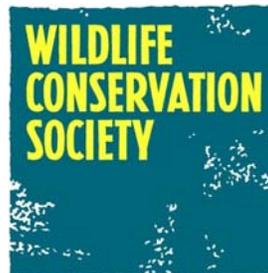


Pilot Livestock Insurance Program

Sarkand village, Wakhan District



Inayat Ali and Anthony Simms



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Cover photos:

1. Yak calf fed on by wild predators
2. Sarkand villagers making insurance payments
3. Family livestock identification mark
4. Snow leopard from the Hindu Kush Mountains, Wakhan

All photographs taken by the WCS Badakhshan team.

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Wakhan Livestock Depredation Insurance Program

Introduction

Like many mountain communities in Central Asia (Schaller, 1998), the people of Wakhan are heavily dependent on livestock for their livelihood. The Wakhi subsist on cropping and livestock husbandry, while the Kyrgyz subsist entirely on their livestock (their climate is too harsh for crops to grow). Each autumn the Wakhi and Kyrgyz sell a portion of their fattened livestock to outside traders in order to purchase food and other basic commodities. Livestock, therefore, are central to livelihood security in Wakhan. Predation on livestock by wildlife like snow leopards threatens this livelihood. Understandably, the local people often consider predator animals to be vermin, particularly following incidents of predation.

The killing of livestock by predators such as snow leopards and wolves appears to be widespread across Wakhan. While the actual number of livestock lost to predation only appears to represent a small portion of the total livestock population, the impact to the individual who loses his livestock and the psychological impacts of this loss are significant and significantly threaten the predator species.

A survey among 62 households in December 2006 (Ostrowski, 2007) showed that predation accounted for less than 2.5% of livestock mortalities in the surveyed population. While another more comprehensive survey by Habib (Habib, 2008) across all 42 villages of the Wakhan Corridor, found that less than 1% of the total livestock population, estimated to be c. 40,000, died from predation during the winter 2006-2007. This research is supported by data collected by Wakhan school students in 2008 as part of the Environmental Education Program, showing that predators were believed to have killed 378 yaks, horses, cattle, sheep and goats across the 42 Wakhi villages. This is a loss of below 1% based on Habib's livestock estimate of 40,000. Compared with the 8-20% losses sustained during the winter as a result of food shortages and bad weather (Schaller, 1998), these predation losses are relatively minor.

Nonetheless, what is important in the management of predator wildlife in Wakhan is to deal with the perceptions and psychological impacts of predation. If graziers feel that predators are killing a significant number of their wildlife, whether this is correct or not, they will have little desire to protect the species. Indeed, retaliation against predators such as snow leopards is one of the most significant and widespread threats facing these species (Jackson and Wangchuk, 2001).

Yet although predation is not a big killer of livestock in Wakhan, and even with hunting controls in place in Wakhan, retaliatory killing of predators like snow leopards has continued.

As part of their work in Wakhan the Wildlife Conservation Society (WCS) is developing an integrated management strategy to mitigate livestock loss to predators and retaliatory killing of predators across the landscape. Among other things, this strategy includes the development of a livestock insurance program. Since the level of predation in Wakhan is relatively low, reimbursement schemes have the potential to succeed. In August 2010 WCS began piloting an insurance program in a small Wakhi village called Sarkand. The pilot program hopes to help reduce the incidence of stock killing by predators, the financial impact suffered when it occurs, as well as helping to bring about the cessation of killing of predator wildlife.

Goal and Objectives

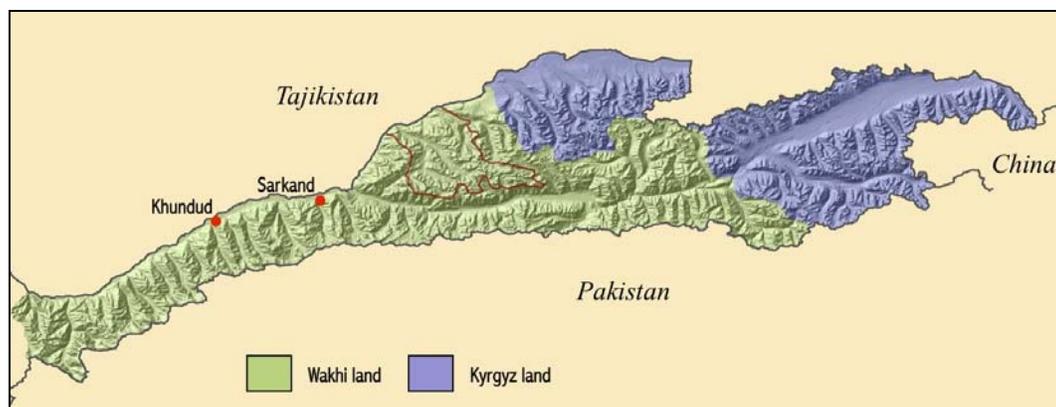
The goal of the insurance program is to improve livelihoods and conserve wildlife in Wakhan. The primary objective of this pilot project is to test and develop an insurance model that can be scaled up across Wakhan and to help quantify the reality of predation for the community; but other objectives are:

1. Reduce livestock loss to wild predators;
2. Help eliminate killing of wildlife by the community;
3. Create a community savings fund to be used for development activities.

