



Status, Distribution and Conservation of large carnivores in Nepal



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Outline

- ❖ Introduction
- ❖ Diversity of large carnivores
- ❖ Distribution
- ❖ Conservation Efforts
- ❖ Issues and challenges

Nepal Physiography

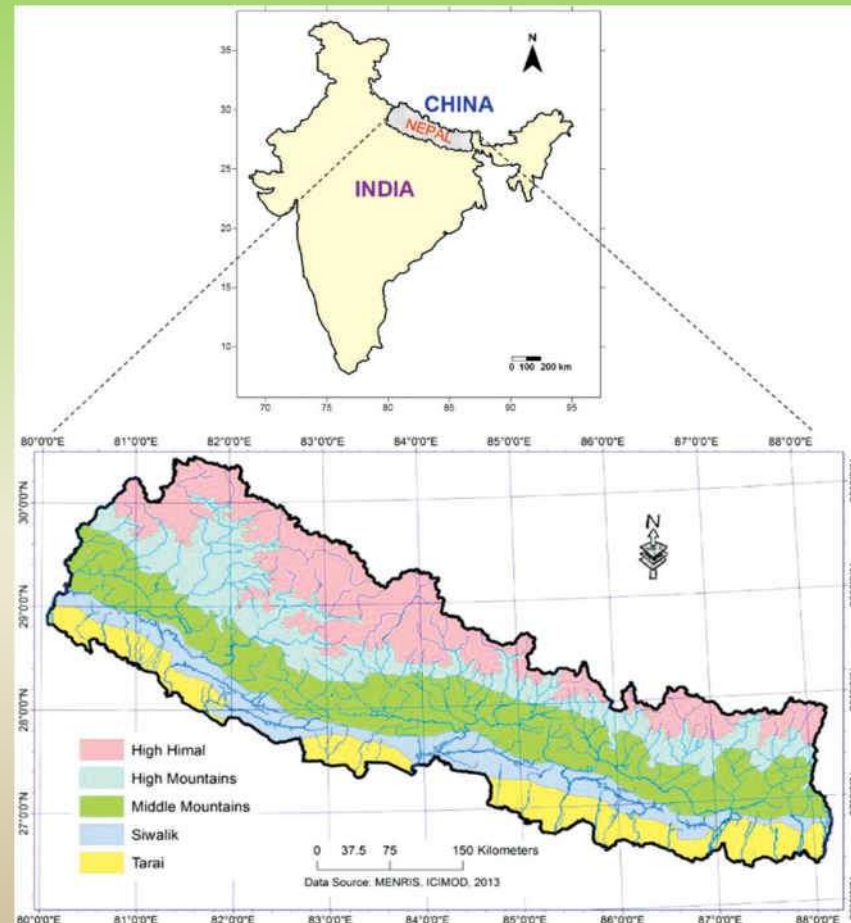
Area: 147,181

Altitude: about 60 to 8848 masl

Climate: Tropical to Nival

Rainfall ranges: 500 mm to > 5000 mm

High diversity of physiography, climate, ecosystem, biological organism & culture.



Physiographic and Climatic Conditions of Nepal

Physiographic Zone	Surface Area (%)	Elevation (m)	Bioclimatic Zones
Terai	14	Below 500	Tropical
Siwalik Hills	15	500-1000	Tropical
Mid Hills	29	1000-2000	Sub-tropical
		2000-3000	Temperate monsoon
High Mountains	19	3000-4000	Sub-alpine
		4000-5000	Alpine
High Himalaya	23	Above 5000	Nival

Large Carnivore Species in Nepal

Transition zone of Palearctic and Indo-Malayan region

Nepal host 44 species of carnivore (20% of mammals species)

Nepal contains 11 large carnivore species: tiger, leopard, Snow leopard, clouded leopard, Eurasian lynx, Gray wolf, Wild dog, Stripped hyaena, Brown bear, Himalayan black bear and sloth bear.

Large Carnivores are part of the culture, economy and ecosystem health

Are generally most threatened species

Wide ranging, occurs at low density and elusive and often nocturnal

Large Carnivores of Nepal

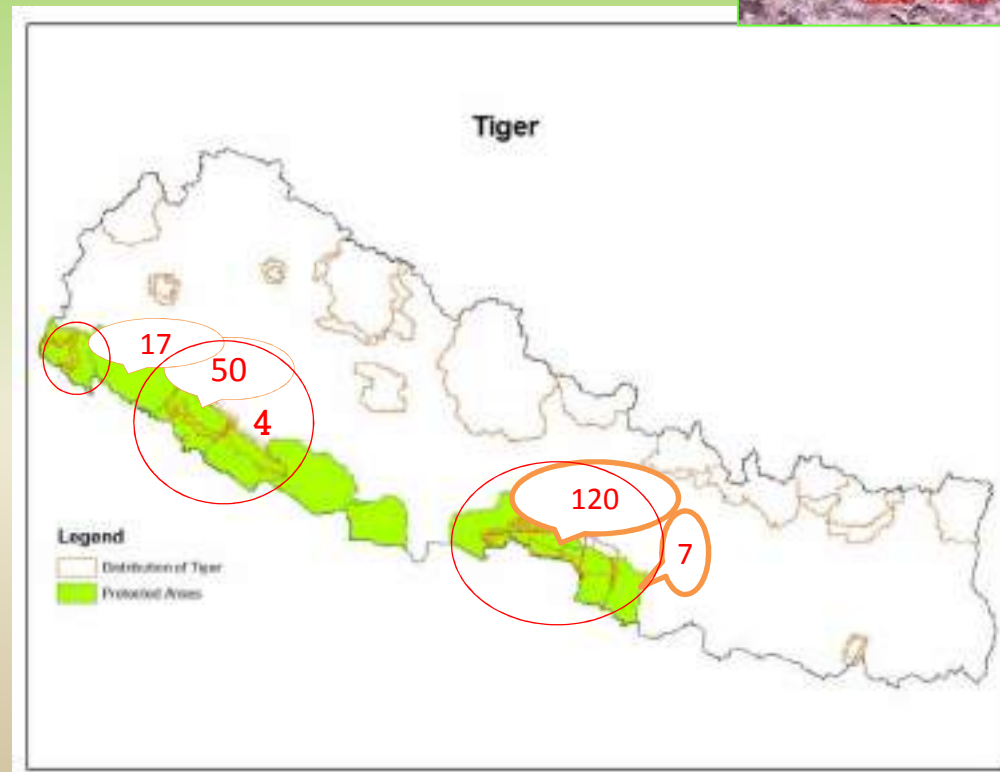
Species	Mass	Status	Population	Protection
<i>Panthera tigris</i>	161	EN	198 ↑	P
<i>Panthera pardus</i>	53	VU	<1000 ↓	
<i>Panthera uncia</i>	33	EN	300-500 ↓	P
<i>Neofelis nebulosi</i>	29	EN	<100 ↓	P
<i>Lynx lynx</i>	18	VU	NA ↓	P
<i>Ursus arctus</i>	299	CR	20 ↓	P
<i>Ursus thibetanus</i>	104	EN	500 ↓	
<i>Melursus ursinus</i>	102	EN	< 250 ↓	
<i>Canis lupus</i>	33	CR	30-50	P
<i>Cuon alpinus</i>	16	EN	<500 ↓	
<i>Hyaena hyaena</i>	27	EN	<100↓	P



