



Snow leopard (*Panthera uncia*) Conservation: Interface with human WWF-India Initiative

Aishwarya Maheshwari

Species Conservation Programme

WWF-India



The basic objectives are:

Minimize snow leopard-human conflicts: Reduce loss of livestock depredation

Improve livestock guarding practices

Increase household income by providing

- incentives/ compensation against livestock loss
- enhance community based livelihood schemes



India is practicing the following:

Livestock insurance schemes by NCF and ISLT in Spiti, Himachal Pradesh

Improved livestock guarding practices: predator proof corral pens in Leh, Ladakh by SLC and Dept. of Wildlife Protection, Govt. of J & K

Community based livelihood schemes such as Home stays and Eco-tourism in Leh and Spiti by NCF, ISLT and WWF-India



Appreciative Participatory Planning and Action (APPA) in Hemis National Park, Ladakh

Hemis National Park: 4000 sq km area in the Trans-Himalayas of Leh, Ladakh

Considered as prime snow leopard habitat

Almost 1600 people live in 16 small settlements

Communities reported considerable livestock loss during depredation by snow leopard (Bhatnagar et al. 1999)

Jackson R., Wangchuk R. and Hillard D. Grassroots measures to protect the endangered snow leopard from herder retribution: lessons learned from predator-proofing corrals in Ladakh.

Bhatnagar Y.V., Wangchuk R. and Jackson R. 1999. A survey of depredation and related wildlife-human conflicts in Hemis National Park, Ladakh, Jammu and Kashmir, India.



APPA Contd.

Main Agenda

Expectation from communities in terms of their involvement, contribution and responsibility

Features with examples :

1. Community based livelihood schemes



**Groups at village levels
Eco-tourism and Home Stays**

2. Conservation awareness programmes

```
graph TD; A[2. Conservation awareness programmes] --> B(Awareness meetings/ workshops for Villagers, shepherds, students, tourist Operators and other stakeholders); B --> C[3. Reduce Livestock depredation]; C --> D(Construction of predator proof corral Pens with local participation and involvement);
```

Awareness meetings/ workshops for Villagers, shepherds, students, tourist Operators and other stakeholders

3. Reduce Livestock depredation

Construction of predator proof corral Pens with local participation and involvement

