Chapter 10
Animals for Trophy Hunting

Adam G. Hart

"Can you love something and still want to kill it?"
—*Hunter*, in Trophy (2017)

Abstract Trophy hunting occupies a contentious space at the intersection of conservation, economics, and ethics. This chapter critically examines the conditions under which trophy hunting can contribute to biodiversity protection and rural livelihoods, while also highlighting the risks of ecological degradation, elite capture, and ethical backlash when governance fails. Drawing on interdisciplinary evidence, the chapter explores the economic significance of trophy hunting in biodiversity-rich but financially constrained regions, particularly in sub-Saharan Africa. It evaluates the limitations of current models and the growing pressure from international regulatory and public opinion shifts. In response, the chapter proposes a suite of pragmatic economic and regulatory reforms aimed at aligning trophy hunting with conservation goals and ethical standards. These include science-based quota systems, transparent revenue-sharing, ethical certification, hybrid land-use incentives, and integration with ecosystem service markets. Emphasizing adaptation over abandonment, the chapter argues for context-specific, community-empowered, and ecologically grounded approaches that can evolve with changing values and conservation paradigms. Ultimately, it calls for a reimagining of trophy hunting as part of a broader, more inclusive conservation finance strategy.

(Trophy (2017) is a documentary by Shaul Schwarz and Christina Clusiau that explores the ethical and economic complexities of trophy hunting and wildlife conservation)

A. G. Hart (✉)
School of Education and Science, University of Gloucestershire, Cheltenham, UK
e-mail: ahart@glos.ac.uk

N. Batini (ed.), *The Economics of Non-Human Animals*, Natural Resource Management and Policy 63, https://doi.org/10.1007/978-3-032-17580-9_10

Valuing the Hunted: Trophy Economies in a Multispecies World

While animals have historically been used by humans for food, clothing, tools, and ornamentation, these uses represent just one aspect of the long and varied relationships between species. Materials such as skins, bones, feathers, and tusks have been incorporated into human economies and cultural practices, often reflecting both practical needs and symbolic meanings. Antlers and horns, for example, have been used in tool-making and decoration, while also serving important biological functions for the animals themselves, such as defense or display. These dual roles highlight the complex ways in which human and non-human lives have intersected over time.

Birds have similarly played diverse roles in human societies. Their feathers, talons, and beaks have been used in ceremonial dress and ornamentation across many cultures, often carrying spiritual or aesthetic significance. These practices reflect deep cultural traditions, but they also raise questions about how animals are perceived and valued, whether as symbolic figures, material sources, or living beings with their own ecological and social lives.

In some societies, the display of animal parts has been associated with rites of passage, social status, or expressions of identity. Among the Maasai of Kenya and Tanzania, for instance, lion hunting has historically been linked to concepts of bravery and personal achievement, with specific animal parts worn as markers of these milestones (Goldman et al. 2013). Such practices are embedded in cultural systems that attribute meaning to human-animal encounters, though they may also reflect broader dynamics of power, tradition, and change.

Today, the display of animal trophies continues in various forms, from private collections to tourist lodges. Mounted heads, horns, and other animal parts are often presented as symbols of adventure, heritage, or prestige. These displays can be interpreted in multiple ways—celebratory, commemorative, or controversial—depending on cultural context and individual perspective. They also raise ongoing discussions about the place of animals in human economies and the values that shape our interactions with the natural world.

A visit to a tourist lodge in South Africa for example will usually involve walking under the horns of a buffalo, a kudu (a spiral-horned antelope) or even, as is the case in the restaurant at Hwange Safari Lodge in Zimbabwe, the entire head and shoulders of an elephant. Most stately homes in the UK will have deer heads mounted on the wall, often with a small brass plaque stating who shot the animal, where and when. It is not uncommon to see antique mounts of exotic species on display in such locations, including big cats, bears, and antelopes. Considerable resources were required to hunt such species in the wild and so these hunting trophies are, arguably, both mementoes and status symbols. What is not always widely appreciated is that such "trophy hunting" continues in the modern world.

Before considering the economic role and implications of trophy hunting, it is first necessary to define the term. The description of trophy hunting used by the International Union for Conservation of Nature (IUCN) is a useful starting point:

> "Trophy hunting generally involves the payment of a fee by a foreign or local hunter for a hunting experience, usually guided, for one or more individuals of a particular species with specific desired characteristics (such as large size or antlers). The trophy is usually retained by the hunter and taken home. Meat of hunted animals is usually used for food by local communities or the hunter. It may be a distinct activity or overlap with recreational or meat hunting. Many deer hunters, for example, may desire a trophy but also hunt for food or for the experience." (IUCN 2016)

The motivation behind the hunt, and involvement of money, are central to this description. So, a salaried deer manager shooting deer for population control is not a trophy hunter. However, were that manager to shoot a stag and keep the antlers for display (as many undoubtedly do), then the antlers themselves are clearly a hunting trophy, even if the hunter in this case was not motivated by obtaining the trophy. Furthermore, rather than paying for the experience, the hunter (who in this case would likely describe themselves as a deer manager) has been paid. Even if the deer were killed by a recreational deer stalker who had paid for the rights to manage deer on a parcel of land, it would be hard to call them a trophy hunter if their primary goal was to reduce deer numbers or stock their freezer, even if antlers are retained for display (Bichel and Hart 2023).

For the purposes of this chapter, trophy hunting will be defined as the selective hunting of specific animals with desired characteristics (large size, antlers, horns, tusks, etc.) with the intention of retaining parts of the animal for use as a trophy. Furthermore, for this chapter, trophy hunting will also involve payment for the hunting experience and the trophy. As we will see, in some cases such hunting involves considerable fees and often involves travel to overseas destinations.

