CHAPTER 7

Responses to Transnational Ecoviolence and Crime

INTRODUCTION

There is ample evidence that transnational ecoviolence threatens the attainment of both human security and environmental justice; and that many threats to human security, and all threats to environmental justice, also degrade local ecology and the global biosphere. The preceding chapters have, we hope, demonstrated this effectively. The question remains of what, exactly, we can do about this. It would be misleading to suggest there is any one answer. Adaptive governance across a range of scales is necessary, and the style of policy development and implementation is not always inclusive of the various stakeholders, actors, approaches, cultures, and ecosystem contexts involved. Cultural sensitivity is invaluable, but so is awareness of the international agreements, funding opportunities, and political currents that are promoting, or restraining, concerted action.

However, recent years have seen a renewed call for a stronger set of international laws, organizations, and judicial venues to cope with the myriad of environmental justice issues—including, ultimately, climate justice itself. Efforts to categorize ecocide as an international crime, to use the International Criminal Court in this context, or to establish a new world environmental court can be juxtaposed with more modest efforts to pursue transnational environmental crime through conventional means, including multilateral environmental agreements, INTERPOL and other international policing agencies, market-based approaches, and the eventual establishment of an international court. A robust and interlinked
network already exists; efforts to better coordinate its activities could lead to more predictable results and perhaps get us closer to the establishment of an international court dedicated to eradicating at least the more egregious acts of transnational ecoviolence. The most perplexing and challenging of these will be related to the pursuit of climate justice, a theme we covered at some length in the previous chapter.

Whatever solutions are reached, it’s our contention that they must not only provide opportunities to stop environmental destruction, they must also address the attendant human super-exploitation that is common to both formal and informal environmental crimes and transnational ecoviolence. Local legitimacy is vital, or projects will not be sustainable (and can even be accused of fitting into historical patterns of colonial relations). We do not have the space to adequately explore the complex topic of democratic legitimacy here but it involves both stakeholder participation and legal acceptance by authorities and representatives of civil society, as well as the implicit (if not explicit) acceptance of nature as an equal partner with its own right to representation (see Lamalle and Stoett, [forthcoming]; the subject of legitimacy is also covered in Stoett 2019). This is not an easy thing to achieve at the best of times, let alone in the midst of the political chaos many disadvantaged people find themselves in amid global pandemics and ongoing conflict. Avoiding empty slogans and false promises is as important as strategizing to meet future challenges; as John Gerard Ruggie writes, we are “well aware of what some call the “expressive” function of law, in contrast to its regulative role. But the field of international human rights does not lack for expressive legal instruments; what is in short supply are actionable paths to cumulative change” (Ruggie 2015: 12n27). This applies equally to environmental governance and especially to the global fight against transnational ecoviolence.

**States and Markets**

The first line of defense against transnational ecoviolence is, ideally, provided by functional governments; indeed, environmental crime is easily construed as a threat to national security (Ivanović 2010). Domestic environmental crime legislation and enforcement is clearly a growth industry today; though environmental law has been largely considered a form of administrative law, it has emerged as a form of criminal law as well. Most governments have some form of related legislation but as usual there are tremendous discrepancies in the professionalism and resource
capacity committed to enforcement and compliance.\footnote{The IUCN’s Environmental Law Program, which supports the World Commission on Environmental Law (WCWL), a network of over 700 experts in over 110 countries. The IUCN, UNEP, and FAO have merged efforts to create an expansive and easily accessible database of environmental law (Ecolex), including domestic court cases: https://www.ecolex.org/p/about/.
} Command-and-control enforcement of environmental laws is difficult and for the most part focused on after-the-fact punishment; the regulatory approach was “not designed to pre-empt the realizations of harms (other than through the deterrence effect of punishment) or encourage norms and behavior that foster proactive protection and management” (Halley and Shearing 2016: 556).