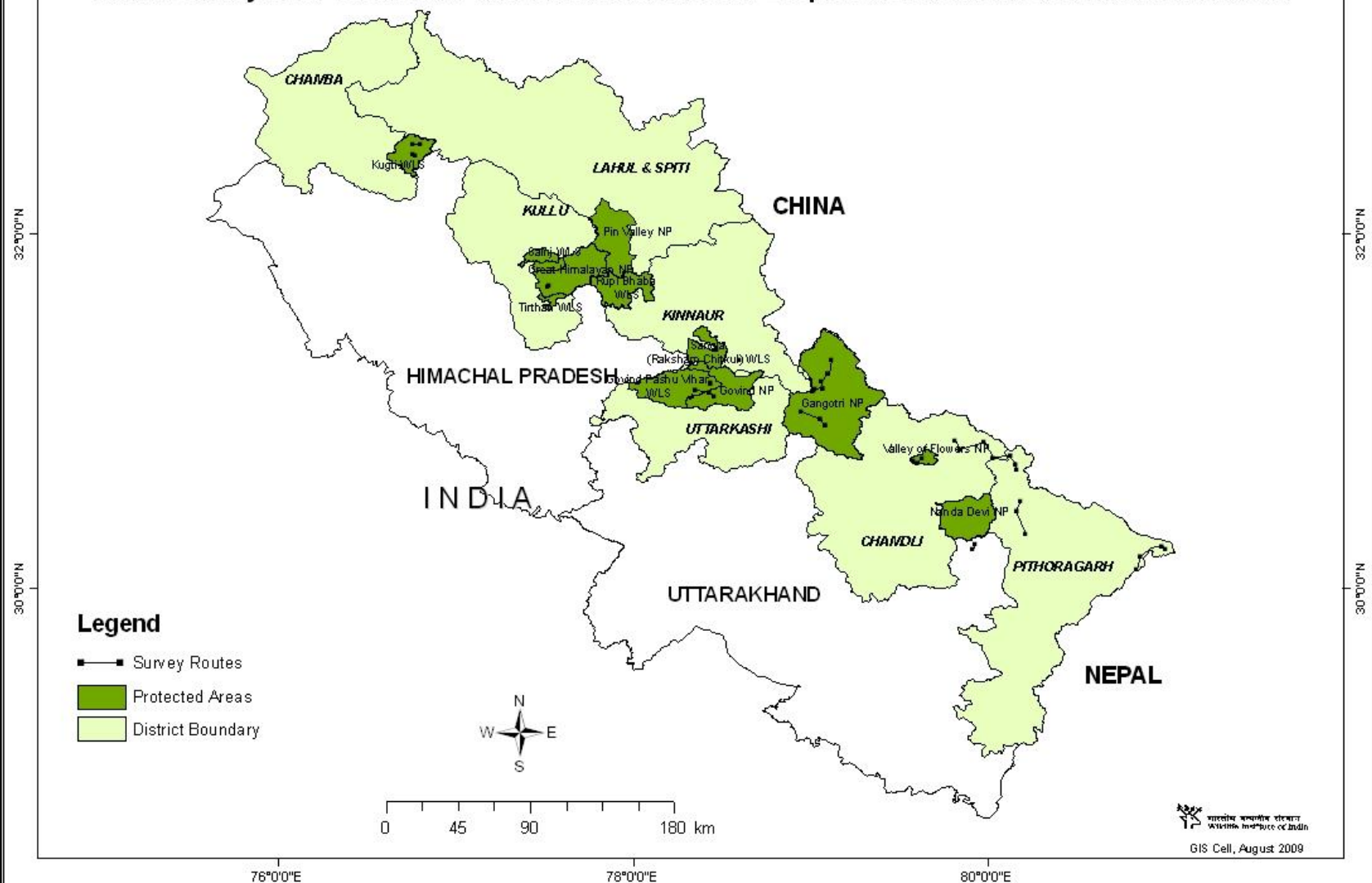


4. Strength environmental stewardship



**Long term objective of the programme:
Mixture of all three features at landscape level
and can be measured through research
tools**

Routes Surveyed for Occurrence and Distribution of Snow Leopard in Uttarakhand and Himachal Pradesh



Distribution and Habitat



SNOW LEOPARD CONSERVATION in Uttarakhand and Himachal Pradesh

- First focused surveys on snow leopard in Uttarakhand
- Almost 10 Protected Areas were surveyed
- 13 evidence of snow leopard in Uttarakhand in the form of scats (9) and pugmarks (4).
 - Three snow leopards are identified genetically (WII, unpub.)
- Potential areas identified in Uttarakhand
- No evidence in the areas surveyed of Himachal Pradesh