The selective killing of wild animals for sport remains one of the most controversial practices in conservation (e.g., Evans et al. 2023). There are many active campaigns in Europe, the UK, and the US to ban trophy hunting, a morality-driven intention that usually crystallizes into calls for bans on the import of hunting trophies to hunters' home nations. In addition, and in many ways related to these campaigns, trophy hunting regularly attracts considerable negative attention in the media and in politics (Yeomans et al. 2022). Trophy hunting coverage usually focuses on charismatic and well-known species such as lions or elephants, where trophy hunting is often (incorrectly) portrayed as being a conservation threat. The reality is that these species represent only a tiny fraction of animals hunted for trophies globally, and the trade in hunting trophies of species of conservation concern is usually tightly regulated by the Convention on International Trade of Endangered Species of Flora and Fauna (CITES) (Challender et al. 2024).

At its core, trophy hunting is an economic activity; a market-based approach to wildlife utilization that generates revenue from charismatic megafauna. Its defenders argue that, when well-managed, trophy hunting provides financial incentives for wildlife conservation, supports local livelihoods, and contributes to government budgets. Meat from hunts can provide additional benefit to local communities. Some species, such as elephants and lions, can threaten livelihoods and human safety, and the value they provide through hunting can provide some incentive to maintain such species despite the risks they pose (Bichel and Hart 2023). A common phrase used

in discussions of the South African hunting model, outlined below, is "it pays, it stays." Proponents of hunting argue that without the revenue hunting provides, land will be converted from habitat to agriculture or other wildlife-unfriendly uses, with subsequent loss of wildlife species and ecological function. Overall, the argument goes, commercializing wildlife provides an incentive to maintain it, and the wider habitat (to, in principle at least, the benefit of all species) (Lindsey et al. 2007).

Trophy hunting critics counter that conservation and economic claims of benefit are overstated or poorly evidenced, and that moral and ethical concerns, corruption, and perverse incentives undermine any purported benefits (e.g., Ghasemi 2021). It is often the case that those opposed to hunting do so from a personal ethical or moral position, founded on animals' rights (Bichel and Hart 2023). Any form of consumptive, exploitative wildlife use is likely to be opposed by those who embrace animal rights, but the killing of animal for a trophy is a particularly emotive topic, exemplified by the appearance of words like "evil" and "senseless" in public discourse (see discussions in Bichel and Hart 2023).

This chapter explores the economics of trophy hunting in both theory and practice. It examines the trophy hunting market, the revenue flows generated, and the incentives created for conservation or exploitation. Special attention is paid to sub-Saharan Africa where trophy hunting is often an integral part of conservation management. The chapter concludes by evaluating the strengths and limitations of trophy hunting as a conservation funding mechanism in the context of evolving ecological, social, and political pressures.

The Economics of Trophy Hunting

Defining the Market

Trophy hunting operates as a specialized niche within the wider wildlife tourism industry. Photographic wildlife tourism, where tourists travel for the experience, to see wildlife and to take photographs, is non-consumptive. While it is the case that poorly regulated or poorly managed photo-tourism can have a harmful environmental impact, and can directly harm wildlife, it is not the intention or goal of such tourism to kill animals (Higginbottom 2004; Green and Giese 2004). Hunting tourism, on the other hand, is consumptive, explicitly involving the killing of animals (Leader-Williams et al. 2005). Hunting tourism can include hunters motivated by the experience of hunting rather than the trophy itself, and such hunting is unlikely to include the killing of high-value trophy animals. It is possible, for example, in South Africa, to hunt female antelope or non-trophy (i.e., small or otherwise unremarkable) males, for management purposes or for meat (Van der Merwe et al. 2010). Trophy hunters on the other hand, often international clients, pay significant fees for the right to hunt certain animals and to take trophies home with them.

Demand for trophy hunting is shaped by several factors. One is the rarity or prestige associated with certain species, particularly the so-called "Big Five" in Africa: lion (*Panthera leo*), elephant (*Loxodonta africana*), rhinoceros (black rhino *Diceros bicornis* and white rhino *Ceratotherium simum*), leopard (*Panthera pardus*), and Cape buffalo (*Syncerus caffer*). Hunting these species carries cultural capital within trophy hunting communities and can command fees more than USD 50,000 for a single specimen, depending on size, location, and regulatory burden (Bichel and Hart 2023). Outside of Africa, species including bears, various sheep and goat species, and deer can also command high prices. The total payment typically includes permit fees, including local and central government taxes, outfitter costs, guiding services, accommodation, transport, and trophy export preparation.

Trophy hunting, wherever it takes place, is often subject to tightly regulated quotas and other regulations including the use of guides, fees, hunting method (mostly rifle, bow, or handgun), minimum calibers or ballistic performance (for rifle and handgun), duration, and so on. Navigating these regulations, and the bureaucracy involved with hunting and exporting trophies, is usually part of the service offered by hunting outfitters (discussed in Bichel and Hart 2023).

Trophy hunting markets are unusual in that the "product" is a wild animal, but what is being sold is not a product with utility value (like meat), but rather the experience of the hunt and the physical trophy (e.g., horns, skulls, or hides). The higher end of the market relies heavily on symbolic capital and, sometimes, scarcity with rarer or more dangerous species costing more. From an economic standpoint, these species function in some ways as Veblen goods: their desirability is increased by exclusivity and cost, not diminished by it. The rarer or more restricted the opportunity, the greater the perceived value. This presents a paradox for conservation: economic value may rise even as species populations decline, incentivizing exploitation unless strong safeguards are in place. Nonetheless, many trophy hunts are for relatively common species such as impala, kudu, or springbok, that cost far less (Damm 2005).

Although much focus is placed on African nations, trophy hunting of the type discussed here takes place across the world. Book Your Hunt (bookyourhunt.com) is a well-known website selling hunts, most of which would likely include trophy hunting as per the definition above. At the time of writing, it is offering 4002 hunting trips via 833 hunting outfitters (companies that organize a hunting trip) in 57 countries or regions including Argentina, Italy, Mexico, New Zealand, and the United Kingdom. To give an idea of prices, a 10-day package to hunt bighorn sheep in Mexico is selling for 7500USD, while a 28-day "classic safari" across two destinations in Tanzania is 165,000USD (not including fees per animal shot, which add to the price). However, a 7-day hunting package including full-board accommodation and four species (wildebeest, impala, blesbok, and springbok) is 2400USD.

