Illegal Wildlife Trade in Nepal: A Case Study from Kathmandu Valley

A thesis submitted for partial fulfillment of the requirements for Master's Degree on International Environmental Studies (IES)

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Declaration

I, Buddhi Ratna Dangol, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature……..
Date……

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Buddhi Ratna Dangol
Oslo, 2015

Abstract

Illegal wildlife trade is burgeoning issues in the world. Many research and reports have revealed that an extent of illegal trade is expanding despite there are national and international laws including conventions. This study provides a general overview of illegal wildlife trade such as wildlife species, suspects and convicted perpetrators, and law enforcement in Kathmandu Valley. All information is based on wildlife seizures and arrests in the valley of the period from 2003 to 2013. The information comprises of 167 wildlife crime cases against 414 individuals representing from 52 districts among 75 districts of Nepal. All the cases have been prosecuted under National Parks and Wildlife Conservation Act 1973 and District Forest Offices have adjudicated over the cases as quasi-judge. Though there are wide ranges between minimum and maximum punishments in the law, court decision of some cases has gone beyond the laws such as under and over law punishments. There seems a need of law amendment for covering all type illegal wildlife trade and maintain equal justice for all, which will strengthen to fight against illegal wildlife trade in the country.

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CHAPTER - I

1 Introduction

1.1 Statement of the problem and purpose

Illegal wildlife trade is a global conservation challenge (Wyler & Sheikh, 2013; Brown & Davies, 2014). Many charismatic species including tiger (*Panthera tigris*), rhinoceros (*Rhinoceros* sp.), and snow leopard (*Panthera uncia*) are threatened with extinction (Baillie, Hilton-Taylor & Stuart, 2004). For instance, wild tigers numbered over 100,000 a century ago, now reduced to a few hundred surviving individuals (Banks et al., 2006). Similarly, numbers of rhinoceros have been reduced by more than 90% since the beginning of the 20th century (STRI, 2015). Illegal wildlife trade is among the leading causes for rapid wildlife species decline globally (McMurray, 2008). It is also an industry rooted in illegal networks that transcend international borders and generate billions of dollars of revenue annually (Broad et al., 2003; Dongol & Heinen, 2012; Wyler & Sheikh, 2013, Brown & Davies, 2014; CITES, 2014).

Asia is considered as the region with the highest demand for wildlife parts and an illicit trade on wildlife is flourishing in the region, particularly in the Southeast and South Asia (Wyler & Sheikh, 2008). Despite the considerable national, regional and international efforts to contain illegal wildlife trade, wildlife parts are traded extensively for meeting demand in oriental countries including China (Dinerstein *et al*., 2007; Wyler & Sheikh, 2008; Stoner & Pervushina, 2013). In China, wildlife demand is high for different purposes such as medicines and supplementary diet, which are fulfilled from neighboring countries including India and Nepal (Yi-Ming *et al*., 2000). India is also considered as a resource center for illegal wildlife trade since it harbors for enormous biodiversity including rhino, tiger, and others. Although Nepal is a small country compared with China and India, it plays a vital role as a provider of illegal wildlife resources, thereby endangering its biodiversity. Due to the clandestine nature of the illegal wildlife trade, it is difficult to understand the prevailing extent of illegal wildlife trade and driving factors behind it.

Nepal is facing a persistent challenge in combating the illegal trade in wildlife, which is demanding a multi-facet solution (Brown & Davies, 2014). However, conservation effort in the country has a promising prospect for success in restoring some flagship wildlife species such as Bengal tiger (*Panthera tigris tigris*) and Indian rhinoceros (*Rhinoceros unicornis*) (WWF, 2014). Enforcement agencies have accelerated their field activities across the country and have been successful in number of seizures and arrests related to the illegal trade of wildlife (DNPWC, 2014).

With this background, this study aims to understand the nature of illegal wildlife trade in Nepal. The goal of the study is to describe the existing scenario of illegal wildlife trade in Nepal, specifically in relation to the targeted wildlife species and various wildlife parts that are being traded, to understand social characteristics of groups that are involved in the illicit activities, and to discuss the legal system targeting wildlife crime cases.

1.2 Significance of the study

Illegal wildlife trade becomes visible to the outside world mainly when concerned authorities disclose reports of seizures. Additionally, the existing limited information on illegal wildlife trade is often focused on particular wildlife species, but time series and analyzes of trends are lacking (Felbab-Brown, 2011). This study is an attempt to understand the nature of illegal wildlife trade in the Kathmandu Valley, providing baseline information on it. Furthermore, discussion of court decision on wildlife crime cases can be helpful to gain understanding about the weaknesses in the legal system and, the loopholes in law implementation during handling of wildlife crime cases can be highlighted for further improvement.

1.3 Research questions

The general objective of the study is to summarize illegal wildlife trade in Nepal during the past decade, based on official records of arrests and seizures. Based on the main entities involved, the research questions have been divided into major categories which includes the wildlife that has been illegally collected and traded, the suspects and convicted perpetrators of illegal activity, and law enforcement.

A. Wildlife

- Which wildlife species are being poached and traded illegally?
- What are the primary wildlife parts that are seized?
- How is the temporal trend in arrests and seizures associated with poaching and illegal trade in Nepal from 2003 to 2013?

B. Suspects and convicted perpetrators

- What are the ethnic background and geographic origin of arrested individuals?
- What are the sizes of the arrested groups?

C. Law enforcement

- What laws and regulations target poaching and illegal wildlife trade?
- Which agencies enforce the laws and regulations?
- Which proportion of arrests and seizures leads to convictions?

CHAPTER - II

2 Methods and materials

2.1 Study area

The focus area of the study is the Kathmandu Valley of Nepal. Located between two large Asian countries, Nepal shares border with China to the north and the remainder with India. The Great Himalayan range runs along the entire northern region, providing a geographical barrier to China, as a result of which, there are very few roads connecting the two countries. The borders with India to the south, east, and west, however, are very porous. The southern belt consists of plain lands known locally as the Terai region and is a part of the Indo-Gangetic plains. The mid region consists of mountain ranges known as Mahabharat range (also known as Lesser Himalayas) and Sivalik range (also known as Outer Himalaya). Owing to this elevation gradient from south to north, the country has diverse climatic conditions, ranging from tropical in the south to alpine in the north.

The Kathmandu Valley is located in the middle of the country and includes the capital city Kathmandu. The Valley is the most densely populated area of the country with three districts Kathmandu, Lalitpur and Bhaktapur (Fig.2) (CBS, 2012).

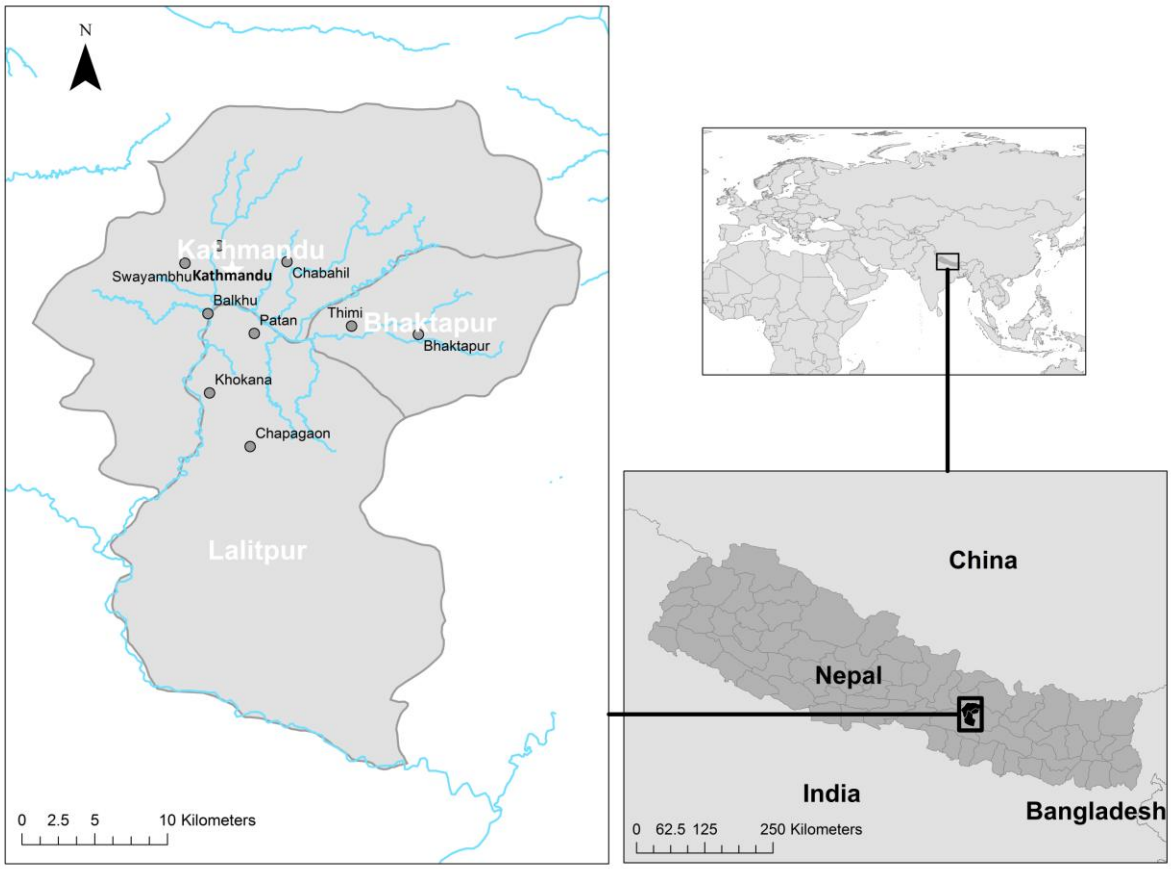

Fig. 1. Geographical location of Nepal in the world map and Kathmandu Valley in the country.

