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Research Article

Evaluating the effectiveness of wildlife protection laws in Uttar Pradesh: an analysis of enforcement and prosecution

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Abstract

This study revealed that wildlife law enforcement in Uttar Pradesh, India is facing several challenges, making it ineffective. The study aimed to identify these challenges and examine the enforcement strategies employed by wildlife officers. Officers were given a questionnaire, which revealed that they mostly relied on deterrence tactics to enforce laws by detecting and punishing violators. In Uttar Pradesh, a total of 746 cases of wildlife crime were registered, making it a major concern in North India. According to the NCR Bureau report, since 2016, Uttar Pradesh has accounted for more than 25% of the country's wildlife crime cases. Out of the total cases registered, 551 were pending in the department, 91 cases were pending in court, and 108 were compound cases. According to our observations, most of the respondents were male, accounting for 58.5%, while females comprised the remaining 41.5%. The age distribution of the respondents was as follows: 45.7% were between 36-49 years old, and 22.8% were middle-aged or older. Most of the respondents had over 10 years of experience in the field and had extensive knowledge about wildlife. When it came to educational qualifications, 41.5% had completed high school, 31.1% had undergraduate degrees, and 11.2% had graduate degrees. Most of the respondents had passed the elementary Certificate of Education. Based on their academic qualifications or work experience, 57.3% of the respondents claimed to know wildlife and forests, while 6.9% declared expertise in law and biology, respectively. Although respondents may use a combination of strategies to enforce laws, the survey results show a higher mean score for deterrence strategy (M = 5.05, SD = .396) in both states compared to compliance strategy (M = 4.43, SD = .621) and responsive regulation (M = 3.61 SD = .561). These findings could be valuable in developing capacity-building programs for wildlife officers and helping decision-makers at the state and federal levels allocate resources to wildlife authorities.

Keywords: Evaluating, enforcement, legislation, prosecution efforts

Introduction

Wildlife crime is a serious global issue that harms protected flora and fauna. In the wake of wildlife crimes that are widely committed by organized criminal gangs across national boundaries (Cook et al., 2002), enforcement is essential to ensure compliance with conservation legislation (Holmern et al., 2007; Keane et al., 2008). However, ineffective enforcement has remained one of the main obstacles to conservation laws (Kaaria & Muchiri, 2011; Sharma, 2003). Poaching activities such as live trade, body part trade, or selling of processed products have become rampant, causing significant harm to various animal species (Wilson-Wilde, 2010; Anagnostou et al., 2021). Currently, some of the most vulnerable animal species on the planet, such as tigers, leopards, pangolins, elephants, and rhinos are at high risk (Patel et al., 2015; Gaubert et al., 2017). The growing demand and trade of elephant ivory, rhino horns, tiger products, and pangolin scales in the world market has led to a surge in poaching activities, particularly in Asia and Africa.

To effectively enforce laws relating to wildlife and forests, it is essential to have an efficient prosecution service and an independent judiciary. This ensures that those who violate the law are held accountable and the rights of all stakeholders are protected. However, many countries face challenges such as understaffed, under-resourced, and sometimes corrupt prosecution authorities and courts, which can hinder their ability to effectively enforce these laws (UNODC, 2012; Nurse, 2015; UNODC, 2018).

India's Wildlife (Protection) Act of 1972 prohibits the trade of over 1,800 plant and animal species, and their derivatives to prevent their extinction. Despite this legislation, the illegal wildlife trade continues to expand rapidly. The demand for rare species with ornamental parts and medicinal properties drives this trade, with animals being smuggled alive or as body parts to Asia, Europe, and North America. Smuggled wildlife from India includes turtles, tortoises, pangolins, sea horses, tokay geckos, sea cucumbers, parakeets, mynas, munias, wild boars, tiger and leopard bones, ivory, bear bile, deer and rhinoceros horns, mongoose hair, snake venom and skins, musk pods, red sander timber, and medicinal plants. Despite efforts to protect India's wildlife, the wildlife trafficking crime is highly organized and urgently requires the support and intervention of conservationists and investigation/forensic agencies. Unfortunately, human-wildlife conflicts have increased, and humans have dominated wildlife, destroying flora and fauna everywhere on the planet. There are currently 1,392 threatened species in India, further categorized as Vulnerable, Endangered, and Critically Endangered. The species listed under the CR category are on the verge of extinction and require special attention from wildlife stakeholders and local communities to actively participate in

conservation activities. There is no denying that human-wildlife conflicts have grown and shaped to such an extent that humans have only dominated wildlife, perpetually destroying both flora and fauna everywhere on the planet (Beisner et al., 2014; Shaffer et al., 2019; Gulati et al., 2021; Naha et al., 2021; Karanth et al., 2023).

