

# Pitfalls of CITES Implementation in Nepal: A Policy Gap Analysis

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**Abstract** Implementation of policy involves multiple agencies operating at multiple levels in facilitating processes and actions to accomplish desired results. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was developed and implemented to regulate and control international wildlife trade, but violations of the agreement are widespread and growing worldwide, including in Nepal. This study attempts to understand how domestic CITES policies are translated into action and what effect actions and processes have on compliance. In doing so, this study provides insights into the implementation and enforcement pitfalls of national legislation that explain CITES violations in Nepal. Primarily, we used 26 key informants interviews to learn opinions of experts, and the grounded theory approach for further qualitative data analysis. In addition, we used Najman's (1995) policy implementation analysis framework to explain gaps. Many interrelated variables in the content of the policy, commitment and capacity of the agencies, the roles of clients and coalitions and contextual issues were observed. Variables that emerged suggest pitfalls in the regulatory policy represented by low probability of detection, arrest and punishment. Moreover, redistributive policies in buffer zones of protected areas are needed into perpetuity to benefit locals. Also, conservation organizations' support for building public and political salience is imperative.

**Keywords** CITES · Policy gap analysis · Policy implementation · International · Environmental agreement · Poaching

## Introduction

Unregulated international trade of wildlife and its derivatives threatens long term species survival and global trade of high value species is massive (McNeely and others 2009; Nijman 2009). Legal wildlife trade in 2005 was reported at \$300 billion US (Lewis 2009; TRAFFIC 2008), and international illegal wildlife trade was estimated to be in the tens of billions of US\$ (Wyler and Sheikh 2008). Both have contributed to the decline of many species (Wasser and others 2009). The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was developed in 1973 and came into force in 1976, in response to pressures from these international markets.

Multilateral environmental agreements, treaties and conventions promote cooperative action between participating nations and foster environmentally sustainable behavior through binding or non-binding rules and regulations (UNEP 2006; Heinen and Chapagain 2002; Jacobson and Weiss 1998). Despite proliferation of international environmental accords (UNEP 2006; Faure and Lefevre 1999), national implementation of and compliance with these accords are seen as major drawbacks influencing overall effectiveness (Weiss and Jacobson 1998). This is primarily because policy implementation is inherently a complex political process that involves multiple actors operating at multiple levels, each with their specific interests, goals and strategies (Najam 1995). Given these conditions, possibilities for noncompliance are enormous, and as rules without compliance are meaningless, enforcement measures are inevitable (Keane and others 2008; Akella and Cannon 2004). Enforcement of domestic legislation is complicated because several factors play key roles in the implementation of decision making, such as the political environment, public opinion, public advocacy, political

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will, stakeholders and economic issues in individual nations (Victor 1998; Vogel and Kessler 1998). CITES has been considered the most successful international conservation agreement on legal grounds (Ong 1998), despite voluminous reporting of ineffective implementation and compliance (Reeve 2006). In particular, CITES violations in the form of illegal trade (both international and domestic) and discrepancies in reported levels of international wildlife trade in individual countries are large and growing (Nijman 2009; Blundell and Mascia 2005).

CITES is both a conservation and trade agreement that includes three categories of protection (Appendix I, Appendix II, and Appendix III) and has listed more than 34,000 species of wild animals and plants (CITES 2011). Appendix I species are threatened with extinction and therefore trade of the species is strictly regulated. Appendix II species are not necessarily threatened with extinction but the regulation of the trade is required for long-term survival of the species. And Appendix III species are protected within a particular country or party for preventing over-exploitation of those populations. CITES is binding upon participating nations and requires individual parties to prepare and implement domestic CITES enabling legislation. Usually, wildlife trade is allowed through a permit system provided that trade is legal and allowed by CITES provisions. In Nepal, CITES protects 281 species of wildlife including 44 animals and 2 plants on Appendix I, 122 animals and 103 plants on Appendix II and 6 animals and 4 plants on Appendix III (CITES 2011). To comply with CITES in Nepal, various but discrete laws are functional (Aryal 2009; Heinen and Chapagain 2002). In addition, many Nepali non-government organizations are working in biodiversity conservation and some have begun to explore illegal wildlife trade. Furthermore, the Department of National Parks and Wildlife Conservation (DNPWC), Nepal's management authority for CITES, has begun anti-poaching task forces. Similarly, other management authorities, scientific authorities, and enforcement authorities have been established. Despite different efforts to protect and conserve biodiversity, cases of poaching and trade that violate CITES are numerous and results are disappointing. In particular, the killing of rare and endangered wildlife such as rhinoceros (*Rhinoceros unicornis*), tiger (*Panthera tigris*), snow leopard (*Panthera uncia*) and other species is widespread and growing (Bhujju and others 2009; Baral and Heinen 2006; Yonzon 2005; Martin 2004; Adhikari 2002). An earlier study reported lack of implementation and enforcement of existing legislation and absence of domestic CITES enabling legislation (Heinen and Chapagain 2002) as a cause of CITES violations in Nepal. But the factors that affect compliance change overtime (Jacobson and Weiss 1998). More specifically, because the political situation is evolving rapidly as Nepal