For the most part, fighting environmental crime has (rightfully in many eyes) been left to national governments; yet one could even argue that, especially in a pro-deregulatory political climate (from Reagan-Thatcher to Trump-Johnson-Bolsonaro), it’s been left largely to corporations and, at times, consumers to sort out. In other words, the vague abstraction referred to roundly as “the market”, which encompasses the production, purchasing, marketing, distribution, and reification of commodities (including human and non-human labor), reflects the outcomes of billions of consumer choices over the past few hundred years. The market liberal approach to environmental politics accepts all this as the natural state of things and convinces its adherents that with time, wealthier consumers will make more environmentally conscious choices, and the marketplace will lead the way to a greener future (see Clapp and Dauvergne 2011; Stöett 2019).

This is a rather optimistic take on both the power and disposition of the marketplace, but it survives as the reigning ideology of those heavily invested in the capitalist socio-ecological system that prevails across continents today. In this world, power and wealth and their cumulative impact are ideally invisible, and the role of the state in protecting privilege is incidental, not fundamental, to the evolution of modern societies. Environmental crime is bad, of course, since it not only pollutes and otherwise desecrates the environment (and can harm property values), but it also distorts the free marketplace: even in a highly deregulated economy, it is a form of cheating, and cheaters are scoundrels who besmirch the reputation of all the good players who abide by whatever rules (limited as
though may be) are passed by whatever legislative component of government has been installed by the consuming public to look out for the interests of the organizing principles of marketplace wisdom, freedom, and dynamics.

Those who believe the state has a primary duty to intervene in the marketplace (of things, certainly, but even in the marketplace of ideas) are sometimes conflated with those who espouse some form of communist/centralized planning ideology wherein the state actually replaces the marketplace entirely. This latter construction is also a caricature today, with the possible exception of the North Korean regime, an anachronistic dictatorship that would no doubt be displaced if it did not pose a limited but real military threat to Asian neighbors. But the authoritarian state is another matter entirely: the modern Chinese political economy seems based on the premise that we can have all-out capitalist development and a proliferating class of new billionaires as well as an all-powerful, increasingly AI-driven, state that controls socialized production while protecting the accumulation of private wealth. No other state has proceeded to do this with the severity, success, and international impact as China in the last 40 years. Yet we know that environmental crime, even in the midst of such a formidable regime stretching its authoritarian limits to cope with destabilizing levels of urban air pollution, exists in China. Indeed, it exists everywhere, and while potential consumer boycotts might sway some corporations in the West from getting their hands dirty, there is little corresponding public scrutiny in the tightly controlled media environments driving consumer behavior in the massive emerging Chinese marketplace.

China’s efforts to economically colonize post-colonial states in Africa and elsewhere are thinly disguised, even mechanical, instruments to avoid what Rosa Luxemburg referred to as the internal collapse of capitalist accumulation, not to be confused with the joyous spread of socialist ideology. We still have no idea what impact this will have on the enforcement of environmental laws or the continuance of human super-exploitation, but it doesn’t look very promising given the size of the Chinese economy and the singular preoccupation of the Chinese government with the maintenance of power and political purity; the ethnic oppression and forced relocation into “Vocational Education and Training Centers” of Muslim Uyghur communities in China itself are certainly an ominous development, and the near-totalitarian embrace of AI as an
instrument of social control is portentous. Leaving aside Chinese involvement in illegal fisheries (see Chapter 4) and mining, one of the largest environmental crimes taking place presently (2018–2022) is surely the unprecedented illicit deforestation of Siberia, where clear-cut logging for wood destined for Chinese factories and urbanization is shipped via rail or processed in lumberyards the Chinese state has, in hand with complicit officials in the Russian government, set up along the Trans-Siberian railway.²