There are three categories of judicial responses to wildlife trafficking: (1) general jurisdiction authorities handling environmental matters, including wildlife trafficking, (2) specialized prosecution and judicial authorities with specialized training, and (3) specialized environmental courts and tribunals for resolving disputes. To effectively enforce wildlife and forest laws, it's crucial to have a well-functioning prosecution service and independent judiciary. This ensures that those who break the law are held accountable and the rights of all stakeholders are protected. However, many countries have understaffed, under-resourced, and sometimes corrupt prosecution authorities and courts (Amirante, 2012). For the judiciary to function properly, it must have a clear structure and organization. The judicial branch must remain separate from the executive and legislative branches of government to prevent interference and corruption, even in the wildlife and forestry sectors. This article highlights the urgent need for effective laws and policies to protect wildlife in India, particularly in Uttar Pradesh, where populations of many species are rapidly declining. Human exploitation of wildlife and the effects of climate change, such as habitat modification and changes in migratory patterns, are major contributors to this decline, leading to the extinction of some species and threatening many others.

Material and methods

Study Area

The state of Uttar Pradesh has one National Park and twenty-six (26) Wildlife Sanctuaries. Dudhwa National Park was established in the year 1977 in Lakhimpur Kheri district with an area of 490.29 sq. km. The state of UP can be divided into two physiographic regions; the central part of the Ganges River and the southern uplands. The majority of UP lies in the Gangetic Plain, which is composed of alluvial deposits brought down from the Himalayas by the vast Gangetic network.