Tiger



- Reduced in occurrence and occurs only in 5 PAs and surrounding areas of lowland
- Can be clustered in 3 populations
- Tiger population in CNP and Bardia can hold viable population
- Population is in increasing trends



Camera traps stations: 365

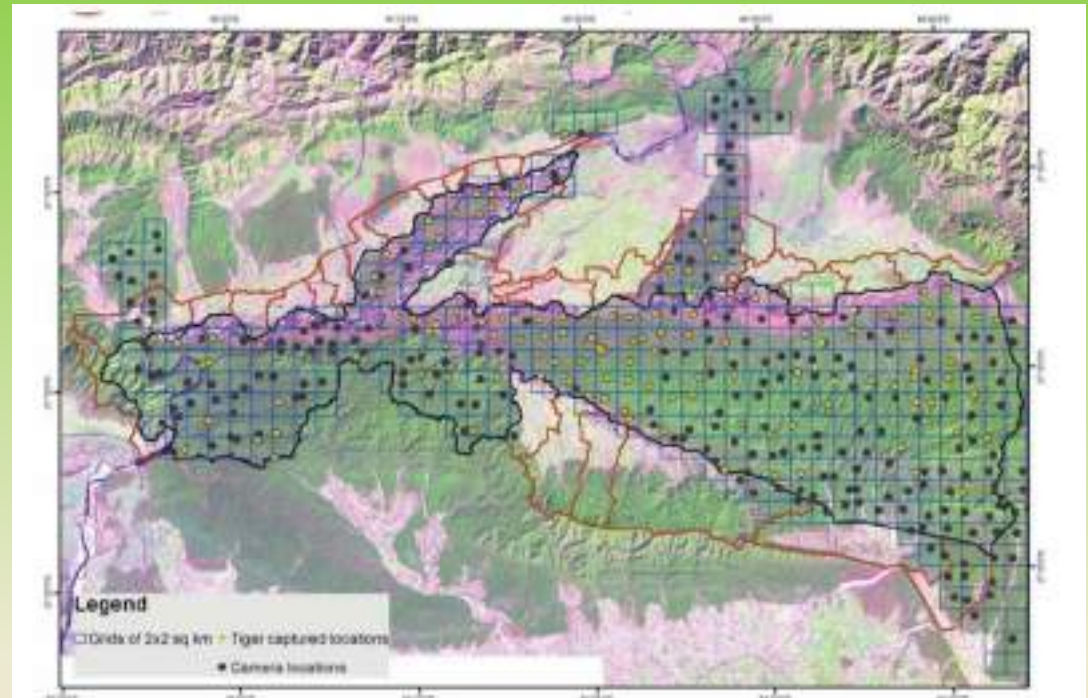
Sampling effort: 10,860 trap nights

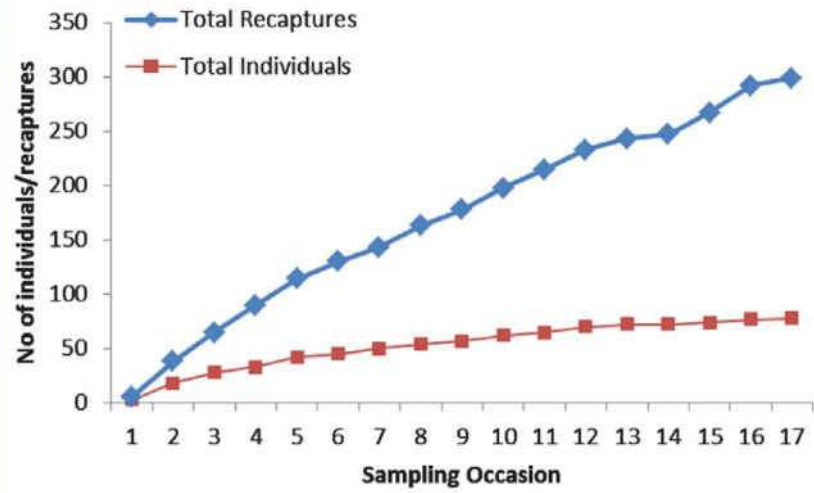
Effective trapping area of 2,110.35 km²

Identifiable picture: 2,906

78 individuals including 18 male and 60 were female

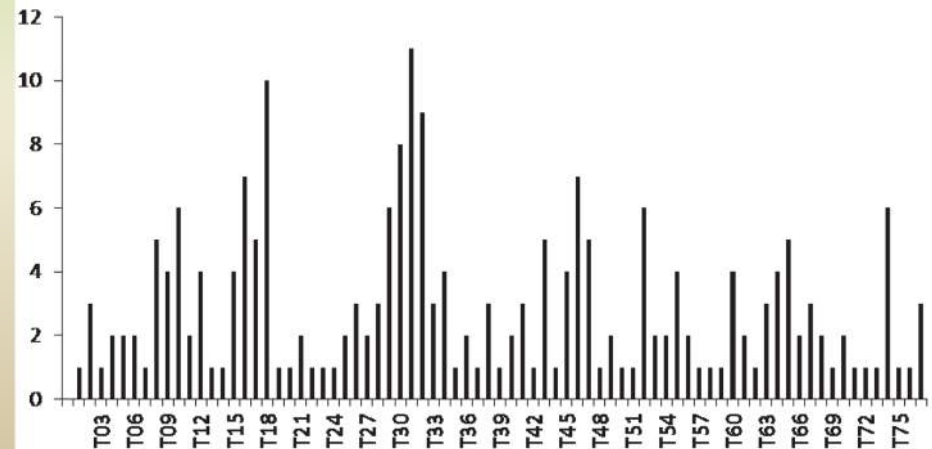
Estimated population 120



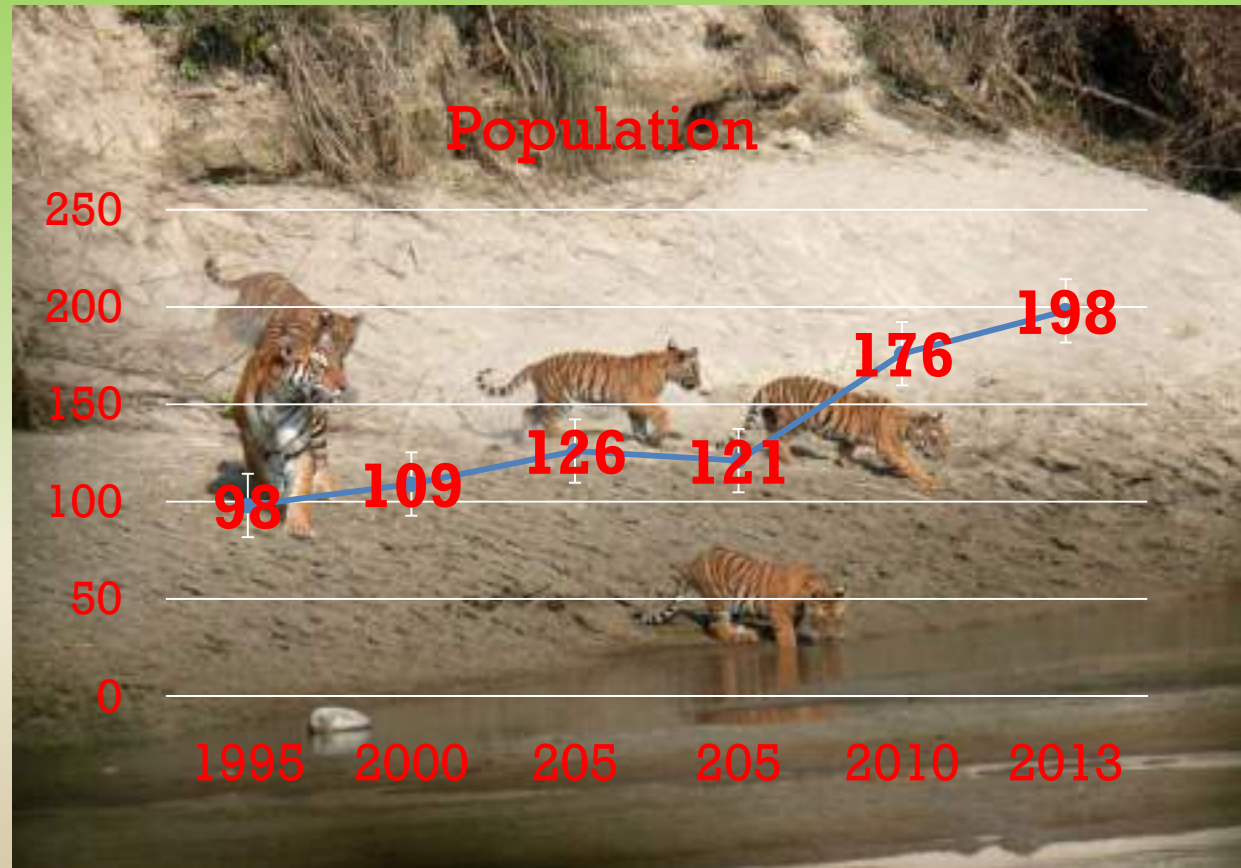


Capture and recapture patterns of tigers in CNP

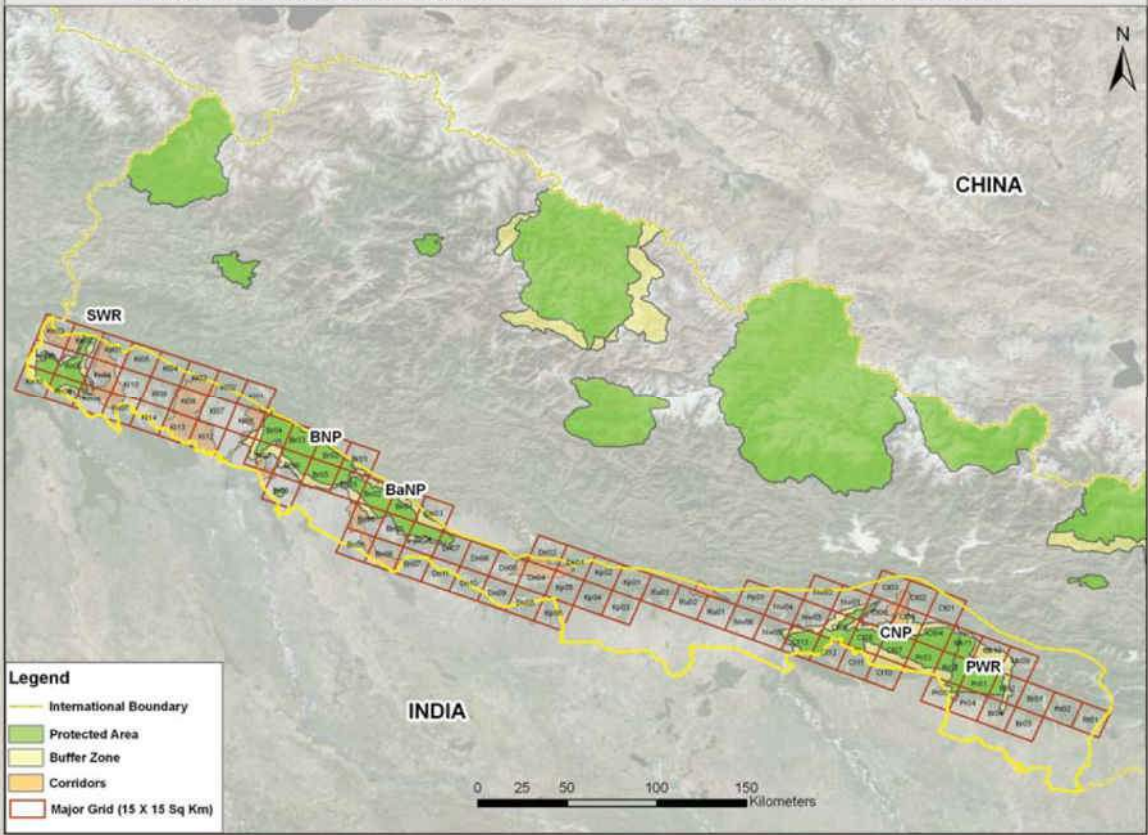
Total number of captures of identified tigers in CNP.



