Enhancing the legal framework towards holistic and sustainable wildlife conservation in Vietnam

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Key messages

- Biodiversity and wildlife in Vietnam are under increasing pressure from deforestation and illegal wildlife trading.
- A large number of wildlife conservation policies and projects are already in place. However, their effectiveness is hampered by unclear and inconsistent policies; weak law enforcement, monitoring and evaluation; insufficient funding; challenges in achieving the dual goal of conservation and development; environmental and social justice issues; and problems addressing the drivers of deforestation and degradation.
- Despite the persistence of these challenges, Vietnam has new opportunities to address them by moving away from sectoral silos and promoting One Health and landscape approaches; promoting cross-sectoral and cross-border collaboration in addressing the illegal wildlife trade; adopting timely responses to newly emerging issues such as Covid-19 with mixed policy instruments; embedding wildlife conservation policies in green living and consumption behaviour; and tapping into international, regional and national financial initiatives to close finance gaps.
- Sustainable wildlife conservation in Vietnam requires strengthened transboundary and inter-sectoral stakeholder engagement; a holistic and cross-sectoral approach to addressing underlying drivers of deforestation and degradation; sufficient and sustainable funding; and changing consumers' behaviour in buying and using wildlife products.

Introduction

Vietnam is a biodiversity-rich nation situated in the Indo-Burma biodiversity hotspot of Southeast Asia (Dinerstein et al. 2017; Myers et al. 2000). Unfortunately, many of Vietnam's most precious species are directly threatened by unsustainable wildlife farm management, illegal harvesting and international trade (Brooks-Moizer et al. 2009; Janssen and Indenbaum 2019; Challender et al. 2020), deforestation and forest degradation due to agriculture expansion, urbanisation, infrastructure development, population growth and weak forest governance (Tuyet 2001; Nguyen 2017; Van Khuc et al. 2018; Ngo et al. 2020). The country is also a global hub for wildlife trafficking (Nguyen 2003; Grieser-Johns and Thomson 2005; Zhang et al. 2008; Li et al. 2010; Nguyen et al. 2019; De Sadeleer and Godfroid 2020).

Since the 1960s, Vietnam has developed and implemented numerous sectoral and cross-sectoral wildlife management policies to address these problems (Table 1 and Figure 1).

A large number of international wildlife conservation projects have been carried out to strengthen the legal framework, foster cross-sectoral and cross-border collaboration, and empower government agencies, civil society and communities to protect and conserve wildlife (Pham et al. 2018; Trieu and Pham 2020). Despite political commitment and support, there has been a lack of rigorous assessment on the effectiveness of wildlife conservation policies and projects. As the Government of Vietnam is now developing new policies, learning from past initiatives is essential to avoid repeating the same mistakes, as is improving the institutional setting and policy instrument mix to enhance policy outcomes (Schroeder et al. 2020). This infobrief aims to review lessons learned to date, discuss opportunities and challenges for sustainable wildlife management in Vietnam, and propose a future pathway to enhance the effectiveness of wildlife management policies. This paper is built on a review of academic and grey literature, and a national policy dialogue involving around 150 wildlife experts from academic institutions, the private sector, international NGOs, CSOs, donors and the public sector.