At the real high-end of the hunting market, some bighorn sheep hunting tags (permits to hunt) can sell for more than a million USD, with one recent example setting a record of 1.3 million at an auction in Reno, Nevada in January 2025 (Collins 2025). Sheep and goats, especially species like the Markhor (Mazhar 2023), are among the most expensive hunting trophies to obtain hunting permits for. However, the previous most expensive auctioned tag was for mule deer in Arizona, selling for

725,000USD, beating the previous record, set earlier in the same auction, where a different buyer paid 500,000USD for tag to hunt a single mule deer on Antelope Island, Utah (McKean 2023).

Supply Constraints and Regulation

The supply of huntable animals is fundamentally constrained by biological limits; there are only so many trophy individuals available to hunt at any given time on any given piece of land. The number of animals will be limited by the carrying capacity of the trophy species within the hunting area and by the demographics of that species. For many trophy species, it is only the male that has the characteristics desired by hunters, and it is only older males, typically those that have passed breeding age, that will have sufficiently developed antlers, horns, or other features that make them a desirable trophy. For example, there may be hundreds or even thousands of cape buffalo roaming around a hunting area, but only a small handful of old males with sufficiently developed horns (especially the rounded bases on the top of the head known as "bosses") to make them an attractive trophy, worth the 10–2000 USD (or more) trophy fee that hunters pay. In principle, such individuals can, for most species, be removed from the population without concern for future population numbers or growth. However, the role of older males in some species can be complex, and their removal can have negative effects. This is most often discussed with respect to African elephants, where complex herd dynamics can mean that older males are involved in important roles, such as "tutoring" younger males (Allen et al. 2020). Furthermore, older males have been shown to invest more effort into finding females and are preferred by female over younger males. Consequently, their removal can have negative effects on population dynamics (Taylor et al. 2020a).

Optimal harvest theory potentially provides another lens for understanding how much hunting can occur without compromising wildlife populations. This theory is grounded in the principle of Maximum Sustainable Yield (MSY), which identifies the highest harvest level that allows populations to regenerate. While useful in theory, applying MSY in practice is fraught with uncertainty due to imperfect data and ecological variability (Goodenough and Hart 2017). In addition, MSY is a model for general exploitation whereas, by definition, trophy hunting is targeting individual animals with very specific features whose population growth and sustainable harvest may not be in line with the general population growth parameters used to calculate MSY.

The supply of huntable animals is also constrained by national and international regulations. It may be illegal for example to hunt some species, or there may be regulations that mean some hunters may not consider there to be a "supply." It is, for example, illegal to hunt any animal with a bow in the UK, but bowhunting (especially of deer) is popular in the USA (Bichel and Hart 2023). A USA-based hunter wanting to hunt a red deer stag in Scotland with a bow would be unable to do so, although the same animal could be legally hunted with a rifle. Additionally, countries typically

allocate quotas for trophy species based on population estimates and conservation priorities. International frameworks such as CITES regulate cross-border movement of trophies, adding another layer of economic and bureaucratic cost, and potential obstacle (Bichel and Hart 2023). These regulatory frameworks introduce transaction costs and uncertainty but also function to shape market access and reputation. For instance, countries perceived to have transparent and science-based systems (e.g., Namibia) may be more successful at attracting high-paying clients than those with histories of corruption or poor enforcement.

The situation is further complicated by landownership and the rights of individuals to make use of wildlife on land they control. In some countries, state wildlife agencies retain ownership and control. In others, notably South Africa and Namibia, wildlife on private land is commodified, giving rise to distinct market structures and pricing mechanisms. In Namibia, some trophy hunting is conducted on private land, but some takes place within communal land, where communities may have adopted a "conservancy" model, where they oversee the use of that land and the hunting that takes place on it, as well as any photographic tourism (Naidoo et al. 2016). Professional hunters and outfitters can bring clients on to this land in exchange for a fee, but the wildlife they hunt is controlled by the conservancy and, depending on species, by centrally imposed quotas in line with wider conservation goals. In other countries, such as Tanzania, the government auctions the leases of hunting blocks, large parcels of land, on which hunting operators can set up a hunting business (Kadigi et al. 2023). Such blocks will likely have communities living alongside wildlife, and there is usually an expectation of community benefit from the hunting activity, through meat and shared revenue, as well as the upkeep of access and airstrips. Concession owners may also be expected to run anti-poaching patrols in the area, although in practice many would invest in such activities anyway to protect their livelihood. Outside of Africa, hunting often operates on privately owned land or, in the case of the USA particularly, on public land provided hunting is allowed. Land ownership, quota setting, management strategy, and national or international conservation measures can all influence the supply of huntable animals. In short, the situation is complex with multiple models in operation, sometimes even within the same region or nation.

The security of property rights and the duration of land tenure are crucial features of the trophy hunting economic landscape. In settings where property rights are clearly defined, such as privately owned land, conservancies, or well-regulated communal lands, landowners, lessees, and resource managers have strong incentives to manage wildlife sustainably. There are also strong incentives to invest in infrastructure such as fixed camps, roads and airstrips, and to foster durable and effective relationships with local communities, that can greatly reduce unregulated offtake (poaching) of wildlife and other activities that harm conservation. In contrast, areas with weak or ambiguous rights may experience something akin to the tragedy of the commons, where wildlife is overexploited due to lack of accountability or stability (e.g., Lindsey et al. 2013).

Who Gains? Revenue and Redistribution in Trophy Hunting

Gross Economic Contributions

Estimates of the economic value of trophy hunting vary significantly due to differences in methodology and a general lack of transparency across regions and sectors. A widely cited study by Lindsey et al. (2007) estimated that trophy hunting in sub-Saharan Africa generates approximately USD 200 million annually and covers over 1.4 million km^2 of land, but is clearly out of date. Currently, no single, authoritative statistic exists, at any useful level, largely because of inconsistent metrics and varied approaches used in different contexts. In some locations, and for certain species, the income generated can be substantial; in others, it may be minimal, but still locally important, a point discussed further below.

