Illegal Wildlife Trade in the Mekong: The Interplay of Actors, Legal Governance, and Political Economy

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Abstract and Keywords

This chapter examines the illegal wildlife trade (IWT) in the Mekong, with particular attention to how political economic factors and legal structures shape actors' interests and incentives. The current literature on wildlife trafficking mainly attributes wildlife protection failures to weak enforcement. However, this literature has paid little attention to the underlying factors that contribute to the weak enforcement of wildlife laws. This chapter applies a political economy analysis to better understand the role of each actor from the point of wildlife sourcing to end consumption. It also explains why effectively enforcing wildlife laws is difficult and is often not in the interest of wildlife officials. This chapter thus examines why actors along IWT supply chains engage in illegal activities and do not abide by conservation laws. With rising demand for wildlife products, particularly because of increasing economic prosperity, the survival of many endangered species is under threat. Despite growing calls for total bans of wildlife trade or trade regulations to prevent overharvesting, these frequently fail to achieve conservation goals if they do not consider the local political economy context. This chapter focuses on the global IWT hotspots of Vietnam, Laos, and Cambodia, analyzing how legal frameworks shape local political economies and showing why IWT is a pervasive problem in the region.

Keywords: illegal wildlife trade, actors, environment, political economy, legal governance, Mekong, supply chain

Introduction

On March 29, 2019, Vietnamese port authorities announced the seizure of nine tons of ivory—the biggest seizure ever recorded (EIA 2019). The same year, international nongovernmental organizations (NGOs) confirmed that the Mekong region remained a key global hub in the international wildlife trafficking network, with trade links to high-demand markets elsewhere in China and the United States[1] (WWF 2020). After habitat degradation, the illegal wildlife trade (IWT) stands as the second biggest driver of species

extinction and biodiversity loss (WWF n.d.). In this chapter, IWT is defined as any commercial exploitation of wildlife species (fauna, flora, and fungi), either live or in parts, that is unlawful, and it concerns all activities along the trade chain of a wildlife product from harvest and transport to market exchange and use.

Not all wildlife trade is illegal, however, as extensive domestic and international legal frameworks allow for particular types of wildlife trade. The most prominent of such frameworks is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). International trade of a species is considered legal if it meets CITES licensing requirements and the species is listed on Appendix II or III (trade in Appendix I species is restricted). However, national governments must enact domestic legislation to implement CITES directives but do not always do so, allowing CITES-protected species trade to occur while banning domestic trade in other species not protected by CITES (Broussard 2017). The main objective of legal frameworks governing wildlife trade is to balance the tradeoff between allowing actors involved in the trade to derive economic benefits and ensuring the survival of wildlife species (Felbab-Brown 2017).

Limited legal supplies and rapidly increasing demand for wildlife products, especially in Asia due to rapid economic growth, create opportunities for illegal markets to form and generate large profits. The United Nations Environment Programme estimates the monetary value of IWT at between $50 billion and $150 billion annually (UNEP 2014). The potential monetary gain strongly incentivizes actors, such as poachers and sellers, to supplement legal supplies through illegal means, including for endangered species banned for commercial trade by CITES or domestic regulations (Hsiang and Sekar 2019; Rivalan et al. 2007). Poachers, sellers, and consumers often cross over and operate in both legal and illegal markets (‘t Sas-Rolfes et al. 2019). Moreover, weak law enforcement, lenient penalties, corruption, and rent-seeking behavior of officials in the developing world all make IWT activity a high-reward and low-risk undertaking (Lin 2005; Felbab-Brown 2017; Wyatt et al. 2018).

Trade is detrimental to species survival and biodiversity when the rate of species extraction exceeds its replacement rate (Mitra and Roy 2006). For instance, more than 56 percent of all turtle species are currently under threat of extinction, with 13,000 metric tons of live turtles being traded, legally and illegally, each year (van Dijk, Stuart, and Rhodin 2000; Ly, Hoang, and Stuart 2011). Although legal trade also depletes species numbers when not properly regulated, illegal trade poses a more consequential threat to endangered species and biodiversity due to the consistent lack of regulation over its supply chains. Given its illicit nature, IWT exists beyond the purview of governing agencies charged with regulating, coordinating, and enforcing laws that moderate the quantity of trade for a particular species (Tittensor et al. 2020). Difficulties in monitoring IWT create uncertainties for regulatory agencies calculating sustainable extraction rates. Lack of illegal trade information leads agencies to underestimate the illegal trade volume and set trade quotas that are too high for trade to be sustainable when combined with the illegal trade (Trouwborst, Loveridge, and Macdonald 2020). Using data on illegal wildlife seizures and legal imports in the United States, Tittensor et al. (2020) find that illegal

trade volumes add 28 percent to legal wildlife imports on average, even surpassing the volume of legal import for some species like Green Sea turtles. The substantial volume and covert nature of IWT make it a greater threat to species survival than the legal trade. IWT will thus be the main issue addressed in this chapter.

