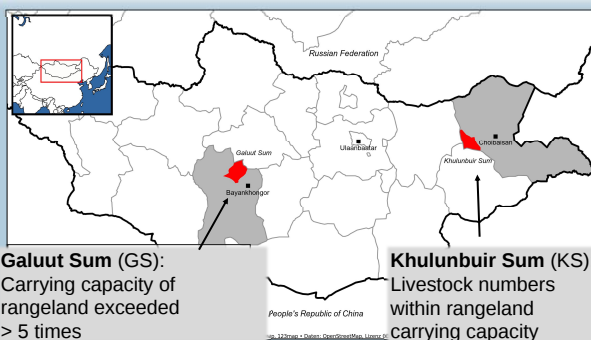
Survey: winter and feed preparation of herders (n = 21)



Feed sampling and analysis (n = 52)



Focus group discussions (FGD): Collaborative action among herders in regions GS and KS



Results

Prepared amounts of feed in the two study regions per Mongolian sheep unit (median, GS vs. KS):

Hay: 7.4 vs. 38.4 kg (P < 0.01)		Wheat bran: 2.1 vs. 2.1 kg		Concentrate: 1.4 kg in GS only	
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Tab. 1: Nutrient contents of feeds provided by herder households during the winter season (g/kg DM, unless otherwise stated).

Item	Hay	Wheat bran	Concentrate
Crude protein	62 ± 13	172 ± 13	146 ± 44
aNDF ¹	715 ± 32	341 ± 62	414 ± 157
ADF ¹	416 ± 23	102 ± 20	207 ± 146
Ash	54 ± 8	49 ± 8	71 ± 26
Digestible organic matter, %	48 ± 1	76 ± 1	69 ± 5

¹aNDF = Neutral-detergent fiber with amylase treatment; ADF = Acid-detergent fiber



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Contact/view poster



References