2.2 Data collection

Between January - February 2014 I collected data on seizures and arrests from records maintained at District Forest Offices (Kathmandu, Lalitpur, and Bhaktapur). The offices have maintained all the data of seizures and wildlife crime cases prosecuted. All seizures made by different enforcement agencies such as Nepal Police are referred to concerned district forest offices for legal actions. Information before 2008 at Bhaktapur District Forest Office was not available due to lack of documentation. I obtained information from a database maintained at Wildlife Conservation Nepal (WCN) where compiled information on seizures and arrests has been maintained since 2004. Similarly, press releases on seizures and arrests in the Kathmandu Valley by Nepal Police were gathered from the official website of Nepal Police. I searched for printed media coverage on seizure and arrests in Kathmandu from 2003 to

2013, particularly in national daily newspapers such as Gorkhapatra, The Rising Nepal, The Kathmandu Post, The Himalayan Times, Kantipur, Annapurna Post and Nepal Samachar Patra. All information was compiled, cross verified by suspect's personnel information, seizure location and date; and organized into a relational database. Details of wildlife species, personnel information of arrested people and enforcement agency involved in cases were collected as far as possible. Missing information was discussed with field officers of District Forest Offices, Nepal Police, and WCN. In addition, some photographs of the confiscated wildlife parts were also obtained from the district forest offices and WCN during the field visit.

The field information included case number, seizure date and location, wildlife species and parts, quantity of seized parts, condition of parts, prices of the wildlife parts, from where the parts obtained, intended uses, and destination. Multiple wildlife species and animal parts confiscated during a single seizure were combined under one case number.

I collected the following information on suspects involved in wildlife cases: name, address, gender, age, ethnicity, profession, violation charge, prosecuted law, court verdict, and verdict date. However, in some cases some information such as age and gender of arrested people were missing.

I collected the following information on law enforcement actions: field operation team, type of operation, date of the onset and end of operation, and if informants were used or not. The same case Id numbers were maintained based on the successful seizure cases as in the subheadings wildlife species and the suspects or convicted perpetrators information. Enforcement agencies involved in the field operations were missing in some cases due to lack of documentation.

2.3 Data compilation and analysis

Based on the information collected during the field, data were analyzed as follows.

2.3.1 Wildlife

a. Illegally traded wildlife species identification

A table of illegally traded wildlife species was prepared by sorting information of wildlife crime cases. Scientific names of the wildlife species were identified reviewing literatures and books based on local names. The photographs were also considered for correct identification of evidence. However, some animals, like birds and butterflies, could not be identified to species level and mentioned as unidentified.

The version 2014.3 of the IUCN red list of threatened species was followed for assessing the global conservation status of the wildlife species. Database on the Checklist of CITES species maintained by United Nations Environment Program – World Conservation Monitoring Center (UNEP - MCWC) was followed to assess CITES Appendix of the species. Similarly, the national protection level of the wildlife species was assessed based on National Parks and Wildlife Conservation (NPWC) Act 1973 received from the official website of Nepal Law Commission.

b. Primary wildlife parts

Based on frequency of cases, primary wildlife parts were sorted out such as skins, live animals, horns, musk pods, gallbladder, tusk and ivory products, bones, scales, meat, and others. The wildlife parts that are less than five seizure cases were mentioned as others.

Minimum individual numbers of wildlife were calculated with a traditional approach that a full skin of wildlife in a field operation was considered a single individual wildlife. Similarly, a single unit of horn, musk pod and gall bladder were also considered as an individual wildlife but different body parts of same species seized in a single case are counted as a single wildlife. However, in cases of unsure matters such as bones, scales, feather and meat were not calculated.

c. Temporal trend in seizures and arrests

I tested for a temporal trend in seizures and arrests using a generalized linear model with a log link and a Poisson error distribution in R (R Development Core Team, 2014). In the

model, the number of seizures and arrests (count data) were the response and year the single predictor variable.

2.3.2 Suspects and convicted perpetrators

a. Ethnic background and geographical origin

Vulnerable ethnic community, age group and geographical locations (districts) were identified based on number of individuals involved in wildlife crime cases. Suspects and convicted perpetrators were categorized simply into four age groups. The age groups consist of below 20 years, 20-29 years, 30-39 years, and above 40 years.

b. Group size of individuals

A bar chart on group size of individuals involved in the crimes was drawn with simply Microsoft Excel Program. The average number of individuals involved in the wildlife crime was simply calculated.

2.3.3 Law enforcement

a. Laws and regulations

The existing laws and regulation to address illegal wildlife trade in the country were listed out with discussing District Forest Officers, Retired Police Officers, and WCN Officers. Books, reports and literature on wildlife conservation in Nepal were also consulted regarding current law practices on wildlife conservation.

b. Enforcement agency

A list of government agencies involved in the illegal wildlife trade monitoring was prepared based on directly engaged in field, case prosecution and hearing in the Kathmandu Valley.

c. Proportion of wildlife seizures and convictions

Bar charts on proceeding status of wildlife crime cases and court verdicts on cases were prepared in Microsoft Excel Program based on field information.

CHAPTER - III

3 Results

The information on 167 wildlife crime cases of seizures and arrests in the Kathmandu Valley from 2003 to 2013 were compiled.

3.1 Wildlife

3.1.1 Illegally traded wildlife species

Based on seizure and arrest records during the study period, more than 30 wildlife species were traded illegally in the Kathmandu Valley, including live specimen (Table 1). Among them, 10 species were listed national protected wildlife species while 12, 3 and 2 species were listed in CITES Appendix I, II and III, respectively. The scientific name of some species could not be identified because of lacking authentic evidence during the field visit. They were mentioned in the wildlife crime cases just by their local names.

Table 1. Wildlife species seized in Kathmandu valley from 2003 to 2013.

Common name	Scientific name	IUCN category	CITES appendices	Nationally Protected
Mammals				
Chinese pangolin	*Manis pentadactyla*	Critically endangered	II	Yes
Asian elephant	*Elephas maximus*	Endangered	I	Yes
Himalayan Musk deer	*Moschus chrysogaster*	Endangered	I	Yes
Tiger	*Panthera tigris*	Endangered	I	Yes
Tibetan antelope	*Pantholops hodgsonii*	Endangered	I	Yes
Red panda	*Ailurus fulgens*	Vulnerable	I	Yes
Bear	*Ursus sp. / Melursus sp.*	Vulnerable	I	
Clouded leopard	*Neofelis nebulosa*	Vulnerable	I	Yes
Indian rhinoceros	*Rhinoceros unicornis*	Vulnerable	I	Yes
Common leopard	*Panthera pardus*	Neat threatened	I	No
Eurasian otter	*Lutra lutra*	Near threatened	I	No
Spotted deer	*Axis axis*	Least concern		No
Jungle cat	*Felis chaus*	Least concern	II	No
Barking deer	*Muntiacus muntjak*	Least concern		No
Palm civet	*Paradoxurus hermaphroditus*	Least concern	III	No
Leopard cat	*Prionailurus bengalensis*	Least concern	II	Yes

Small Indian civet	*Viverricula indica*	Least concern	III	No
Birds				
African grey parrot*	*Psittacus erithacus*	Vulnerable	II	No
Alexandrine parakeet	*Psittacula eupatria*	Near threatened	II	No
Eurasian eagle-owl	*Bubo bubo*	Least concern	II	No
Hill myna	*Gracula religiosa*	Least concern	II	No
Indian peafowl	*Pavo cristatus*	Least concern	III	No
Slaty-headed parakeet	*Psittacula himalayana*	Least concern	II	No
Owl	Unidentified -1			No
Pheasant	Unidentified -2			No
Love birds	Unidentified -3			No
Munia	Unidentified -4			No
Others				
Rock python	*Python molurus*	Near threatened	I	Yes
Tokay gecko	*Gekko gecko*			No
Butterfly	Unidentified - 5			No
Seahorse*	*Hippocampus* sp.			No

*****The species have not been reported yet from Nepal.

3.1.2 Seizure of primary wildlife parts

A wide variety of wildlife parts had been seized from traders, poachers and middle-men (Table 2). Skins of leopards were the most dominant primary wildlife parts seized by enforcement agencies (Fig. 2, 3 and 4). Among the rescued 567 live birds, 12 were Eurasian eagle owl (*Bubo bubo*), 10 other unidentified owls and 545 different species of birds including African grey parrot (*Psittacus erithacus*), Alexander parakeet (*Psittacula eupatria*), (Slaty-headed Parakeet (*Psittacula himalayana*), Hill Myna (*Gracula religiosa*) and lovebirds.