Due to the uncontrolled extraction of species, IWT has driven almost 9,000 individual species to extinction, with wide impacts on broader biomes and human livelihoods (Scheffers et al. 2019). Species within an ecological setting rely on each other for survival, so the elimination of species, especially those that are central and linked to others, weakens and destroys entire ecological communities, undermining biodiversity conservation efforts. This destruction has cascading impacts on the economic welfare and food security of more than 1.6 billion people dependent on forest products, including wildlife (Mayers and Vermeulen 2002). Public health concerns stemming from unregulated trade are also alarming. Wildlife trade, especially for illegally harvested pangolins, was thrust into the spotlight at the onset of the global COVID-19 pandemic (Mira-Salama 2020). Scientists have long contended that wildlife trade is conducive to the development of zoonotic diseases that can turn into deadly pandemics. Cross-species transfers of pathogens are particularly likely in marketplaces that bring various animal species into close proximity with each other and humans. In February 2020, after scientists concluded that the COVID-19 virus likely originated from a wildlife market in Wuhan, China, Chinese authorities quickly banned commercial wildlife breeding and trade for food consumption nationwide.[2]

Given such adverse outcomes from excessive legal and illegal wildlife trade, many argue that hunting and trading endangered species should be banned outright to preserve biodiversity and prevent compounding negative effects (Aryal, Morley, and McLean 2018; EIA 2020). By banning all trade, proponents expect greater difficulties for suppliers in sourcing wildlife and the subsequent low wildlife supply to drive up the price of wildlife products, deterring most consumers. However, the securitization of conservation through enforcement-first approaches privileges legal and judicial policies and militarization over local livelihoods (Duffy et al. 2019; Duffy and Massé, this volume).

Critics of complete bans ask why wildlife welfare is prioritized over that of local communities who rely on wildlife as their sole sources of food consumption and income generation (van Vliet and Mbazza 2011). Without considering primary and cascading human impacts, complete bans are ineffective at conservation because local actors, especially those lacking alternative sources of food and income, will still face incentives to poach and trade in endangered species. Supply restrictions also backfire if the increased rarity of wildlife products increases demand and incentivizes more poaching (Chen 2016). Increasingly, some form of controlled and well-enforced legal trade is considered to be a more effective approach for conservation, allowing for sustainable extraction (Rivalan et al. 2007). Yet the current model of legal, regulated wildlife trade frequently allows for excessive hunting and upholds a market for wildlife products that motivates IWT, rubber-stamping illegal trade as legal when and where the laws are ambiguous and contain loopholes.

To better understand the determinants of IWT in the Mekong region countries and which interventions aid conservation, this chapter examines how certain political economic factors and national legal frameworks originated and how they shape the decisions of various local actors from poachers to law enforcement officers. Although studies find that law enforcement agents have low capacity and lack political will, it is crucial to examine the institutions, laws, and regulations themselves as they are often ambiguous and contain exploitable loopholes, reducing the cost of trafficking and further exacerbating the IWT. Enforcement failures thus follow from ambiguities and gaps in laws and regulations despite officials having the capacity to enforce. Enhancing enforcement capacities may not only fail to reduce IWT but may increase violence in the name of conservation and open up the opportunity for the state to extend its power in controlling valuable resources and the people who depend on them (Peluso 1993; Duffy and Massé, this volume).

While this chapter offers a comparative analysis of three countries in the Mekong Basin—Vietnam, Cambodia, and Laos—the approach of better understanding the political and economic factors and legal institutions that incentivize IWT helps explain the failure of conservation policies globally. Thus, this chapter begins with a brief discussion on the political economy approach used for understanding IWT, followed by a discussion of the actors involved in the illegal trade. Then the chapter turns to the two main approaches to counter IWT. The subsequent section on the ambiguities and loopholes in the wildlife laws and regulations within the Mekong countries draws on interviews with state and non-state stakeholders in the Mekong and fieldwork conducted across Vietnam and Laos. Finally, we conclude by discussing how a comparative political economy lens is not only central to comparative environmental politics, but also helpful for generating recommendations for combating the IWT in the Mekong.

Comparative Political Economy Analysis

A comparative political economy analysis (PEA) investigates the interactions between political and economic processes within and across societies. This approach first specifies the actors, their resources, and their objectives to delineate the set of actions each actor can make and the payoffs from each. Discussions of IWT are often morally charged, with wildlife poaching seen as an immoral and criminal action, so a political economy approach moves away from explaining the participation of actors in IWT as a result of their disregard of morals (Rizzolo et al. 2017). Instead, this approach illuminates the processes that perpetuate IWT activities across countries by looking at the incentive structures of actors based on their resources and constraints. Political and economic factors determine the resources and the constraints (such as wildlife laws and regulations and poverty) that actors involved in the wildlife market face and thus their incentives to engage in IWT. Their resources and constraints are further shaped by other political economic factors, such as the rent-seeking behavior of policy-makers who develop weak laws. PEA, therefore, helps us identify ways to manipulate the incentive structures of policy-makers such that they are disincentivized from engaging in rent-seeking behavior. With the appropriate incentive structure, understanding why and how actors engage in IWT can enable pol-

icy-makers to craft feasible interventions at different scales to reduce benefits and increase costs of participating in IWT supply chains.

Actors Involved in the IWT

The trade of wildlife products from point of capture to consumption involves four main groups of actors: suppliers, intermediaries, consumers, and enforcement officials. Broadly, suppliers engage in poaching and harvesting, middlemen take part in transporting and trading activities, consumers utilize the end product, and enforcement officials are charged with enforcing regulations. Suppliers, intermediaries, and consumers may operate exclusively in one domain, legal or illegal, or participate in both markets (‘t Sas-Rolfes et al. 2019). Actors working in the legal market are usually visible to the government, making it easier for governments to monitor and regulate wildlife trade quantities. Facing the risk of legal punishment, actors in the illegal market operate surreptitiously to avoid detection by enforcement officials. This behavior makes it difficult for governments to locate them and effectively regulate their operations to keep wildlife extraction at sustainable rates. Factors that shape an actor’s decision to participate in one market over another can be intertwined, but not always. For instance, high penalties from engaging in IWT increase the likelihood of participation in the legal trade for some actors, but also drive other actors out of the wildlife arena completely and thus have no impact on legal trade participation. Since IWT is a greater concern due to its covert nature, this section discusses the factors that incentivize or deter actors from engaging in IWT.