Trophy hunting contributes directly to GDP through payments for licenses, guiding services, accommodation, and logistical support. It also brings indirect benefits such as employment for trackers, cooks, and camp staff, along with multiplier effects in remote areas where economic alternatives are limited. Nonetheless, critics argue that headline figures often obscure the extent of financial leakage. A large portion of revenues may be captured by international operators or urban elites, and without strong local benefit-sharing arrangements the economic impact for rural communities can be limited (e.g., Leader-Williams et al. 2009; Peyman and Styles 2024).

Local Communities and Benefit Sharing

One of the most frequently cited benefits of trophy hunting is its potential to support rural livelihoods, particularly through community-based natural resource management (CBNRM) initiatives (Huntley 2023). In these models, communities receive a share of hunting revenues in exchange for managing wildlife and bearing the costs of living alongside potentially dangerous animals. Programs such as Namibia's communal conservancies and Zimbabwe's CAMPFIRE initiative are often highlighted as examples of how regulated trophy hunting can create tangible social and economic benefits.

In Namibia, over 80 registered conservancies benefit directly from revenues generated through both trophy hunting or photographic tourism, or both. Income is used to fund infrastructure, employment, and community development projects, including schools and clinics. According to the Namibian Association of Community-Based Natural Resource Management Support Organisations (NACSO), these programs channel several million dollars annually into rural areas and have created jobs for game guards, trackers, and administrative staff (Huntley 2023).

However, the distribution of benefits within communities may be far from uniform. Power dynamics, particularly those related to gender, class, and leadership structures,

can determine who gains access to these resources. Women and marginalized groups may be excluded from decision-making processes or disproportionately underrepresented in benefit-sharing mechanisms. Moreover, some community members might be able to derive more consistent and culturally relevant benefits from livestock or agriculture, especially in areas with high rates of human–wildlife conflict (Dickman et al. 2011).

The design of lease agreements and revenue-sharing arrangements between governments, outfitters, and communities varies widely across contexts. In some models, communities receive a fixed percentage of fees; in others, they have joint management roles or limited consultation rights. The success of these systems often hinges on legal clarity, transparency, and local institutional capacity. Without strong governance, there is a risk of elite capture, whereby a small group monopolizes control over revenues or decision-making processes.

The CAMPFIRE program in Zimbabwe serves as a useful case study. Initially praised for its innovative structure and emphasis on community empowerment, it experienced a significant decline due to political interference and poor financial oversight (Mundeya 2023). To some extent, this has changed, and CAMPFIRE has improved (Koro 2022). Despite challenges, it remains an influential example of how trophy hunting revenues can be harnessed for rural development, and what happens when governance breaks down.

To improve outcomes, monitoring and evaluation systems are essential. Programs that incorporate participatory governance and independent audits tend to achieve more equitable and sustainable results. Ensuring that local people not only receive material benefits but also have meaningful agency in managing wildlife resources is a prerequisite for long-term legitimacy and conservation success.

State Revenues and Conservation Finance

In many hunting nations, hunting revenues support wildlife departments and protected area management (Bichel and Hart 2023). User fees, concession payments, and penalties from the hunting sector may be used to fund anti-poaching patrols, ecological monitoring, and infrastructure maintenance. In low-income countries with limited conservation budgets, trophy hunting can be a critical source of funding. Even though hunting revenues may represent a small percentage of national GDP (a point often raised by those opposing hunting (Gaworecki 2017)), their impact at the local level can be substantial. In many rural communities, hunting-related income provides essential financial support for conservation programs and communities that might otherwise struggle to secure funding. This localized economic contribution is particularly valuable in low-income countries, where alternative revenue streams for conservation and communities are limited. Moreover, many industries contribute small percentages to overall GDP yet remain critical to specific sectors. For example, ecotourism, artisanal fishing, and heritage conservation often account for a small fraction of GDP but play vital roles in sustaining local economies and

preserving natural resources. Similarly, hunting revenues, though not a dominant force in national economic figures, can be one of the few reliable sources of funding for wildlife management in remote areas.

Nevertheless, reliance on trophy hunting creates fiscal vulnerabilities. Revenues are often unpredictable and dependent on international demand, political stability, and currency fluctuations. Furthermore, controversial hunts (such as Cecil the Lion in 2015 (Macdonald et al. 2016)) have led to international backlash and import bans that reduce market viability. The global pandemic virtually eliminated international travel, thereby hitting tourism particularly hard. However, hunting tourism was perhaps quicker to recover, largely because smaller numbers of hunters can bring in revenue that would require a far larger number of other types of tourists. Timbavati Private Nature Reserve provides a compelling case for the financial efficiency of hunting tourism compared to photographic tourism. In 2016, an analysis of the reserve's financial model revealed that the conservation levies paid by approximately 24,000 photographic tourists amounted to less than one-third of the revenue generated by just 46 hunters visiting in the same period (Timbavati Nature Reserve 2016). This stark contrast highlights how trophy hunting yields significantly more revenue per capita, allowing reserves to sustain conservation efforts with fewer visitors. In addition, hunting tourists are likely to be more accepting of travel and transport difficulties.

Economic Incentives and Conservation Trade-Offs

Incentives for Landowners and Managers

Trophy hunting can create a use-value for wildlife, transforming animals from potential liabilities into economic assets. Under the right institutional conditions, wild species can become a source of revenue for landholders, particularly through regulated hunting and tourism. These policy shifts have produced measurable changes on the ground. In South Africa and parts of Namibia, large tracts of private land have been converted from cattle production to mixed wildlife-based land use, resulting in the proliferation of private game reserves (Carruthers 2008). In some regions, this transition has contributed to increasing populations of huntable species, including several that had previously experienced declines due to overhunting, habitat loss, or human-wildlife conflict.

Wildlife ranching in South Africa exemplifies how private landowners can integrate conservation with economic sustainability. Since the 1991 legal reforms granting conditional private ownership of wildlife, many livestock farmers transitioned to wildlife-based land use, fostering a thriving industry that spans over 20 million hectares (Taylor et al. 2020b).