has become a Republic and external markets for products have grown in Southeast and East Asia, especially China, the situation is quite fluid and widespread poaching and illegal trade have been reported within the region (McNeely and others 2009; Nijman 2009).

Given the complexity of policy implementation in general (Najam 1995) and problems of CITES implementation in particular (Reeve 2006), our study attempts to understand how domestic CITES policies are translated into action and what affect actions and processes have on compliance. In doing so, this study provides insights into the implementation and enforcement pitfalls of national legislation that explain CITES violations in Nepal. Specifically, this study examines government policies through key informant interviews and reviews of documents. For the study, we used the 5Cs protocol of policy implementation analysis framework developed by Najam (1995). The 5Cs represent clusters of variables of policy implementation, which are developed based on comprehensive literature reviews of policy formulation and implementation research. These Cs stand for: (1) content of the policy (2) the nature of the institutional context (3) commitment of multiple policy implementing agents (4) capacity of implementing agents, and (5) support of clients/coalitions. Some previous studies (e.g., Sebastain and others 2011; Bayrakal 2006; Welch 1999) also have used the framework in different areas in analyzing policy implementation. Rather than focusing on specific testable hypotheses, because of the complexity of the topic and the issues, this study is exploratory and generates general knowledge of the extent of CITES implementation issues. Essentially it is a policy gap assessment (Heinen 2010) in CITES implementation.

## The Nature of the Problem

### Rhino Poaching and Illegal Trade

Rhinos are protected under Appendix I of CITES. Known poaching history from Government of Nepal records for Chitwan National Park shows that about 35 rhinos were killed between 1973 and 1991 and a further 28 more were killed in 1992 (Adhikari 2002). The rhino population in Nepal was estimated 372 in 2005, down from a high of over 550 in 2000, because of an increase in poaching and illegal trade (Bhujju and others 2009; Martin and Martin 2006). During the same period more than 88 rhino poachers were arrested, without any reduction in poaching. Even though Maoist insurgents came into the peace process after 2005, poachers killed 21 rhinos in 2006 taking opportunities of the volatile political situation. Rhino surveys in 2008 claimed 435 rhinos in three populations in Nepal (DNPWC 2008). Since then poachers have killed 36 more rhinos (DNPWC

2010, 2008; personal communication). The most recent rhino surveys reported 534 rhinos in Nepal (DNPWC 2010).

#### Tiger Poaching and Illegal Trade

Tigers, also Appendix I in CITES, in Nepal are spread in three different populations in lowland protected areas. The 2008 tiger count estimated 241–304 tigers, which was a decrease from 360 to 370 total estimated in 2005 (DNPWC 2010). In 1999/2000, the total estimated tiger population was 340–350 individuals (DNPWC 2007). From 2004 to 2007, 26 persons were arrested on charges of tiger poaching and 25–29 tiger skins and 128.5 kg of bones were confiscated (Damania and others 2008; DNPWC 2007). Thereafter, the DNPWC reported that 19 more poachers were arrested from seven different cities in Nepal and the total tiger bones confiscated from poachers and traders from 2004 to 2009 amounted to 167 kg (DNPWC 2007; personal communication). Although trade of the species parts is huge, killing within Nepal is relatively low with only one reported killing in 2011 (DNPWC 2010). It is thought that most of the parts confiscated in Nepal were of poached animals from India, and Nepal has become the major route by which poachers from other nations are able to get their products in China (Yonzon 2005).