Suppliers

While suppliers are often vilified as profit-seeking perpetrators of IWT, this group includes a variety of individuals, from poor local hunters poaching for subsistence or cultural practices to professional hunters working for organized crime groups.

Poor local farmers are assumed to poach and hunt as a way to supplement their income or dietary needs (Lin 2005). In marginalized communities of Myanmar, Laos, and Cambodia, the sale of wildlife constitutes up to 70 percent of people’s income (Felbab-Brown 2017). For subsistence hunting, local hunters are less discriminatory in the species they poach and utilize simple hunting traps (MacKenzie 1988). These local hunters either sell wildlife directly to consumers in local markets or to intermediaries who process the wildlife products or sell it to consumers (Nuwer 2018). While many studies emphasize poverty as a critical driver of poaching activities among hunters, some studies point to the high demand of wildlife products as a stronger incentive to hunt (Duffy and St. John 2013). That is, if a hunter is impoverished but there is no demand, the hunter is unlikely to poach for commercial purposes. Furthermore, the notion of conservation carries overtones of colonial repression for many local communities in which the colonizers alienated Indigenous populations, whom they saw as backward or uneducated and whose traditional resource use patterns they changed in the name of modernization (Fuentes-George, this volume). Poaching thus becomes a way for locals to rebel against impositions and ex-

press discontent with conservation mandates (von Essen and Allen 2015). Under such cases, stronger law enforcement will not necessarily deter these local actors from hunting as they see rules barring them from hunting as illegitimate.

High-profit margins attract professional hunters in organized crime groups to engage in IWT, although this decision is conditioned on the level of perceived enforcement and severity of punishments (Lin 2005). In places with robust law enforcement, prosecution, and long prison sentences, the cost of wildlife trafficking is sufficiently high to deter suppliers from illegally poaching. While professional hunters primarily target charismatic megafauna like elephants and rhinos due to their high value, they still trade in non-charismatic species (Duffy 2010). Professional hunters utilize sophisticated tools that are more efficient at catching wildlife, and their rampant use has severely reduced populations of endangered species. Accordingly, the simple tools used by local hunters are increasingly ineffective at capturing sufficient quantities of wildlife for dietary or income needs. The well-equipped professional hunters crowd out local hunters, leading them to relocate to neighboring areas with more abundant wildlife or give up hunting to pursue other occupations (Felbab-Brown 2017). At the same time, professional hunters occasionally recruit local hunters for their valuable knowledge on endemic species (Saypanya 2018; Nuwer 2018).

Intermediaries

Intermediaries between suppliers and consumers serve different functions as part of the illegal wildlife supply chain and include processors, transporters, consolidators, wholesalers, and retailers (‘t Sas-Rolfes et al. 2019). For instance, intermediaries conveying elephant ivory include processors who carve it into jewelry, transporters who carry it to shops, and retailers who sell it to consumers. Processing wildlife through middlemen thus transforms wildlife into products that customers value. The service costs of these middlemen are baked into the market value of wildlife products, meaning that the more hands a wildlife product passes through, the higher its selling price. For example, while a hunter in Tam Dao National Park in Vietnam makes a few hundred dollars in one year from hunting and selling wildlife to intermediaries, the mark-up in prices through the hands of intermediaries accumulates to the point where restaurants selling those wildlife meats will make around $1,000–1,500 a year (Felbab-Brown 2017).

Intermediaries are important links in the supply chain and expand the size of the IWT (Felbab-Brown 2017). Suppliers, especially local hunters, have access to a limited group of consumers in their localities, so intermediaries bring wildlife products to locations with higher demand, such as urban areas where consumers have higher purchasing power. Indeed, roughly 68 percent of the products from the turtle trade in Vietnam end up in its two biggest cities: Hanoi and Ho Chi Minh City (Thong et al. 2019). In many large Asian cities, retailers are key to the continued functioning of wildlife trade. They operate out of storefronts to sell legal wildlife products but have been known to sell illegal products to trusted customers.

Beyond transporting wildlife, intermediaries also help circumvent legal hurdles. When the trade in some wildlife products is “illegal,” legal forces can curtail their sale, so middlemen cultivate connections with enforcement officials to ferry wildlife products to destinations without getting confiscated. These fixers make sure that park rangers do not arrest hired hunters, police do not inspect transported shipments, and customs officials do not confiscate products crossing borders (‘t Sas-Rolfes et al. 2019). It is especially easier for fixers to persuade enforcement officials to not enforce wildlife laws in places where officials are minimally paid because bribery is an attractive option for income supplement (Moreto, Brunson, and Braga 2015).

Consumers

Although wildlife products are an important source of protein for marginalized communities, consumption by wealthy consumers is more worrisome because they have the financial resources to purchase large quantities of endangered species products, incentivizing IWT to persist and expand (Felbab-Brown 2017). In many Asian countries, explosive economic and population growth in the 1990s and 2000s led to a sharp rise in demand for wildlife products (Verissimo, Challender, and Nijman 2012). Countries in the Mekong region, such as Vietnam, transitioned into a consumer state, where demand from the domestic population is high, in addition to already being sites for sourcing, processing, and transiting (USAID 2017). East and Southeast Asia have consistently remained the geographic loci of consumption, with 64 percent of the global seizures of illegal wildlife products occurring in the region (Hitchens and Blakeslee 2020).