Tiger population is increasing approaching Tx2 in 2022



TERAI ARC LANDSCAPE, NEPAL - OCCUPANCY SURVEY DESIGN 2013



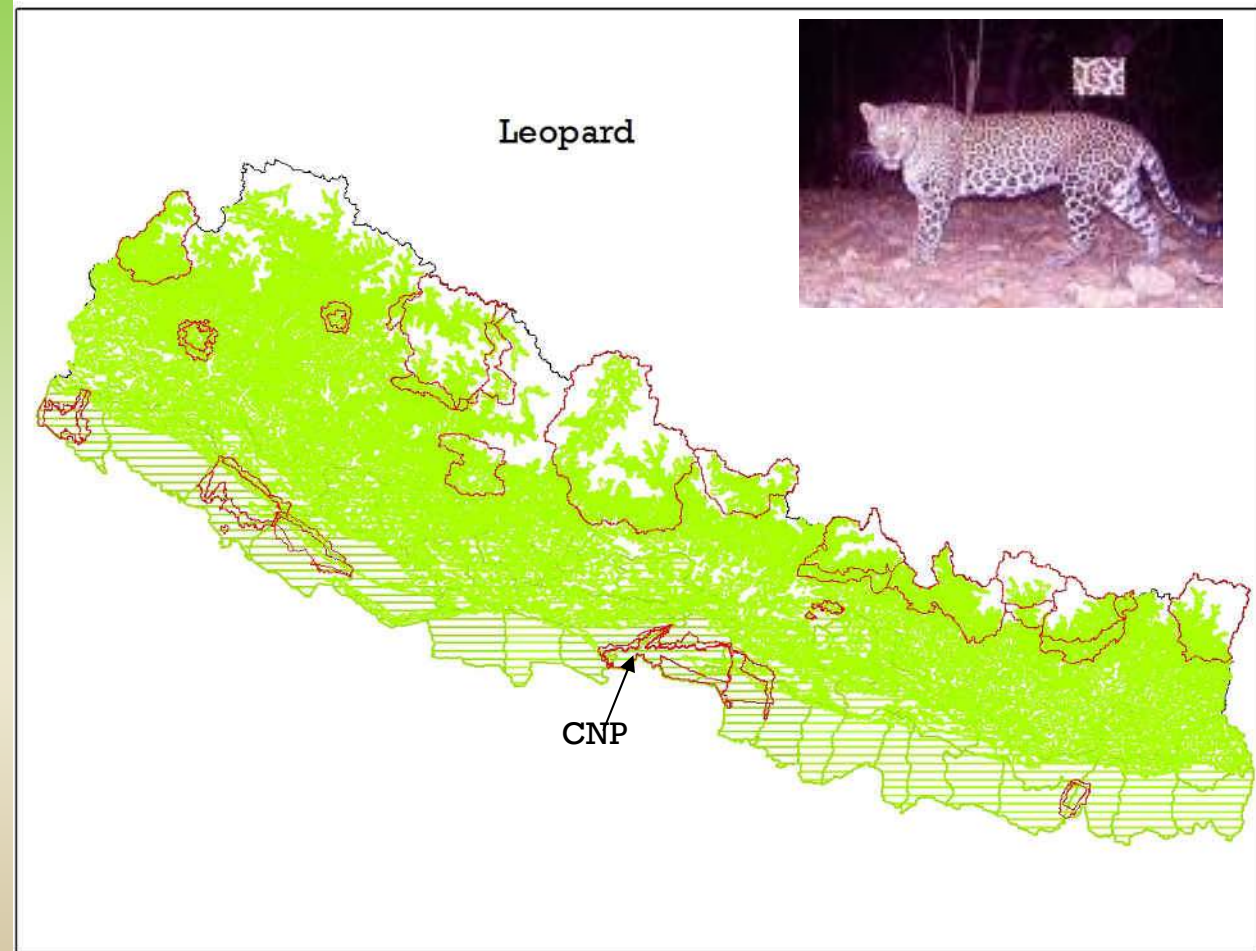
Most widely distributed among the large carnivores

Regularly sighted even outside the PAS

Population estimation is available only for Chitwan National Park (57)