#### Red Sandalwood Trade

Red sandalwood (*Pterocarpus santalinus*), Appendix II in CITES, is an aromatic tropical hardwood tree endemic to the southern part of India (IUCN Red List 2011; Zhou 2004). It does not naturally occur in Nepal, but Nepal is the main trade route for sandalwood from India to China. Illegal trade of red sandalwood provides a unique example of CITES violation in Nepal and in the region. Until 2006, the District Forest Offices (DFO) in Kathmandu and Lalitpur provided route permission to transport red sandalwood, and 500–600 tons were traded (Mandal and others 2008). The Nepal Army, for the first time, seized 7.8 tons of illegally-traded sandalwood in February, 2006. Department of Forest records showed that 256 tons were seized in the country since then and 55 cases of illegal trade in red sandalwood were documented. Documented legal trade (export) of red sandalwood from Nepal to China is about 68 tons (UNEP-WCMC 2011).

#### Overview of CITES Implementing Policies

Although Nepal does not have specific CITES enabling legislation at this time, various existing laws prohibit any illegal taking, killing and trading of wildlife species. Some relevant laws that guide CITES implementation are: The National Parks and Wildlife Conservation Act, 1973 (NPWC

Act); The Forest Act, 1993; The Export Import (Control) Act, 1961; The Customs Act, 2007; The Police Act, 1995 and The Environmental Protection Act, 1997. Different plans and programs also exist to curb illegal wildlife trade and poaching, and to promote conservation (Aryal 2009).

#### The National Parks and Wildlife Conservation Act 1973

The goals of this act are to protect and manage wildlife and habitats throughout Nepal. This act prohibits entry inside national parks and wildlife reserves without permission from an authorized officer (Army and National park staff). Activities such as hunting, residing in, collection of most natural products, harming and taking weapons and poisons are prohibited inside National Parks and Wildlife Reserves. Permission is required to collect any specimen for scientific purposes. The law prohibits trade in trophies without license. Export and import of wildlife products require permits from the Ministry of Forests and Soil Conservation. This act allows for rewards of up to 50,000 NRs (\$616.22 US)<sup>1</sup> to any person who furnishes information that leads to the arrest of an offender and allows for punishment (5–15 years imprisonment) and/or fines up to 1,00,000 NRs (\$1232.43 US) for killing protected species. The Warden is a quasi-judicial body who has the authority to hear some cases under this Act (Heinen and Kattel 1992).

#### The Forest Act, 1993 and the Forest Regulation, 1995

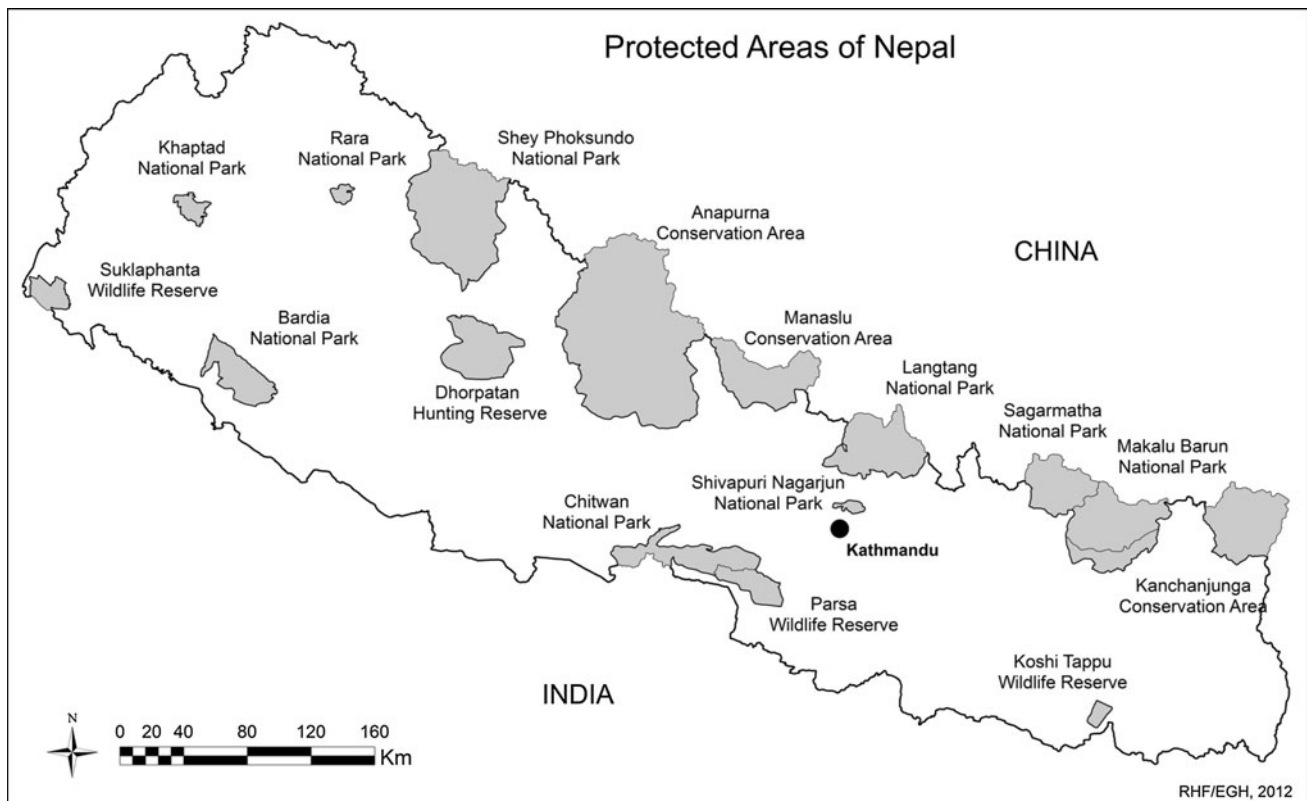
The goals of this act and its regulations are to conserve and manage forests and their resources. The 1993 Forest Act provides jurisdiction of forest officers to implement wildlife laws outside of national parks, reserves and conservation areas. The Act prohibits activities such as the collection, removal, utilization, distribution and export of many important listed plants for the protection of biodiversity (Heinen and Shrestha-Acharya 2011). DFOs have the authority to hear cases up to NRs 10,000 (\$123.24 US), whereas District Courts have the authority to hear cases greater or larger value with regard to forest products violations. Offenders are punished with fines equivalent to the product amount and/or imprisonment up to 5 years.