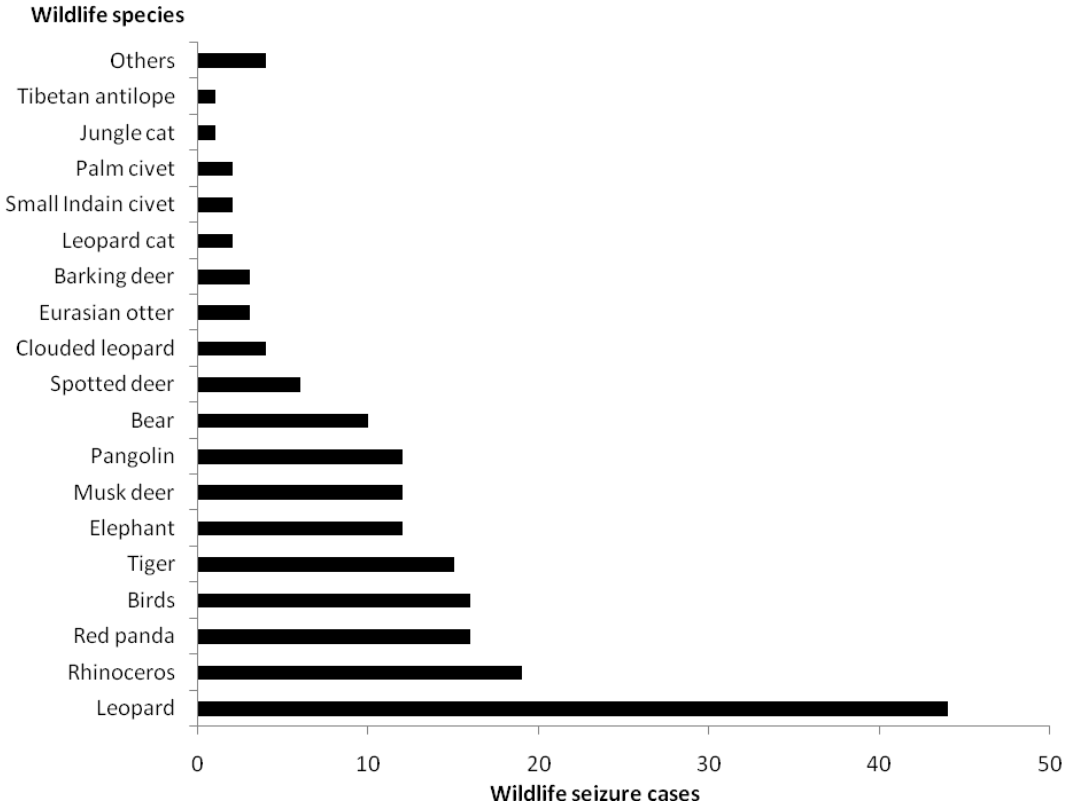

Fig. 2. Frequency of wildlife and wildlife parts seizures based on species from 2003 to 2013 in the Kathmandu Valley.

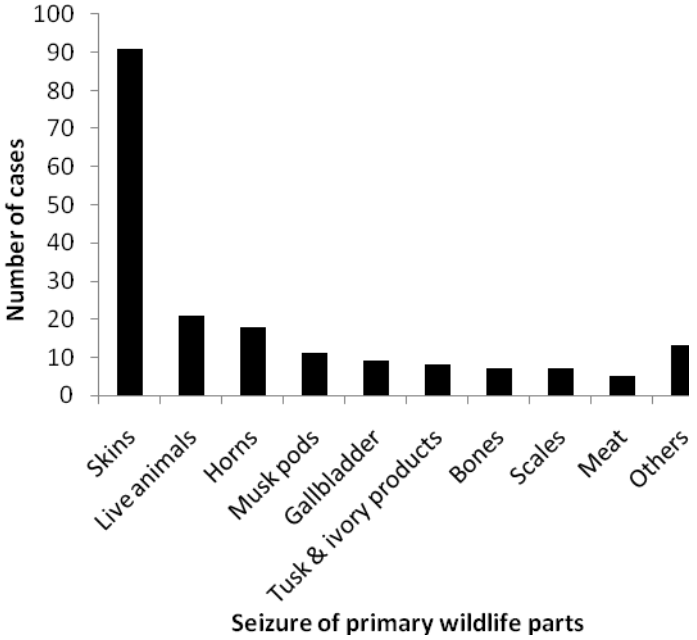

Fig. 3. Primary wildlife parts seized in the Kathmandu Valley from 2003 to 2013.

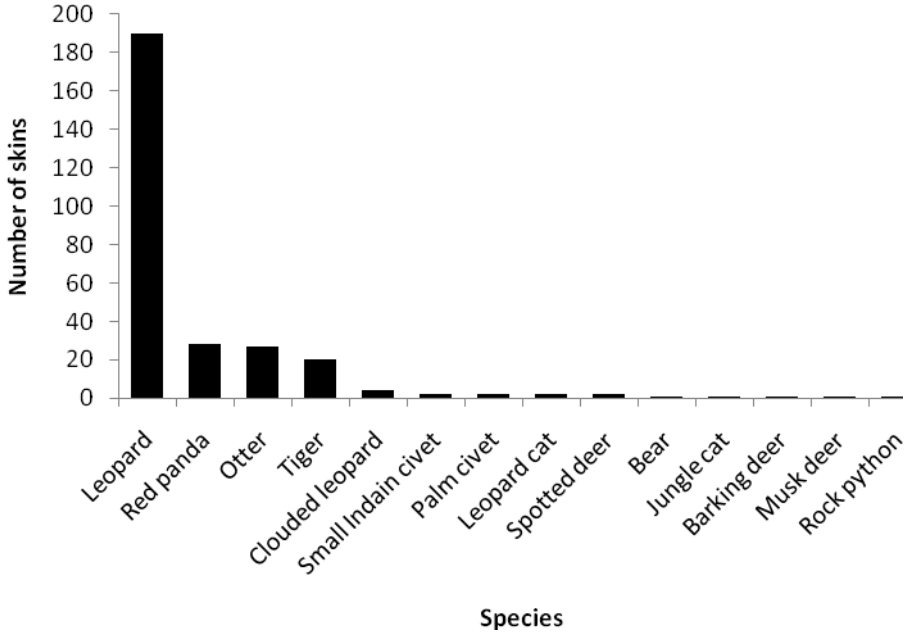

Fig. 4. Species details of wildlife skins seized from 2003 to 2013 in the Kathmandu Valley.

Table 2. Details of seized wildlife parts in the Kathmandu Valley from 2003 to 2013 with an estimate of the number of individual wildlife.

Scientific name	Common name	Parts	Number	Unit	No. of cases	Min. individual animal
Mammals						
Ailurus fulgens	Red panda	Whole skin	28	Piece	16	28
Axis axis	Spotted deer	Skin	2	Piece	2	2
		Horn	2	Piece	1	1
		Dead body	1	Number	1	1
		Meat	5	kg	2	1
Elephas maximus	Elephant	Tail hair	1144	Piece	3	
		Tail hair	4.5	kg	1	
		Ivory	>118	Piece	4	
		Tusk	>21.4	kg	4	1
Felis chaus	Jungle cat	Whole skin	1	Piece	1	1
Lutra lutra	Eurasian otter	Skin(cut piece)	36	Piece	1	12
		Whole skin	15	Piece	2	15
Manis pentadactyla	Pangolin	Live	5	Individual	5	5
		Scales	>15.1	kg	7	
Melursus ursinus	Bear	Whole skin	1	Piece	1	1
		Gall bladder	9	Piece	7	9
		Fake gall bladde	3	Piece	2	

		Claw	1	Piece		
Moschus chrysogaster	Musk deer	Musk pod	13	Piece	7	13
		Whole skin	1	Piece	1	1
		Fake musk pod	4	Piece	4	
Muntiacus muntjak	Barking deer	Live	1	Individual	1	1
		Meat	UN		1	1
		Whole skin	1	Piece	1	1
Neofelis nebulosa	Clouded leopard	Whole skin	4	Piece	4	4
Panthera pardus	Leopard	Whole skin	166		38	166
		Bone	>6.75	kg	4	
		Skin(cut piece)	>200	Piece	1	24
		Bone	219	Piece	1	
Panthera tigris	Tiger	Whole skin	20	Piece	13	20
		Bone	40	kg	1	
		Bone	103	Piece	1	
Pantholops hodgsonii	Tibetan antelope	Wool	19	Piece	1	
Paradoxurus hermaphroditus	Palm civet	Whole skin	2	Piece	2	2
Prionailurus bengalensis	Leopard cat	Whole skin	2	Piece	2	2
Rhinoceros unicornis	Rhino	Horn	13	Piece	9	13
		Fake Horn	8	Piece	8	
		Skin(cut piece)	20	Piece	1	1
		Toe nail	1	Piece	1	
Viverricula indica	Small Indian civet	Whole skin	2	Piece	2	2
Birds						
Bubo bubo	Eurasian eagle-owl	Live	11	Individual	10	11
Pavo sp.	Peafowl	Feather	217	kg	1	
Unidentified-1	Birds	Live	545	Individual	3	545
Unidentified-2	Owl	Live	10	Individual	1	10
Unidentified-3	Pheasant	Meat	UN		1	
Others						
Gekko gecko	Lizard	Live	1	Individual	1	1
Hippocampus sp.	Sea horse	Specimen	20	kg	1	
Python molurus	Rock python	Whole skin	1	Piece	1	1
Unidentified-4	Butterfly	Specimen	-		1	

3.1.3 Temporal trends in seizures and arrests

Poisson regression revealed a significant increase in seizures and arrest between 2003 and 2013 in the Kathmandu Valley ($\beta = 0.188$, SE = 0.027, $z = 6.93$, $p < 0.001$; Fig. 5). Frequencies of wildlife crime cases of vulnerable and endangered species are the highest following near threatened, least concern and critically endangered category of the IUCN red list of threatened species during the period (Fig. 6). Moreover, the number of wildlife species belonging to the seizures were also increasing (Fig. 7).

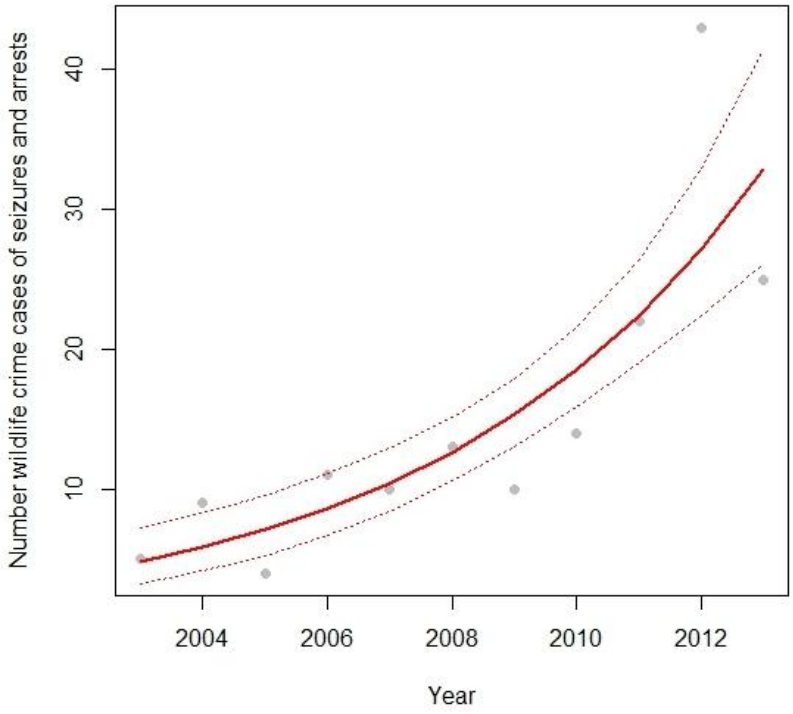

Fig. 5. An estimate of a temporal trend of wildlife crime cases based on seizures and arrests over the years in the Kathmandu Valley from 2003 to 2013.