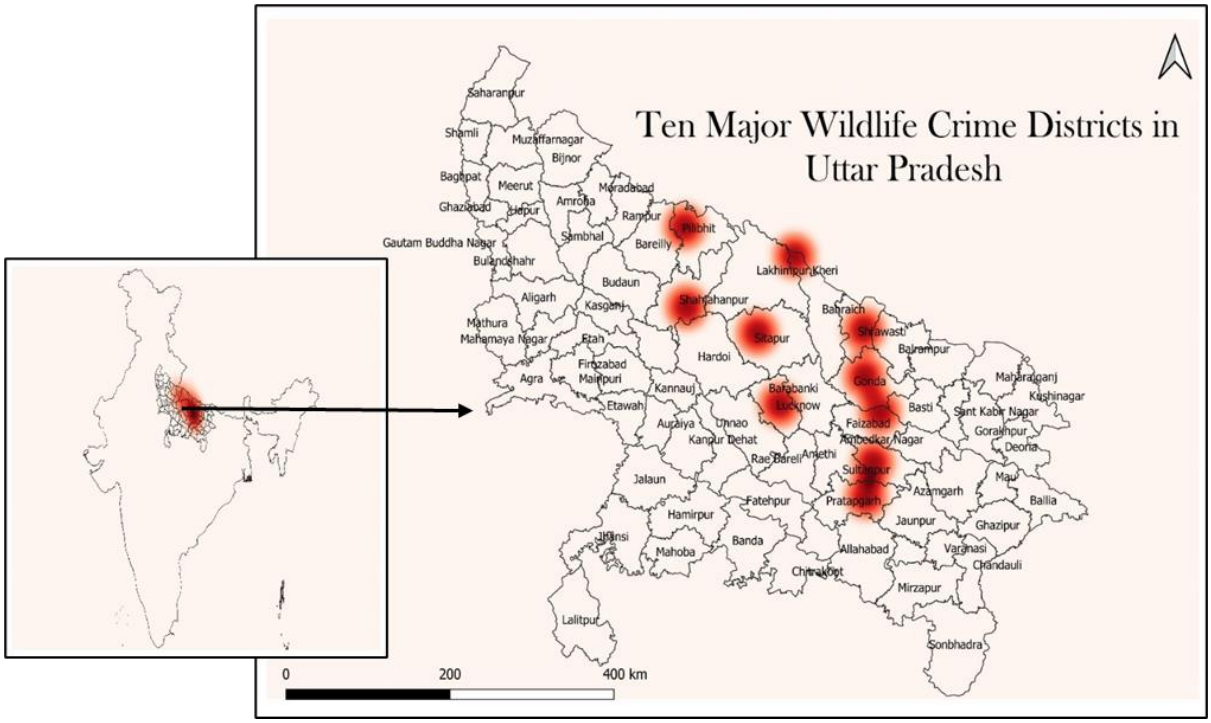

Figure 1. Map of the study area

To conduct the research, we used a methodology that involved reviewing and analyzing both primary and secondary sources of data from 2014-2022. For secondary data, we surveyed various forest offices, documentation centers, and national organizations that work on wildlife law, policies, and conservation. For primary data, we interviewed staff and officials of private and public institutions involved in wildlife conservation and crime prosecution in Uttar Pradesh from 2019 to 2022. Before discussing the issues related to wildlife law and enforcement in Uttar Pradesh, India, it's crucial to acknowledge the significance of wildlife and the threats it faces. Understanding the importance of wildlife can impact our attitudes and commitment to combatting poaching and illegal wildlife trade, and help us comprehend what current and future generations may lose and the obstacles we need to overcome.

Our team has thoroughly reviewed the legal and institutional framework related to handling wildlife offenses, including the competent courts, applicable legislation, and judicial procedures. We conducted joint field missions with ten major districts (Fig. 1) that were selected based on their proximity to protected areas or large trading centers. During semi-structured stakeholder interviews, we spoke with public authorities such as forest officials and STF police, judicial authorities like presiding judges of the courts and public prosecutors, and local-level authorities in various localities. These conversations significantly helped us to identify weaknesses in the judicial system and the challenges faced in the fight against wildlife crime. By using a database, we were able to identify over 746 cases that have been handled by

forest departments and courts since 2014. For each case, we collected as much data as possible, including information on the type of crime. • Name and community of the person convicted: which can be used to identify repeat offenders.

• Dates and locations of arrests.

• Types of offense (poaching with or without a weapon, possession or trading in parts/products of protected species, etc.), the species or type of products concerned (ivory, skins, teeth, etc.). Therefore, it's necessary to raise awareness and take action to protect wildlife in Uttar Pradesh. The implementation of effective wildlife laws and enforcement measures is crucial to combat poaching and illegal wildlife trade. Additionally, promoting sustainable tourism and educating the public about the importance of wildlife conservation can help protect wildlife and their habitats. The methodology utilized involves review and critical analyses of both secondary sources of data; collected through the survey by way of visits to different forest offices, documentation centres, and websites of national organizations working in wildlife law and policies and conservation in particular.

Judicial Procedures Applicable to Wildlife Cases

The responsibility of policing wildlife and hunting, patrolling, making arrests, and preparing legal documents lies with the authorities. If an offender is caught, they may be placed in custody if the offence is punishable by imprisonment. The Public Prosecutor, who is the Magistrate of the State's Attorney in the regional or district court, controls the enforcement and decides whether to release or extend the offender's custody (Fig. 2).