#### Methods

##### Data Collection and Document Reviews

We conducted our research in Nepal (Fig. 1). On the basis of Bernard's (2006) qualitative research method, we used

<sup>1</sup> (1 USD = 81.14 NRs, March 22, 2012).



**Fig. 1** Protected areas of Nepal. Newly added Protected Areas (Banke National Park, Api Nampa Conservation Area, Blackbuck (KrishnaSar) Conservation Area in the far western Nepal and Gauri Shankar Conservation Area in the eastern Nepal) are not included in the map

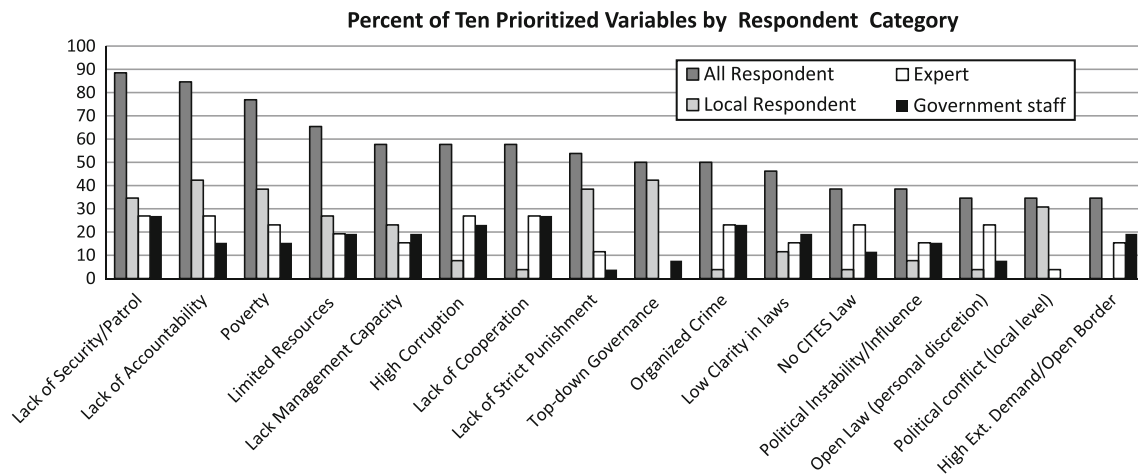
face-to-face interviews with key informants representing government agencies, non-governmental organizations, journalists and concerned local organizations. We used the purposive sampling method for key respondent selection and open-ended semi structured questionnaires for interview. Essentially, key informant interviews are appropriate and effective when intricate problems need to be unraveled, and when in-depth information cannot be expected from representative surveys of respondents (Tremblay 1957). We took suggestions and advice for selection of key informants from highly reputed wildlife conservation personnel in Nepal (Resources Himalaya Foundation and WWF-Nepal). In addition, one of us had completed similar work in Nepal previously (e.g., Heinen and Chapagain 2002; Heinen and others 1995). Following the selection process, twenty-six key respondents were interviewed; government authorities (31 %,  $n = 8$ ), independent wildlife experts (27 %,  $n = 7$ ), and buffer zone committee representatives of the Chitwan National Park (42 %,  $n = 11$ ). All respondents were asked about the existing socio-economic and political environment of the country with respect to CITES implementation. Some questions were more specific, especially on pitfalls of existing CITES implementing policies, and on prevailing illegal wildlife trade. We also asked questions about current functions of