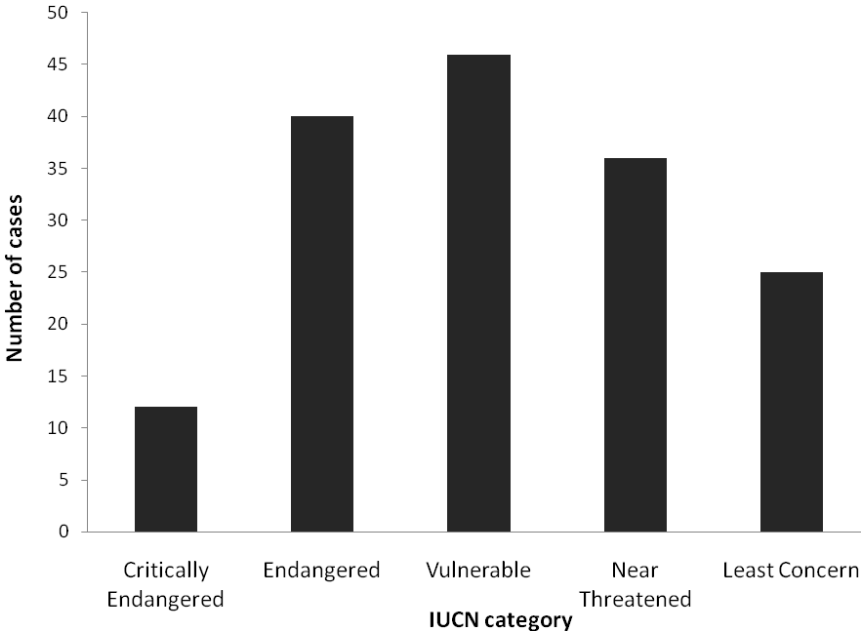

Fig. 6. The number of wildlife crime cases from 2003 to 2013 based on the IUCN red list of threatened species category (6 cases with unidentified species are excluded).

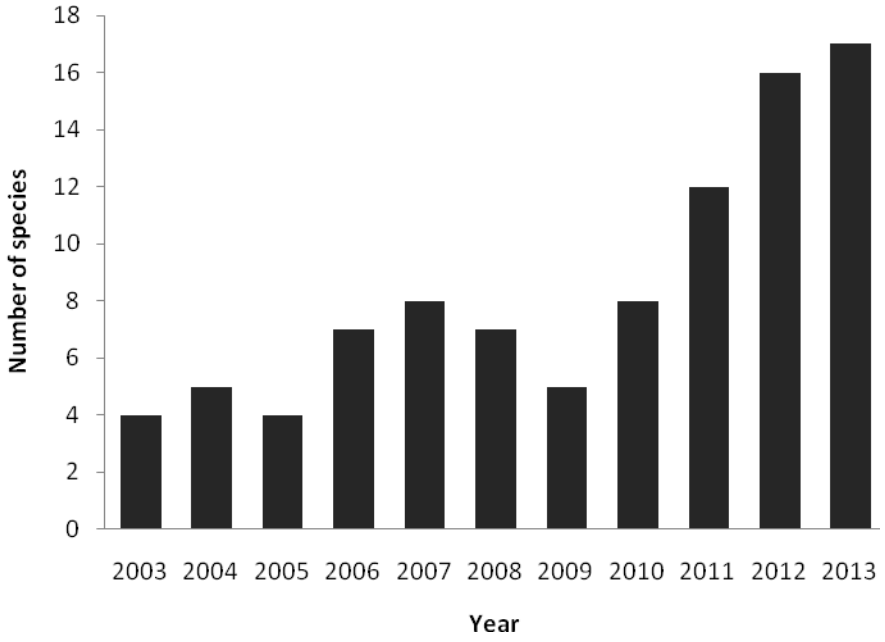

Fig. 7. The number of wildlife species of seized wildlife parts from 2003 to 2013 in the Kathmandu Valley.

3.2 Suspects and convicted perpetrators

3.2.1 Ethnicity and geographical origin of people involved in illegal wildlife trade

District Forest Offices of Kathmandu valley had registered 167 wildlife crime cases against 414 people involved in the illicit wildlife trade (Table 3). The highest number of individuals involved in illegal wildlife trade belong to the Tamang community (26.63%), followed by Bahun (13.32%), Newar (12.83%), Chhetri (12.59%) and Gurung (5.81%). The rest of ethnic communities were below the 5 %. Among foreign nationals, Indian nationals (7%) were dominating the illegal wildlife trade.

Table 3. Ethnicity of people involved in illegal wildlife trade in the Kathmandu Valley (2003 – 2013) and latest demography based on national population census 2011 in the valley.

Ethnicity	Arrested (individuals)	Arrested (%)	Population in the Kathmandu valley (%)
Tamang*	111	26.8	11.16
Bahun*	55	13.3	20.44

Newar*	53	12.8	26.92
Chhetri	52	12.6	19.75
Gurung	24	5.8	2.12
Dalit	15	3.6	
Magar*	15	3.6	3.93
Sherpa	11	2.7	0.98
Limbu	9	2.2	0.66
Madhesi	5	1.2	
Rai	5	1.2	2.22
Thakali	3	0.7	0.13
Chepang	2	0.5	0.03
Muslim	2	0.5	1.05
Thakuri	2	0.5	0.92
Tharu	2	0.5	1.03
Foreigners			
Indian	29	7.0	
Tibetan	7	1.7	
Check Republican	3	0.7	
American*	1	0.2	
Arabian	1	0.2	
UN	7	1.7	
Total	**414**		

* Absconding (Tamang – 8, Bahun – 1, Newar – 1, Magar – 1 & foreigner – 1)

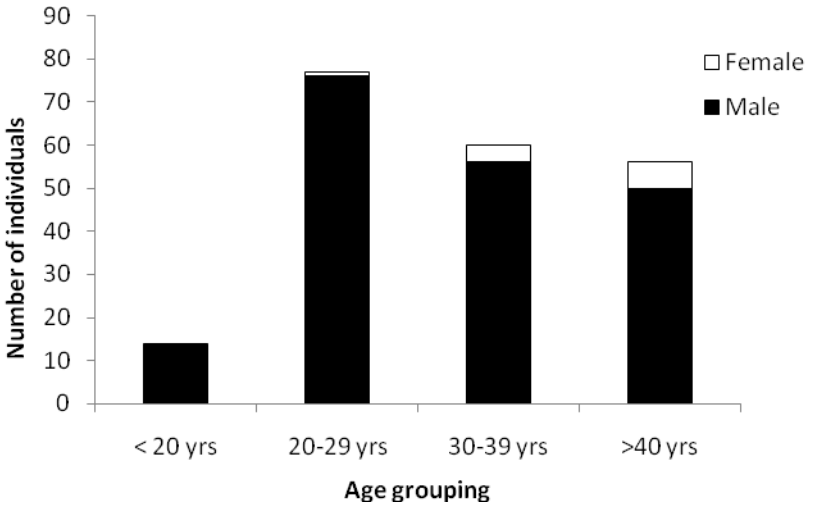

Fig. 8. Age group and gender of arrested people involved in wildlife crime cases in the Kathmandu Valley from 2003 to 2013.

Regarding geographical origin of people involved in the illegal wildlife trade, people from 52 districts out of 75 districts of Nepal were recorded to be involved in the illicit wildlife trade in the Kathmandu valley (Fig. 9). People from adjoining districts of the valley dominated in the illicit trade in the valley. Nuwakot district dominated the domain with the highest number of people, 48 individuals involved in the wildlife trade while Kathmandu, Dhading, Kavre and Sindhupalchowk districts were 37, 36, 33 and 27 people respectively. Nevertheless, two districts of the Kathmandu Valley, Bhaktapur, and Lalitpur had 19 and 16 people, respectively.

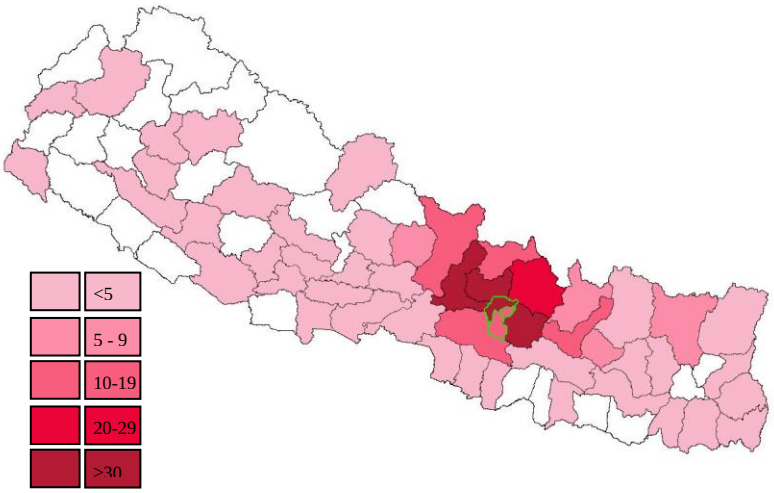

Fig. 9. Districts of Nepal with origin of arrested people in relation to wildlife crime in Kathmandu valley (2003 – 2013).

