Livestock depredation by large predators and its implications for conservation and livelihoods in the Karakoram Mountains of Pakistan

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SUPPLEMENTARY MATERIAL Questionnaire on livestock, pastoralism and human–carnivore interactions in the Hushey Valley, in the Central Karakoram National Park, Pakistan.

Section 1

- 1. Date of interview:
- 2. Name of respondent:
- 3. Age:
- 4. Education:
- 5. Household size:
- 6. Main occupation:
- 7. How many members of your family are earning an income?
- 8. How much agricultural land (kanals) does your family own?
- 9. Other sources of income:
- 10. Yearly cash income from main occupation (PKR):
- 11. Total yearly cash income from all sources (PKR):
- 12. Number of livestock:

	Yaks	Cattle ¹	Sheep	Goats	Donkeys	Horses	Other
At present							
~							
5 years ago							
10							
10 years ago							

Cow, bull, zo, zomo, etc.

13. Livestock sold in past year:

	Goats	Sheep	Cattle	Other
Number				
Total income (PKR)				
Slaughtered for domestic consumption				

14. Seasonality and movement into various pastures and watch & ward mechanisms

Category of	Name of grazing	Type of	Shepherded	Pen type	Dog
grazing area	area	livestock	$(a, b, c, d, e)^{1}$	$(a, b, c, d)^2$	(Yes/No)
Stall fed		Yak			
		Cattle			
		Goat			
		Sheep			
		Donkey	-		
		Horse	-		
Winter grazing		Yak			
		Cattle			
		Goat			
		Sheep			
		Donkey			
		Horse			
Autumn/spring		Yak			
grazing		Cattle			
		Goat			
		Sheep			
		Donkey			
		Horse			
Summer grazing		Yak			
		Cattle			
		Goat]
		Sheep]
		Donkey			
		Horse]

¹a, Partly, during the day; b, Full time; c, Never; d, Irregularly; e, 1–2 times per season

²a, Closed; b, Partly closed; c, Open; d, None

Section 2

15. Predation

Year	Animal	Number	Sex	Age ¹	Season $(a, b, c, d)^2$	Prey consumed $(a, b, c, d)^3$	Location/Type of pasture $(a, b, c, d, e)^4$	Type of animal activity $(a, b, c, d)^5$	Suspected predator (SL, W, L, O, NK) ⁶
2012									
2011									
2010									
2009									
2008									
Before 2008									

 1 < 1 year, 1–2 years, 2–3 year, 3–4 years, >4 years

² a, Winter (Nov.–Apr.); b, Spring (May-Jun.); c, Summer (Jul.-Aug.); d, Autumn (Sep.–Oct.)

³ a, Fully eaten; b, Half eaten; c, Only small portion eaten; d, Killed but not eaten

⁴ a, High pasture (summer grazing lands); b, Intermediate pastures (spring and autumn grazing lands); c, Lower pastures (winter grazing lands); d, In the village; e, Inside pen

⁵ a, Foraging (day time); b, During movement from one place to another; c, At night in open space; d, at night in pen

⁶ SL, Snow leopard; W, Wolf; L, Lynx; O, Other; NK, Not known

Section 3

16. Did you see any of the following species in the past 5 years?

	Snow leopard	Wolf	Lynx	Fox
Number				
Status				
(Common/Rare/Absent)				

17. Do you wish to increase/maintain/reduce/eliminate populations of these species from your area?

	Snow leopard	Wolf	Lynx	Fox	Ibex
$\uparrow/ \to / \downarrow/x$					

18. Which species is the greatest threat to livestock (rate 1–5, from high to low)?

Snow leopard	Wolf	Lynx

19. What is your first response in the event of predation?

(d) Report the case to a government authority

(a) Do nothing (b) Attempt to kill the predator (c) Go to the Village Conservation Committee for help (e) Other (please specify)

- 20. If your response is to do nothing, is this because:
- (a) You think you are not in a position to do anything
- (b) You think that the loss of one or several animals is unimportant
- (c) You think that predators (snow leopard/wolf) are beneficial to you, and therefore you can bear the loss
- (d) Other (please specify)

- 21. Why do think predators attack livestock?
- (a) There is not enough natural prey
- (b) Livestock are their preferred food
- (c) Livestock are not guarded and are exposed to predators
- (d) Livestock are easy to kill
- (e) I don't know
- (f) Other (please specify)
- 22. Have you received compensation for the loss of your livestock?
- 23. If yes, from whom? How much?
- 24. What do think is the best way to avoid predation of livestock and manage predators?
- (a) Eliminate all predator populations
- (b) Enhance guarding of livestock
- (c) Make pens predator proof
- (d) Increase the natural prey base through better conservation measures
- (e) Other (please specify)

25. Do you think that predators are of some importance for you?

- 26. If yes, please specify:
- (a) Snow leopard
- (b) Wolf
- (c) Other