Table 1. Key policies on wildlife conservation and management in Vietnam

Sectoral policies	Content
Terrestrial wildlife management and the forestry sector	Forestry Law 2017 and Decree 156/2018/NĐ-CP regulating implementation of Forestry Law 2017
	Decision No. 126/QD-Ttg, Decree 117/2010/NĐ-CP, Circular No. 70/2007/TT-BNN to relax resource-use restrictions and promote community forest protection for poverty reduction
	Decree 06/2019/NĐ-CP refined by Decree 84/2021/NĐ-CP on Management of Endangered, Precious Flora and Fauna and CITES Enforcement
	Decree 160/2013/NĐ-CP amended by Decree 64/2019/NĐ-CP on Criteria for Identification and Management of Endangered, Precious and Rare Species Prioritized for Protection
	Decree No. 35/2019/NĐ-CP stipulating penalties for forestry violations
	Penal Code 2015 amended in 2017 regulates protection of endangered, precious and rare animals
	Prime ministerial decisions on conservation programmes and strategies for species such as elephants, tigers and primates, and proposed decisions for species such as pangolins
	Decree 01/2019/NĐ-CP on Rangers' Functions and Responsibilities
	National Forestry Strategy 2021–2030, with Vision for 2050
Biodiversity conservation	National Biodiversity Strategy 2013–2020, with Vision for 2030
	Biodiversity Law 2008
	Decree 65/2010/NĐ-CP on Implementation of Biodiversity Law 2008
	Decree 160/2013/NĐ-CP on Criteria for Identification and Management of Endangered, Precious and Rare Species Prioritized for Protection
Fisheries and aquatic policies	Fisheries Law 2017
	Decree 26/2019/NĐ-CP on Guideline for Implementation of the Fisheries Law
	Decree 42/2019/NĐ-CP on Sanctions for Administrative Violations in the Fisheries Sector
	Article 242 of the 2015 Penal Code, amended in 2017, on the crime of destroying aquatic resources
	Resolution No. 36-NQ/TW on Sustainable Development of Vietnam's Marine Economy to 2030, with Vision for 2045
	Decision No. 811/QD-BNN-TCTS approving the Vietnam Sea Turtle Conservation Action Plan 2016–2025
Wildlife and livestock	Veterinary Law 2015
	Livestock Law 2018
Trade policies	The Advertisement Law prohibits wildlife trade advertisements on any advertising platform
	Foreign Trade Management Law 2017
	Investment Law 2020 includes a list of wildlife for which business investment activities are prohibited
Other directives/ decisions	Directive No. 29/CT-TTg on Urgent Solutions for Wildlife Management in 2020
	Decision No. 2713/QD-BNN-TCLN promulgating the ivory and rhino horn action plan for 2018–2020
Tourism	Under Environment Protection Law 2020 and Forestry Law 2017, PFES includes the role of tourism in financing wildlife conservation
Wildlife violations in criminal law	Article 244 of the 2017 amendment to Penal Code 2015 and administrative sanctions under Decree 35/2019/NĐ-CP on the Forestry Sector and Decree 42/2019/NĐ-CP on the Fisheries Sector
Health and zoonotic diseases	Since the Covid-19 pandemic, the Prime Minister signed Directive 29/2020/CT-TTg on Urgent Solutions for Wildlife Management

Source: Data compiled by the authors (2021)

Figure 1. Institutional setting for wildlife conservation in Vietnam

Source: Data compiled by the authors (2021)

Opportunities for sustainable wildlife management in Vietnam

With a strong political commitment towards sustainable wildlife management, the Government of Vietnam has actively taken part in international treaties such as CBD and CITES and in combating the regional illegal wildlife trade. These initiatives have laid the legal foundation for Vietnam to enhance its wildlife conservation policies.

Moving away from sectoral silos, promoting cross-sectoral and cross-border approaches, and strengthening law enforcement: Figure 1 and Table 1 show Vietnam wildlife conservation policies aim to promote cross-sectoral and regional cooperation to address complex drivers of biodiversity loss and unsustainable wildlife management (NFGA 2016; WCS 2016; Jiao et al. 2021). By signing up to and promoting the One Health approach, the country has shown its strong commitment to transformational change in tackling the complexities of intersecting health, biodiversity and socioeconomic factors (Harrison et al. 2019; Nguyen 2021). As an immediate response to COVID-19, Vietnam has been lauded as a pioneer (along with China, Korea, Bolivia, and Gabon) in strengthening the legal framework on wildlife trading (Amal et al. 2020; Booth et al. 2021). Vietnam has also established

a national taskforce committed to reforming policy to prohibit the commercial trade and consumption of wild birds and mammals (Chris 2020), while its government and international organizations have stepped up efforts to eliminate the advertising, buying, selling and consumption of illegal wildlife products (GSRV 2020). In addition, Vietnam amended its Penal Code in 2017 (Law No. 12/2017/QH14) to include a 40-fold increase in fines for offenses against endangered and rare species, with maximum jail terms increasing three-fold to 15 years (Jiao et al. 2021).