government and collaborating agencies in terms of policy implementation and enforcement. We carried out a combination of recording on audiocassettes and/or note taking of all interviews for later analysis. Each interview last about 20–45 min.

We reviewed national wildlife conservation policies and initiatives and particularly focused on the National Parks and Wildlife Conservation Act 1973 and the Forest Act 1993. We also gathered data about poachers from district courts and from Chitwan National Park office. The UNEP-WCMC database was used to detect probable discrepancies in reported legal trade. Media coverage of illegal wildlife trade was also reviewed from 2007 to 2010, particularly focusing on the Resources Himalaya Foundation, Environmental Watchdog Newsletter and weekly synopses from three national dailies (The Kantipur Daily, The Himalayan Times and Gorkhapatra Daily). Poaching data were mainly focused on rhino, tiger, and red sandalwood because their parts and derivatives are highly traded in international markets (see above).

#### Data Analysis

We used the grounded theory approach for qualitative data analysis developed by Glaser and Strauss, 1976 (Bernard



**Fig. 2** Most prioritized variables by respondent category

2006). On the basis of this approach, a list of information and comments that emerged in interviews was analyzed sentence by sentence to discover variables that explain domestic CITES violation. Primarily, we considered repetition of words and ideas, transitions and similarities and differences in each preceding and following sentence (Ryan and Bernard 2003). We used Ethnography version 6 qualitative data analysis software for coding qualitative information to facilitate analysis. Further, we used Najam's (1995) model of the 5Cs protocol of policy implementation conceptual framework for categorization and analysis of inter-relationships of variables obtained from ethnographic software. Categories of major themes (5Cs) with variables under each theme provide broad patterns or concrete information to help explain and understand issues (Ryan and Bernard 2003) which are otherwise scattered or isolated.

## Results

### The Content of the Policy

Absence of a single overriding domestic CITES enabling law was one of the major content issues mentioned, mostly by experts and government staff, during interviews. The CITES implementing legislation in Nepal, "The Rare (Endangered) Wildlife and Plants Trade Control Act, 2057 (2002)" was drafted in 2002, but has been held up in the Cabinet since then. About half of the key respondents mentioned that extant laws lack specific roles and responsibilities of CITES implementing agencies. Another priority issue that key respondents, especially local residents, frequently mentioned was the lack of stringent punishment and fine provisions. In addition, 35 % of respondents also stated that punishment and fine provisions are open in the 1973

NPWC Act and have serious drawbacks in that penalties are unjust and lopsided; most convicted and prosecuted front line poachers are poor and middle men are rarely caught. In fact, they claimed that the low risk of punishment under existing legislation has encouraged more people to get involved in poaching and illegal trade (Fig. 2).

### The Administrative Capacity of the Implementing Agencies

The highest prioritized pitfall regarding capacity is the lack of resources in implementing agencies. About 65 % of respondents claimed that limited staff in management and enforcement is a major deterrent to implementation. In addition, they also mentioned that funding is too little to carry out administrative and enforcement activities. About 60 % of respondents believed that agencies lack administrative and management capacity, and knowledge. In particular, respondents mentioned that national park wardens and forestry officers do not have sufficient legal knowledge or background to prosecute offenders in favor of wildlife protection (Fig. 2).