The Project Site

Sarkand is located in the Wakhan Corridor, approximately 40 km east of Khundud village, the district capital. The project was selected for this village after extensive discussions with the community, and following a number of stock killing incidents at Sarkand during 2009 and early 2010.

Sarkand consists of 9 households with a total population of 99 people. It is a subsistence village whose people rely on cropping and livestock husbandry as their sole livelihood pursuit. Each year livestock are sold to traders in order to purchase food and other basic commodities. Livestock, therefore, are central to livelihood security at Sarkand.



Map1: Wakhan ethnic areas and the location of Sarkand village.

The Insurance Program

The Sarkand insurance program has been designed to be entirely community owned and managed. To initiate the program, in August 2010, all nine families in the village pooled money to create a core savings fund of 8,300 AFG (approximately US\$185). In turn, WCS contributed 15,500 AFG seed money. The village CDC holds this fund. The community decided upon livestock insurance and compensation rates. These differ according to the type, age and sex of the livestock. The community is careful when defining these rates, taking into consideration past stock-killing levels, to help ensure that their savings fund will not get overdrawn. Through smart project design and improved shepherding, it is hoped that the savings fund will steadily grow from year to year as the insurance program continues. It is also hoped that there will eventually be surplus savings for the village to use for sustainable development activities.

Insurance per se was not paid in 2010 because the villagers felt they had invested enough with their initial contribution. It will, however, be paid in subsequent years.

Compensation rates have been set lower than an animal's local market value³, and only a portion of the local value, around 20%, will be compensated. Aside from being designed to protect the savings fund from being overdrawn, the compensation rates have been set low like this in order to discourage shepherds from becoming careless in managing their livestock (i.e. if shepherds knew that predator-killed livestock will be fully compensated they may become complacent with management, increasing kill events and draining the savings fund).

All insured animals are marked with paint, either on their horns or hooves, or both, to protect against false claims. Individual proof of ownership of an animal is determined through unique family markings that are put on the ears and face.



Photos: Family markings.

A seven-person village committee, headed by the CDC and including their community ranger, was established to manage the program. In the event of a stock kill, the CDC will send the community ranger together with two other management committee members to investigate. The team will inspect the scene and attempt to ascertain whether or not predators caused the death, and to check whether the dead animal(s) was actually insured. The team will then report back to the CDC for a final decision to be made. (Note: since the insurance program commenced no livestock have been lost to predation.)

To quantify the effects of predation a monitoring protocol has been developed. This includes a data sheet that will be filled out at the site of any predation incidents. The data will help the community to evaluate the reality versus perceptions of predation. In order to develop community capacity to manage their insurance program, in future the community ranger from the neighbouring village will be trained to perform this monitoring function. This ensures the independence of the monitor from those with a financial interest in the home village.

³ *The local value of livestock is considerably lower than market value.*

The project will also be monitored for any mismanagement. By assessing each predation event, it is hoped that the community will be able to recognize and deal with false insurance claims, should they arise. In the event of such circumstances, the community will be engaged in conflict resolution discussions through which it is hoped the problems will be resolved.

Other training has also been provided, including training shepherds on how to use a whistle and dogs to control livestock movements in order to reduce stock loss to predators. Livestock can be trained to respond to sound, and as such, herd movements can be controlled using a whistle. This helps prevent stock moving into places that puts them at risk from predators.

Discussion

There is no single solution to livestock deaths from predator wildlife. It requires an integrated management approach. This insurance scheme will therefore be supported by a series of other management interventions including the construction of predator-proof livestock corrals, other community development activities, ongoing support for the community rangers, strengthening of community governance; education and awareness; the development of tourism, and carrying out research and monitoring activities. Livestock killing by predators is expected to be reduced significantly through these interventions.

This is the first livestock insurance program in Afghanistan that focuses on wildlife predation. The program should protect local livelihoods and lead to a reduction in hunting of snow leopards, wolves and lynx. It is anticipated there will be knock-on effects too, such as increased tourist attraction to Wakhan as a result of more abundant wildlife.

The fact that this very poor community, Sarkand village, has agreed to pilot the insurance program, donating a significant portion of their personal savings to do so, when they have a very limited understanding about insurance, says a lot. It reflects the shift in attitude that has occurred among the people in Wakhan, where they truly value their wildlife and have optimism for a brighter future. It is anticipated that this pilot project will inspire other villages to adopt the scheme in the coming years.

The insurance scheme is structured in such a way that villagers monitor each other and everybody has an incentive not to make false claims (i.e. everybody will benefit if the savings fund grows). Whether this happens remains to be seen, however; and is a focus of WCS's monitoring efforts.