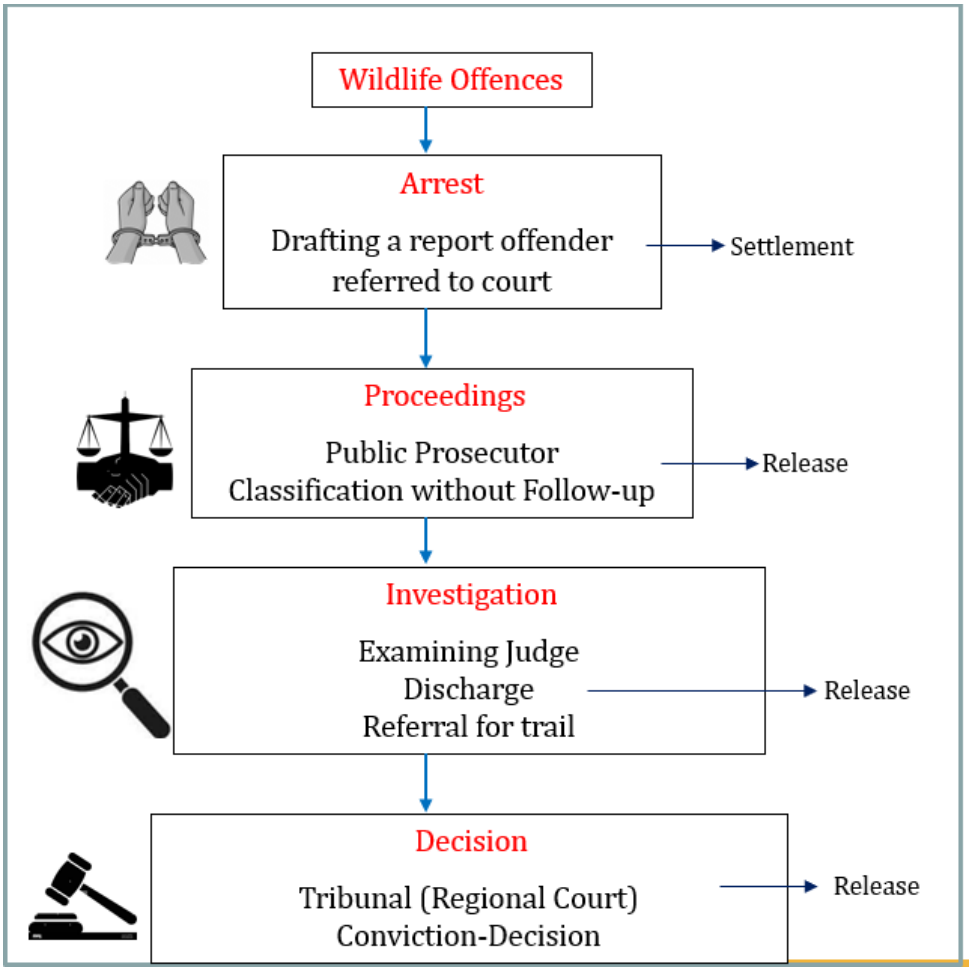

Figure 2. Judicial Procedures Applicable to Wildlife Cases

Results and discussion

During the study period from 2014 to 2022, we observed a total of (n=746) wildlife crime cases registered in Uttar Pradesh. Wildlife crime is a major concern in North India, specifically in Uttar Pradesh. According to the NCR Bureau report, Uttar Pradesh accounted for over 25% of the country's wildlife crime cases since 2016. Out of the total registered cases, 551 cases were pending in the department, 91 cases were pending in court, and 108 were compound cases (Fig. 3). District-wise analysis showed that the maximum number of pending cases (33.9%) was observed in the Pilibhit department, followed by Lakhimpur-Kheri (29.8%) (Fig. 4). In terms of pending cases in court, the maximum number of pending cases (18.7%) were observed in Amethi, followed by Barabanki (17.6%) and Pilibhit (14.3%). We also observed the compound cases district-wise, with the maximum number of compound cases (39.8%) observed in Lakhmipur-Kheri, followed by Gonda (13.0%) and Pilibhit (10.3%) (Fig. 5).

Wildlife crime cases have been on the rise in North India, with the state of Uttar Pradesh being the prime hub for poachers. Since 2016, Uttar Pradesh has accounted for more than 25% of the

country's wildlife crime cases. According to the NCRB report (NCR Bureau 2014-2021), there were 859 cases registered in India under the Wildlife (Protection) Act, 1972 in 2016. Out of these cases, Uttar Pradesh had the highest number, i.e., 302, while Rajasthan had 190 cases. In January 2017, the Special Task Force (STF) of the Uttar Pradesh police discovered and seized many endangered softshell and flap shell turtles weighing over four tons from a house in the Amethi district, marking the biggest wildlife haul in India's history. Uttarakhand is renowned for its diverse wildlife, but unfortunately, there have been instances of wild animal trafficking via the Indo-Tibet border.