### The Commitment of the Implementers

Overall, the lack of commitment was highly prioritized. The majority, about 85 %, of respondents mentioned that the army needs to take responsibility for rhino poaching inside national parks. Specifically, local respondents claimed that the army showed indifference even when rhino were killed 100 m from their posts and they usually do not follow management directives. Almost 90 % of respondents claimed that one of the overriding drawbacks is the lack of security measures inside national parks. Further, 58 % of respondents, especially experts and government staff, also opined that enforcement and

management personnel are heavily involved in corruption, decreasing the risk of punishment to offenders. Likewise, police, army and customs officers were thought to be involved in abetting the red sandalwood trade. In addition, about 58 % of respondents also considered that that lack of coordination, communication and cooperation between agencies and with locals have hindered CITES implementation (Fig. 2).

#### The Support of Clients and Coalitions

Almost all local respondents claimed that the current conservation approach is still largely top down, which is highly regulatory and frequently disregards local needs and aspirations. Local respondents also opined that benefits from incentive based conservation programs are lopsided in favor of a few vested groups, leaders and/or communities. In particular, respondents stated that key stakeholders lack ownership, capacity, and access over resources, which have reduced collective efforts. They emphasized that resource governance should be truly local. More than 70 % of local respondents also felt that political conflicts between local leaders and bureaucrats have hindered the goals of community-based conservation. Some 30 % claimed that the role of non-governmental organizations (NGOs) is ineffective because their long presence had produced little benefit to marginalized groups. They agreed that NGOs and agencies were unable to make conservation a priority in the political domain. However, many considered a recent meeting of the South Asian Experts Group on Illegal Wildlife Trade to support the South Asian Wildlife Enforcement Network (SA-WEN) as a positive effort. Some also praised the media's role in enhancing the importance of wildlife and bringing attention to rhino poaching (Fig. 2).

#### The Nature of the Institutional Context

Sixty-two percent of respondents agreed that the current political environment in Nepal is a major hindrance in implementing and enforcing laws. The political transition through the Maoist insurgency, which ended officially in 2006, has affected all aspects of bureaucracy and judicial decision-making. Government personnel are frequently affiliated with a political party, which makes it difficult to take action against some transgressions. Respondents said that political instability has encouraged corruption. For instance, the national dailies reported that more than 100 poachers were freed or given amnesty during the political transition period, including some major traffickers. About 77 % of the respondents and almost all local respondents believed that the poverty of people living nearby forest influences illegal activities. Some 35 % of the respondents

claimed that external factors such as growing markets in East and Southeast Asia, especially in China, have fueled poaching and illegal trade. Moreover, the geographic setting of Nepal (porous borders with India and China) was cited as a reason of growing illicit trade. Half of the respondents, and almost all experts and government respondents, stated that organized crime is prevalent and that this has encouraged poaching and illegal trade (Fig. 2).

#### Discussion

This study indicates that two laws, the 1973 NPWC Act and the 1993 Forest Act, play critical roles in implementing CITES in Nepal. Other Acts mentioned above, however, are not less important to achieve CITES goals because they indirectly help to enforce it. For example, the 1955 Police Act provides authority to police officers to control all illegal activities, including illegal wildlife trade, within Nepal. The statement that the lack of CITES enabling legislation is a primary cause of growing poaching and illegal trade in Nepal (Aryal 2009; Bhujju and others 2009; Heinen and Chapagain 2002) is partly correct. We observed numerous other complicating issues. Our study suggests flaws in the performance of the enforcement chain at various levels of governance and flaws in incentive based or community based policies. All arguments presented in this article are based on the assumption that the poaching is high and growing. In contrast to the poaching history in Nepal, 2011 data reported one tiger and no rhino poaching. These results may be because of positive role played by all media during the period. We cannot ignore the indirect contribution of local peoples' awareness on the issues and occasional arrest of traders outside national parks. Although the management and enforcement agencies have increased their work to reduce poaching and trade in recent years, we do not have sufficient reasons to believe that the agencies have contributed much to produce the outcome. On the other hand, a single year's result does not necessarily suggest a positive pattern because the past data show spatial and temporal variation of poaching trends. Adhikari (2002) suggested that space and time of poaching may change but poaching never ceases given the circumstances discussed below. The quality and texture of our results may have been improved and expanded if we had more key informant interviews. Unfortunately, some personnel from enforcement agencies (police and custom) ignored our requests for interviews despite repeated attempts, and we were unable to get interviews from any politicians. While many of these people do not have direct knowledge about CITES implementation per se, their perceptions about the scope, scale and awareness of the problem may have proved enlightening.