Most notorious livestock predator and often killed by irate people

Much of the habitat lies out of PA, declining in population and habitat



Camera traps stations: 310

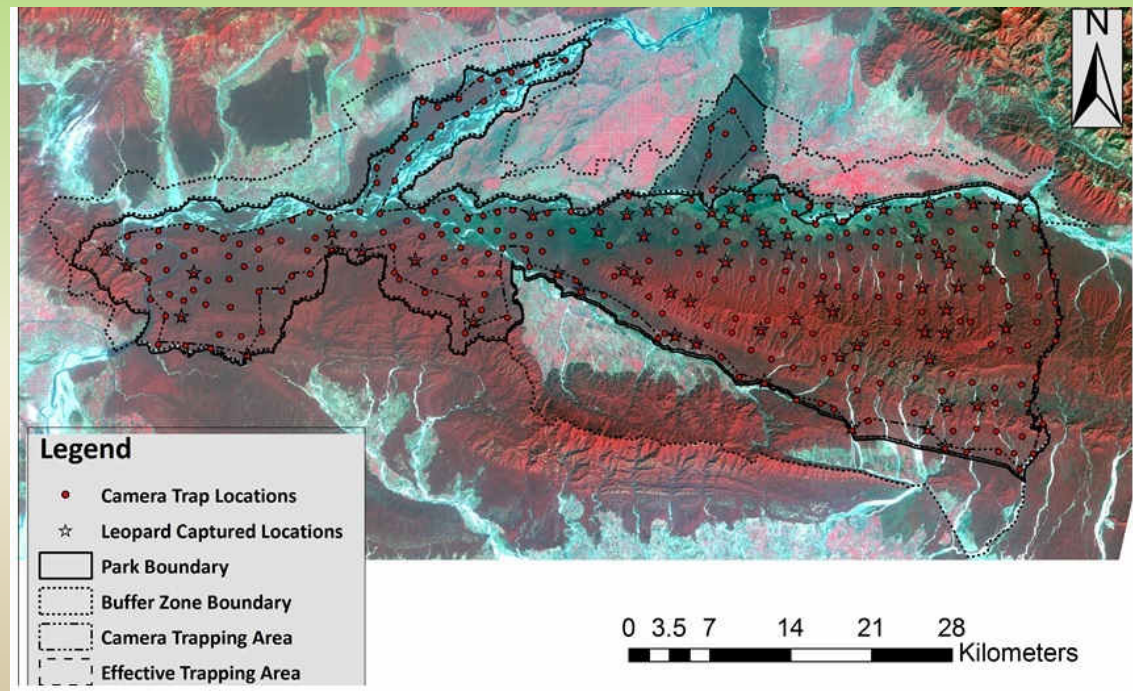
Sampling effort: 4650 trap nights

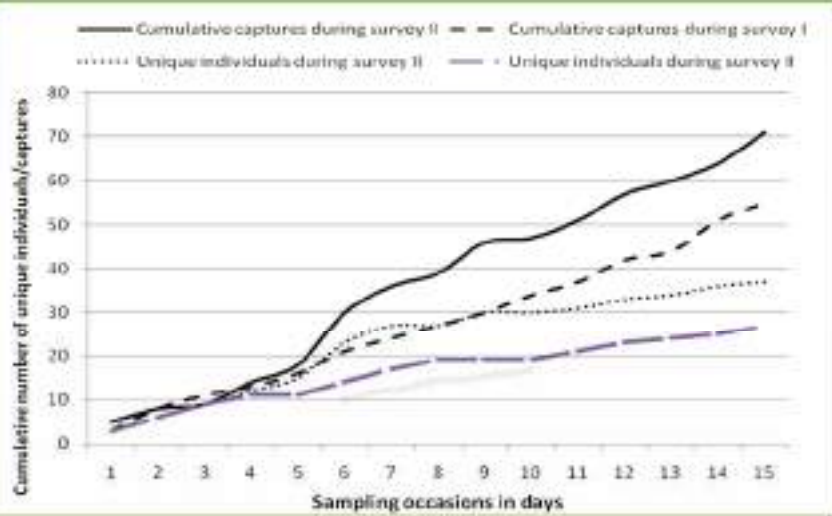
Effective trapping area:
3,110.35 km²

Identifiable picture: 198

Identified 37 individuals
including 16 male and 20
female

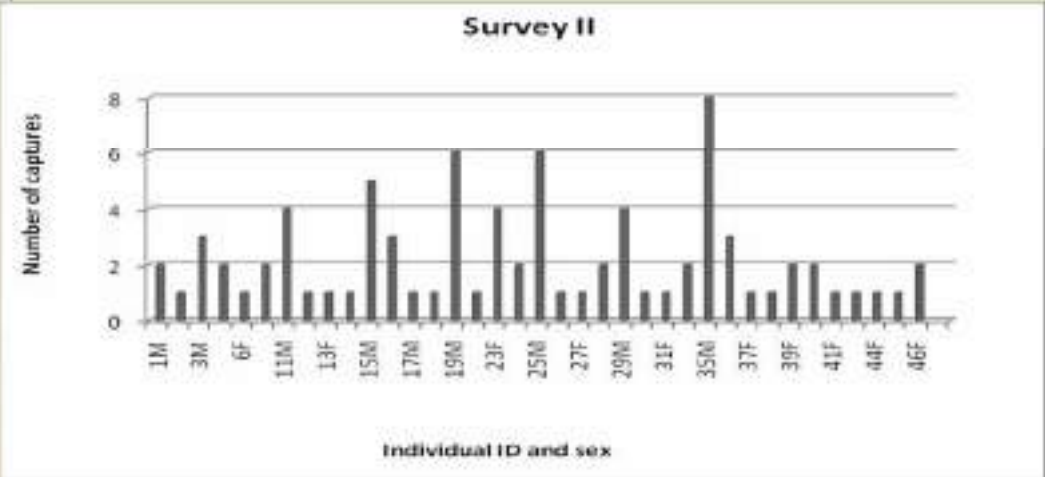
Estimated population: 57





Capture and recapture patterns of leopard in CNP

Capture frequencies of individual leopard (M- male and F- Female)