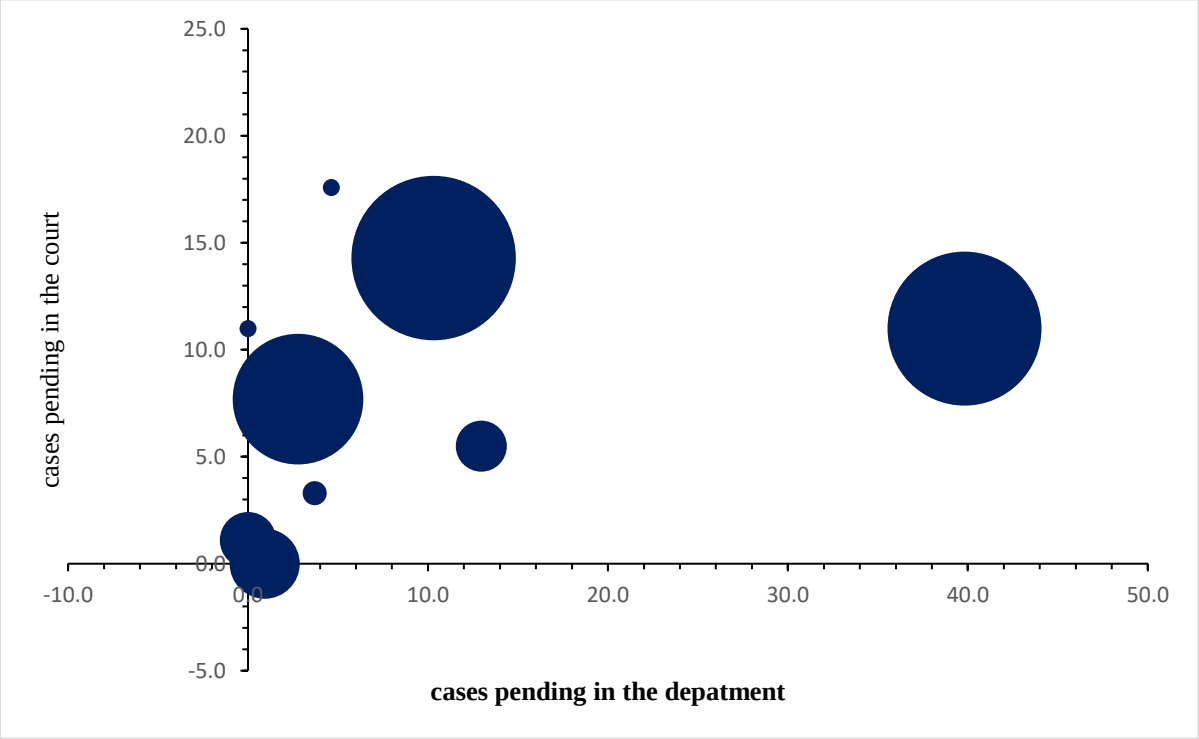

Figure 3. Cases pending with the forest department vs. court.