South Africa's wildlife ranching sector operates across three primary areas:

- Wildlife breeding and live sales: Landowners breed and sell game species, contributing to genetic diversity and conservation.
- Trophy hunting and ecotourism: Regulated hunting generates high per capita revenue, while photographic safaris attract broader tourism markets.
- Game meat production and trade: Sustainable harvesting supports local food markets and international exports.

The industry has experienced rapid growth, with an annual expansion rate of 5.6% up to the mid-2000s, accelerating to 6.75% per year due to intensive breeding practices (but see below for issues related to these practices). Wildlife ranching is now one of South Africa's fastest-growing agricultural sectors, providing employment, habitat restoration, and biodiversity conservation (Cloete et al. 2015).

Despite concerns about land use shifts, inequality, social injustice, and intensive wildlife breeding practices (discussed below), proponents argue that wildlife ranching adds significant economic value, creating skilled jobs and alternative food production systems. The model demonstrates how wild species can be transformed from liabilities into assets within a highly controlled (yet still predominantly natural) environment.

Risks of Perverse Incentives

Not all incentive structures are positive. Where oversight is weak, trophy hunting can incentivize overharvesting, artificial or accidental selection for rare traits (e.g., large horns or manes), and the commodification of genetically manipulated or captive-bred animals. In the United States, artificial deer breeding has become a lucrative industry, particularly for whitetail deer, where selective breeding is used to produce bucks with exaggerated antler growth. These deer are often raised in high-fenced enclosures, fed specialized diets, and subjected to genetic manipulation to enhance trophy appeal. While this practice increases financial returns for breeders and hunting operations, it raises concerns about genetic bottlenecks, disease susceptibility, and more general ethical considerations on the commercialization of wildlife (Bichel and Hart 2023).

Similarly, in South Africa, the selective breeding of color variant antelope has surged in popularity, although it is still a minority practice within wildlife ranching. Species such as black impala, golden wildebeest, and white springbok are bred for their unusual coat colors, which occur naturally as mutations and can be selected for in artificial breeding programs. This practice, driven by financial incentives, has led to intensive farming conditions, reduced genetic diversity, and concerns about long-term ecological impacts. Conservationists argue that breeding for novelty rather than natural selection undermines the genetic integrity of wild populations and prioritizes profit over sustainability (Hart 2017).

Also, in South Africa, the captive-bred lion industry has been a subject of intense debate, with concerns over ethical practices, conservation value, and commercial exploitation. Historically, captive lion breeding has been linked to so-called "canned

hunting," where lions raised in enclosures are released into small-fenced areas for hunters to shoot, often with minimal effort required. Hunting regulations and laws legislate against these activities, but many still oppose the captive lion breeding, which is sometimes referred to as "bred for bullet" hunting, or "Blood Lions." Despite international criticism, however, the industry thrived due to high financial returns, with captive-bred lions fetching lower prices than wild lions but still generating significant revenue. Beyond hunting, captive-bred lions are also exploited for the lion bone trade, supplying markets in Asia for traditional medicine. South Africa has become the largest legal exporter of lion bones, raising concerns about wild lion poaching, as illegal traders may launder wild lion bones through the captive industry (Welz 2018).

In response to growing pressure, South Africa's government announced plans to phase out the captive lion breeding industry, citing its lack of conservation value and damage to the country's international reputation (D'Cruze et al. 2024). However, the fate of thousands of captive lions remains uncertain, as rewilding is not viable. At the time of writing, it is still possible to travel to South Africa and to shoot a captive-bred lion, released into 1000-hectares or more of African bush, for around 8000USD or less.

Ecological Outcomes

Evidence on the ecological benefits of trophy hunting remains mixed and highly context-dependent. In some well-managed areas, hunting blocks undoubtedly support higher wildlife densities than adjacent unprotected lands, especially those with extensive human encroachment or activity. Regulated hunting can, and does, contribute meaningfully to habitat conservation and species protection, which is particularly the case where revenues from hunting are reinvested in anti-poaching patrols, land management, and infrastructure (Di Minin et al. 2016). However, trophy hunting quotas may be based on outdated or incomplete data. Without rigorous ecological monitoring, there is a risk that quotas exceed sustainable yields, particularly in the face of poaching, habitat loss, and climate stressors. In these cases, the economic rationale underpinning trophy hunting breaks down, and it becomes an extractive practice rather than a tool for regenerative land management. Furthermore, studies directly comparing hunting and non-hunting areas are few and far between. Overall, we need far more data to assess the precise role that hunting plays in many parts of the world.

There are notable examples of success. In Zimbabwe, the Bubye Valley Conservancy maintains over 3700 km^2 of protected land funded largely through hunting revenues (Hart 2015). This model has supported healthy populations of lions, rhinos, and other large mammals. In northern Pakistan, a community-based trophy hunting program for the endangered markhor has led to significant population recovery, demonstrating how local revenue-sharing and tight quota controls can align community interests with conservation outcomes (Jameel et al. 2019).

Yet these successes coexist with failures. Poor regulation can result in genetic bottlenecks, skewed sex ratios, a form of artificial evolutionary selection especially when high-value males are preferentially removed, and of course population declines. Corruption, lax oversight, and opaque quota-setting processes can further erode sustainability. In some cases, trophy hunting competes directly with other land uses, such as photographic tourism or subsistence agriculture, which may offer broader economic and social benefits, particularly when managed inclusively (Dickman et al. 2011). There are also trade-offs, at least potentially, in species focus. Because trophy hunting targets a limited number of high-value species, it can skew conservation priorities and divert attention from broader ecosystem needs. If not integrated into a comprehensive conservation strategy, this narrow focus could risk undermining biodiversity at the landscape level.

Comparisons between trophy hunting and non-consumptive alternatives such as photo-tourism reveal further complexity. While non-consumptive tourism is more publicly palatable, it requires substantial investment in infrastructure, political stability, and continuous tourist traffic. In remote, arid, or politically unstable regions, or regions that lack spectacular landscapes or high densities of animals, trophy hunting often remains the most viable conservation funding tool.

