

# Effectiveness of policy interventions relating to the illegal and unsustainable wildlife trade

Policy brief



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The purpose of this brief is to summarize the findings of an investigation into the effectiveness of policy interventions aimed at addressing the illegal and unsustainable trade in wildlife and wildlife products. Such interventions include (but are not limited to): legislative and enforcement measures; measures to influence consumer behaviour; trade policy responses; and engagement of local communities. The scope of analysis includes both domestic and international wildlife trading activities but is limited to those that are officially designated as illegal in one or more jurisdictions. Where possible, the analysis refers to direct empirical evidence; however, given that such evidence remains quite limited for this topic, it also draws upon a broader evidence base, including widely accepted insights from theoretical work<sup>3</sup>.

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## Introduction

Biodiversity loss remains a serious and urgent environmental concern for humanity, making wildlife conservation a top priority for policymakers concerned with the earth's social-ecological sustainability<sup>4</sup>. Wildlife trade, which involves the harvest, commercial exchange, and end use of wild organisms and their derivatives, is closely linked to two identified direct causes of biodiversity loss, namely overexploitation and the spread of invasive species<sup>5</sup>. However, not all wildlife trade adversely affects biodiversity – if appropriately regulated and structured, legal and sustainable trading activities may improve human well-being<sup>6</sup> and even support in situ wildlife management efforts<sup>7</sup>. It is therefore imperative for policymakers to distinguish instances of wildlife trade that support the pursuit of globally-accepted social and environmental policy objectives from those that do not.

Convention on International  
Trade in Endangered Species  
of Wild Fauna and Flora  
**CITES**

1975

to ensure  
that international trade  
in specimens of wild  
animals and plants  
does not threaten  
their survival

The legal frameworks and other institutions aimed at protecting wildlife have evolved over many centuries. Measures to specifically outlaw commercial wildlife trade have existed since at least the year 1900, with the passing of the Lacey Act in the United States. Increasing recognition of the transnational nature of much commercial wildlife trading activity led to the ratification of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1975. Since then most of the world's nation states have joined CITES<sup>8</sup>, which currently provides the essential international framework for regulating wildlife trade, and under which some of it becomes designated as illegal.

Since the founding premise of CITES and associated national wildlife trade regulation is to provide legal protection to species that are threatened with extinction in the wild, trade legality is expected to be informed by scientific assessments of whether such trade is associated with threats to designated species. However, in practice the links between official trade legality and sustainability (both biological and socio-economic) are sometimes unclear or even contested<sup>9</sup>. Notwithstanding such issues, the purpose of this brief is not to question the historic appropriateness or social legitimacy of any previously declared legal status of trade in particular species, but rather to examine the effectiveness of the various consequent policy interventions that are intended to support their conservation (which might also include future establishment of legal markets). The analysis here therefore relates to existing classified illegal wildlife trade (IWT) activities and specific policy interventions to mitigate them and any associated unsustainable impacts on wild species populations.





# A policy-relevant framework for understanding Illegal Wildlife Trade

## Wildlife trade legality and unsustainable harvest

Thousands of species across various taxa are harvested and traded by humans, alive or dead, whole or in part, for a wide range of consumer purposes, ranging from subsistence to luxury forms of use<sup>10</sup>. Harvest may be motivated by direct subsistence needs of the harvesters, but also by other factors, such as opportunism, commercial gain, recreation, or even protest. Many forms of harvest and use are linked to traditional practices, and actors may be unaware of the conservation status and sustainability of harvest of the species in question. Species harvest – and subsequent trade-related activity – can be considered sustainable if the rate of offtake does not exceed the natural rate of population growth. However, in the absence of sufficient information and control relating to the impacts of harvesting, overexploitation and depletion of wild populations may occur.

If wildlife management authorities consider it necessary to reduce harvesting rates, or prevent harvesting entirely, they may do so by employing various regulatory measures, including restrictions on takings and limiting access to wildlife habitats. Violating such regulations for the purpose of subsequent commercial gain constitutes the first stage of IWT. However, it is also possible for legally and sustainably harvested wildlife products to be subsequently traded illegally<sup>11</sup>. This is especially prevalent when transactions take place across jurisdictional boundaries and traders seek to avoid taxes and various regulations or standards relating to handling, transport, and sale of wildlife products. Not all wildlife trading activity that is technically illegal should necessarily be of equal concern to species conservationists.

## Wildlife trade, institutions and economic drivers

Aside from biological factors, various critical institutional factors determine the relationship between trade-related activity and sustainability of harvest. In this context, institutions are defined as both the formal and informal constraints and conventions devised by humans to shape their behaviour<sup>12</sup>. Formal institutions comprise official state-enforced rules, such as constitutions, laws, and regulations; informal institutions comprise social norms, including gender roles, typically linked to tradition and culture. Some informal institutions are deeply embedded in society and change over longer time scales than most formal institutions. Recent social science research shows that when newly declared formal legal restrictions on harvest or trading activity contradict established informal institutions, such laws may lack a vital measure of social legitimacy; consequently, illegal trade is both more likely to take place and more likely to be facilitated by corrupt officials<sup>13</sup>.