Among more affluent consumers, wildlife products are purchased as traditional medicine, jewelries, pets, and food delicacies (Nijman 2010; Nuwer 2018). These users are often urbanites who buy wildlife products as signals of social status and wealth (USAID 2017). Wildlife products are also consumed due to unsubstantiated beliefs that they have medicinal powers. For example, Vietnamese men consume rhino horns as an aphrodisiac, while postmenopausal Chinese women ease symptoms of rheumatoid arthritis and osteoporosis with tiger bones (USAID 2017). The rarity of the wildlife also attracts affluent purchasers, with price increases doing little to deter customers (Chen 2016). Inelastic demand and high prices incentivize hunters to gather rare species, further decimating wildlife populations. High socioeconomic status among consumers also renders enforcement ineffective; using their financial resources or political clout, these elites can often evade prosecution when they are caught transporting or possessing illegal wildlife products (Wyatt et al. 2018).

Enforcement Officials

Besides the actors central to the wildlife trade networks, other critical players include those in the legal and the security arena charged with advancing anti-trafficking efforts across wildlife law enforcement, customs, prosecution, and judiciary. Deleterious effects from IWT on biodiversity, economies, public health, and national security have led IWT to become highly legalized and securitized (Massé and Margulies 2020). These actors moni-

tor and enforce regulations, meaning the prevalence of IWT depends on their capacities, commitments, and authorities, which vary by location and political context. Officials have weakened capacities and commitments to enforce wildlife laws from two non-mutually exclusive factors: the lack of resources for capacity-building and their desire to engage in rent-seeking behavior (Holland 2016; Kolstad and Søreide 2009). Some wildlife officials intentionally choose to not develop the capacity to enforce or reform wildlife laws in order to continue engaging in corruption and eliciting bribes from actors along the illegal supply chains (Wyatt et al. 2018). Regardless of officials' inclination toward rent-seeking, officials often lack economic resources to build enforcement capacities, such as through training in morphology, purchasing appropriate enforcement technology, strengthening legal frameworks, monitoring new online channels of trade, and hiring adequate numbers of officials (Wellsmith 2011; Standaert 2020).

The resources and capacities of the suppliers, middlemen, and consumers shape the actions of enforcement officials in curbing wildlife trafficking. When traffickers are capable of bribing, evading, or punishing enforcement officials, the cost of enforcement rises and officials are deterred from enforcing the laws. Only when officials develop enforcement capacity does the cost of IWT rise for traffickers from the higher chance of detection and punishment. Interactions between traffickers and anti-trafficking forces should be considered strategic, with the actions of each conditioned on the other.

A Political Economy Lens for Understanding Interventions to End IWT

To address negative effects from IWT and promote conservation, most interventions tend to fall into two broad categories: institutionalizing complete bans on wildlife trade or permitting regulated wildlife trade with legal frameworks that include monitoring and enforcement. There is no one-size-fits-all solution to IWT, and the solution is often context-dependent (Felbab-Brown 2017). A success story in one context does not necessarily translate into the same outcomes elsewhere. Thus, we argue that a comparative political economy lens helps explicate why some conservation policies are more successful than others. Here we analyze two main streams of conservation interventions through such a political economy lens.

Complete Ban of Wildlife Hunting and Trade of Endangered Species

A complete ban is instituted through national legislation that prohibits all hunting and trading of listed species countrywide. Bans are justified by viewing human poaching activities as morally unacceptable (Neumann 2004). Proponents argue that demand for wildlife products decreases with higher prices due to the absence of constant legal supplies. Furthermore, they posit that without legal markets, the practice of laundering illegal species and passing them off as legal wildlife products will end because enforcement officials will know for certain that the product is illegal, thus increasing hurdles for illegal wildlife traders (Russo 2014). Total bans also raise transaction costs substantially, further

deterring actors from engaging in IWT. In places with robust legal enforcement, sellers avoiding detection have to operate discreetly and away from convenient storefronts to provide wildlife products to customers (UNODC 2019). Added secrecy means buyers expend more time and resources to locate wildlife markets and build trust with suppliers.

Bans on other human activities like commercial whaling and logging have shown some positive outcomes and some negative ones. The success of bans, like other kinds of wildlife regulation, relies on the will and capacity of enforcement officials to implement laws effectively and to monitor, arrest, and prosecute actors engaged in IWT. To revive depleting whale stocks, the International Whaling Commission (IWC) placed a moratorium on commercial whaling in 1986. Despite notable objections from nations like Norway and Japan, which continued to harvest whales, surveys of whale populations indicate the moratorium succeeded at reviving several whale species. Some scholars suggest that the norm against commercial whaling failed to become globally accepted (Bailey 2008). In Asia-Pacific, where nations individually imposed logging restrictions, bans failed to uniformly improve forest conservation. Instead, they produced unexpected results such as domestic timber shortage, loss of jobs, and increased deforestation since the underlying problem in some areas was not logging alone but also clearing land for farming (Durst et al. 2001; Brandt et al. 2015). The impact of trade bans on the conservation outcomes of less charismatic endangered species from developing countries remains unknown due to the lack of financial resources to monitor the CITES-protected populations and their harvest rates (Challender, Harrop, and MacMillan 2015). For megafauna that are well-monitored, results from hunting and trading bans also show variation. In India, a ban on tiger hunting led to a rise in the tiger population from 2,226 in 2014 to 2,967 in 2018 (BBC 2019). Conversely, the population of Sumatran rhinoceros in Indonesia declined 70 percent in the past two decades with only 80 members surviving today, even under a hunting and trading ban (Bittel 2019).

While improved technologies and deterrence activities help curb IWT, their effectiveness varies based on the resources and incentives of the actors involved. Arrests and prosecutions are more likely to intimidate poachers from marginalized communities who lack the financial or political resources to dodge prosecution. Those connected to organized crime groups, however, are able to bribe or threaten enforcement officials to turn the other way.