New financial initiatives for sustainable wildlife conservation: Pham et al. (2018) noted that the state budget has contributed only 29% of total investments in the forestry sector, and most forest conservation funding to date has been from non-state budgets, notably from international funding sources such as ODA, and private sector FDI (49%). Domestic funding schemes such as Payment for Forest Environmental Services (PFES) and international and national REDD+ programs and projects that emphasize biodiversity as an important co-benefit in line with the Warsaw framework can potentially create new and sustainable sources of funding for biodiversity conservation. A Ministry of Natural Resources and Environment (MONRE) representative participating in our policy dialogue said Vietnam is now exploring new funding

sources such as green bonds and forest securities, and mobilizing private sector finance for wildlife conservation policies and measures. International NGO representatives participating in our policy dialogue further highlighted that in response to Covid-19 and to avoid future pandemics, international donors are dedicating more funding to wildlife research, which could help to strengthen biodiversity monitoring and evaluation in Vietnam.

Changing consumption patterns: Younger generations have greener consumption preferences and their diets are moving away from animal-based products (Pham et al. 2020). Policy dialogue participants also saw Covid-19 as a wakeup call for many Vietnamese people, while increasing numbers of reports are documenting public support for closing down wildlife markets. These lifestyle changes and increasing awareness of human-ecosystem-animal interactions provide the enabling conditions for sustainable wildlife management.

Challenges: Moving from policy to practice

Although policy dialogue participants were fully aware of government efforts and opportunities to strengthen wildlife conservation, translating policies and commitments into practice remains difficult, with challenges including:

Weak legal framework: Despite a large number of policies on wildlife conservation being issued, their implementation on the ground has been impeded by overlapping institutional frameworks, inadequate enforcement of existing environmental laws, non-standard implementation of environmental impact assessments, insufficient regulation of protected forests, ineffective border control strategies to prevent illegal trade, and a lack of stakeholder participation in wildlife conservation decision making (MONRE 2019; World Bank 2019). Overlapping and inconsistent guidelines have created major challenges for local authorities in conserving wildlife. For example, the Ministry of Agriculture and Rural Development (MARD) has issued lists of endangered species under Decree 84/2021/ NĐ-CP and Decree 26/2019/NĐ-CP, while MONRE has its own list under Decree 64/2019/NĐ-CP. Meanwhile, the Investment Law issued by the National Assembly has a different protected wildlife list of its own. Moreover, Decree 84/2021/NĐ-CP and Decree 64/2019/NĐ-CP focus purely on rare, precious species while lacking provisions to protect more common species (e.g., certain birds), which suffer from intensive hunting (Pannature 2021). Stakeholders participating in the policy dialogue also pointed out challenges arising when policies only focus on conserving wildlife in protected areas, whereas many endangered

species proliferate in or migrate to and from unprotected areas. The policy dialogue participants also highlighted a lack of adequate attention to confiscation regulation,conflict of policy, bio-security, and disease control and the high transaction cost in tracking species origin. For example, Decree 29/2018/NĐ-CP stipulates that as public property, wildlife is subject to complex bureaucratic procedures that have led to delays in providing timely rescues and releasing confiscated animals. Policy dialogue participants also stressed that current penalties are either too low or are difficult to enforce. Inconsistencies between provisions in the Penal Code and Decree 35/2019/NĐ-CP on poaching, trading and transporting illegal wildlife also pose challenges to putting wildlife policies into practice.