Institutional analysis (both theoretical and empirical) reveals that property right regimes (e.g. land tenure, fishing rights) are critical for incentivising sustainable levels of wild harvesting in both terrestrial and marine environments. Commercially valuable wildlife that exists under open access conditions is far more likely to be unsustainably harvested than wildlife that is owned and controlled by directly interested and affected actors<sup>14</sup>. This is consistent with the well-known principal-agent model from economic theory<sup>15</sup>. Economists typically recommend establishing strong (clear, appropriately assigned and enforceable) property rights over in situ populations and habitat of commercially valuable wildlife as a first step toward preventing overexploitation<sup>16</sup>. This is especially so in developing countries in which wildlife occupies terrestrial environments with (i) high economic values to be gained from land conversion and/or (ii) heavily competing demands on limited state management resources<sup>17</sup>.

In recent decades institutional theorists have added further insights and tools to support sustainable environmental governance and natural resource management in complex-adaptive social-ecological systems<sup>18</sup>. These include a deeper understanding of polycentric governance, under which there are multiple centres of decision making in multiple jurisdictional centres, often at different scales<sup>19</sup>. This is relevant to many instances of illegal wildlife trade, which frequently crosses jurisdictional boundaries, most often with varying levels of legality, social legitimacy, and enforcement. Further insights are provided by the related concepts of institutional scale, fit, interplay, and dynamics, which highlight the governance benefits of aligning both formal and informal institutions across scales and boundaries over time<sup>20</sup>.

Institutions of trade evolve in response to changing human tastes and preferences and have been comprehensively studied within the discipline of economics. Economic research reveals that entrepreneurs seek to gain property rights over economically valuable resources, including wildlife, in order to obtain private benefits from these. For commercially valuable

wildlife under open access or poorly enforced public ownership, there are strong incentives to harvest it, dead or alive, for private gain. If trade is illegal but remains at least somewhat socially legitimate, actors will weigh up the economic benefits of harvesting against the perceived risks and costs of being apprehended and punished by enforcement agents.

Market prices provide a strong indication of social commercial value of wildlife products, and rising prices typically signal increasing relative product scarcity. Rising prices also provide increasing benefits to entrepreneurial harvesters and product suppliers and are thus likely to stimulate further efforts to supply such products, legally or illegally. The dilemma for commercially valuable threatened species is that as they become increasingly scarce, if user demand persists or increases, their prices will tend to rise, thereby stimulating further harvesting<sup>19</sup> or other attempts to supply their products (for example, by farming them). Under such circumstances, the only factor that will mitigate further pressure from illegal harvesting is a meaningful shift in consumer preferences (i.e. demand) away from illegally-sourced wild products.

## A taxonomy of interventions

For policymakers concerned with maintaining wild population levels of threatened species, there are numerous choices of specific interventions to tackle IWT and unsustainable levels of harvesting<sup>22</sup>. That said, the current CITES framework tends to entrench a divide between two substantially different approaches: prohibition (typically associated with Appendix I-listed species) and sustainable use (typically associated with Appendix II-listed species). Under the first approach, the policy objective is to penalize all contributing aspects of commercial trade in the species of concern. The second approach is more discriminating and seeks to encourage trading activity that is legal and originates from sustainable harvesting practices (including farming) while penalizing trading activity originating from illegal and unsustainable wild harvest.

Within the broader framework of these two approaches, interventions may take place at one or more of the three basic levels of activity and may accordingly be classified as supply-side, transactional, or demand-side interventions. These are aimed, respectively, at (i) harvesters and producers, (ii) traders and other intermediary actors, and (iii) end users. Ideally, interventions should be consistent, if not integrated, across all levels of activity – in other words, interventions employed at one level should support, and not conflict with, those employed at another.

Supply-side interventions typically involve both physical and legal measures to deter uncontrolled wild harvesting and thereby protect the species in its habitat. In pursuit of the sustainable use approach, supply-side interventions may also include attempts to establish legal and sustainable supply sources from either controlled wild harvesting or farming operations. In some instances, the economic benefits of such legal supply regimes may be redirected towards protection of wild populations and their habitat, either by

supplementing management and enforcement expenditure, or by providing benefits to interested and affected local communities (or both). As a variant of the last approach, supply-side interventions may include the provision of alternative livelihood opportunities and human-wildlife conflict mitigation assistance to local people who might otherwise act as illegal harvesters.

Transactional interventions, which may assume many different specific forms, all essentially seek to raise the transaction costs of illegal trading activity, including purchase, transport, storage, smuggling, advertising, and sale of trafficked wildlife products. Criminal deterrence is achieved through effective detection of illegal activity, followed by apprehension and punishment of the perpetrators. When parallel legal markets exist, interventions will also seek to establish and certify traceability of legal products to deter potential laundering of illegally harvested products through legal markets.

Demand-side interventions aim to discourage consumers from purchasing or using wildlife products from illegal sources. Under the prohibitionist approach, these interventions will aim to direct consumers away from any products of the species in question (including possible look-alikes or fakes). Such interventions may take the form of general awareness raising and targeted messaging to promote voluntary behaviour change, or even coercive measures such as legal restrictions on possession or use. Following a sustainable use approach, demand-side interventions may seek to encourage consumers to switch to supply sources that can be verified as being ultimately supportive of wild populations rather than harmful to them<sup>23</sup>. To succeed, such interventions may depend on credible methods of traceability and certification. Demand-side interventions may also encourage end users to simply reduce their frequency of use of particular wild products, or otherwise switch to (i) certified farmed sources of the same species, (ii) less threatened substitute species, or even (iii) synthetic substitutes.

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