3.2.2 Group sizes of individuals involved in illegal wildlife trade

An average group size of individuals involved in illegal wildlife trade was 2.5 individuals per case, ranging from 1 to 10 individuals per case (Fig. 10).

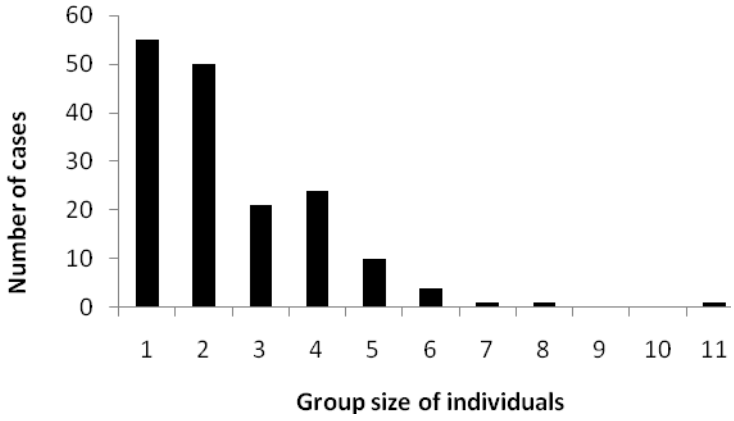

Fig. 10. The size of the group of individuals involved in the wildlife crime cases from 2003 to 2013 in the Kathmandu Valley.

3.3 Law enforcement

3.3.1 Laws and regulations in addressing illegal wildlife trade

Many acts and rules are formulated pertain to wildlife protection and controlling illegal wildlife trade in the country (annex-1). District Forest Offices had followed National Parks and Wildlife Conservation (NPWC) Act 1973 to prosecute and make verdicts all wildlife crime cases registered in the offices. Article-10 of the NPWC Act has listed national protected species for 27 species of mammals, 9 species of birds and 3 species of reptiles and prohibited killing of those species (annex-2). Article–11 provisions that no persons shall be permitted to hunt any wildlife without a license. Similarly, the act makes it illegal to possess any trophy without a certificate issued by an authority. Moreover, it is illegal to sell, supply or conduct any business of trophy and wildlife parts without a license in accordance with article–18 and article–19 respectively. Furthermore, the act has also provisioned punishments in article–26 for breaching rules and regulations as deemed by the Act. There are three distinct categories of wildlife species for punishment such as prioritized nationally protected species, nationally protected species and general wildlife species. The prioritized nationally protected species are the rhino, tiger, elephant, clouded leopard, snow leopard, musk deer and gaur. If convicted, the penalty for killing, harming, and buying or selling trophy of those species is a fee of fifty thousand to one hundred thousand Nepalese Rupees (~ USD 500 - 1000) or imprisonment of five to fifteen years or both. Penalty for illegal activity involving

other national protected species is a fine of forty thousand to seventy-five thousand Nepalese Rupees (~ USD 400 - 750) or one to ten years of imprisonment or both. Illegal activity involving species not listed under the national protected list, are linked with a fee of up to ten thousand Nepalese rupees (~ USD 100) or imprisonment up to two years based on the nature of crime committed.

Article–38 of NPWC Rules 1974 has provided full authority to the concerned Chief Warden of National Park or Wildlife Reserve and Chief of District Forest Office as a quasi-judge for hearing and residing over of all wildlife-related crime cases across the country. Protected Areas Offices handle all wildlife crime cases taking place inside protected areas while District Forest Offices have jurisdiction outside protected areas.

3.3.2 Law enforcement agencies for containing wildlife crime

Directly or indirectly, there are many agencies involved in controlling illegal wildlife trade across the country (annex-3). Nepal Police made almost 50% (82 cases) of the total cases of seizures and arrests in the Valley while District Forest Offices made nine cases. There was also an involvement of Shivpuri National Park in a joint field operation lead by Kathmandu District Forest Office (KDFO). Similarly, a political youth group had also handed over a case to KDFO for legal action. Indeed, District Forest Officials informed that Nepal Police had made almost all seizures and arrests cases in the valley, which were referred to the District Forest Offices for legal actions. Among the government agencies engaged in wildlife crime cases, Nepal Police and District Forest Offices have played a dominant role in the Valley (Table 4). Moreover, some Non-government Organizations (NGOs) such as WCN, WWF Nepal Program, National Trust for Nature Conservation, Central Zoo, Bird Conservation Nepal, and Roots and Shoots Nepal had also helped Nepal Police and District Forest Offices with sharing of field intelligence and wildlife rescue. Among the NGOs, WCN had played a prominent role with enforcement agencies for making successful arrests and seizures (39 cases) in the valley.

Table 4. Name of different government agencies involved with wildlife seizure and arrests, case persecution and investigation of wildlife crime cases in the Kathmandu Valley.

Agency
Kathmandu District Forest Office
Lalitpur District Forest Office
Bhaktapur District Forest Office
Shivpuri National Park
Nepal Police
National Forensic Laboratory
District Attorney Offices
Appellate Court

3.3.3 Proportion of arrest leading to convictions

The majority of wildlife crime cases registered in the Kathmandu Valley have been decided (Fig. 13). Among 167 wildlife crime cases against 414 individuals involved in the illegal wildlife trade in the Valley, 130 cases (77%) have been finalized with the full verdict, which included 314 individuals. However, verdict details of 41 cases were not available because of lack of documentation during the field visit, which includes 96 individuals.

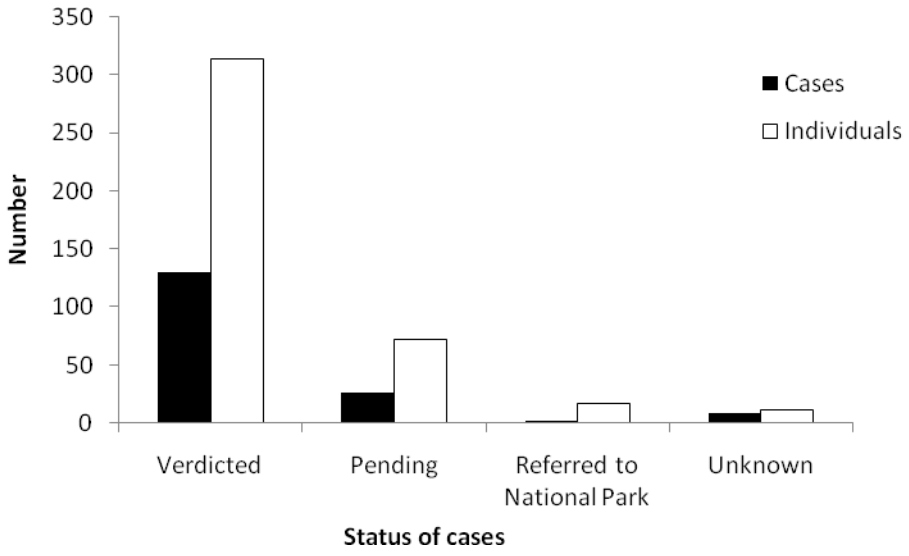

Fig. 11. A general status of wildlife crime cases prosecuted in the court.

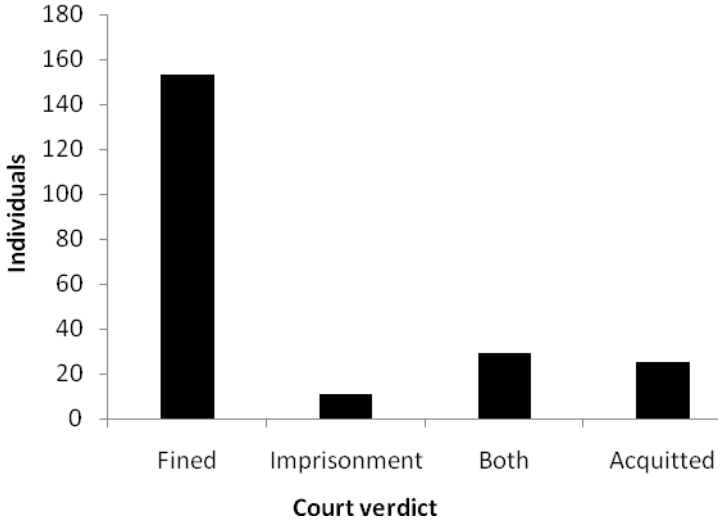

Fig. 12. Court verdict of wildlife crime cases registered in the District Forest Offices from 2003 to 2013 in the Kathmandu Valley.

CHAPTER - IV

4.1 Discussion

Illegal wildlife trade is prevalent in the Kathmandu Valley and is apparently increasing, at least according to records of seizures and arrests between 2003 and 2013. Recognizing its possible impacts on biodiversity, it is also categorized as a transnational organized environmental crime (Wyler & Sheikh, 2013). Illegal wildlife trade is a threat to biodiversity globally (Bhuju *et al*., 2009; Nijman, 2010 & UNODC, 2014). For instance, illegal trade in wild cats' parts is persistent from 1991 to 2013 in border towns of Myanmar (Nijman, 2015). Thousands of American black bears (*Ursus americanus*) are killed illegally each year in the United States of America (Lee, 1996). The highest rhino poaching record was met in South Africa for illegal rhino horn trade in 2013 (STRI, 2015). Rhinos and elephants were killed massively across the African continent for illegal wildlife trade in 2012 (Wyler & Sheikh, 2013; STRI, 2015). Illegal hunting for bushmeat in Zimbabwe has become a serious conservation threat (Lindsey *et al*., 2011). An absence of tigers due to poaching in Sariska Tiger Reserve of India in 2005 has created a rumor in global biodiversity conservation (Dinerstein *et al*., 2007). TRAFFIC report 2013 has also reported that Nepal is emerging as a major wildlife trade conduit in the region, specifically with Kathmandu as a key trade hub for tiger parts (Stoner and Pervushina, 2013).