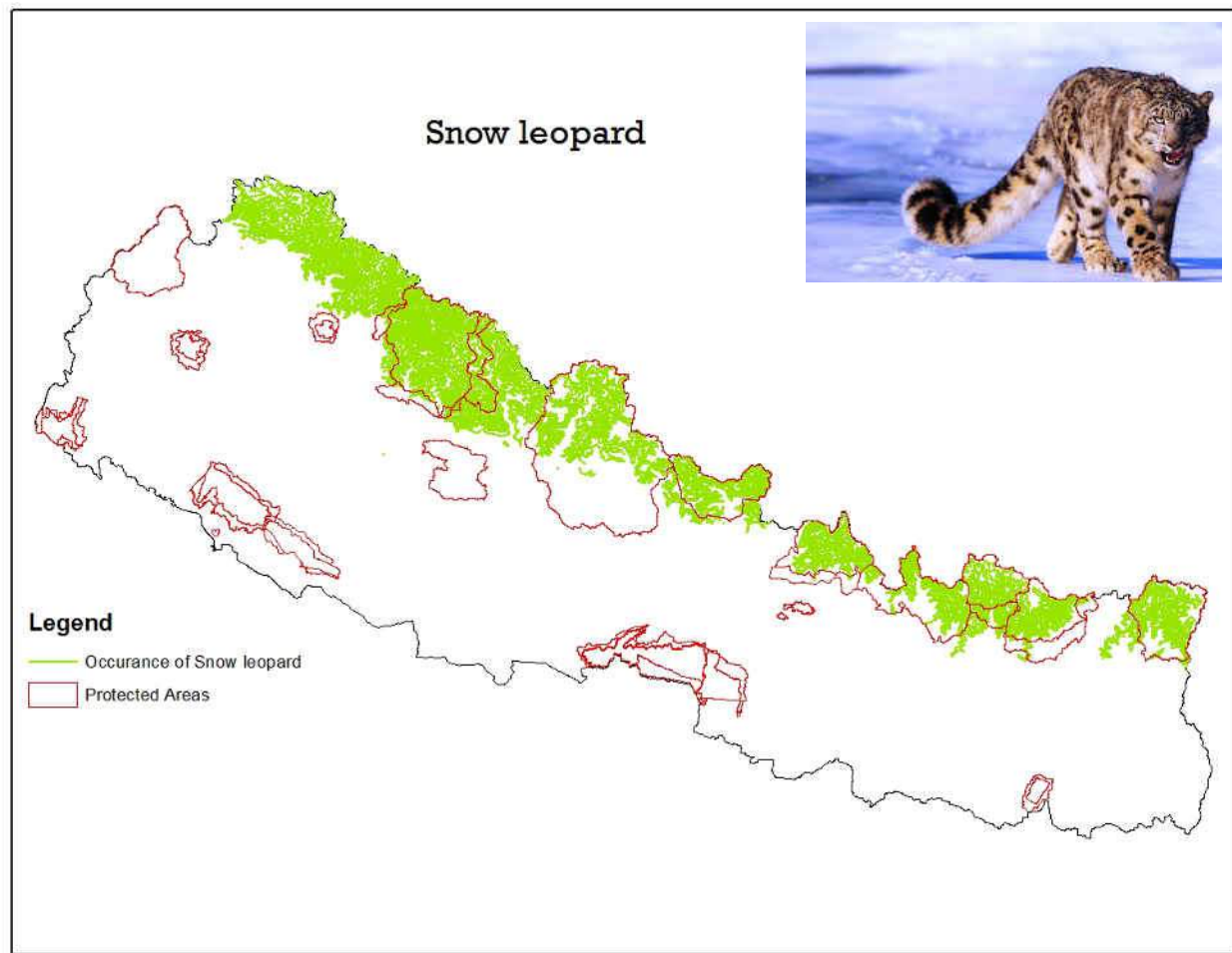


Occurs in High mountain areas both inside and outside the PA

Estimated about 300-500 individual PAS

Decline in population and range

Serious issues of livestock predation



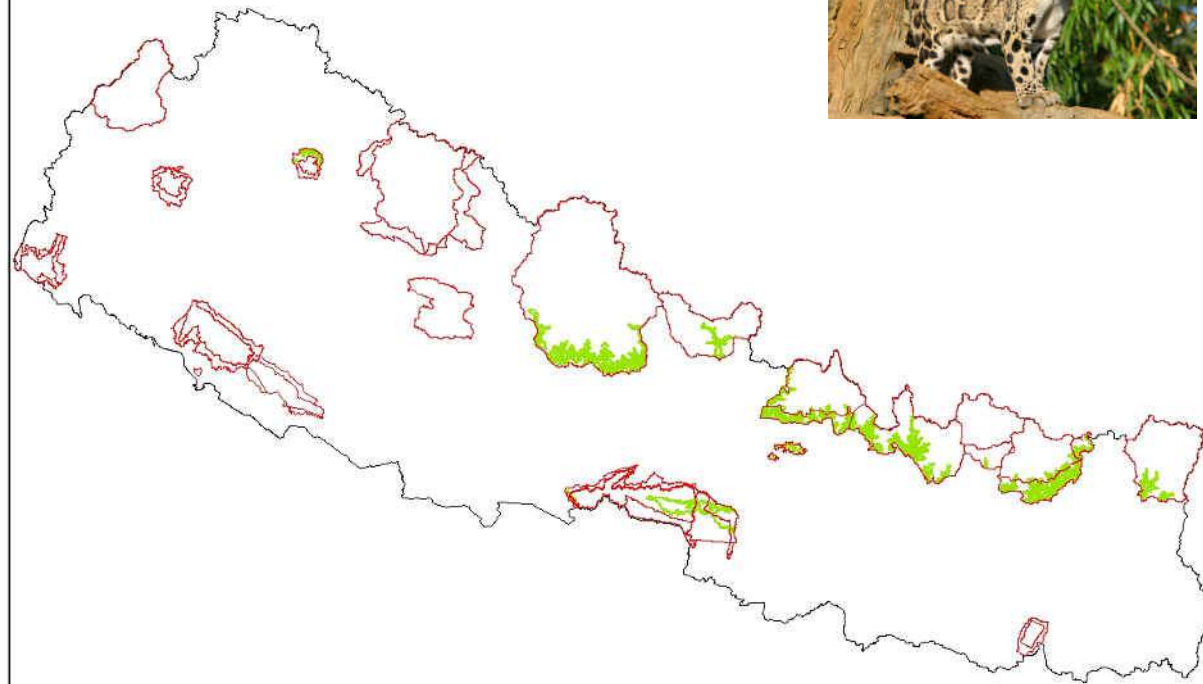
Occurs in the mountain and hills

Recorded from PAs of Hills and Mountains

No scientific estimation of population

Decline in population and range

Clouded Leopard

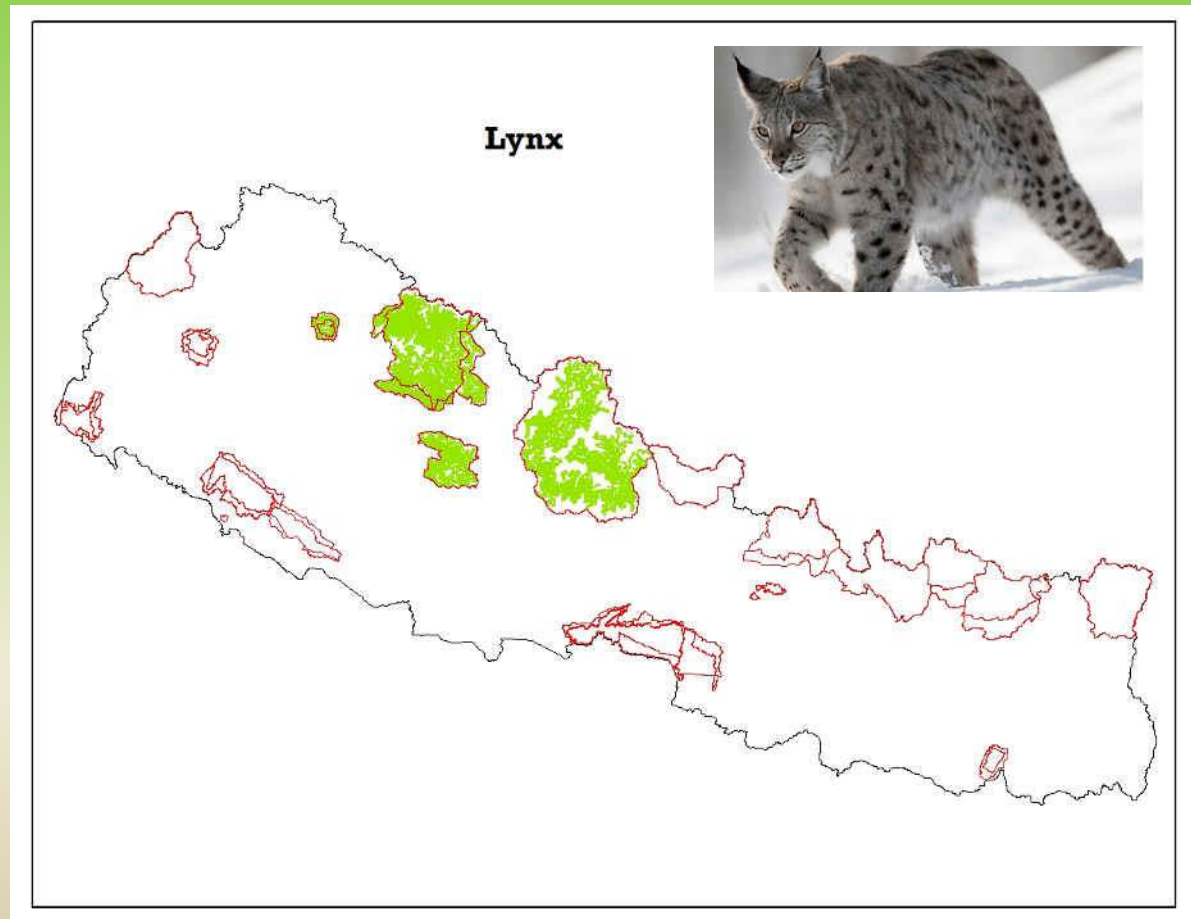


Most widely occurs in Europe and Asia

In Nepal it occurs in high mountains

Recorded from Shey Phoksundo NP, Dhorpatan Hunting Reserve