Under complete bans, interventions such as demand reduction campaigns are able to directly target and reduce consumer demand. Without demand for wildlife products, the financial incentives of poaching and supplying endangered species will likely decline (Duffy and St. John 2013). With fewer transactions between actors, enforcement agencies are able to apply more of their resources on each illegal transaction, thus increasing the likelihood of detection and prosecution. While most demand reduction campaigns use anecdotes rather than consumer research and behavioral theory, one exception is Traffic's Chi campaign[3] that targets rhino horn demand in Vietnam ('t Sas-Rolfes et al. 2019). Consumer research found that young, wealthy businessmen living in Hanoi and Ho Chi Minh City are the primary consumers of rhino horn, so campaigns targeted this core group by promoting the idea that success and masculinity come from an individual's character

rather than from rhino horn (Traffic 2014). While follow-up research is needed to measure the Chi campaign's impact on rhino poaching, preliminary surveys found that 64 percent of respondents would recommend others to stop consuming rhino horn (Offord-Woolley 2016).

In addition to complete national bans, many governments have opted to ban wildlife poaching in specific locations through protected areas (PAs). PAs are regions reserved for conservation that receive formal safeguards from local, national, and even international authorities; here, hunting is banned outright or for select endangered species, with violators facing legal penalties (Büscher and Whande 2007). Yet an evaluation of PAs finds that only around 20–50 percent of the PAs globally are managed effectively (Watson et al. 2014).

While total government control over natural resource extraction, such as in state-controlled PAs, can improve biodiversity metrics, it may also result in environmental injustices where local communities bear the majority of the costs of resource extraction while being excluded from its benefits (Fuentes-George, this volume). Local communities living near PAs are usually economically and politically marginalized, making it easier for officials to repress and exclude them from accessing natural resources and participating in the distribution of those resources. Some PAs also became sites of violence under an enforcement-first approach where officials implementing laws are militarized and authorized to use force against illegal poachers (Duffy and Massé, this volume). If establishing PAs deprives local actors of their income and diet source, the cost of not poaching becomes higher than the cost of noncompliance with wildlife hunting bans. Studies have shown that the PAs most successful in deterring poaching have mechanisms in place to support the interests and livelihoods of marginalized communities living within and near protected areas (King, Biggs, and Loon 2007).

Furthermore, for PAs to achieve conservation goals, they have to also be sufficiently staffed, with enforcement officials who have the capacity to monitor, detect, and enforce bans on wildlife hunting (Wellsmith 2011). Officials require tools and technologies to help detect illegal activities within the PAs, such as vehicles, drones, and thermal cameras to pinpoint unauthorized hunters (Wellsmith 2011; López and Mulero-Pázmány 2019). Genomic technology, such as DNA barcoding, is also useful in identifying wildlife species and their origin (Gupta 2018). Yet militarized parked rangers armed with heavy weaponry can generate violence against vulnerable populations, reducing their voice and exacerbating the inequalities they face, while modern technologies create openings for new private-sector actors and security companies (Duffy et al. 2019; see Duffy and Massé, this volume).

Well-equipped PA officials more credibly raise the risk of getting caught, thus deterring illegal poaching. In reality, however, government environmental agencies typically have modest budgets and limited personnel, meaning many teams cannot purchase the necessary equipment for effective monitoring and enforcement (Felbab-Brown 2017). Lack of equipment not only fails to deter illegal actors, but also decreases the incentives for en-

forcement officials to do their job. Without essential equipment, these officials assume they will be unable to detect violations, and, even if they do, the evidence will not be robust enough for successful prosecution (Saypanya 2018). In turn, they may decide not to enforce.

Regulating Trade of Endangered Species

A second group of interventions works under the assumption that legal wildlife trade is permitted.[4] Supporters of regulated wildlife trade argue that complete bans fuel poaching by heightening the rarity of certain species and their value to consumers (Rivalan et al. 2007). Instead, regulated trade may give actors an economic stake in the preservation of species, aligning conservation with the interests of various actors in wanting to benefit from wildlife. Communities may be less likely to extract wildlife beyond its sustainable rate to ensure future income flows (Cooney et al. 2015). In addition, providing some income-generating opportunities may lead local communities to support enforcement of limits on wildlife trade (Peterson 2015; see also Fuentes-George, this volume). Under arrangements where access to wildlife is limited to a community and locals can monitor and credibly punish extraction from outsiders or overextraction by community members, they will be more likely to comply with hunting regulations (Ostrom 1990). However, ensuring exclusive community access is often extremely difficult, as is enforcing quotas and limits on wildlife extraction.

Approaches such as community-based natural resource management (CBNRM) can afford politically and economically marginalized locals access to resources by devolving property or resource rights to local communities and providing assistance to deter outsider poaching (Agrawal and Ostrom 1999). For instance, governments can establish conservancies where local communities are granted authority to manage specific parcels of land and establish rules for wildlife extraction and monetization. In Namibia, the successful devolution of property rights led to communal conservancies that allowed locals to generate continuous flows of income from trophy hunting, meat harvesting, live game sales, and ecotourism while fostering the elephant population to rise from 7,500 in 1995 to 20,000 in 2012 (Naidoo et al. 2016; Weaver and Petersen 2008).

As noted earlier, evidence from the management of common pool resources suggests that successful preservation of wildlife is not guaranteed and depends on the number of users, the ability to limit access to designated users, and the divergence of community interests (Ostrom 1990; Agrawal and Ostrom 1999). For instance, when the “community” is fractured with actors having incompatible interests, local buy-in is tough. People living around the Maasai Mara National Reserve in Kenya, who own large numbers of cattle and livestock, view forest conservation less favorably and prefer not to actively support conservancies due to their loss of grazing land (Keane et al. 2016). Different interests among community members lead to noncompliance from those with livestock, thus generating failures in achieving conservation objectives.