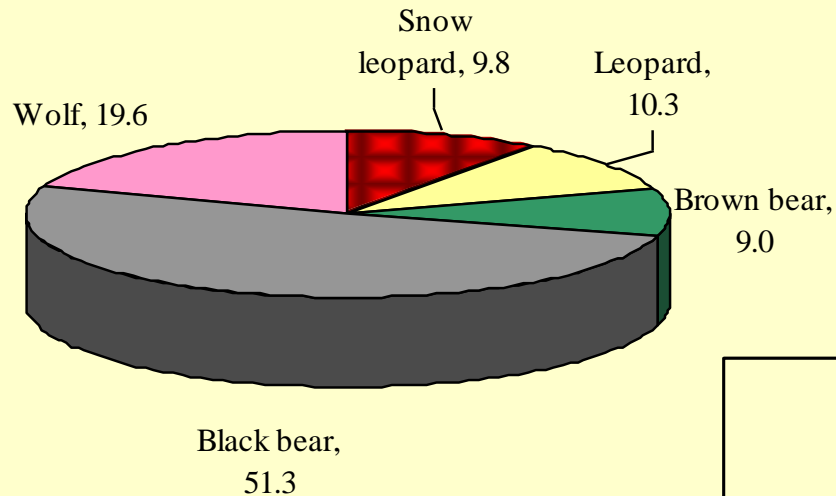


Large carnivore-human conflicts in Uttarakhand-2008

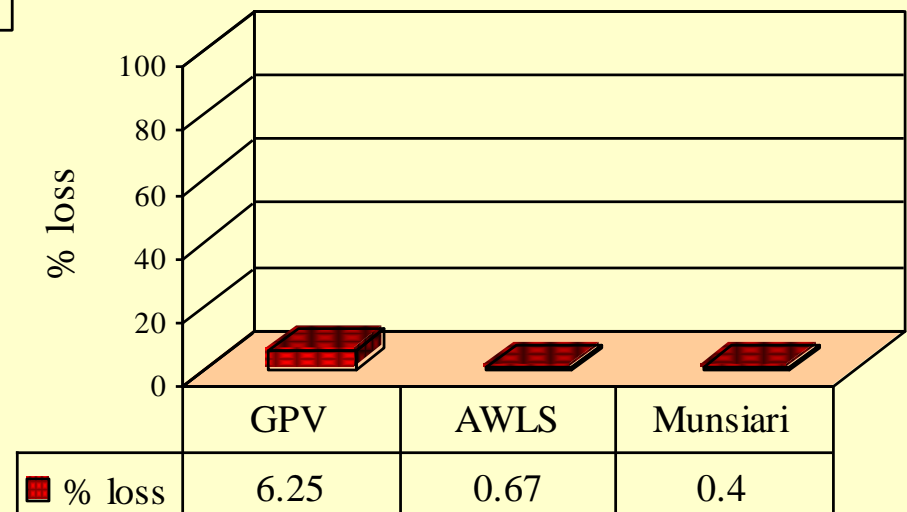


Livestock depredation (%) by large carnivores in GPV, AWLS and Munsiri

n=388



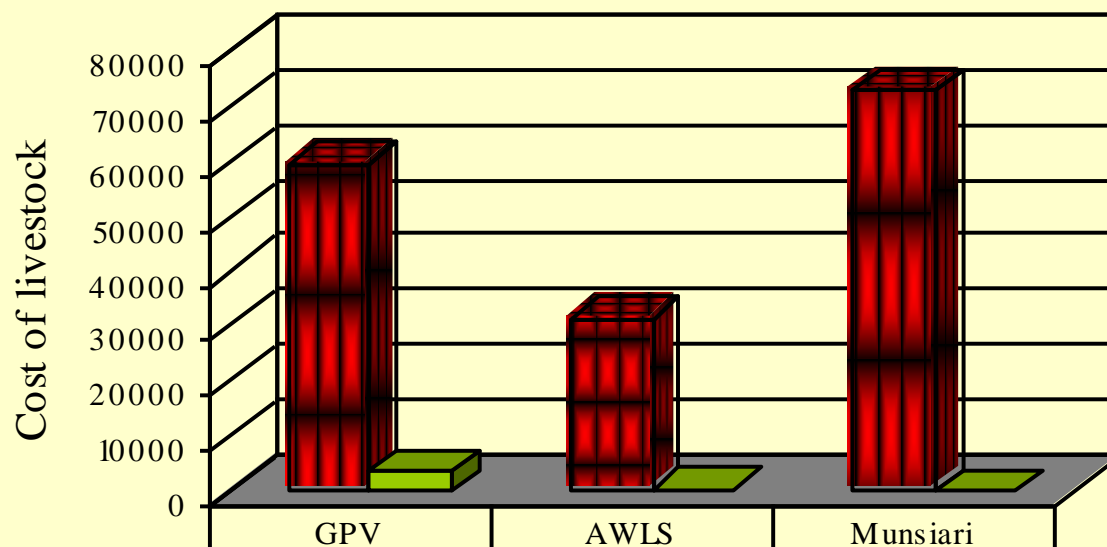
Livestock depredation (%) by snow leopard in Uttarakhand 2008