Decline in population and range



Black bear are widely but sparsely distributed in the middle mountains

No scientific population data



Bear species in Nepal



Very small population

Reported from ACAP and Manaslu in the central Himalaya of Nepal



Occurs in the Terai and Churia hills

Relatively better population among the ursid

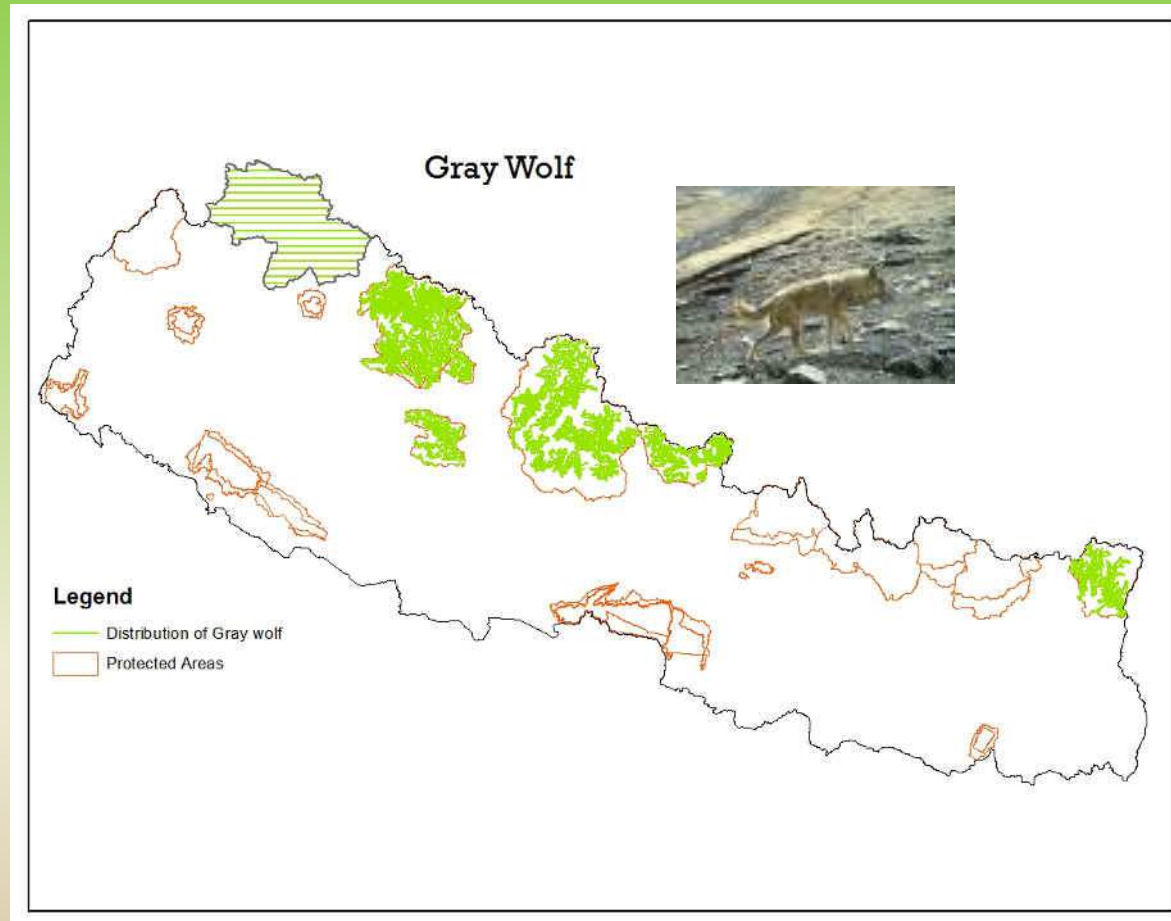


In Nepal it occurs in high mountains

Limited data on the distribution and diets

Competition with snow leopard for food and space

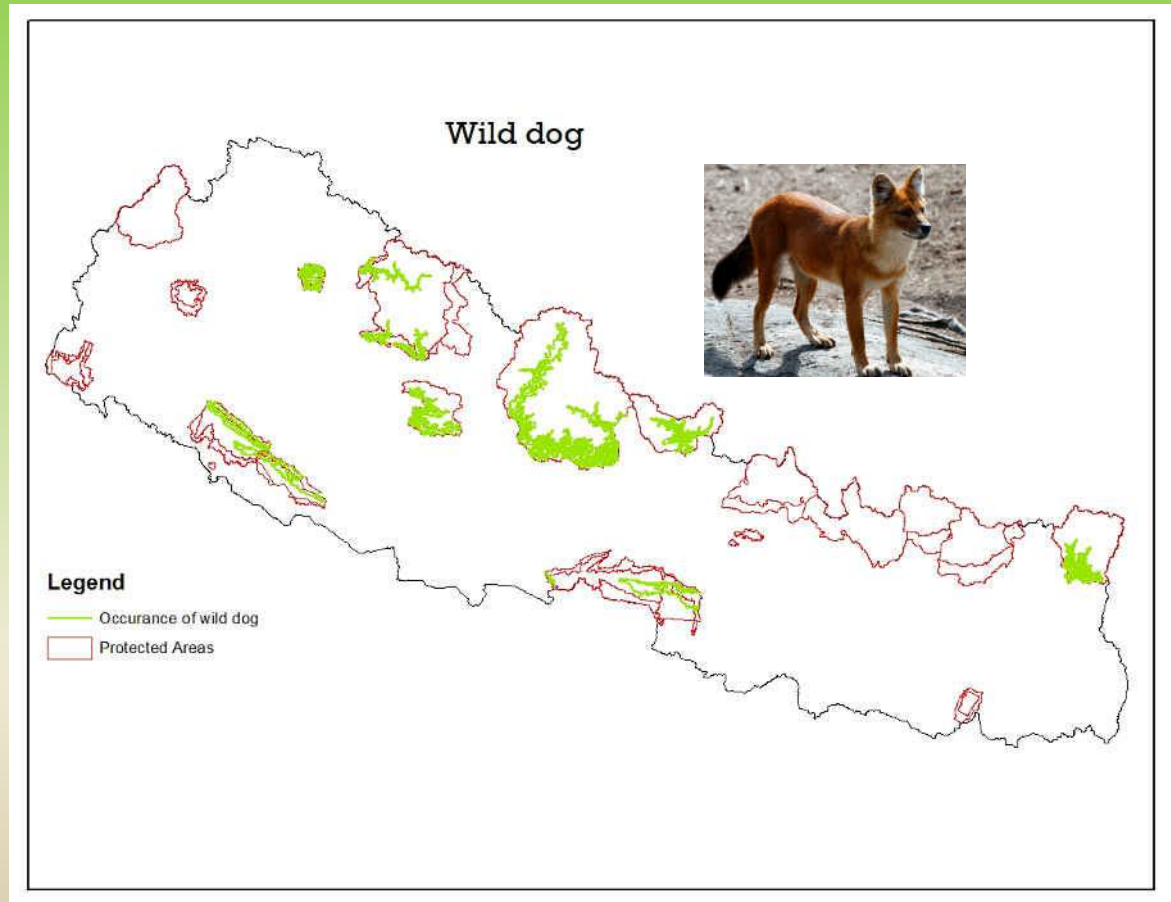
Livestock depredation



Wider in occurrence

Competition with tiger and leopard