Beyond regulated hunting, wildlife products also come from biosynthetics and captive-breeding facilities such as wildlife farms. Breeding and selling wildlife through facilities and manufacturing artificial facsimiles reduce pressure on wild species by competing with black market supplies (Bulte and Damania 2005). Farmed species are expected to decrease profits for illegal poachers, reducing their incentives to keep poaching. Still, the use of farming to conserve wild species has yielded mixed outcomes thus far. For instance, introducing porcupine farming in Vietnam did not lead to an increase in the wild porcupine population in the first decade of the 2000s (Brooks, Roberton, and Bell 2010). Farmed porcupines fetched higher prices compared to wild-caught porcupines, so large-volume buyers of porcupines, such as restaurants, continued to source wild porcupine meat illegally. Conversely, crocodile farming since the 1980s has supplied the crocodile skin market to the point that the most commercially valuable species are the least threatened with extinction, leading populations of wild crocodiles to flourish globally (Felbab-Brown 2017).

Among wealthy wildlife consumers globally, however, farmed species are not perfect substitutes for wild-caught species, as the rarity of wild species is exactly what attracts them (Chen 2016). Subsequently, the demand for wild-caught species persists, incentivizing poachers to continue hunting illegally for profits. Wildlife farms also open up the opportunity to launder wildlife, whereby illegally caught wildlife species are passed off as legally farmed species (Krishnasamy and Zavagli 2020).

For regulated trade to function, a system of certifications and permits is necessary to authorize the transfer of wildlife products after species are legally procured. This trail of certifications should begin at the point of origin, where experts sign off on documents identifying the species and confirming the legality of the sourcing sites. Point-of-origin certification allows enforcement officials at checkpoints to permit legal wildlife to move undisrupted through supply chains from hunters to consumers. This information reduces downstream costs of enforcement, as officials do not have to distinguish between legal and illegal species. Moreover, the certification process requires enforcement officials to have the capacity to identify and differentiate species at points of origin, as well as the administrative capacity to process documents (Tröster and Hiete 2018). Certification systems often fail at imposing costs on actors along the IWT supply chains when officials lack training, including advanced morphology, on which species are on protected lists and inadvertently issue trade documents for endangered species. For example, the morphological similarity between the commonly bred Chinese Golden Coin turtle (*Cuora trifasciata*) and the rare Vietnamese Three-striped Box turtle (*Cuora cyclornata*) creates confusion among permit officials in Vietnam, who mistakenly issue trade permits for the endangered species (McCormack 2019).

Governing Wildlife Trade in the Mekong

Weak enforcement of wildlife laws and regulations at the national level is consistently treated as the key issue shaping the incentives of actors along wildlife supply chains and

their decisions to engage in IWT and the reason interventions fail to achieve expected results (Wellsmith 2011). Corruption, informational gaps, and lack of resources within government ministries are often cited as key contributors to weak enforcement, but one underexamined factor is the national legal frameworks governing wildlife trade (van Uhm and Moreto 2018; Felbab-Brown 2017; Wyatt et al. 2018). While countries in the Mekong region joined CITES in the 1990s and 2000s (Vietnam in 1994, Cambodia in 1997, and Laos in 2004) and passed legislation to monitor legal trade and prohibit illegal trade, the effectiveness of their CITES compliance efforts and their attempts to curtail IWT in the region remain mixed.

This section raises several issues with the existing legal framework in countries of the Mekong region. The structure of the legal frameworks of Cambodia, Laos, and Vietnam directly and indirectly impacts enforcement of the IWT, thus affecting conservation outcomes.

Loopholes in Legal Trade Regulation

Wildlife laundering is widespread throughout the Mekong region, where legal wildlife trade is permitted. The frameworks governing legal trade in Laos, Cambodia, and Vietnam unintentionally allow for laundering whereby illegally sourced wildlife is passed off as legal (Krishnasamy and Zavagli 2020). Wildlife breeders may use captive breeding facilities to introduce wild-caught endangered species into the trade. Farm owners typically have permits allowing them to legally sell captive-bred species, but instead of selling captive-bred species, breeders supplement their supplies with wild-caught species. Laws in these countries do not explicitly forbid wildlife laundering and do not charge breeding facility owners with specific penalties for engaging in laundering, making enforcement and prosecution difficult and thus opening a loophole for traffickers to exploit. Institutional redundancy, whereby multiple agencies within the same jurisdiction publish contradicting laws, also contributes to the formation of a loophole. Species allowed to be farmed by one agency but not another allow breeders to claim that they are not breaking laws based on the former agency’s regulations. Wildlife laundering is attractive when the cost of breeding is high or successful breeding is uncertain (Felbab-Brown 2017). Proprietors of captive breeding facilities also manipulate and forge permits, enabling them to trade larger quantities than would be officially permitted. Upon inspection, enforcement officials lack the ability to differentiate between wild-caught and captive-bred species or are bribed to accept false permits (ENV Staff 2019). Opportunities to launder wildlife also incentivize poachers and organized crime groups to keep hunting endangered species because they can be disguised and moved to consumers with less risk of legal consequences. One reason loopholes persist is that they reinforce the rent-seeking behavior of legislative officials and weak political will among national authorities to develop explicit regulations forbidding wildlife laundering and specific penalties for such acts, due to the ability to extract large amounts of money from the illegal wildlife businesses (Krishnasamy and Zavagli 2020). Even without the desire to extract bribes, low political will also lead governments to underinvest in enforcement and strengthening of the capacity of officials to combat the loopholes. As such, legal loopholes have turned these three countries into

prime source and transit locations, where illegal species are laundered through breeding facilities as wildlife ready for legal trade.