Under-funded and under-staffed sectors: Financial and technical norms for animal rescue and biodiversity conservation are lacking compared to other sectors. Pham et al. (2018) found that in many provinces, available funds are sufficient to meet only 40% of provincial requirements for implementing forest conservation. To date, only 39% of national parks and 21% of protected areas receive income from PFES, while just 6% of protected areas receive over VND 10 billion annually. Meanwhile, 31% of national parks and 15% of protected areas receive less than VND 500 million a year (Pham et al. 2018a). Covid-19 has also had a significant impact on funds as the government has prioritized responses to the pandemic. Post-Covid economic and social development recovery strategies will also pose challenges to ensuring sufficient funding for wildlife conservation (Pham et al. 2018b; BCA 2021). While providing financial and social incentives for actors to move away from unsustainable practices and engage in wildlife conservation is crucial for conservation outcomes, all policy dialogue participants highlighted a lack of financial incentives for behavioral changes. Total revenues from the illegal wildlife trade in Vietnam are eight times higher than expenditure on monitoring and enforcement, two times higher than the total budget for Forest Protection Department (FPD) staff, and four times higher than the total amount collected in fines each year (Nguyen 2002). FPD staff salaries, which range from USD 200 to USD 450 per month, provide little incentive for recruiting additional human resources. Meanwhile, rangers are responsible for 1,000 to 1,500 ha of forest (Nguyen et al. 2019). Government representatives participating in the policy dialogue said there has been a marked drop in the number of forest rangers in national parks and protected areas as a result of Decree 01/2019/ NĐ-CP. This will pose a significant challenge to biodiversity protection in the future.

Unsustainable wildlife farms: In Vietnam, farms involved in the commercial breeding of wildlife species are obliged to use parent stock bred in captivity, but farm

owners continue to purchase wild founder stock and wild individuals (Brooks et al. 2010; You 2020). Farms breeding protected species listed under Group IB in Decree 06/2019/NĐ-CP as amended by Decree 84/2021/NĐ-CP are required to register with CITES Vietnam, while those breeding Group IIB species need to register with provincial FPDs. Meanwhile, those farming unlisted species should report to district FPDs. However, according to policy dialogue participants, sourcing and slaughtering of wild-caught animals is widespread as there are weaknesses in how numbers are recorded in the monitoring process. In addition, a lack of consistent and detailed guidelines on standards for husbandry, enclosures and biosecurity makes wildlife farm management more difficult, posing potential health risks to the public. Experts participating in the policy dialogue frequently cited corruption and weak law enforcement as being major obstacles to sustainable and effective captive breeding management. According to policy dialogue participants, another major obstacle to sustainable wildlife management is the absence of regulations on animal welfare in Vietnam.

Weak monitoring, reporting and verification: Data on biodiversity status, offline and online legal and illegal wildlife trading in Vietnam is scarce, and not up to date (Giles et al. 2006; Van et al. 2019; Pham et al. 2021). Wildlife crime is underreported, and either fails to capture the large numbers of wild species being caught and traded (Yiming and Dianmo 1998), or only reflects part of a complex wildlife value chain (OECD 2019; Jiao et al. 2021). Monitoring and law enforcement in Vietnam is also seen as ineffective due to overlapping policies, a lack of resources for enforcement, ineffective and inefficient cross-regional and cross-sectoral collaboration, elite capture and corruption (Nguyen et al. 2019).

Conservation versus development: While conservation agencies promote expansion and strengthening of national parks, protected areas and special use forests to improve wildlife protection (ICEM 2003), there is significant kickback from national and international actors against new widespread prohibitions (Thuan 2005). Some actors point to the ethics of removing impoverished communities from newly established protected areas where they have resided for generations and which they rely on for their livelihoods. Many provincial governments also cite poverty as a significant obstacle to wildlife conservation (Nguyen et al. 2019). In Northern Vietnam, where Covid-19 has affected incomes and food availability, local people have had to resort to forest exploitation, including poaching and consuming wildlife, for earnings and food (Pham et al. 2021a). In Southern Vietnam, evidence to date shows that in many provinces, local households see expanding wildlife farms as a post-Covid recovery and poverty reduction

strategy (Pham et al. 2021c). While the conservation community advocates banning wildlife farms as an immediate response to Covid-19, the fact that households in many provinces depend on wildlife farming as their main source of income creates major challenges for wildlife conservation and management (Pham et al. 2021).

