

## Research Article

### SOME ISSUES OF ILLEGAL HUNTING: THE CASE OF MONGOLIA

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#### ABSTRACT

The main objective of this study is to analyze the scale, underlying drivers, and regional context of illegal hunting in Mongolia, while emphasizing its profound impacts on key species such as the argali sheep, snow leopard, and Mongolian wild ass. Over the past four decades, illegal hunting has contributed to dramatic wildlife declines, with some species reduced by as much as 90 percent since the 1980s. Argali populations, for instance, fell from approximately 60,000 in the mid-1980s to only 13,000–15,000 by 2001, while snow leopard poaching has been estimated at 34–53 individuals per year, and populations have experienced annual losses of up to 20 percent due to poaching. Although official records show that Mongolia legally exported around 5,800 wildlife samples under 155 permits, much of the illegal trade remains undocumented, and recent assessments point to significant enforcement gaps, particularly in relation to online markets. When placed in a regional perspective, Mongolia's absolute losses appear lower than those of China or Kazakhstan; however, its fragile ecosystems, relatively small wildlife populations, and limited governance capacity render its ecological vulnerability disproportionately severe. In conclusion, illegal hunting in Mongolia constitutes a critical threat to biodiversity and underscores the urgent need for stronger conservation governance, improved enforcement, and greater regional cooperation.

**Keywords:** Illegal hunting; Poaching; Biodiversity decline; Argali sheep (*Ovis ammon*); Snow leopard (*Panthera uncia*);.

#### INTRODUCTION

Illegal hunting, or poaching, refers to the unlawful taking, killing, or capturing of wild animals. It goes beyond simple hunting and is specifically defined by the fact that it violates national or international laws that are meant to protect wildlife. It is not just about killing animals but also about removing them from their natural habitat in ways that are restricted or banned. Illegal hunting manifests in several distinct but interrelated forms that undermine conservation law and threaten ecological balance.

One of the most common forms is hunting without authorization, where individuals engage in the capture or killing of wildlife without obtaining the necessary licenses or permits from government authorities. Licensing systems are designed to regulate hunting pressure and ensure the sustainable use of wildlife populations; therefore, bypassing this legal requirement directly contributes to overexploitation. For instance, when a person hunts deer without acquiring the appropriate seasonal license, it disrupts both wildlife management plans and broader conservation objectives.

Another characteristic involves the taking of protected or endangered species, which represents one of the gravest forms of poaching. Species listed under national protection laws or international frameworks are often already facing population decline due to habitat loss, climate change, or other anthropogenic pressures. Killing, trapping, or disturbing these species accelerates their path toward extinction and undermines global biodiversity commitments. High-profile examples include the poaching of snow leopards in Central Asia, elephants for their ivory in Africa, and pangolins in Asia, all of which are strictly prohibited under domestic law and international conventions. Illegal hunting also occurs through violations of legal boundaries, such as hunting outside designated seasons or in

prohibited areas. Closed seasons are typically established to allow for breeding, nesting, or population recovery, and disregarding these restrictions poses serious threats to wildlife regeneration. Likewise, protected areas such as national parks and nature reserves are intended to provide safe habitats, free from human exploitation. When poaching occurs in these zones, it not only diminishes wildlife populations but also erodes the ecological integrity of spaces set aside for conservation purposes.

The broader impacts of illegal hunting extend far beyond the immediate loss of individual animals, creating complex ecological, economic, social, and ethical challenges. From an ecological perspective, poaching disrupts the delicate balance of ecosystems by removing key species from their natural habitats. This not only accelerates population decline but can also trigger cascading effects across the food chain, ultimately leading to local or even global extinction events (Ripple *et al.*, 2016). For example, the removal of apex predators such as tigers or lions alters prey populations, which in turn affects vegetation patterns and overall biodiversity stability (Estes *et al.*, 2011).

#### THEORITICAL FRAMEWORK OF ILLEGAL HUNTING

The phenomenon of illegal hunting in Mongolia can be understood through an integrated theoretical framework that combines ecological, socio-economic, and governance perspectives. From an ecological systems theory perspective, the unlawful removal of wildlife species disrupts the balance of ecosystems, leading to trophic cascades and biodiversity decline (Estes *et al.*, 2011). The reduction of key species such as the argali sheep, snow leopard, and Mongolian wild ass demonstrates how poaching not only affects individual populations but also undermines the resilience of fragile steppe and mountain ecosystems.

At the same time, the drivers of illegal hunting can be analyzed through the lens of rational choice theory and livelihood approaches.

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For many rural households, poaching represents an economically rational decision in contexts of poverty, limited employment, and weak market alternatives (Milner-Gulland & Leader-Williams, 1992). Wildlife products provide immediate income, particularly in border areas where demand from China and Russia is strong. Thus, illegal hunting in Mongolia cannot be divorced from the broader socio-economic realities of pastoral and marginalized communities.

From a governance perspective, institutional theory and the concept of regulatory capacity are essential in explaining enforcement challenges. While Mongolia has adopted legal instruments such as the Law on Fauna and participates in international frameworks like Convention on International Trade in Endangered Species such CITES, the effectiveness of these institutions is constrained by insufficient resources, corruption, and vast geographic areas that are difficult to monitor (Wingard & Zahler, 2006). The mismatch between legal frameworks and implementation capacity highlights the importance of institutional design and enforcement in shaping conservation outcomes.