Any effort to pivot the state, or governments, as the main obstacle to transnational ecoviolence must face the prospect that those institutions are often better suited to wear the label of facilitators than warriors. Beyond the rabid deregulation we have seen in Brazil, the United States, and elsewhere, which is giving polluters and land grabbers and others a new license to proceed with environmental harm, corruption is an ongoing theme in the environmental crime narrative (see Sundstrom and Wyatt 2017; UNODC 2012), though the broader conceptualization of the commodification of nature and super-exploitation of humanity as a form, or even structure, of corruption gets less attention. Complicity as corruption also has its conceptual dead-ends stretched somewhat by the urgency of environmental crime in the midst of what is slowly emerging as consensus that we are in a climate crisis, if not enough to trigger the outward expansion of the term “ecocide” away from its more legalistic minimalist meaning related to the deliberate destruction of the environment chiefly for military purposes (see Stoett 2000). Efforts to stop corruption in the wildlife trade, for example, are vast but mostly unsuccessful, perhaps viewed by many familiar with the trade and its associated human dilemmas and drama as good-hearted but futile. Links between notorious armed rebel and terrorist groups and poaching—driving the call for further militarized responses—have been largely debunked (see Haenlein et al. 2016; though there is no doubt that violence against nature is greatly accentuated in conflict zones). The real problem of poverty and a cultural engagement with corruption surely precedes any Western-driven sudden preoccupation with charismatic endangered species or elephant graveyards. But there is also a

² https://www.climatechangenews.com/2019/10/08/siberia-illegal-logging-feeds-chinas-factories-one-woman-fights-back/.
https://www.nytimes.com/2019/07/25/world/europe/russia-china-siberia-logging.html.
tendency, shared by many international organizations, to put state-level corruption on the list of primary suspects, and this is understandable given the role bribery plays in the facilitation of not just environmental crime but human, arms, and drug trafficking, as well as the money laundering that accompanies all of these activities (see Felbab-Brown 2017).

Beyond the state, non-governmental organizations (NGOs) operate largely with the agenda of public knowledge sharing and shaming corporations and governments that are committing acts of transnational ecoviolence. The use of corporate boycotts, often tied to other human rights concerns, is a frequent tactic for the NGO community, as are letter campaigns and internet-based petitions. Much of this activity is focused on animal rights issues, wherein corporations are accused of violating domestic laws and governments are accused of inadequate regulatory and prosecutorial action. The Environmental Investigation Agency (EIA), TRAFFIC, the International Fund for Animal Welfare, the WWF (World Wildlife Fund), the Environmental Law Institute, the World Conservation Monitoring Centre, and Greenpeace have all played visible roles in focusing public and governmental attention on TEC. TRAFFIC perhaps deserves special mention; partnering with the IUCN and WWF, its Cambridge-based organization has over 20 regional/local offices around the world and plays an active role, in coordination with CITES, in the monitoring of wildlife crime. Indeed, the direct participation of NGOs and other non-state actors in policing is part of the New Environmental Governance that Halley and Shearing cover so well in their excellent review article (Halley and Shearing 2016).

Reducing demand for the products of illicit markets is a theme we return to often in discussions on transnational ecoviolence. Recent campaigns to devalue the absurd notion that eating shark fin soup somehow conveys social mobility, for example, have attracted attention. There are several strengths to this approach, which NGOs and others are prone to take. There would be even fewer large cetaceans left in the oceans if the demand for whale oil and meat did not diminish over the past century (Stoett 1997a). And it is true that, though exceptions certainly exist, poaching and illegal forestry and mining are all done for the ultimate purpose of supplying demand, in most cases for foreign markets. Illegal fishing, covered in Chapter 4, is a case in point: it is fueled by a combination of demand for products and, often, the inability to distinguish legitimate from illicit markets. While we certainly commend efforts to educate consumers about their market choices, and
support the general idea that demand reduction is necessary if we are to de-incentivize the commission of environmental crimes, this is only part of any solution because environmental crime is not only driven by foreign markets. The transnational element is often just the last step in a structured environmental crime apparatus; local consumption of illicit products is almost always visible as well.