Appendices

Appendix 1: Start-up money donations by each family and WCS

S. No	Villager name	Amount (AFG)
1	Hassan Beg	1,000
2	Ali Dad	1,000
3	Juma Gul	1,000
4	Sang Mohammad	1,000
5	Ali Mohammad	1,000
6	Shahbaz	1,000
7	Rahim	1,000
8	Naseem	1,000
9	Komels	300
10	WCS	15,500

Appendix 2: Insurance and compensation rates

Species	Sex / Age class	2010 Market Price (AFG)	Insurance Rates (AFG)	Compensation Rates ¹ (AFG)
Sheep	Adult male	5000	20	800
	Adult female	3500	20	600
	Two-yr old	4000	20	600
Goat	Adult male	5000	20	600
	Adult female	3000	20	600
	Two-yr old	1500	20	250
Cattle	Bull	16000	40	3000
	Cow	10000	40	1500
	2-3 years old	5000	40	1000
	One year old	3000	40	800
Horse	Stallion	25000	40	3000
	Mare	15000	40	3000
	Foal	5000	40	1500
Donkey	Jack	5000	40	1500
	Jenny	3500	20	500

¹ The amount of money paid to a livestock owner if their insured animal is killed by predator wildlife.

Appendix 3: Sarkand livestock losses to predators during 2009 and 2010

Household Head	Loss to Snow leopard			Loss to Wolf		
	Sheep	Goat	Cattle	Sheep	Goat	Cattle
Shabaz	0	0	1	1	1	0
Sang Mohd.	0	0	0	0	0	0
Hasan Beg	0	0	0	4	0	0
Ali Mohd.	0	0	0	3	0	0
Ali Dad	1	1	0	2	0	0
Karim	0	0	0	6	0	0
Moh'd Rahim	0	0	0	1	0	0
M. Nasim	0	0	0	0	0	0
Kamil	1	0	0	0	0	0
Total	2	1	1	17	1	0

Appendix 4: Insurance Management Committee

Name	Position
Hassan Beg	CDC head (and head of the insurance scheme)
Ali Dad	Deputy head of CDC
Juma Gul	Treasurer of CDC
Mohammad Niaz	Secretary
Nekbakht Begum	Committee member (female)
Sang Mohammad	Committee member
Mohammad Rahim	Sarkand community ranger

Appendix 5: Number of livestock owned as of August 2010

Household	Sheep		Goat		Cattle				Donkey	Horse	Total
	M	F	M	F	1 yr old	2-3 yr old	Adult bull	Adult cow	All	All	
Hassan Beg	6	5	5	5	3	3	1	3	2	1	34
Sang Moh.	9	9	5	4	2	1	2	3	2	1	38
Ali Moh'd	7	8	5	4	0	4	2	4	1	0	35
Ali Dad	11	10	9	4	0	3	3	4	4	0	48
G. Hussain	7	5	4	3	0	2	2	4	2	2	31
Moh.Rahim	6	5	6	5	2	2	1	3	1	0	31
Naseem	5	3	4	2	3	0	2	3	2	0	24
Shahbaz	15	6	9	3	0	1	2	3	4	1	44
Komil	3	1	0	0	2	1	0	2	0	0	9
Total	69	52	47	30	12	17	15	29	18	5	294

Appendix 6: Monitoring data sheet (format amended here)

Date of stock killing:		Date incident reported:	
Estimated time of stock killing:			
Location:	UTM-E	UTM-N	
Name of place:			
Suspected sp:	<input type="checkbox"/> Wolf	<input type="checkbox"/> Snow leopard	<input type="checkbox"/> Other
Livestock:	<input type="checkbox"/> Sheep	<input type="checkbox"/> Goat	<input type="checkbox"/> Donkey
			<input type="checkbox"/> Yak
			<input type="checkbox"/> Other
No. killed:			
Age of killed:			
Size of flock/herd:			
Shepherd present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Comments: _____
If present, how far was shepherd from the attack:	_____		
Guard dogs:	<input type="checkbox"/> Pres	<input type="checkbox"/> Absent	No. of dogs present: _____
Comments:	_____		
Predator using site before attack:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Length of time: _____
Livestock location:	<input type="checkbox"/> Corral	<input type="checkbox"/> Pasture	<input type="checkbox"/> Other
Comments:	_____		
For corral: how did the predator get in?			
Predator tracks:	<input type="checkbox"/> Present	<input type="checkbox"/> Absent	Species: _____
Comments:	_____		
Bite marks:	<input type="checkbox"/> Neck	<input type="checkbox"/> Throat	<input type="checkbox"/> Head
			<input type="checkbox"/> Other: _____
Comments:	_____		
Blood on ground:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Distance from carcass: _____
Comments:	_____		
Carcass dragged:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Distance: _____
Comments:	_____		
Photographs:	<input type="checkbox"/> Site	<input type="checkbox"/> Whole body	<input type="checkbox"/> Head
(2 photos of each)	<input type="checkbox"/> Abdomen	<input type="checkbox"/> Bite marks	<input type="checkbox"/> Anus
		<input type="checkbox"/> Blood	<input type="checkbox"/> Drag marks

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