Shifting Markets, Evolving Policies

International Demand and Changing Preferences

The majority of trophy hunters are from high-income countries, notably the United States, but also parts of Europe including Spain and Germany (Bichel and Hart 2023). Demand is sensitive to economic cycles, public opinion, and regulatory restrictions, as well as the recruitment of people to hunting in general, and trophy hunting in particular. High-profile controversies have led to calls for bans on the import of trophies, particularly for species listed as threatened or endangered (Challender et al. 2024). Such bans, while popular with the public, have complex economic consequences (Dickman et al. 2019). They may reduce foreign exchange income, discourage private conservation investment, and push operators toward less sustainable alternatives. Critics argue that bans often lack input from range states and may harm the very communities and habitats they intend to protect (Challender et al. 2024).

Emerging Alternatives and Hybrid Models

In response to ethical and economic critiques, many countries and operators have begun to explore alternative or complementary models to trophy hunting. These

include non-consumptive wildlife tourism, conservation ranching, and payment for ecosystem services (PES) (Naidoo et al. 2011). In Kenya, where hunting has been banned since the late 1970s, photographic tourism has expanded significantly, offering a more publicly acceptable form of wildlife-based income (e.g., Nowak et al. 2019). However, its success depends on factors such as infrastructure, political stability, accessibility, and scenic appeal which are features not available in all areas. Furthermore, despite a thriving tourism industry, Kenya has seen steep declines in wildlife numbers, a fact often contrasted to the increases or stability seen in hunting countries (Hart 2020).

To address these limitations, some regions have adopted hybrid models that combine hunting and tourism. In Namibia and parts of Zambia, such integrated approaches diversify income streams while reducing reliance on any single market. These models offer resilience and flexibility, but they also require sophisticated governance structures, stakeholder coordination, and careful market segmentation. It can also be very difficult in practice to have photo-tourists staying alongside trophy hunters.

Further innovations in conservation finance are emerging. Biodiversity offsets, carbon credit schemes, conservation easements, and trust funds are gaining attention as mechanisms to monetize ecosystem services (e.g., rhino bonds (Okolo 2022)). While promising, many of these tools are unproven over time and unevenly implemented. Importantly, they often lack the immediate, direct cash flow and landholder incentives that trophy hunting, despite its controversies, can provide.

Equity, Ethics, and Global Debates

While this chapter focuses on the economic dimensions of trophy hunting, it is essential to recognize that the debate is as much ethical and political as it is material. Trophy hunting raises questions that cut across moral philosophy, postcolonial politics, and environmental justice, making it one of the most contentious topics in modern conservation.

A central ethical concern is the belief that placing a monetary value on killing wildlife, especially rare or charismatic species, is fundamentally wrong. Critics argue that such practices commodify life, reducing assumed sentient beings to tradeable assets, and reinforcing problematic dynamics where wealthy foreigners extract value from the Global South, often with limited benefits for local communities. This critique resonates particularly in deontological ethics, which holds that killing animals for sport is inherently indefensible, regardless of conservation outcomes (discussed in Bichel and Hart 2023).

In contrast, consequentialist or utilitarian arguments defend trophy hunting if it demonstrably contributes to wildlife protection and rural livelihoods. If regulated hunting generates revenue that helps conserve habitat, protect species, and support

local people, some argue, then its benefits may outweigh the moral discomfort it can cause. This fundamental tension between rights-based and outcome-based ethics complicates both policy decisions and public discourse.

From an economic justice perspective, several key concerns emerge:

- Distribution of benefits: Who actually gains from trophy hunting—the local community, national government, private outfitters, or international clients?
- Opportunity costs: Are there alternative land uses, such as ecotourism or carbon finance, that could offer more inclusive and sustainable returns?
- Intergenerational equity: Does the current model prioritize short-term income over long-term biodiversity and ecosystem health?

These questions go beyond simple cost–benefit analysis. They demand an interdisciplinary approach that integrates ecology, ethics, political economy, and local cultural values. An ethically coherent conservation framework must be inclusive, context-sensitive, and responsive to both scientific evidence and community voice.

A more balanced approach would recognize the rights and interests of local people, alongside legitimate concerns for animal welfare. Ethical conservation cannot be built solely on sentiment or ideology; it must also account for the lived realities of those managing and coexisting with wildlife on the ground.

Harnessing Hunting for Habitat: Eight Reforms to Align Conservation and Policy

Given the evidence presented in this chapter, and the complex interplay of ecological, economic, ethical, and governance dimensions, there is a clear need for thoughtful reform. Trophy hunting, when poorly regulated, can undermine conservation goals and public trust. Yet under the right conditions, it has the potential to support biodiversity, fund habitat protection, and empower local communities. The following economic and regulatory proposals are offered as possible pathways to align trophy hunting more closely with conservation outcomes and ethical imperatives.

- *Ecologically Grounded Quotas with Independent Oversight*

Anchor all hunting quotas in rigorous, science-based assessments conducted by independent experts. This ensures that only surplus individuals are removed, preserving population health and ecological balance.

- *Transparent and Equitable Revenue Sharing*

Guarantee that a meaningful share of hunting revenues directly supports local communities and conservation programs. Transparent financial systems can help ensure that wildlife protection translates into real benefits for people and nature.

- *Ethical Certification and Wildlife-Friendly Labeling*

Establish international certification standards that recognize operations meeting high ethical and ecological benchmarks. Labels can help consumers and regulators support practices that respect animal welfare and habitat integrity.

- *Market Access Tied to Conservation Performance*

Condition access to international trophy markets on verified adherence to conservation and ethical standards. This creates powerful incentives for countries and operators to prioritize wildlife protection.

- *Incentives for Mixed-Use Conservation Landscapes*

Support landowners who combine sustainable hunting with photo-tourism, rewilding, or conservation ranching. These hybrid models reduce pressure on wildlife while enhancing biodiversity and economic resilience.