Enforcement and monitoring of rules are critical when non-compliance is at issue (Vogel and Kessler 1998). More importantly, the probability of detection and arrest, the probability of punishment (prosecution and conviction) and the severity of punishment play important roles in implementation and enforcement of rules (Akella and Cannon 2004; Leader-Williams and Milner-Gulland 1993), and eventually help to decrease the frequency of offences (Dobson and Lynes 2008; Becker 1968). But the anti-poaching efforts, especially security inside national parks, which helps to increase detection (Hilborn and others 2006) is minimal because the army and national park staff shirk patrolling. Previous studies on poaching suggest that robust informant networks outside national parks with collaboration between all agencies and security posts increases detection and arrest (Bhujra and others 2009; Adhikari 2002). Many studies on elephant and rhino poaching in Africa have reported that frequency and efficiency of vehicle and foot patrols remarkably reduced poaching and illegal trade (Hilborn and others 2006; Leader-Williams and Milner-Gulland 1993). In addition, numerous other factors indirectly lower detection and arrest, such as the absence of clear specific rules and responsibilities and hierarchies of implementing agencies (Sabatier 1986; Pressman and Wildavsky 1973) in extant legislation because specific roles provide clear directives to subordinate agencies (Najam 1995), and help to build support among agencies (TRAFFIC North America 2009). Many times enforcement agencies disregard conservation agencies because they lack political weight. Likewise, Heinen and Chapagain (2002) reported jurisdictional confusion between the DNPWC and the Department of Forest because of lack of clarity in current law, which might lower the detection of infractions (Akella and Cannon 2004). Furthermore, lower accountability of staff also influences detection probability (Najam 1995; Leader-Williams and Milner-Gulland 1993). According to the Environmental Watchdog Newsletter, over 30 Nepal army soldiers are arrested every year for involvement in poaching or smuggling wildlife (Dangol and Paudyal 2008). More recently, the chief warden of Bardiya National Park claimed that out of 76 people arrested for poaching and illegal trade in bush meat, 50 % were police and 25 % were army personnel (Ghimire and Bhatta 2010). Earlier studies in Nepal suggested that limited staff and budget shortages in the army and the DNPWC influence anti-poaching efforts (Aryal 2009; Bhujra and others 2009).

Increased probability of punishment—prosecution and conviction—and subsequent reduction in offenses primarily depends on penalties inscribed in legislation (Keane and others 2008). Although the two existing laws have stringent punishments including fines and/or prison sentences, such provisions have had minimal impacts on restricting

domestic CITES violations in Nepal. The personal discretion of judges, because of open penalty provisions in law, is a major issue that decreases the likelihood of punishment because it prompts unfair judgments and high levels of corruption in the judicial system (Akella and Cannon 2004). Secondly, the lack of legal knowledge among wardens and district forest officers has the effect of reducing punishment because prosecution and conviction depend in part on witness backgrounds in court proceedings. Also, the fixed penalties in the 1973 NPWC Act have encouraged offences because benefits from illegal trade often exceed the costs of fines (Akella and Cannon 2004). Working in Zambia, Milner-Gulland and Leader-Williams (1992) reported that penalties that vary with the degree of violation are more effective. Of 87 total convicted offenders in Chitwan National Park from 2008 to 2009, 35 % were not in custody at the time of our study. Earlier research also stated that nearly 60 % of poachers escaped any punishment (Bhujra and others 2009). In addition, many high profile illegal traders were less punished than local accomplices. For instance, the most infamous illegal trader, “Yakche”, got a short jail sentence even though he confessed and was convicted of involvement in trade of more than 20 rhino horns, and the jail term of a notorious middle man “Gokul Pant”, was reduced by an appellate court decision during our study period. Enforcement of rules also depends on communication, coordination and cooperation among agencies, prosecutors, judges and NGOs (Akella and Cannon 2004). Sharing of information decreases judicial confusion, increases procedural efficiency among agencies, and helps to build strong cases against offenders (Akella and Cannon 2004). Heinen and Chapagain (2002) suggested that the frequency of coordination meetings between agencies must be explicitly stated in the law for better enforcement results.