Snow leopard-human conflicts in Uttarakhand-2008



Livestock total cost and loss (USD) by snow leopard



■ Total livestock value (USD)

59535

31329

72794

■ Loss (USD)

3721

392

291

Threats to snow leopard and its habitat

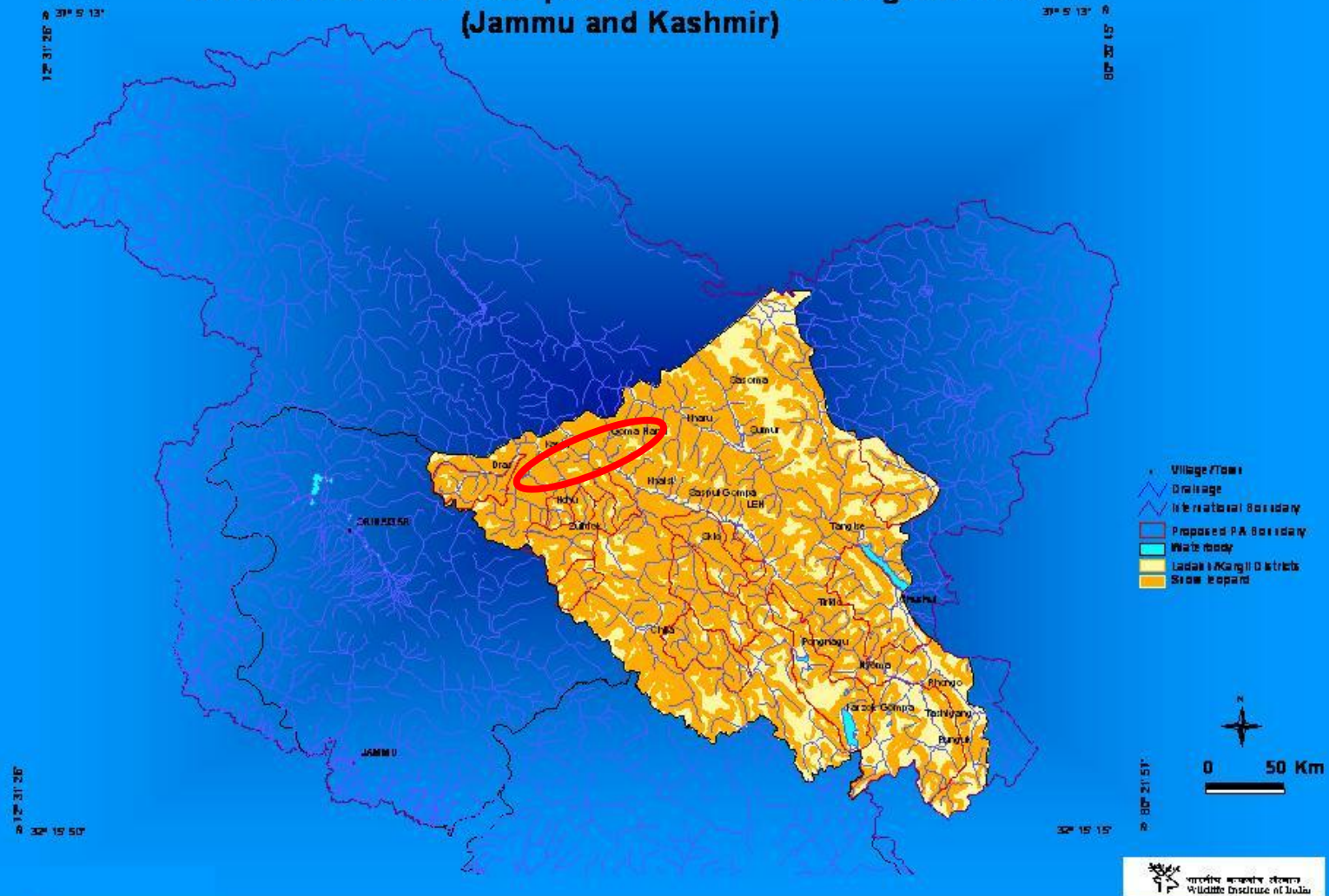


⇒Targets⇒ ↓Threats↓	Snow leopard	Snow leopard habitat
Snow leopard-human conflicts	Low	
Tourism		Low
Human settlements		Low
Grazing		Low
Developmental activity		Medium
Target threat rating	Low	Low

Kargil, Ladakh?