- *Community Stewardship and Co-Governance*

Empower local communities to co-manage hunting areas and retain a majority of the benefits. When communities are true stewards of wildlife, conservation becomes a shared and sustainable goal.

- *Linking Wildlife Protection to Ecosystem Service Payments*

Enable landholders to access payments for ecosystem services (PES) and carbon credits alongside hunting revenues. This rewards those who maintain healthy habitats and helps shift incentives toward long-term ecological care.

- *Digital Tools for Wildlife Monitoring and Accountability*

Deploy real-time digital systems to track hunts, monitor wildlife populations, and ensure compliance. These tools enhance transparency, reduce illegal practices, and build trust in conservation outcomes.

Conclusions

Trophy hunting sits at the intersection of conservation, economics, and global ethics. As a revenue-generating mechanism, it has clear potential under the right conditions, where quotas are science-based, institutions are accountable, and benefits are equitably shared. In these contexts, it can support habitat protection, fund anti-poaching, and incentivize the conservation of otherwise economically marginal landscapes. However, in the absence of these conditions, trophy hunting can become exploitative, encourage elite capture, and provoke ethical and ecological backlash.

Its economic significance is undeniable in many biodiversity-rich but underfunded regions, particularly in sub-Saharan Africa. Trophy hunting provides direct financial flows that help sustain protected areas, create employment, and, in some models,

support community-led conservation. Yet these flows are often unevenly distributed and vulnerable to governance failures. At its best, trophy hunting aligns market incentives with conservation outcomes; at its worst, it reinforces inequality, depletes wildlife populations, and fuels international outrage.

As public opposition intensifies, and regulatory constraints tighten, especially in key importing countries, the future of trophy hunting as a conservation tool is increasingly uncertain. Calls for bans, eco-labeling, and reform reflect broader shifts in public values and conservation paradigms. Despite this, in many regions, no clear economic alternative has emerged that can match the scale and immediacy of funding generated by well-regulated hunting. Replacing or supplementing this revenue will require creativity, investment, and institutional innovation.

Adaptation, rather than abandonment, is likely to define the path forward. Emerging models seek to integrate trophy hunting with ethical safeguards and diversified income streams. Hybrid approaches, combining photo-tourism, conservation ranching, and sustainable hunting, are being explored to optimize land use and reduce dependence on any one model. Other alternatives, such as payment for ecosystem services (PES) and carbon credit schemes, present promising mechanisms for compensating communities and landowners for maintaining natural habitats. While these models are still maturing, they may in time provide more inclusive and durable conservation finance. In some landscapes, PES may complement or gradually replace hunting revenues altogether.

Moving forward, successful conservation strategies will need to balance economic viability with ethical legitimacy and ecological integrity. Innovations in digital monitoring, value chain transparency, certification schemes and community engagement will be essential to build trust and effectiveness. Importantly, solutions must be context-specific, recognizing that what works in Namibia for example may not apply in Cameroon or Pakistan. There is no universal blueprint, only a shared imperative to secure biodiversity while respecting social and moral complexity.

Ultimately, the role of trophy hunting in twenty-first-century conservation will depend on its capacity to evolve. Whether it remains part of the conservation toolkit or fades from relevance will be determined not just by biology or economics, but by political will, ethical discourse, and the ability of institutions to deliver just and sustainable outcomes.

References

Allen CR, Brent LJ, Motsentwa T, Weiss MN, Croft DP (2020) Importance of old bulls: leaders and followers in collective movements of all-male groups in African savannah elephants (*Loxodonta africana)*. Sci Rep 10(1):13996

Bichel N, Hart A (2023) Trophy hunting. Springer Nature

Carruthers J (2008) Wilding the farm or farming the wild"? the evolution of scientific game ranching in South Africa from the 1960s to the present. Transactions of the Royal Society of South Africa 63(2):160–181

Challender DW, Sas Rolfes M, Dickman A, Hare D, Hart AG, Hoffmann M, Mallon D, Mandisodza-Chikerema RL, Roe D (2024) Evaluating key evidence and formulating regulatory alternatives regarding the UK's hunting trophies (import prohibition) Bill. Conserv Sci Pract 6(10):e13220

Cloete PC, Van der Merwe P, Saayman M (2015) Profitability of the game ranching industry in South Africa

Collins D (2025) $1.3 million Bighorn Sheep tag sets record for most expensive auction tag ever. Outdoor Life via Yahoo News. https://www.yahoo.com/news/1-3-million-bighorn-sheep-195249600.html

D'Cruze N, Elwin A, Green J (2024) South Africa is to shut down captive lion farms—experts warn the plan needs a deadline. The Conversation. https://theconversation.com/south-africa-is-to-shut-down-captive-lion-farms-experts-warn-the-plan-needs-a-deadline-227258

Damm G (2005) Hunting in South Africa: facts, risks and opportunities. African Indaba 3(4):1–23

Di Minin E, Leader-Williams N, Bradshaw CJ (2016) Banning trophy hunting will exacerbate biodiversity loss. Trends Ecol Evol 31(2):99–102

Dickman AJ, Macdonald EA, Macdonald DW (2011) A review of financial instruments to pay for predator conservation and encourage human–carnivore coexistence. Proc Natl Acad Sci 108(34):13937–13944

Dickman AJ, Cooney R, Johnson PJ, Louis MP, Macdonald DW (2019) Trophy hunting bans imperil biodiversity. Sci 365(6456):874

Evans LC, Greenwell MP, Boult VL, Johnson TF (2023) Characterizing the trophy hunting debate on Twitter. Conserv Biol 37(4):e14070

Gaworecki M. (2017) Trophy hunters overstate contribution of big game hunting to African economies: Report. Mongabay, February 10. https://news.mongabay.com/2017/02/trophy-hunters-overstate-contribution-of-big-game-hunting-to-african-economies-report/

Ghasemi B (2021) Trophy hunting and conservation: Do the major ethical theories converge in opposition to trophy hunting? People Nat 3(1):77–87

Goldman MJ, De Pinho JR, Perry J (2013) Beyond ritual and economics: Maasai lion hunting and conservation politics. Oryx 47(4):490–500