Pack living and low densities

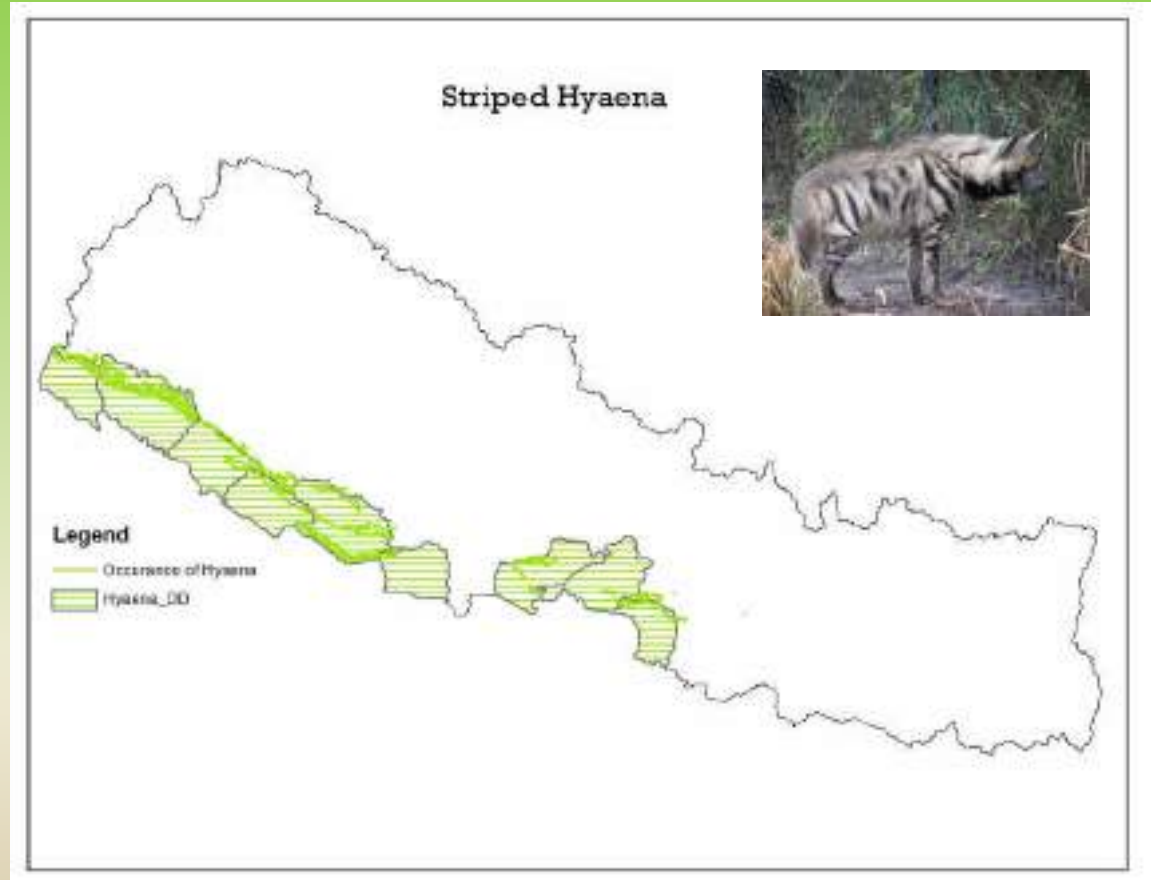


Occurs in low land area

Competition with tiger
and leopard

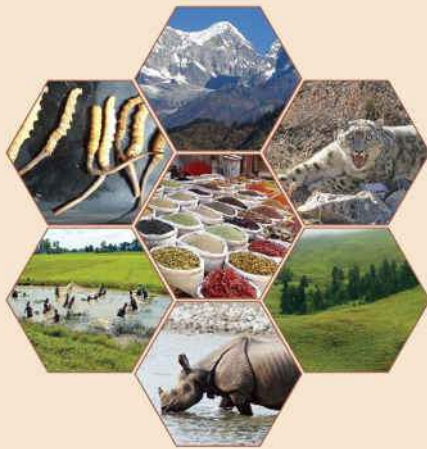
Thin population

Livestock depredation
and persecution



Conservation Efforts

NEPAL NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN: 2014-2020



Snow Leopard Conservation Action Plan for Nepal (2017 – 2021)



Government of Nepal
Ministry of Forests and Soil Conservation
Department of National Parks and Wildlife Conservation



TIGER CONSERVATION ACTION PLAN FOR NEPAL

2008-2012



Government of Nepal