Socio-economic benefits to marginalized group is important for promoting favorable conservation attitudes (Mehta and Heinen 2001; Wells and Brandon 1993) because such benefits help in reducing poaching activities (Martin and Martin 2006; Lewis and others 1990) and reinforcing social capital necessary for positive biodiversity outcomes (Pretty 2003). However, such benefits from conservation programs are sorely lacking in many parks, which might have impacted collective action necessary to increase communication and build trust to manage common resources (Ostrom 1990). Further, we can predict low collective action because of political conflicts between local people and minimum decision-making power over use of resources by locals. Overall, the problem of collective action and unfavorable conservation attitudes lower information and intelligence sharing about potential violators, and reduces local involvement in support of conservation initiatives.

Vogel and Kessler (1998) found that the lack of public support in India, Japan and Italy affected each government's ability to comply with CITES. In addition, NGOs have a role to play in building public and political awareness and support through advocacy and dissemination of information (Kraft and Vig 2009), generating funding for capacity development, supporting research, and functioning as watchdogs for conservation and protection of wildlife (Vogel and Kessler 1998). But undertaking such roles by organizations is minimal in Nepal where conflicts between NGOs and management and enforcement agencies are prevalent. The lack of concerted efforts among NGOs and agencies has in part led to the decade long hold up of Nepal's draft CITES bill (The Endangered Wildlife and Plant Trade Control Act, 2002).

Political instability is prevalent in Nepal because of its recently ended civil war. In the state of political upheaval, enforcement of laws and regulations is minimal and domestic economic activities decrease, as do external resources in support of conservation because many donors withdraw their activities for security reasons (Hamilton and others 2000; Vogel and Kessler 1998). Political instability and long transition periods also lead to judicial inefficiency and political patronage that promotes corruption and non-compliance of rules and regulations (Damania and others 2004). Martin and others (2009) opined that the massive rhino poaching in Nepal after 2000 was because of war and disruption of law and order. Enforcement in politically unstable conditions is disrupted because of shifting agency priorities. In Nepal, during the insurgency, national park's army guard posts were reduced by 70 % (Baral and Heinen 2006). In Chitwan National Park alone, 25 of 32 posts were withdrawn, which greatly increased poaching opportunities (Adhikari 2002). The war affected trans-boundary efforts to curb illegal wildlife trade as well, as coordination between countries (Nepal, India and China) decreased (Oli 2005).

The increase in CITES violations and low implementation of the domestic laws can also be predicted because of the high economic value and growing markets for wildlife products. Ming and others (2000) reported that about 10 % of wild animal products used in Tibetan and Chinese tradition medicine comes from Nepal and India, suggesting huge illegal trade in the region. The arrest of poachers in Kathmandu (90 % are from the Tibetan community) with large volumes of wildlife products, suggests that Nepal is both a transit and source of trade in wildlife products (Yonzon 2005). TRAFFIC (2007) stated that Chinese consumption of protected species is increasing and further reported that Chinese medicinal trade in many parts of the world is growing at an annual rate of 10 %. Especially, wild tiger poaching can be expected to continue and increase for two main reasons: Chinese people prefer wild tiger products over farmed tiger products because of

supposedly better analgesic effects and farming tiger is 250 times more expensive comparing to poaching in India and Nepal (Dinerstein and others 2007). Given that bleak picture, the role of multiple institutions and interest group at all levels should be encouraged.

## Conclusion

Our study shows that the CITES implementation process in Nepal has been severely impacted by gaps in policy design, drawbacks in implementing agencies and contextual issues of implementation. Numerous problems that hinder implementation suggest poor performance of the enforcement chain at all levels and low public and political support. Given these circumstances, any future policy that aims to address illegal wildlife trade should opt for strengthening each factor within the chain of enforcement. Three priority sectors that need attention are: (1) the role of customs and police, which appears negligible at present, is important in management and enforcement of CITES because of the large number of field-level staff throughout the country; (2) policy should include a performance appraisal system for each implementing agency to improve commitment and function; and (3) The (MIST) integrated spatial management information system (Walston and others 2010), mentioned during several interviews, could be beneficial to enhance the probability of detection and monitor patrolling. As people's perception of illegal wildlife trade depends in part on how media frame the problem, the role of the media also needs to be enhanced. Education and empowerment of marginalized groups are the utmost priority. Finally, as many policy implementation gaps discussed above suggest the intricacy and complexity of problems associated with wildlife governance, further empirical study is needed for more efficient management through time.

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