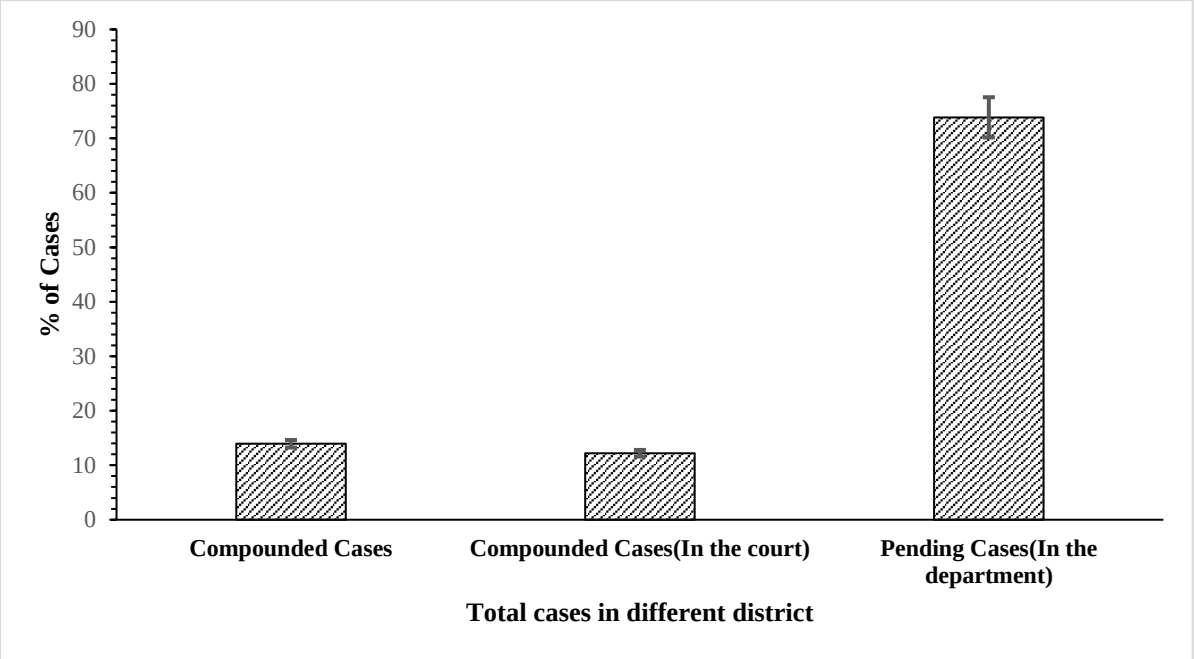

Figure 4. Total cases pending

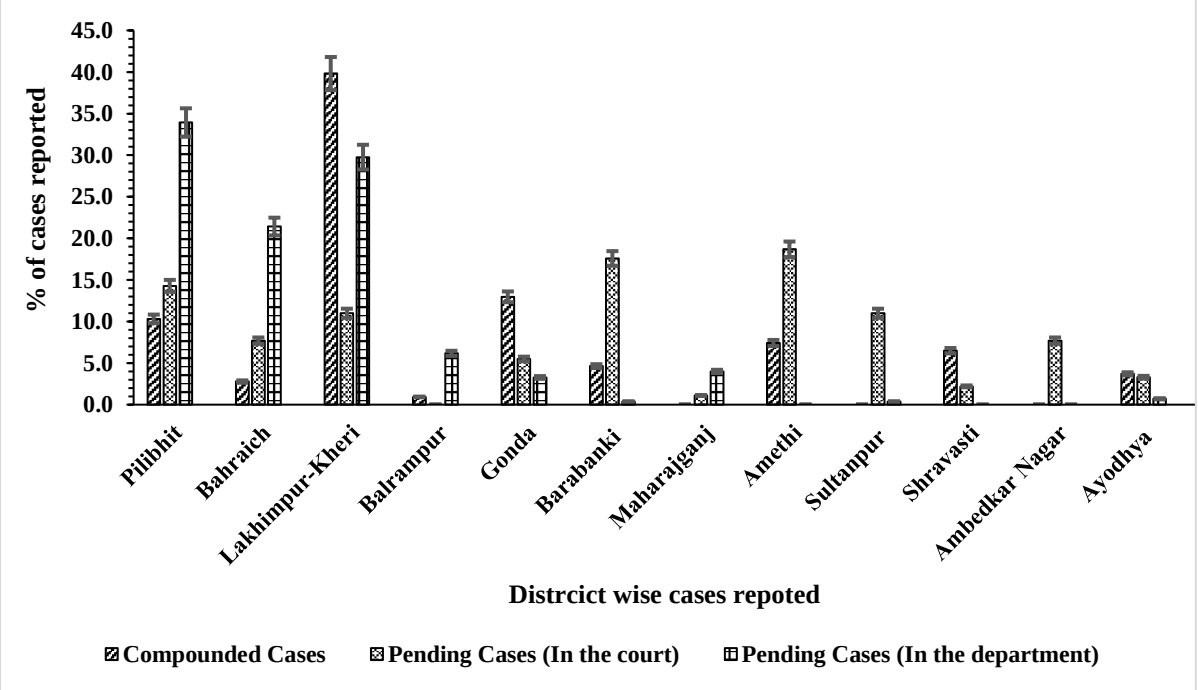

Figure 5. District wise case has been reported and is pending.