The evidence shows that a wide range of species is targeted by illicit trade including some globally threatened species such as tiger, rhino, elephant, musk deer, red panda, bear, and pangolin. Barnes (1989) have made an overt of illegal wildlife business in the shops of Kathmandu and found fur coats made from skins of wildcat species, including snow leopard. The majority of wildlife species seized by enforcement agencies are not found in and around the peripheral forest of the Valley. For instances, mammals such as rhino, tiger and elephant are found only in the tropical region (south of the valley) while red panda and musk deer are only found in the mountainous region (north of the valley). Though leopards and bears are found in the forest at the periphery of the valley, most of them are confined to protected areas. The settlement areas proximity to wildlife habitat has the high probability of initiating wildlife crime (Sharma *et al*., 2014).

The majority of suspects and convicted perpetrators in connection with wildlife crime in Kathmandu Valley are outsiders. Therefore, it is clearly understood that the Valley is being a main center of illegal trade in wildlife. The illegal trade in wildlife parts and live animals in the country is geared mostly towards international market rather than the local market and Kathmandu is a transit point for it in the region (Bhuju *et al*., 2009). A seizure of four tiger skins at Tribhuvan International Airport of Kathmandu from a passenger who arrived by plane from Bangkok in 2011 and a seizure of a vehicle heading toward the Tibetan border with 109 leopard skins in Swayambhu of Kathmandu in 2003 exemplify that Kathmandu is a transit point for such activities.

There is a common speculation that wildlife body parts seizures are only the tip of the iceberg of illegal wildlife trade happening in the underground because of its clandestine nature (Felbab-Brown, 2011). It is very clear that the illicit wildlife trade is organized and being operated by effective networks. Layers of networks exist in the illegal wildlife trade in the country, which range from local poachers to intermediary and international smugglers (CNP, 2012). Organized criminal syndicates are involved in international wildlife trafficking and poaching (Wyler & Sheikh, 2013). It seems that the majority of people involved in the wildlife crime live in proximity to protected areas and larger cities. The majority of poachers in Nepal are members of local ethnic communities and very often intermediary lure local people into pulling the trigger (Bhuju *et al*., 2009). There are large price gaps for wildlife parts between the local and international markets (Wyler & Sheikh, 2013). Prices for wildlife parts are higher in Kathmandu than it is in remote areas of the country. Therefore, they take risks for getting the high price of wildlife parts. Once the wildlife parts are brought to Kathmandu, the local poachers and intermediary seek to minimize the layers of business for the best deal with high price. There involves a number of middlemen between poachers and buyers with an insignificant amount of profit (Brown & Davies, 2014). They are very careful in each step to reduce the risk of enforcement interception.

Enforcement agencies such as Nepal Police and District Forest Office have their field networks to control illegal trade in wildlife in the Valley. Some NGOs have also operated their field units in cooperation with enforcement agencies for intelligence gathering. Field units infiltrate into the illegal wildlife traders' networks as a potential buyer, agents or supplier. When field units gather concrete evidence of potential ongoing illicit activity, enforcement agencies design an undercover operation. Once the enforcement agency succeeds the covert operation, the suspects are handed over to the District Forest Office (DFO) for legal actions of crime where the chief of DFO proceeds with the hearing of case as a quasi-judge. Among the all trade intercepted, Nepal Police and District Forest Office have done with undercover operation in the valley. However, Police has also succeeded for seizing wildlife parts during random checks.

4.1.1 Wildlife

Nepal harbors 208 mammal species across the country (Jnawali *et al.*, 2011), with the Terai-Siwaliks region harboring the highest number of species (Bhuju *et al.*, 2009). Endangered wildlife species of Nepal have declined because of poaching (Baral & Heinen, 2005; Jnawali *et al.*, 2011). It is undoubted that poaching is done for direct cash earning. The main motive of the illegal wildlife trade is economic benefits (Wyler & Sheikh, 2013).

Dozens of wildlife species have been killed for illegal wildlife trade. The actual number of wildlife species may increase because the mentioned species are only based on evidence of successful seizures. It is obvious that the number of the species and volume of illegal wildlife trade is higher than those confiscated, but these numbers are exceedingly difficult to estimate (Yi-Ming *et al.*, 2000). Five out of the ten cat species in Nepal are illegally trade in Kathmandu. Wild cat species are commonly killed in retaliation for livestock depredation or attacks on humans (Inskip and Zimmermann, 2009). Niraj (2009) found that the tiger, leopard, rhino, elephant, birds, and snake are the most frequently poached wildlife species in India in the period between 1992 and 2006. Barnes (1989) found the fur coats in the shops of Kathmandu made up of seven cat species including snow leopard, fishing cat (*Prionailurus viverrinus*) and wolf (*Canis lupus*). These three species are not found in this study. Similarly,

Heinen and Leisure (1993) have identified 26 wildlife species from fur coats for sale in Kathmandu. Most of them are carnivore species and barking deer (*Muntiacus muntjak*). The wildlife species, which are not found in my study, are common Asiatic golden cat (*Pardofelis temminckii*), lynx (*Felis lynx*), jackal (*Canus aureus*), binturong (*Arctictis bingturong*), weasels (*Mustela altaica, M. ermine & M. sibirica*) and mongoose (*Herpestes edwardsi & H. urva*). However, both studies have not mentioned about any fur products made up of the red panda (*Ailurus fulgens*) and sloth bear (*Melursus ursinus*). The number of cases related to the red panda is the third highest among all cases.

Wildlife is killed mainly for its body parts, which have high market value. The wildlife parts are used for different purposes such as traditional medicine, costume, food, and faith and ritual activities. Bones of tiger and leopard, horns of rhino, gallbladder of bears, musk, and pangolin scales, are used for oriental traditional medicines while skins and wool for fur products and clothing (Chapagain and Dhakal, 2002; Dinerstien, 2003; Pokharel *et al*., 2008; and KC and Kharel, 2011). Similarly, claws of bears, hoof of rhinos, hair of elephants' tail, feathers of peafowl are used for religious and other ritualistic purposes in Nepal while meat of pangolin, deer, and pheasant are used as food. Skins of wild animals are the most commonly confiscated parts in the reported cases followed by live animals, horns, musk pods, and gallbladder. Rosen and Smith (2010) have also reported that the majority of wildlife seizures across the globe in the period from 1996 to 2008 are skins, pelts and furs of tigers and leopard. Moreover, skins and pelts constitute the highest of all seized mammal wildlife products illegally traded. Tiger skin seizures are the highest in India and Nepal among 11 tiger range countries in the period from 2000 to 2010 (Verheij *et. al*, 2010).

Wool of Tibetan antelope (*Pantholopes hodgsoni*), an endangered species, is also involved in the illegal trade through exchange of other wildlife parts (WPSI, 2006). Normally, the wool is smuggled from Tibet of China to India via land routes of Nepal, and from India to European countries as a final destination in the name of shahtoosh shawl (Yi-Ming *et al.*, 2000). Nepal Police have arrested three Indian businessmen with 19 shahtoosh shawls from a

tourist shop in Thamel of Kathmandu while they were trying to sell in the underground market in 2007 (Case ID 65).

Hunting deer and other common wildlife occasionally as a bush meat in rural and hill areas is common as customary rights (Nepal & Weber, 1995). But this custom might have gone beyond local consumption and now supplies meat for sale in the Kathmandu Valley because enforcement agencies have raided meat shops and restaurants in different places of the valley with confiscation of spotted deer (*Axis axis*), barking deer and pheasants' meat (Case ID 36, 72 & 155).

Among the illegal trade in wildlife, trade of live bird is also a great concern for biodiversity conservation. In the Kathmandu, illegal trades of birds are also seen in the last half period of the study. Illegal trade in birds is flourishing in the many countries such as Brazil and Peru (Regueira & Bernard, 2012; Gonzalez, 2003). Many research and study reports have mentioned that Kathmandu is being a fertile ground for illegal bird trade too. For instances, Dhakal and Subedi (2014) have mentioned that Kathmandu district is among the high bird trading districts in the country. Similarly, a study done by Bird Conservation Nepal (BCN) in 2009 reported that Nepal is a safe ground for illegal bird trade (BCN & DNPWC, 2011). A species of the Eurasian eagle-owl (*Bubo bubo*) seems to be a targeted bird species, because of the high frequency of cases. This species has been listed as illegally traded among dozens of birds in the BCN study report (BCN, 2010). Acharya & Ghimirey (2009) reported that illegal wildlife trade is a prime reason for declining owl population in the country (Acharya & Ghimirey, 2009).Interestingly, a pair of African grey parrot (*Psittacus erithacus*) has been confiscated in 2011, which has not been reported on the National list of birds in Nepal yet.

Among all of the seizure cases, the top five wildlife species are common leopard (*Panthera pardus*), rhino (*Rhinoceros unicornis*), birds, tiger (*Panthera tigris*), and red panda. Nijman and Shepherd (2015) found that the most abundant wild cat species in trade at Mong La and Tachilek towns of Myanmar is leopard cat (*Prionailurus bengalensis*) and clouded leopard

(*Neofelis nebulosa*). Similarly, Niraj (2009) reported that the most apparent poached species for illegal wildlife trade in India from 1992 to 2006 are the tiger and common leopard.

The numbers of seized wildlife species are also increasing gradually over the period (Fig. 8). The wide range of species involved in the illegal wildlife trade indicates that the volume of illegal trade is expanding gradually. The demand for wildlife and wildlife products continues because Tibetan Medicines (TM) and Traditional Chinese Medicines (TCM) are still widely used (Yi-Ming *et al*., 2000).