Limited technical capacity: Policy dialogue participants highlighted the limited knowledge and capacity of government agencies – notably the police, customs officers and local rangers – with regard to species identification, wildlife management, confiscation and zoonotic diseases. Trieu and Pham (2020) also highlight the weak forestry education system in Vietnam, which fails to equip students with adequate skills and knowledge to implement sustainable forest management, including wildlife conservation. Moreover, while PFES aims to increase forest cover and forest quality, including conserving biodiversity and wildlife, provincial governments lack the technical capacity and funding necessary for assessing and monitoring forest quality, including wildlife conservation (Pham et al. 2013, 2021d).

The way forward

Mixed policy instruments are required: The conservation community currently advocates regulatory approaches such as closing wildlife markets to achieve effective wildlife conservation. However, such bans have proven ineffective in other countries, can drive demand underground to black markets (Miron and Zwiebel 1995), and create ethical quandaries because poor communities rely on such resources for survival (Biggs et al. 2017). Outright bans on wildlife trading should be carefully designed, and aside from threatened species, should focus on bird and mammal species that pose elevated risks of emerging infectious diseases (EIDs) and dangers to public health (Chris 2020). Establishing a working list of high-risk EID species; creating and modernizing a national database registry for wildlife farms; applying mandatory (cost effective) microchipping of registered animals for ease of identification; and establishing formal regulations for animal health, welfare and disease prevention might help to reduce from the risk of zoonotic disease outbreaks, prevent farms supplementing their livestock with illegally caught wildlife, and remove a demand avenue for the poachers who supply them. Complements to regulatory approaches, such as changing consumer preferences for wildlife products, diversifying local livelihoods, pursuing sustainable conservation finance, ecological fiscal transfers, and promoting pervasive educational and social marketing measures about wildlife usage, are critical for driving change across civil societies (Wilkie et al. 2016; Dobson et al. 2020; Pham et al. 2021). Economic regulatory measures, such as increasing penalties,

taxes and wildlife trade quotas, would also help (Nguyen et al. 2019). In an increasingly risk-averse society, public perception of wildlife diseases may hamper support for biodiversity conservation (Buttke et al. 2015). Therefore, individual advocacy and awareness (e.g., environmental and conservation education) have to play an important role (Sleeman et al. 2019). As forests are home to wildlife, without maintaining forests the survival of wild animals is put at risk. Focusing only on the protection of individual species without addressing the root causes of problems – forest destruction, fragmentation and degradation – will not lead to effective wildlife conservation policies. While technical and financial efforts are put towards species conservation, addressing the drivers of deforestation and degradation, which are often rooted in national development goals (e.g., infrastructure development, expansion of agriculture and aquaculture (Van Khuc et al. 2018; Pham et al. 2012, 2019), is essential for ensuring the long-term preservation of biodiversity into the future.

Carbon versus biodiversity conservation: COP26 and the Paris Agreement highlight the important role of forests in providing carbon sequestration services. However, there are concerns that emissions reduction projects may fail to deliver biodiversity co-benefits if they focus only on high carbon stock areas. If carbon focused projects are not properly planned, they could negatively affect biodiversity by diverting funds for conservation away from high-biodiversity areas with lower carbon stocks (Murray and Jones 2014). Harmonizing carbon and biodiversity objectives is essential for ensuring sustainable forestry ecosystems (Paoli et al. 2010). Any carbon policies or projects should adopt biodiversity-friendly methods, such as spatial targeting of REDD+ interventions (Jantz et al. 2014; Venter 2014); provide supplementary financing with a biodiversity delivery focus, such as wildlife premiums or conservation funds (Dinerstein et al. 2017); and bundle payments for multiple ecosystem services. Meanwhile, biodiversity-specific management strategies, such as biodiversity conservation, should be factored into forest plantation designs, with optimum rotation ages applied to maximize joint value from timber production and carbon sequestration (Phelps et al. 2012; Martin et al. 2013; Nghiem 2014). All such measures should adopt a landscape management approach. In addition, capacity building, technology transfer and financial support are required to reduce deforestation and conserve biodiversity in an efficient manner to enable win-win carbon and biodiversity solutions (Lokesh 2018).