## THE ANALYSIS OF ILLEGAL HUNTING IN MONGOLIA

Research has shown that some wildlife species in Mongolia may have declined by up to 90 percent compared to survey baselines from the 1980s (Wingard & Zahler, 2006). This figure, while striking, is based on older surveys and reviews, and should be understood as a rough, aggregated estimate since species-specific data remain patchy and inconsistent. A particularly illustrative example is the argali sheep population. Government records suggest that while argali numbered around 50,000 in 1975 and even reached 60,000 in 1985, by 2001 their numbers had dropped dramatically to only 13,000–15,000 individuals (Amgalanbaatar *et al.*, 2002). This indicates a long-term decline, though reliable post-2001 data remains scarce.

Snow leopards, one of Mongolia's most iconic predators, have also been significantly impacted by illegal hunting. Estimates suggest that between 34 and 53 individuals were illegally killed each year from the 1990s through the 2010s (Nowell *et al.*, 2016; Snow Leopard Trust, 2018). These figures, drawn from market monitoring and confiscation records, provide only partial insight, and the actual number of snow leopards lost to poaching may be considerably higher. Similarly, the Mongolian wild ass (*Equus hemionus hemionus*, khulan) has faced severe pressure, with a 2005 survey estimating that approximately 4,500 individuals—equivalent to about 20 percent of the total population at that time—could have been poached annually (Reading *et al.*, 2006). As this estimate is nearly two decades old, current patterns may differ, yet it underscores the vulnerability of large ungulates to overexploitation.

Official records also highlight Mongolia's role in legal wildlife trade. According to Convention on International Trade in Endangered Species (CITES) documentation, the country issued about 5,800 samples covering 44 wild animal species under 155 permits for export during the period assessed (WWF, 2005). While these numbers reflect permitted trade for scientific and commercial purposes, they do not fully capture the extent of illegal hunting or unreported transactions. More recently, a 2024 assessment by the Wildlife Conservation Society (WCS) examined the evolution of Mongolia's wildlife trade laws. This report emphasized enforcement challenges, particularly concerning online sales and links between wildlife trade and disease transmission (WCS Mongolia, 2024). Although the assessment did not provide detailed poaching figures, it revealed

increasing recognition of regulatory gaps and the urgent need for stronger governance in managing illegal hunting and trade.

Illegal hunting in Mongolia mirrors broader regional challenges, yet some contrasts are notable when compared to neighboring countries such as China, Russia, and other parts of Central Asia. For instance, in Mongolia, estimates suggest that between 34 and 53 snow leopards are poached annually (Snow Leopard Trust, 2018). By comparison, surveys in China, which holds the world's largest snow leopard range, indicate losses of around 103 to 236 individuals per year, while in Russia the figure is estimated at 25 to 53 individuals annually (Nowell *et al.*, 2016). These numbers show that although Mongolia's absolute losses are lower, the relative impact on its smaller national population of snow leopards is proportionally severe.

The case of ungulates further illustrates regional variation. In Mongolia, a 2005 survey estimated that about 4,500 wild asses (khulan)—roughly 20 percent of the then-population—were poached annually (Reading *et al.*, 2006). In contrast, Kazakhstan has reported severe declines of saiga antelope, with catastrophic die-offs and poaching contributing to reductions from over 1 million in the 1970s to fewer than 50,000 by the early 2000s (Milner-Gulland *et al.*, 2001). Russia's populations of saiga have also suffered, though recovery efforts have been somewhat more successful in recent years. These figures indicate that while Mongolia's ungulates are under heavy pressure, Central Asia as a whole has faced even sharper collapses, especially in species like the saiga.

Trade dynamics also highlight important differences. In Mongolia, official data report around 5,800 wildlife samples exported legally in the early 2000s (WWF, 2005), yet much illegal trade remains undocumented. By contrast, China is widely recognized as the primary consumer market, with studies estimating that illegal wildlife trade there involves thousands of tons of animal parts annually, ranging from pangolins to tiger bones (Zhou *et al.*, 2018). Russia, while less of a consumer, serves as both a source and transit country, particularly for species such as the Amur tiger and sable, with enforcement agencies seizing hundreds of pelts and parts each year.

Overall, while Mongolia's absolute numbers may appear smaller than those of China or Kazakhstan, its relative ecological vulnerability is higher due to the country's fragile ecosystems, smaller wildlife populations, and limited enforcement capacity. These comparisons emphasize that Mongolia is both part of a wider Central Asian poaching crisis and uniquely affected by its own governance, cultural, and ecological conditions.

## CONCLUSION

Illegal hunting has emerged as one of the most pressing threats to Mongolia's biodiversity, driving dramatic declines in iconic species such as the argali sheep, snow leopard, and Mongolian wild ass. Evidence suggests that some wildlife populations have been reduced by up to 90 percent since the 1980s, underscoring the severity of the crisis. While Mongolia has participated in international frameworks such as CITES and issued legal export permits, much of the wildlife trade remains unrecorded, revealing persistent enforcement and governance gaps. Compared regionally, Mongolia's absolute poaching numbers are lower than those in China or Kazakhstan; however, its fragile ecosystems and smaller wildlife populations make the ecological impact disproportionately severe.

These findings demonstrate that illegal hunting in Mongolia is not only an environmental challenge but also a socio-economic and governance issue requiring integrated solutions. Strengthening

conservation governance, improving law enforcement, and enhancing regional cooperation are essential steps to safeguard Mongolia's unique biodiversity for future generations.

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