Wildlife species have been assessed categorically based on threats posed for survival in the natural habitat. The number of threatened species have increased over a decade in the world (Smart *et al*., 2014). The global IUCN conservation status of the traded species in Kathmandu ranges from Critically Endangered to Least Concern group. Though pangolin (*Manis pentadactyla*) is enlisted as a Critically Endangered species globally, it is just endangered for the country. This species is highly threatened globally and nationally with poaching and illegal hunting for meat and scales in the country (Jnawali *et al*., 2011). Moreover, IUCN upgraded its conservation status from endangered to critically endangered in the red list of threatened species because of the high level of poaching for international trade (Challender *et al*., 2014). Conservationists have warned that all existing 8 species of pangolins are being eaten to extinction and are among the most common illegally traded mammals in the world (The Guardian, 2014). Both live pangolin and their scales were being traded illegally in the Kathmandu valley during this study.

A temporal pattern of seizures and arrests cases in the Kathmandu has exposed the illegal wildlife trade to some extent. Many studies have mentioned that Kathmandu is developing into fertile ground for wildlife smugglers (Baral & Heinen, 2006; Bhuju *et al*., 2009; Stoner & Pervushina, 2013). There is a pronounced increase in the number of cases in the Kathmandu Valley between 2003 and 2013 (Fig. 5). Stoner and Pervushina (2013) have also found that the proportion of tiger parts and derivatives in seizures has increased in Nepal in the period 2000 to 2012. The increasing trend of cases in the Valley suggests that either

illegal wildlife trade activities or law enforcement activities/effort or both are increasing. Stoner and Pervushina (2013) have also suggested that trends in wildlife seizures are the indication of both illegal wildlife trade and efforts of law enforcement agencies.

One of the main driving factors behind the increasing illegal wildlife trade in Kathmandu is earnings. It is considered as a lucrative business, and local people are attracted to it. A local poacher can earn more than his annual income by accomplishing a single deal of poaching (Bhuju, *et al*., 2009). The valuable wildlife parts are brought to the Kathmandu Valley for the best price because almost international wildlife smugglers live in the Valley. The country is listed under a transit state or zone of distribution for illegal wildlife body parts especially for tiger parts in the world (Stoner and Pervushina, 2013).

The population flow from rural to urban area for better opportunity might be another reason for the apparent increase in illegal wildlife trade. Kathmandu district has the fastest population growth (61.23%) in the country (CBS, 2012). People living in and around rural areas are desperate to enhance their economic condition because of a less significant impact of the development process and deteriorating economic conditions in rural areas (Sharma, 2006). Therefore, the reason behind the increasing illegal wildlife trade might be people's growing concern for economic gain or just because of more people. Increment of urban population growth in a decade from 13.0% in 2001 to 17.93% in 2011 may be a symptom of deteriorating economic conditions in rural areas and most of the people have migrated in the Kathmandu Valley.

Enforcement agencies, with the support of other organizations, have increased their field activities coordinating for controlling illegal wildlife trade in the Valley due to growing concern of the global community. In 2009, Central Investigation Bureau (CIB) of Nepal Police had established a separate wing as a Wildlife Crime Pillar to focus particularly on controlling illegal wildlife trade. Government of Nepal seems very serious about containing illegal wildlife trade. The cabinet decisions have formed different committees in 2010 such as a National Tiger Conservation Committee under the chair of Prime Minister and a

National Wildlife Crime Control Coordination Committee under the chair of Minister of Forest and Soil Conservation (DNPWC, 2014). The evidence of seizure and arrest shows that Nepal Police has intensified field actions. Nepal police have engaged more for containing illegal wildlife trade particularly in seizures and arrests in the country, which they did very rarely in the past (Martin *et. al*, 2013).

4.1.2 Suspects and convicted perpetrators

The issue of individuals' involvement in illegal wildlife trade is complex. Various levels are involved in the illegal wildlife trade such as local poachers, intermediaries, national, international traders, and consumers (Broad *et al*., 2003). It is a combined effort of a network, which makes an illegal wildlife trade a complete chain, from local harvesters at resource area to end users (Wyler & Sheikh, 2013). Most of the individuals caught in Kathmandu in connection with wildlife crimes appear to represent lower layers and are from outside of the valley. The majority of poachers in Nepal are local villagers from ethnic communities who have little or no understanding of the long-term consequences of decreasing in wildlife populations (Bhuju *et al*., 2009). There are cases of significant wildlife poaching committed globally which are related to opportunistic locals who subsist on very small income (Pires & Moreto, 2011). Therefore, creating awareness amongst local people on values of biodiversity is necessary, together with providing alternatives for income generation.

Between 2003 and 2013, District Forest Offices of the Kathmandu Valley (Kathmandu, Lalitpur, and Bhaktapur) have prosecuted wildlife crime cases against 414 individuals including 41 foreign nationals. Among all individuals involved in the illegal wildlife trade, the dominant ethnic groups are Tamang, Bahun, Newar, Chhetri, and Gurung. Tamang ethnic group is rich in ethnozoological knowledge in Nepal because of an intimate relationship with animals over a long period (Lohani, 2010).

There is a wide geographical representation of the individuals involved in the wildlife crime in the valley because suspects and convicted perpetrators are from 52 districts out of 75

districts of the country. Almost all districts in the eastern and central part of the country are involved in the illegal trade. In 37 districts, less than five individuals are involved in the wildlife crime cases. The top five leading districts are Nuwakot, Kathmandu, Dhading, Kavre, and Sindhupalchwok, with between 27 and 48 individuals associated with seizures and arrests. This reveals that the individuals from surrounding districts of the valley are more dominant in the illicit activity. The reason behind it may be that there is a market in the Valley for wildlife parts. The Valley is considered as a center for economic activity for both domestic and global business in the country (Thapa *et al*.,2008).

Individuals with a wide range of ages where involved in the illegal trade in wildlife. Swanepoel (1998) also found in his exploratory study on illegal trade of rhinoceros horns in South Africa: offenders where individuals with ages ranging from 20 years old to 65 years old, with a mean age of 35 years. In my study, involved individuals were between 17 and 68 years old. Among them, the most vulnerable age group in committing wildlife crime is between 20 and 30 years, which include seventy-seven individuals following the group of 30-40 years and above 40 years. In a study on labor migration trends and patterns in Bangladesh, Nepal, and India it was found that young people aged below 30 years are the most desperate for seeking opportunities and earnings (The Asia Foundation, 2013). Lack of development efforts to reach poor and rural people have contributed to rising unemployment and poverty, which created frustration among youths in the rural and remote areas (Sharma, 2006). Among all prosecuted cases, 12 individuals are still absconding, including a US citizen.

Group sizes of individuals involved in the crime cases are diverse. Average group size was low (2.5 individuals per case), but up to 11 individuals have been involved in some cases. The low group size of individuals may indicate in two ways either enforcement agency overlooked in tracing of involved individuals or local poachers came in front for dealing wildlife parts to buyers directly. EIA (2004) has mentioned that enforcements are not interested in tracing to reach up to the main connection of the illegal wildlife trade in Nepal. However, we cannot say that enforcement agency did not trace at all because arresting of 11

individuals in a single case is an example of tracing suspects. But, it seems that enforcement do trace suspects based on a selective case.

4.1.3 Law enforcement

Effective law enforcement is necessary for combating illegal wildlife trade globally, and a solid legal basis is crucial for it (Vasquez, 2003). Convention on International Treaty in Endangered Species of Wild Fauna and Flora (CITES) is established as an international responses to address the illegal wildlife trade across the globe and 181 states have been member to it (CITES, 2014). Recently in 2012, US president issued an executive order to combat wildlife trafficking because of its seriousness and urgency (Wyler & Sheikh, 2013). Nepal has been a party of the CITES since 1975 demonstrating commitment toward stemming illegal wildlife trade nationally and internationally. The country has formulated many acts and regulations to protect wildlife species in their natural habit early on (annex-1). For instance, article-3 of Export Import (Control) Act 1957 has provisioned that Government of Nepal has power to prohibit or control export and import of any goods by a notified order. The provision has been created with the intent to protect of exhaustible natural resources, including by restricting domestic consumption. Aquatic Animal Protection Act 1960 aims at protecting aquatic animals. Similarly, Government of Nepal has formulated National Park and Wildlife Conservation (NPWC) Act 1973, focusing on protected areas in the country, but also containing provisions with the intent to control wildlife crime in the country.

All wildlife crime cases included in this study have been prosecuted with reference to NPWC Act 1973. It is the first comprehensive legislation and a milestone for the history of wildlife protection in the country (Heinen & Kattel, 1992). It is the key instrument for the protection of wildlife and controlling wildlife crime in and outside of protected areas (HMG/MFSC, 2002; Lama, 2006). The NPWC Act is acts as the main legal tool to handle all wildlife crime related cases in the country (Poharel *et al*., 2008; Joshi, 2010; Heinen & Kattel, 1992; Chapagain & Dhakal, 2002; Dongol & Heinen, 2012). Though this act is serving as the basis for wildlife law enforcement, there is no any provision for bailment for wildlife crime cases under the NPWC Act 1973 which is happening in practice pursuant to chapter of another Act

(Muluki Ain 2020 B.S.) on court management (Lama, 2006). Though Aquatic Animals Protection Act 1961 provides legislative protection for aquatic species, there is no designated agency for administering and enforcing the Act (HMG/MFSC, 2002).

Forest Act 1993 primarily regulates the management, extraction of and trade in timber and other forest products. However, it also mentions the protection of forest biodiversity, which includes wildlife (HMG/MFSC, 2002). Though it has a similar responsibility as of NPWC Act 1973 for protecting wildlife, District Forest Officers have to resort to NPWC Act 1973 for handling cases of wildlife trade beyond protected areas (Lama, 2006).

Cooperation is essential for controlling illegal wildlife trade. Environmental initiatives that include curbing illegal wildlife trade often require inter-institutional cooperation between governmental organizations, non-governmental organization and other stakeholders to implement effectively (Kaaria and Muchiri, 2011). The NPWC Act 1973 has designated Nepal Police and forest officials as authorities to arrest wildlife crime offenders and to search for and seize evidence outside of protected areas. Nepal Police has conducted most wildlife seizures and arrests in the Kathmandu Valley, sometimes in cooperation with other government and non-government organization. Few conservation oriented NGOs have shared field intelligence with Nepal Police regarding illegal wildlife trade, and Police have conducted covert operations with successful seizures and arrests. Though the role of NGOs and community organizations are limited, they are contributing to tracking and arresting poachers and traders (Bhuju *et al*., 2009).