Ministry of Forests and Soil Conservation
Department of National Parks and Wildlife Conservation
Kathmandu



Conservation Efforts

1. Protected Area established & management

2. Identification and management of corridor

3. Habitat management

4. Control poaching and illegal trade

5. Institutional reform and capacity building

6. Research and monitoring

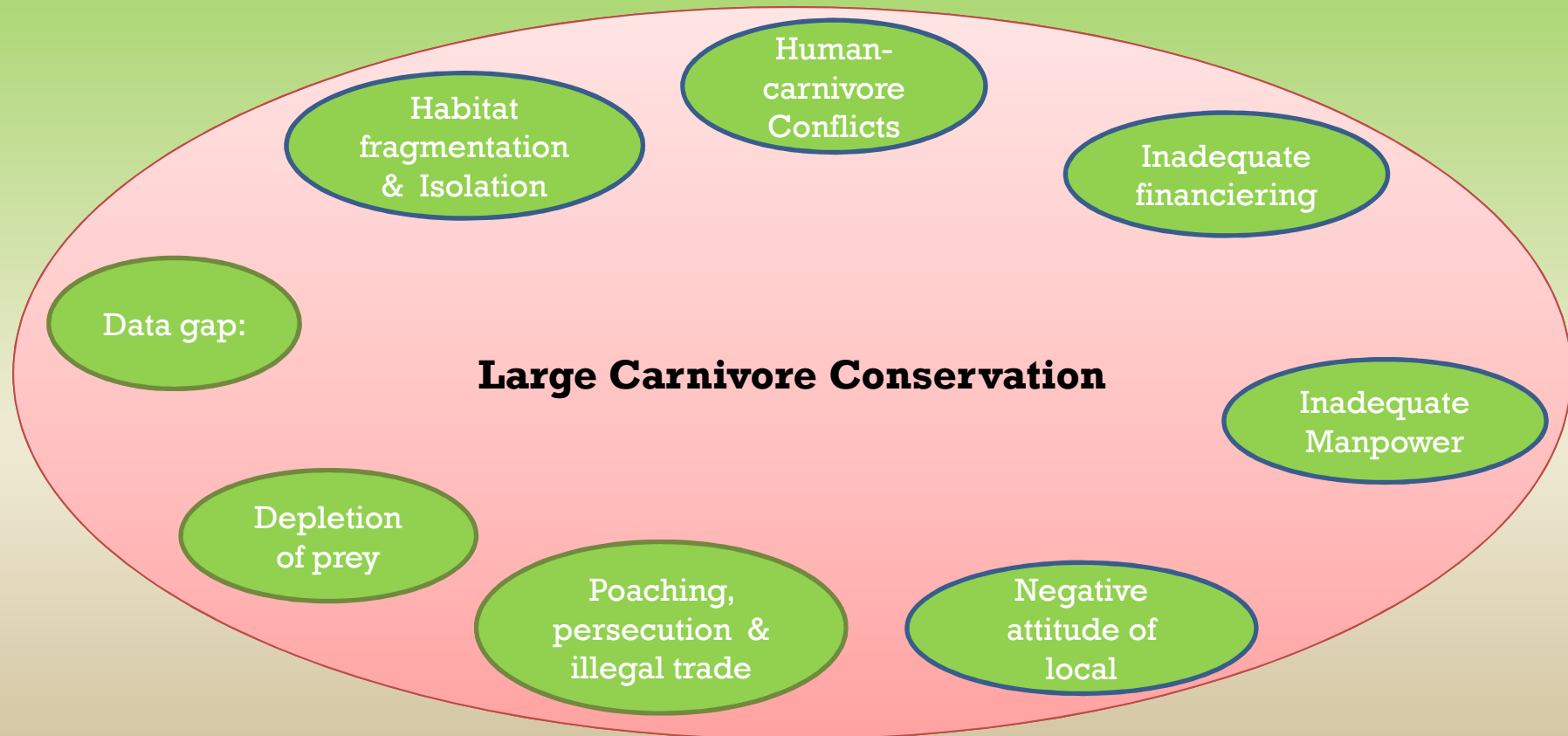
7. Trans-boundary cooperation

8. Human- large carnivore conflicts resolution



National Park, Wildlife Reserve, Hunting Reserve, Conservation Area, Buffer Zone

Issues & Challenges



Thank you for your kind attention