The One Health approach: To address threats to the long–term future of biodiversity, a more interdisciplinary approach to problems is required that combines the research expertise of ecologists, conservation biologists,

veterinarians, epidemiologists, cultural and social scientists, and human health professionals (Bell et al. 2004). The social science aspect of biodiversity conservation should be emphasized along with its natural science aspect for the One Health approach to function effectively. A major driver of EIDs and pandemic potential is human-wildlife interaction (Jones et al. 2008; Shivaprakash 2021). Therefore, to avoid future pandemics in Vietnam (Huong et al. 2020), the One Health approach needs to tackle the paradoxes of pandemic prevention, climate change, economic growth and poverty reduction (Archarya 2019; Pham and Riedel 2019). Research on wildlife trading, wildlife monitoring and creating a national biodiversity database are all essential (Li 2001), and emphasis should be placed on veterinary science for wild animals, which currently receive disproportionate attention, funding and manpower compared to domestic animals, while being equally important (Buttke et al. 2015).

Wildlife conservation policies need to be coupled with environmental and social justice: As Vietnam's Forestry Development Strategy 2006–2020 failed to reduce the number of poor households in forested areas (Trieu et al. 2020), an average income target has been set for ethnic minority people working in forestry at more than twice the 2020 level by 2025 (GSRV 2021). While the wildlife trade poses a significant threat to biodiversity, the consumption of wild animals is another important threat in Vietnam (Booth et al. 2021; Pham et al. 2021). Conservation policies that fail to incorporate social and environmental justice are never implemented properly on the ground, so it is vital to ensure local livelihoods and biodiversity conservation needs go hand in hand. The questions of who controls, who is blamed and who benefits should also receive adequate attention. Local people are frequently blamed as being drivers of biodiversity loss and key actors in illegal wildlife trading, but this narrative overlooks the fact that these illegal acts are organized by illegal large-scale global, regional and national cross-border wildlife traders who recruit poachers from indigenous communities to trap the wildlife they trade (Nguyen et al. 2019). The narratives for problems and solutions to wildlife conservation need to change and move away from blaming specific and often disadvantaged groups to addressing all actors involved in wildlife trade value chains. Moreover, wildlife trading is highly gender-divided, and overlooking the gender dimensions of producers, traders, and consumers of wildlife products prevents both policymakers and practitioners from seeing particular problems and potential sustainable solutions that have a basis in gender divisions (McElwee 2012).

Sustainable financing for biodiversity conservation: There are several financial mechanisms, such as PFES and REDD+, supporting local livelihoods with the aim of

reducing poverty. However, these alone are not enough, and complying with results-based payment schemes can be costly, particularly in ensuring social safeguards standards and setting up proper monitoring, reporting and verification systems (Pham et al. 2012, 2019). While the government is exploring financial options, such as biodiversity credits, debt for nature conservation swaps, green bonds and green credits to support conservation and local livelihoods, strengthening forest and land tenure security is essential for enabling local communities to participate in such initiatives (Pham et al. 2012), as is the need to ensure equitable, fair and transparent benefit-sharing mechanisms (Pham et al. 2018, 2019). Using both cash and non-cash incentives for regulators, rangers and informants to intensify efforts against illegal wildlife trading can also help in ensuring effective implementation of wildlife conservation policies and projects (Daan 2019; Nguyen et al. 2019).

Conclusion

This infobrief discusses both opportunities and challenges for sustainable wildlife management in Vietnam. Our study shows that despite the large number of wildlife conservation policies and projects in Vietnam, unclear and inconsistent policies; weak law enforcement, monitoring and evaluation; insufficient funding; challenges in achieving the dual goal of conservation and development; and environmental and social injustices in addressing the drivers of deforestation and degradation have all impeded the implementation of these policies on the ground. However, Vietnam can address these barriers by moving away from sectoral silos and promoting One Health and landscape approaches; promoting cross-sectoral and cross-border collaboration in addressing the illegal wildlife trade; adopting timely responses to newly emerging issues such as Covid-19 with mixed policy instruments; embedding wildlife conservation policies in green living and consumption behaviour; and tapping into international, regional and national financial initiatives to close finance gaps.

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