In Laos, Article 40 of the Wildlife and Aquatic Law (2007) includes a provision that allows species to be traded if they are second-generation or later. There is no way to monitor and enforce this requirement, so breeding facilities pass off wild-caught species as captive-bred. A recent survey of bear farms in Laos found 121 Asiatic black bears in 11 commercial facilities claimed as second-generation captive-bred, but evidence of snare marks and missing limbs suggested all bears were wild-caught or imported illegally (Livingstone and Shepherd 2016).

In Cambodia, Articles 96 and 97 of the Forestry Law (2002) prohibit breeding and trading of wildlife species with protected status in Cambodia, including indigenous species. However, breeding facilities for non-native species are used to launder native species. For example, in more than 200 crocodile farms across Cambodia claiming to breed non-native species, many launder native Siamese crocodiles, which are protected under law, and sell them as legally tradable (Daltry and Thorbjarnarson 2004).

Vietnam permits trade in species that are second-generation or later and are listed in CITES Appendix I or Group IB on Decree 06/2019/ND-CP. For species listed on CITES Appendices II/III or Group IIB of Decree 06/2019/ND-CP, first-generation species can be traded. Like Laos and Cambodia, Vietnamese laws allow wild species to be traded “legally” by obtaining permits and declaring them captive-bred. Many turtle farms in Vietnam illegally pass off wild-caught turtles as captive bred by forging false permits that obscure the identity and quantity of facility bred turtles, thereby funneling large quantities of endangered turtles into international markets (ENV 2019).

Overlap in Jurisdiction

Establishing several agencies with the jurisdiction to monitor, regulate, and enforce wildlife laws and regulations can serve conservation purposes by yielding greater oversight and compliance, with actors working illegally needing to evade more enforcement officials (Bagashka 2014). However, overlapping agencies also serve the rent-seeking goals of government officials, where redundant jurisdictions open more opportunities for bribe extraction (Amin and Soh 2020). These redundancies develop inadvertently when agencies are asked to confront different but overlapping problems or through regulations written by bureaucrats with incomplete information on the issues. Overlaps in responsibilities generate confusion among agencies about what roles each should play in monitoring protected areas, arresting traffickers, and regulating captive breeding facilities. Such confusion leads to inaction, room for plausible deniability, and opportunities to blame others. If agencies fail to coordinate and distinguish their enforcement responsibilities, they may not increase the cost of engaging in IWT or the likelihood of detecting violations. Moreover, jurisdictional overlaps complicate processes for legal trade. To engage in legal breeding and trading, facilities need permits from several regulatory agencies, raising costs of legal trade and encouraging breeders to avoid compliance.

In Vietnam, overlaps in institutional jurisdictions remain a challenge in the enforcement of wildlife laws and regulations. The Ministry of Agriculture and Rural Development (MARD) serves as the management authority in charge of CITES implementation, yet a second ministry established in 2002, the Ministry of Natural Resources and Environment (MoNRE), also protects wildlife species that overlap with MARD's lists. The double-listing, specifically on MoNRE's Decree No. 160/2013/ND-CP and MARD's Decree No. 06/2019/ND-CP, creates confusion and ambiguity for local authorities and law enforcement agencies (Nguyen 2010). When traffickers are arrested with a protected species listed on both decrees, local law enforcement has difficulty deciding which regulation to enforce, leading to mishandled cases that fail to hold illegal traffickers accountable. Owners of breeding facilities are required to obtain separate permits to breed, transport, and import/export protected species from both MARD and MoNRE if species are listed on their respective decrees. The redundancy in legal requirements proves cumbersome, leading owners to ignore mandates (USAID Saving Species 2017). Pursuing legal cases against violators is made more complicated by the need to build cases in concert with MARD and MoNRE as prosecutors must use two different systems of administrative records and data-keeping. The jurisdictional overlaps appear to result from the lack of a coordinating body overseeing institutional design. While MARD was created with the goal of developing agricultural regulations, MoNRE was tasked with resource conservation. Wildlife farms sit at the intersection of their responsibilities. When charged with developing regulations to meet the goals assigned to their ministries, each ministry unintentionally created lists of protected species that overlapped. Unfortunately, personality issues among the leadership and institutional competition for fiscal resources have prevented the two agencies from resolving these problems effectively (UNDP 2016).

Jurisdictional overlaps are also common in Laos and Cambodia. In both countries, two different departments have authority over enforcement of conservation laws and wildlife crime investigations. For instance, in Laos, the Department of Forest Inspection (DoFI), created in 2008, is in charge of all wildlife crime investigations, despite the Laos Customs Department maintaining command over cases of international wildlife smuggling (UNODC 2014). When customs officials confiscate shipments of illegal wildlife, they defer to DoFI because DoFI has authority over all investigations regarding wildlife. Yet, due to its inexperience in criminal investigation, DoFI refers back to customs which has expertise and experience in dealing with international organized crime. Similarly, in Cambodia, while the Forestry Administration (FA) within the Ministry of Agriculture, Forestry, and Fisheries (MAFF) is the primary agency that enforces forestry laws and regulations across Cambodia, the General Department of Administration of Nature Conservation and Protection (GDANCP) within the Ministry of Environment (MoE) manages PAs (UNODC 2015). When illegal poaching occurs in PAs, both agencies are able to arrest actors suspected of hunting and possessing protected species and to conduct initial investigations, in addition to being able to refer cases to prosecutors. This overlap leads to inaction and paralysis over who should initiate investigations. Moreover, this approach creates confusion for those wanting to report wildlife crimes because they do not know which department has the authority to investigate.