During the study period, we observed that the majority of wildlife enforcement respondents were male (58.5%) while female respondents made up the remaining 41.5% (Fig. 6). The age distribution of respondents was as follows: 45.7% were between 36-49 years old, and 22.8% were middle-aged or older. The majority of respondents had over 10 years of experience in the field and were knowledgeable about wildlife. In terms of educational attainment, 41.5% had completed high school, 31.1% had undergraduate degrees, and 11.2% had graduate degrees.

Most respondents had passed the elementary Certificate of Education. Based on their academic qualifications or work experience, 57.3% of respondents claimed to be knowledgeable in wildlife and forests, while 6.9% declared expertise in law and biology, respectively (Fig. 6). Based on the survey results, it appears that the deterrence strategy is the most commonly used method for enforcing laws, although respondents may use a combination of strategies. (M = 5.05, SD = .396) in both states compared to compliance strategy (M = 4.43, SD = .621) and responsive regulation (M = 3.61 SD = .561). A high percentage of respondents agreed or strongly agreed with all statements associated with the deterrence strategy. According to a recent survey, 78% of respondents believe that negotiation and advice can be effective in dealing with less serious crimes. The main challenge identified by respondents was the departmental capacity, with a mean score of 3.18 and a standard deviation of 0.464 for Lakhmipur-Kheri, and a mean score of 2.67 and a standard deviation of 0.362 for Pilibhit. The term "departmental capacity" refers to the number and skills of manpower, logistics, and equipment available in the department.