Goodenough A, Hart AG (2017) Applied ecology: monitoring, managing, and conserving. Oxford University Press

Green R, Giese M (2004) Negative effects of wildlife tourism on wildlife. In: Higginbottom R (ed) Wildlife tourism: impacts, management and planning. Common Ground Publishing, Altona, VIC, pp 81–97

Hart A (2015) Viewpoint: uncomfortable realities of big game hunting. BBC News, September 1. https://www.bbc.co.uk/news/science-environment-34116488

Hart A (2017) Conservation versus profit: South Africa's 'unique' game offer a sobering lesson. The Conversation. https://theconversation.com/conservation-versus-profit-south-africas-unique-game-offer-a-sobering-lesson-82029

Hart A (2020) The true value of trophy hunting. The Critic, January. https://thecritic.co.uk/issues/january-2020/the-true-value-of-trophy-hunting/

Higginbottom K (2004) Wildlife tourism: impacts, management and planning. Common Ground Publishing, Altona, Vic

Huntley BJ (2023) Bridging the gap: community conservancies in Namibia and Zimbabwe. In: Strategic opportunism: what works in Africa: twelve fundamentals for conservation success. Springer Nature Switzerland, Cham, pp 93–120

International Union for the Conservation of Nature (2016) Informing decisions on trophy hunting. Briefing Paper. https://cites.org/sites/default/files/eng/cop/17/InfDocs/E-CoP17-Inf-60.pdf

Jameel MA, Tabassum S, Mehmood S, Shah T, Khan MF, Kabir M, Awan MN (2019) Does trophy hunting of Kashmir Markhor really contributing in its conservation? Int J Conserv Sci 10(3):525–532

Kadigi RM, Nkuwi IR, Ligate FA, Kija H, Musamba EB (2023) Economic valuation of auctioned tourist hunting blocks in Tanzania. Open J Ecol 13(4):199–228

Koro E (2022) Zim to pay 100% of international hunting revenue to communities. Zimbabwe Independent, June 10. https://www.newsday.co.zw/theindependent/environment/article/2131/zim-to-pay-100-of-international-hunting-revenue-to-communities
Leader-Williams N, Baldus RD, Smith RJ (2005) The influence of trophy hunting on conservation. In: Baldus R, Damm G, Wollscheid K (eds) CIC technical series: best practices in sustainable hunting. CIC, Budapest, pp 37–56
Leader-Williams N, Baldus RD, Smith RJ (2009) The influence of corruption on the conduct of recreational hunting. In: Recreational hunting, conservation and rural livelihoods: science and practice, pp 296–316
Lindsey PA, Roulet PA, Romanach SS (2007) Economic and conservation significance of the trophy hunting industry in sub-Saharan Africa. Biol Cons 134(4):455–469
Lindsey PA, Balme GA, Funston P, Henschel P, Hunter L, Madzikanda H, Midlane N, Nyirenda V (2013) The trophy hunting of African lions: scale, current management practices and factors undermining sustainability. Plos One 8(9):e73808
Macdonald DW, Jacobsen KS, Burnham D, Johnson PJ, Loveridge AJ (2016) Cecil: a moment or a movement? Biol Cons 200:96–98
Mazhar U (2023) Managing common resources in Gilgit-Baltistan: a case of Markhor trophy hunt. Emerald Emerg Markets Case Stud 13(1):1–19
McKean A (2023) The $725K Mule Deer tag: auction tags set all-time record at Western Hunt expo. Outdoor Life. https://www.outdoorlife.com/hunting/auction-mule-deer-tag-western-hunt-expo/
Mundeya M (2023) Zimbabwe's CAMPFIRE conservation initiative not benefiting intended communities. The Independent, August 30. https://www.independent.co.uk/voices/campaigns/giantsclub/zimbabwe-s-campfire-conservation-b2155881.html
Naidoo R, Weaver LC, De Longcamp M, Du Plessis P (2011) Namibia's community-based natural resource management programme: an unrecognized payments for ecosystem services scheme. Environ Conserv 38(4):445–453
Naidoo R, Weaver LC, Diggle RW, Matongo G, Stuart-Hill G, Thouless C (2016) Complementary benefits of tourism and hunting to communal conservancies in Namibia. Conserv Biol 30(3):628–638
Nowak K, Lee PC, Marino J, Mkono M, Mumby H, Dobson A, Harvey R, Lindsay K, Lusseau D, Sillero-Zubiri C, 71 Signatories (2019) Trophy hunting: Bans create opening for change. Science 366(6464):434–435
Okolo N (2022) The wildlife conservation bond: exploring new market mechanisms for protecting endangered species. In: Extinction governance, finance and accounting. Routledge, pp 361–371
Peyman AJ, Styles MA (2024) Examining the influence of corruption on the practice of trophy hunting in South Africa. Conservation 4(4):577–593
Taylor LA, Vollrath F, Lambert B, Lunn D, Douglas-Hamilton I, Wittemyer G (2020a) Movement reveals reproductive tactics in male elephants. J Anim Ecol 89(1):57–67
Taylor WA, Lindsey PA, Nicholson SK, Relton C, Davies-Mostert HT (2020b) Jobs, game meat and profits: the benefits of wildlife ranching on marginal lands in South Africa. Biol Cons 245:108561
Timbavati Nature Reserve (2016) Sustainability and the funding of the Timbavati private nature reserve. https://timbavati.co.za/sustainability-and-the-funding-of-the-timbavati-private-nature-reserve/
Van der Merwe P, Saayman M, Krugell W (2010) The determinants of spending by biltong hunters. South African J Econ Management Sci 13(2):194–206
Welz A (2018) The ongoing disgrace of South Africa's captive-bred lion trade. Yale Environment360 Yale School of Environment, September 18. https://e360.yale.edu/features/the-ongoing-disgrace-of-south-africas-captive-bred-lion-trade
Yeomans N, Hare D, Dröge E, Hart AG (2022) Ten years of coverage of trophy hunting in UK newspapers. Front Conserv Sci 3:1061295