

Appendix 2. Semi-structured interview guides.

Demographic information (Closed-ended)		
Name:	Gender:	Age:
Nationality:	Education:	Occupation:
Basic livestock management information (Closed-ended)		
Inherent pasture area:	Rented pasture area:	Livestock breeds:
Livestock numbers:	Supplementary forage per year:	Supplementary concentrates per year:
The maximum stocking rates stipulated by the Forage-Livestock Balance policy:		
Basic livelihood information (Closed-ended)		
Livestock net income:	Income from other sources:	Loan amount:
Annual expenditures on food, clothing, traffic, heating, education, and medical treatment:		
Herder's perceptions of grassland ecological changes (Closed-ended + Open-ended)		
1. Overall, how has the grassland vegetation grown over the past 20 years? (Closed-ended) (A) Better (B) Worse (C) No change (D) Unclear		
2. What indicators do you use to judge grassland degradation? (Closed-ended) (A) Plant species (B) Grass height (C) Desertification (D) Grass productivity (E) Grass density		
Herder's subjective evaluation of their well-being conditions (Closed-ended + Open-ended)		
3. Overall, are you satisfied with your current quality of life? (Closed-ended) (A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied		
4. Herders' subjective evaluation of the following eight wellbeing dimensions (Closed-ended + Open-ended)		
(1) Income: are you satisfied with your current level of income, why? (A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied		
(2) Food security: are you satisfied with the convenience, safety, or price of food, why? (A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied		
(3) Health care: are you satisfied with local medical facilities and the health status of your family, why? (A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied		
(4) Gender equality: are you satisfied with the current status and division of labor between women and men in the family, why? (A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied		

(5) Education: are you satisfied with your children's education level and access to high-quality education, why?

(A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied

(6) Water & sanitation: are you satisfied with the drinking water and livestock drinking water, why?

(A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied

(7) Access to energy: are you satisfied with your current home energy supply, and why?

(A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied

(8) Social equity: are you satisfied with social equality, and why?

(A) Very satisfied (B) Satisfied (C) Not too bad (D) Unsatisfied

Herder's perceptions and understandings of herder-grassland relationships (Closed-ended + Open-ended)

5. What benefits do you think grasslands can provide for you? (Closed-ended)

(A) Economic benefits (B) Food provisioning (C) Sandstorm prevention (D) Air purification (E) Eco-tourism (F) Visual aesthetic

6. What do you think are the main causes of grassland degradation? (Open-ended)

7. Do you think grassland degradation is related to overgrazing? to what extent? (Closed-ended)

(A) Very relevant (B) Relevant (C) Weak relevant (D) Irrelevant

8. Why do herders overgraze despite knowing its negative effects on grasslands? (Open-ended)

Herder's livestock management strategies and views on grassland environmental policies (Closed-ended + Open-ended)

12. How do you decide the livestock numbers to be sold and reserved each year? (Open-ended)

13. To prevent grassland degradation, the government has implemented several grassland environmental policies, such as the Fencing Program, Forage-Livestock Balance policy, and Forbidden Grazing and Rotational Grazing programs. (Closed-ended + Open-ended)

(1) Do you think the Fencing Program is reasonable or unreasonable, Why?

(2) Do you think the Forage-Livestock Balance policy is reasonable or unreasonable, Why?

(3) Do you think the Forbidden Grazing and Rotational Grazing programs are reasonable or unreasonable, Why?