Mismatches in the Legal Status of Species Across Countries

Discrepancies in laws between countries impede enforcement of wildlife trade laws and conservation, highlighting the tension between countries' inability to harmonize domestic legislation with international environmental agreements. While CITES appendices guide the species protection lists for member states, CITES cannot force countries to collectively pass legislation protecting all listed species (Lin 2005). The consequence of lack of enforcement power by CITES means that domestic lists across member states may not match (Broussard 2017).

Domestic wildlife laws often focus on indigenous species and leave out non-native CITES species, attaching penalties only to the trafficking of domestically protected species. This generates a loophole where wildlife trade is illegal in the country of origin but legal in the destination country (Broussard 2017). When poaching and trading bans for particular species are not uniform across countries, species may not be conserved effectively. For example, there are no penalties for possessing non-native CITES species in Thailand (Traffic 2016). This allows non-native CITES species protected under the domestic laws of Cambodia, Laos, and Vietnam to be sold legally in Thailand. Based on 12 surveys carried out between 2004 and 2013, almost half of the 2,500 tortoises and freshwater turtles found in Chatuchak Market in Bangkok were banned from international trade through CITES (Traffic 2016). Legal trade for endangered species in one country creates incentives for poachers in countries with bans to continue hunting as they can be sold elsewhere. Poachers in the Mekong countries may thus hunt endangered turtle species and illegally sell domestically protected turtle species to intermediaries who transport them to neighboring Thailand. As such, strengthening legal protections for certain endangered species in one nation does not sufficiently conserve them in the absence of uniform legal protection for all CITES species across other countries.

Conclusion

Identifying actors and their incentives along the illegal wildlife supply chain allows us to better understand how IWT persists and target interventions to curb it. As this chapter shows, utilizing a comparative PEA reveals political and economic factors contributing to weak enforcement and noncompliance of the actors involved in IWT. Such factors include the poverty of local hunters, wealth of urban consumers, low wages for enforcement agents, and opportunities for corruption. Moreover, this chapter highlights the role of existing legal institutions in weakening conservation efforts through legal loopholes, ambiguous laws, and overlapping institutional mandates that intentionally or unintentionally support IWT.

These legal issues arise from policy-makers and enforcement officials attempting to institutionalize an environment that supports rent-seeking behavior. Without changing the incentive structures of those in charge of anti-trafficking efforts, it will be difficult to close loopholes and implement effective enforcement. Even with well-intentioned policy-mak-

ers, incomplete information can lead to institutional designs where multiple agencies are tasked with overlapping objectives and given enforcement power in overlapping jurisdictions. Competition between some agencies further entrenches the problem of overlapping jurisdictions. Problems with legal frameworks also persist because legislators allocate minimal resources and effort to solving them because they do not prioritize wildlife trafficking or see it as a threat to national welfare. Limited resources generate weak capacity that bars effective enforcement. Finally, the lack of cross-national coordination on assigning similar legal protection to species leaves open a loophole that allows illegal wildlife suppliers to easily travel to neighboring countries to sell endangered species with minimal impediments.

A comparative environmental politics of the illegal trade of wildlife must take into account how domestic institutional structures provide incentives for actors to circumvent efforts to regulate wildlife trafficking both within countries and across borders. A clause to protect wildlife breeders may end up providing opportunities for actors to engage in illicit wildlife trading and contribute to weak enforcement since actors will have incentives to overlook what is apparently a legal form of trade. While other scholars have highlighted asymmetries of power and violence that accompany and hinder conservation efforts, an analysis across supply chains highlights how power asymmetries and interests vary depending on where actors lie along these chains.

To reduce IWT, we propose several recommendations. First, countries in the Mekong region should coordinate to legally protect all species listed on CITES appendices and adopt similar domestic restrictions and penalties for IWT participation. Disparate sets of regulations between nations coupled with advances in transportation technology have opened up opportunities for traffickers to move wildlife products to places where suppliers and intermediaries are able to sell illegal products lawfully or with less severe penalties. The pull from nearby markets allows IWT to persist across the region. Once each country legally safeguards CITES-protected species similarly with strong punishment for illegal hunting and poaching, poachers will face hurdles in finding nearby markets to sell poached wildlife, thereby reducing the benefits of initiating IWT activities. Second, all Mekong states should develop additional enforcement capacity through additional staffing and rigorous training. If enforcement officials are able to identify the majority of those engaging in illegal hunting and trade, arrest and prosecute them, and impose sentences proportional to their crimes, the high participation costs relative to the benefits will deter potential poachers. Finally, Mekong countries should develop restrictive regulations and improve enforcement of captive breeding facilities. Wildlife laundering can be reduced with stricter regulations that call for stronger proof of species origin and the use of new technologies that help officials distinguish captive-bred from wild-caught species.

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Notes:

(1) As noted by Felbab-Brown (2017), demand within the United States for illegal wildlife products, such as those that constitute traditional Chinese medicine, is particularly high among East and Southeast Asian communities in the country.

(2) According to the Wildlife Conservation Society, the language of the law does not prohibit the trade in wildlife for medicine or research interests (WCS 2020).

(3) Traffic’s Chi campaign created public service messages to directly target groups of primary users identified through consumer research to instill the value that success does not come from the consumption of illegal wildlife products (https://www.traffic.org/news/innovative-campaign-promotes-success-from-within/).

(4) Although CITES does not allow commercial trade of all species listed on Appendix I, domestic laws governing protected species vary between countries. It is up to individual countries to choose which Appendix I species to list on their domestic lists of protected species. As such, the commercial trade of endangered species on Appendix I remains legal domestically even if it is illegal internationally.

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