Police have handed over almost all cases to concerned District Forest Offices for necessary legal actions. However, some cases related to rhinoceros horn have been handed over to Chitwan National Park Office considering the origin of wildlife species. Therefore, there are some deviations from laws pertaining to filing cases against culprits. This highlights a problem with implementation rather than laws pertaining to wildlife offenses (Bhuju *et al*., 2009). Police Officers would like to hand over the cases to National Park Offices rather than District Forest Offices for severity of punishment to offenders (personnel comm. field

officers). Lama (2006) has also mentioned that there is much variation during prosecution and hearing of similar cases in the District Forest Offices. For instance, the prosecuting authority has demanded a different penalty for similar nature of the case and the adjudicating authority has convicted with different punishment for similar nature of the case.

There is no panacea for the control illegal wildlife trade. Conviction of suspects and arrested individuals involved in wildlife crime with severe punishment is an issue for wildlife conservation. There exist different views on severe punishment for committed wildlife crime. Some argue that a severe punishment for committed crime discourages illicit activities and helps in protecting endangered species (Martin *et al*., 2013). By contrast, Pires and Moreto (2011) have put forward alternative conservation solutions and wildlife management systems, based on their conclusion that anti-poaching laws and severe sentencing alone have had little effect on reducing the illegal wildlife trade. Despite the existence of tougher sentencing from imprisonment to death for illegal hunting and trade in Giant panda, illegal activity remains the main threat to survival of the species in China (Yi-Ming *et al*., 2000). In India, the conviction rate in wildlife crime cases is very low, with only 14 cases out of 784 cases having led to convictions between 1994 and 2003 (EIA, 2004). Regarding hearing of cases in the Kathmandu Valley, evidence shows that the conviction of the cases are relatively high because 46.6% of the total individuals involved in the wildlife crime cases have been convicted. However, the punishment for the majority of cases has been convicted with cash fine only. Seventy-nine percent of the total convicted individuals have been sentenced with just cash fine while 6% have received only jail terms and 15% both. Thus, conservationists claim that the court decisions are in favor of culprits rather than wildlife conservation because the severity of punishment is quite low in illegal wildlife trade cases. In an exclusive report on international illegal trade in tiger and other endangered Asian big cat skins and body parts has reported that decision of wildlife crime cases are comparatively fast but punishment is a weak in Nepal (EIA, 2004). Lama (2006) also report in his study that about two-thirds of wildlife crime cases result in conviction with only a fine as punishment. Poachers and traders are rarely brought to justice and convicted, and their sentences are

unlikely to deter future poaching and smuggling because they serve little or no jail term and low fines (Dinerstein *et al*., 2007).

I also found substantial variation in the persecution and sentencing in wildlife crime cases of similar nature. For instance, the court decision for cases related to leopard skin range from cash fine NPR 10000 (~ USD 100) to both fine NPR 10000 (~ USD 100) and imprisonment for 2 years. Similarly, court decision for rhino horn related cases ranges from fine NPR 10000 (~ USD 100) to imprisonment 5 years and 4 months. In the tiger skin cases, sentencing ranges from cash fine of NPR 75000 (~ USD 750) to both NPR 60000 (~ USD 600) cash fine and 6 years 7 months jail term. Dongol and Heinen (2012) have found in their study on pitfalls of CITES implementation in Nepal: A policy gap analysis that majority of respondents agree with the involvement of enforcement and management personnel in corruption by decreasing the severity of punishment to offenders. Curtailing corruption would help in the fight against illegal wildlife trade. Suspected individuals are under-punished and over-punished in some cases. The court has also decided in a case that all arrested individuals were given half punishment as accomplices (Case ID 155 & 156). But there did not seem any information of main culprit's capture. Similarly, suspects have been acquitted but the main culprit is yet to appear in the court. Almost all cases related to musk pod are under-punished. Similarly, there exists no uniformity of punishment applied on fake rhinoceros horn cases while there are over fine punishments in the cases of red panda. The court decision of some cases seems weird though punishment is under the legal frame. For example, a suspect caught with 2 leopard skins was penalized with 2 years imprisonment and a cash fine of 10000 Nepalese rupees (~ USD 100) while a person convicted for possession of 109 leopard skins received the same punishment.

There is always room for improvement. EIA (2004) report on the tiger skin trail mentioned that there seems either a lacking of enforcement capacity or not interested in tracing to reach up to the main connection of the illegal wildlife trade in Nepal. There is a complex nature of the problem in Nepal including corruption and poor law enforcement (Brown & Davies, 2014). The decision in many cases has been overturned by Appellate Court (Lama, 2006).

Brown and Davies (2014) have also mentioned that illegal wildlife business operators have very good links with politicians, customs officials, and local police as well. Mentioning of fake wildlife parts and exotic species is also lacking in the NPWC act. However, District Forest Offices have prosecuted the cases as a normal.

4.2 Conclusion

This study has found that the illegal wildlife trade is prevailing in the Kathmandu Valley with wide varieties of wildlife species originating from tropical to alpine regions. The basic information and parts of all wildlife species traded illegally in the valley are compiled, thus representing baseline information for future comparisons and trend assessments. All the wildlife crime cases have been prosecuted, investigated and judged by District Forest Offices. The chief of District Forest Office has adjudicated the cases as a quasi-judge, often with weak punishment for offenders. Though there is some severe punishment of both fine and imprisonment, there is a lack of uniformity in punishment. A biased justice system leads to under-punishment and over-punishment. Amendment of laws seems necessary to properly address all ongoing wildlife crime cases such as exotic species and fake wildlife products. A study of crime investigation report in detail and appellate cases will also provide a clear picture of the law practicing way for handling wildlife crime cases in the country.

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Annex-1 (Acts and rules pertinent to wildlife and controlling illegal wildlife trade in Nepal)

(*Sources*: KC *et al.*, 2011, Bhuju *et al.*, 2009 and Pokharel *et al.* 2008)

Name of Act / Rules	**Year**
Acts	
Police Act	1955
Export and Import (Control) Act	1957
Aquatic Animal Protection Act	1960
National Park and Wildlife Conservation Act	1973
Evidence Act	1975
Government Case Act	1992
Forest Act	1993
Environment Protection Act	1997
Customs Act	2007
Rules / Regulation	
National Park and Wildlife Conservation Rules	1974
Chitwan National Park Rules	1974
Wildlife Reserve Rules	1977
Himalayan National Park Rules	1979
Khaptad National Park Rules	1987
Buffer Zone (Management) Rules	1995
Forest Rules	1995
Bardia National Park Rules	1996
Conservation Area Management Rules	1996
Environment Protection Rules	1998

Annex – 2 (Wildlife species protected under National Park and Wildlife Conservation Act 1973)

(*Source*: http://lawcommission.gov.np)

Scientific name	Common name
Mammals	
Macaca assamensis	Assamese macaqua
Manis pentadactyla	Chinese pangolin
Manis crassicaudata	Indian pangolin
Caprolagus hispidus	Hispid hare
Platanista gangetica	Ganges dolphin
Canis lupus	Grey wolf
Ursus arctos	Brown beer
Ailurus fulgens	Red panda
Prionodon pardicolor	Spotted lingsang
Hyaena hyaena	Striped hyena
Prionailurus bengalensis	Leopard cat
Felis lynx	Lynx
Pardofelis nebulosa	Clouded leopard
Panthera tigris	Tiger
Panthera uncia	Snow leopard
Elephas maximus	Asian elephant
Rhinoceros unicornis	Greater one-horned rhino
Sus salvanius	Pygmy hog
Moschus chrysogaster	Himalayan musk deer
Cervus duvauceli	Swamp deer
Bos gaurus	Gaur
Bos grunniens	Wild yak
Bubalus arnee	Water buffalo
Ovis ammon	Argali
Pantholops hodgsoni	Tibetan antelope
Antilope cervicapra	Blackbuck
Tetraceros quadricornis	Four-horned antelope
Birds	
Ciconia nigra	Black stork
Ciconia ciconia	White stork
Grus grus	Common crane
Catreus wallichii	Cheer pheasant
Lophophorus impejanus	Himalayan monal
Tragopan satyra	Crimson-horned pheasant
Houbaropsis bengalensis	Bengal florican

Sypheotides indica	Lesser florican
Buceros bicornis	Great hornbill
Reptiles	
Pythos molurus	Python
Gavialis gangeticus	Gharial
Varanus flavescens	Yellow monitor

Annex-3

Government offices pertain to wildlife conservation and controlling illegal wildlife trade in Nepal. (*Sources*: KC *et al.*, 2011, Bhuju *et al.*, 2009 and Pokharel *et al.* 2008)

Agency
Department of National Parks and Wildlife Conservation
National Park / Wildlife Reserves /Conservation Area Offices
Department of Forests
District Forest Offices
Department of Plant Resources
Department of Archeology
Nepal Police
Nepal Army
Armed Police Force
Custom Offices
Postal Offices
Revenue Investigation Offices
Natural History Museum
National Forensic Laboratory
Appellate Courts and Supreme Court
Government Advocate Offices

Annex-4 (Some photographs of wildlife seizures in the Kathmandu Valley)

Tiger skins ©WCN

Red panda skins ©WCN

Common leopard skulls ©WCN

A clouded leopard skin ©WCN

Common leopard bones and a skin ©WCN

A bear skin ©WCN

A rhino horn ©WCN

A bear gallbladder ©WCN

Pangolin scales ©CIB

Musk pods ©WCN

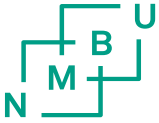
Tokay gecko ©CIB

A Chinese pangolin ©WCN

An Eurasian eagle-owl ©WCN

African grey parrots ©WCN

Rescued parrots ©WCN



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