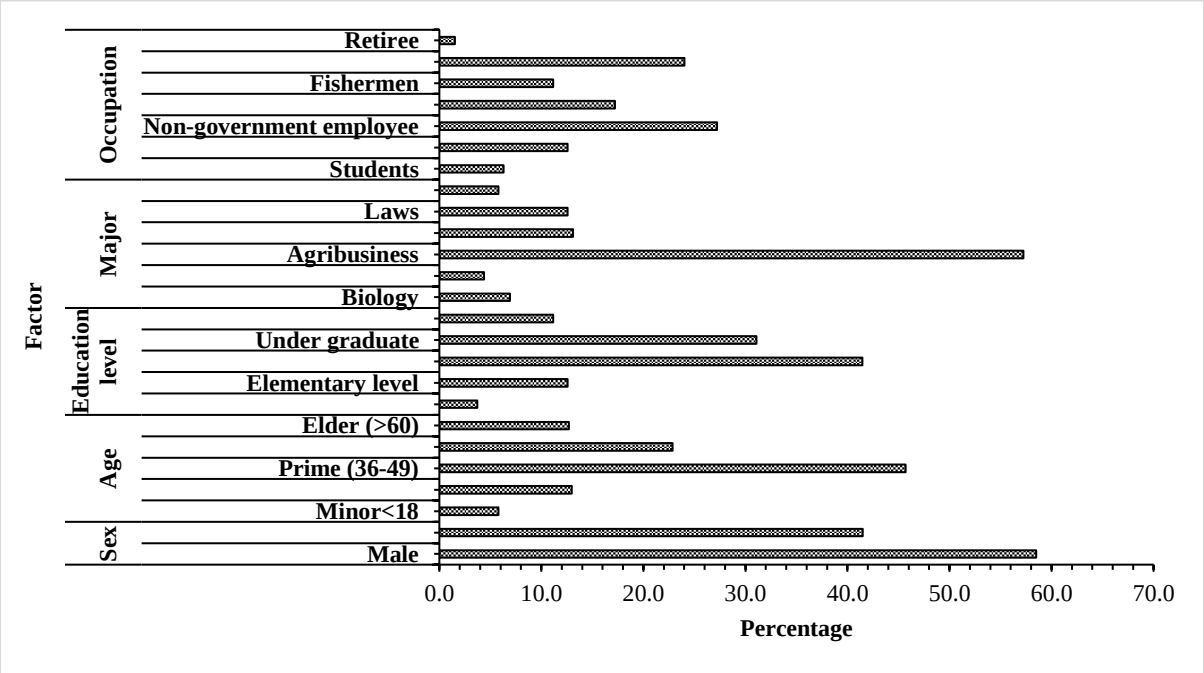

Figure 6. Basic sociodemographic information about the respondents

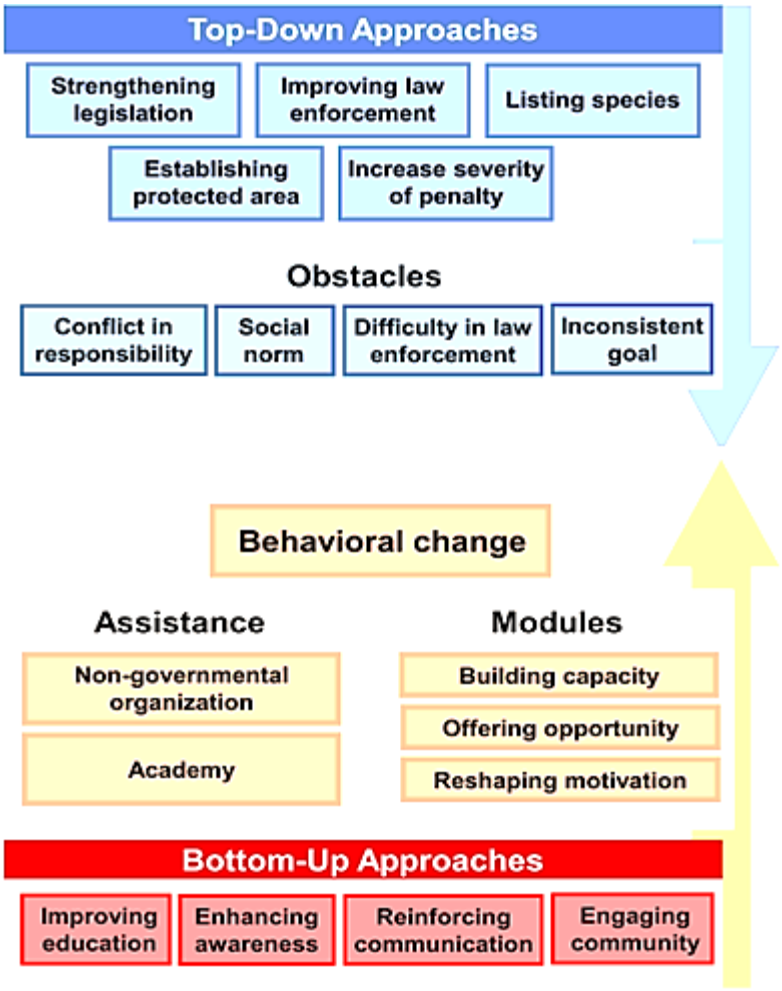

Figure 7. Approaches and enhancement of wildlife conservation strengthen the legislation.

Improve Law Enforcement Effectiveness?

The benefits of LEM (law enforcement monitoring) are not being fully utilized. There are very few information management systems that can collate standardized data on law enforcement measures, illegal activities, and interventions, and convert them into useful information for management planning (Fig. 7). This is especially true in Asia where the conservation community has given it relatively little attention or scrutiny. When data is collected, it is often stored in simple spreadsheets or databases, without maximizing its potential to inform and improve patrol planning and decision-making.

A tool that can be used for LEM should make minimal assumptions about the local-level human and technology capacity. If datasets are collated remotely and rely on complex technology, the information rarely reaches the local level promptly for frontline enforcement planning. On the other hand, paper-based systems, while more appropriate to local capacity and planning, are limited in terms of accountability and can become a bureaucratic burden when attempting to scale up to the national level and beyond.

Conclusion

The study revealed that enforcement staff in Uttar Pradesh mainly rely on a deterrence strategy to combat wildlife crime. However, due to the vast land area of Uttar Pradesh and the inadequate manpower and resources of the wildlife authorities, detecting and successfully prosecuting wildlife criminals is challenging. This makes it difficult to achieve the deterrence impact of strict enforcement. Moreover, low detection and prosecution rates not only encourage violations but may also demoralize enforcement officers. Therefore, it is crucial to have higher political will to build up the capacity of wildlife agencies for effective enforcement. If not, given the existing capacity and challenges, it may be more appropriate for wildlife enforcement staff to adopt a compliance strategy to ensure compliance with the law instead of punishing all wildlife criminals.

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