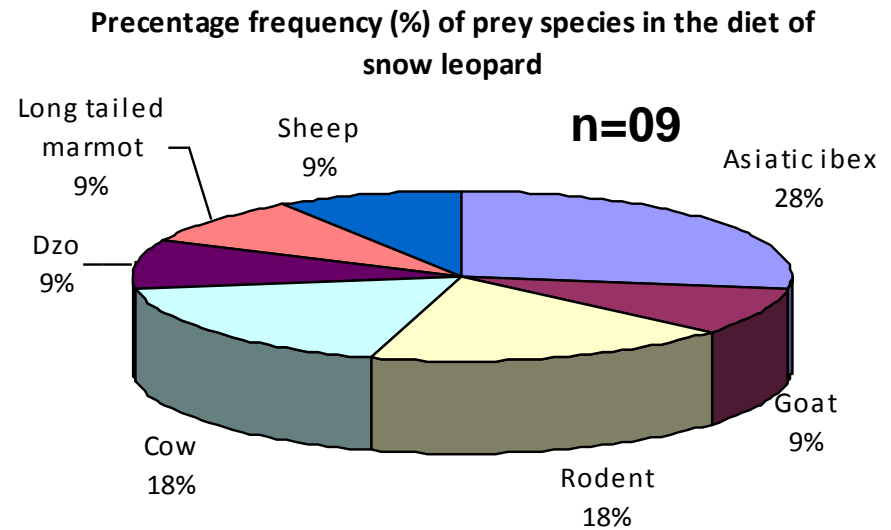
**Distribution of Snow leopard in Ladakh and Kargil Districts
(Jammu and Kashmir)**



Diet of Snow leopard

Wild prey: 55 %

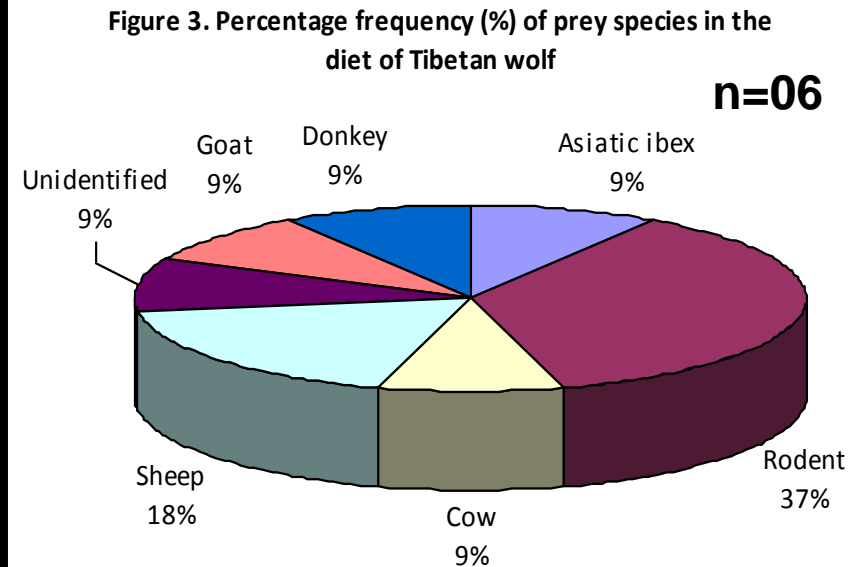
Domestic Livestock: 45 %



Diet of Tibetan wolf

Wild prey: 46 %

Domestic Livestock: 45 %



Large carnivore-human conflicts

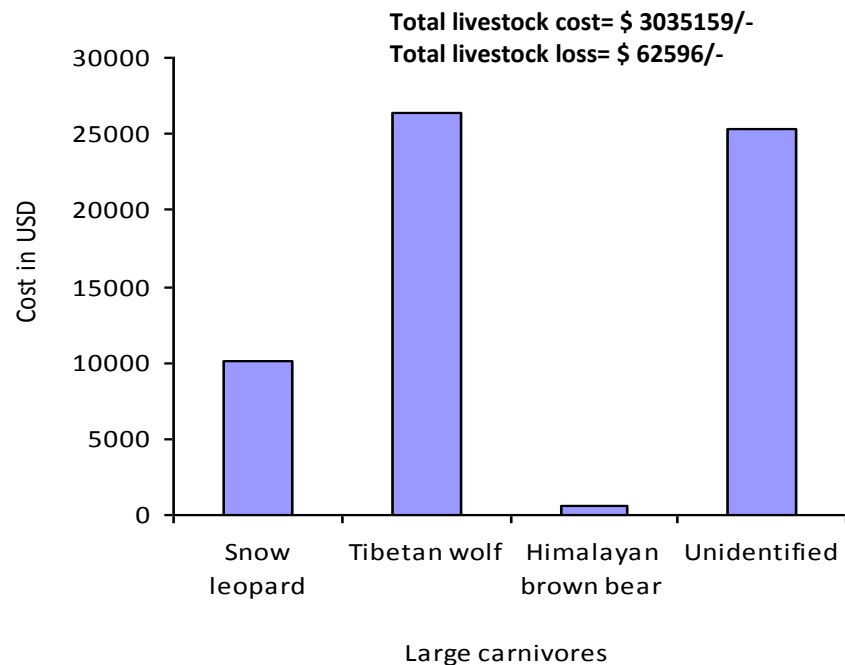
Total livestock 13356 and loss 427 by

Snow leopard: 18%

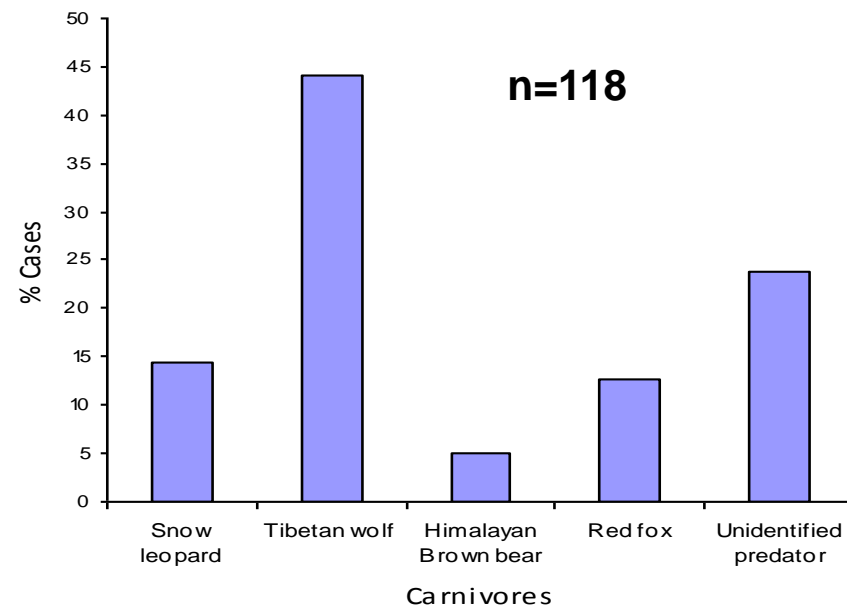
Tibetan wolf: 41%

Unidentified: 37%

Total value (USD) of livestock loss by large carnivores
in Kargil and Drass



Reports of predation (%) by carnivores , 2009



Ongoing and Future Efforts



Mitigate carnivore-human conflicts in Kargil, Ladakh
Initiation of predator-proof corral pens

Conservation awareness meetings

Mitigate unappreciated common issues between locals and Govt. on livestock loss

Mobilizing Govt. to restructure compensation mechanism and continuous flow of funds