The power configurations that permit transnational ecoviolence to take place are not just cogs in a market supply chain, they are deeply embedded in governance structures and have their own incentives, including local patron–client relations, political dominance, the pursuit of wealth, and other factors. In other words, the political economy is multilayered, and those engaged in efforts to reduce demand for products based on a hierarchy-of-value developed cotermiously with the evolution of environmentalism in Western markets need to be aware of this complexity. There is also the sting of cultural imperialism that can be imposed by condemning the dietary and hunting and agricultural habits of others in far off lands: this particular form of paternalism does not sit well with the Inuit, for example, who resent efforts to ban the sale of seal products in Europe and elsewhere. We will avoid the elaborate debates on cultural relativism, but surely this permeates many of the case studies we’ve covered in this book: it is one thing to use moral-suasion around the themes of biospheric integrity, extinction, and even self-enlightened interest; it is another to condemn entire cultures for their past or present survival or development choices and cultural cognitive structures. None of which is intended to deflate the added value of NGO activities that aim to reduce transnational ecoviolence and the broader ecocidal project that enables it, but to insist that they go about their work with the utmost awareness of and respect for the cultural milieu and socio-economic conditions of those affected by their actions.

As is often the case in environmental affairs, civil society groups have played leading roles in pursuing both small and system-level change, and they have certainly entered permanently into the arena of marketplace ideas (even the more radical and unapologetic, such as the Sea Shepherd Society, have played an educative role that few governments could match). Indeed, civil society actors are usually far ahead of governments when it comes to calling for innovative legislation and policy designs. However, NGOs on their own lack the resources needed to overcome the deeper causes of both formal legalistic and, especially, broader conceptions of transnational environmental crime. And we need to be aware
of a simple fact: this is a very dangerous business. Vigilante justice is not recommended when dealing with organized criminal gangs, cartels, or even large corporations that can effectively destroy the lives of those taking action against them. Governments need to be there for them, and when that is not the case, the results can be disastrous, as we explain later in this chapter. However, there is real concern that governments can also go too far when it comes to conservation, or even use conservation and anti-environmental crime actions to buttress their own political power, a theme we turn to next.

**MILITARIZED RESPONSES**

This excerpt might shock some readers, while others may sigh in recognition of an old problem:

“Armed ecoguards partly funded by the conservation group WWF to protect wildlife in the Republic of the Congo beat up and intimidated hundreds of Baka pygmies living deep in the rainforests, an investigation into a landmark global conservation project has heard. A team of investigators sent to northern Congo by the UN Development Programme (UNDP) to assess allegations of human rights abuses gathered “credible” evidence from different sources that hunter-gatherer Baka tribespeople living close to a proposed national park had been subjected to violence and physical abuse from the guards over years, according to a leaked draft of the report. The allegations, reported to the UN last year, included Baka tribespeople being beaten by the ecoguards, the criminalisation and illegal imprisonment of Baka men, summary evictions from the forest, the burning and destruction of property, and the confiscation of food”. ³

There has been a rise in the adoption of both governmental and privatized militarized responses in a range of sectors (humanitarian relief, peacekeeping, wildlife conservation, coastal fishing enforcement, forest protection) (see SIPRI Yearbook 2019; Asiyani 2016; Duffy et al. 2019; Marijnien and Verweigen 2016), which raises significant challenges and more concerns about the role conflict is playing. While supporters claim that militarized-pacification responses can be a solution to the need for a

³John Vidal, “Armed ecoguards funded by WWF ‘beat up Congo tribespeople”, *The Guardian*, Feb. 7, 2020. [https://www.theguardian.com/global-development/2020/feb/07/armed-ecoguards-funded-by-wwf-beat-up-congo-tribespeople](https://www.theguardian.com/global-development/2020/feb/07/armed-ecoguards-funded-by-wwf-beat-up-congo-tribespeople).
swift response to an urgent problem, critics have questioned their effectiveness and their implications for social justice and human rights (Duffy et al. 2019).

For people and their possessions, security has become increasingly militarized and privatized for those who can afford it; anyone who has travelled in Africa or Latin America is well aware of this, but the sheer volume of private security forces in the United States is further testament to the death of public security as a major focus of governance outside of the capitalist-authoritarian states of China and Russia (organized crime is the main provider of “security” in much of Russia, of course). Those who cannot afford private security are left at the whim of the state, or patron–client relationships formed in local communities. No doubt, this is an ancient tale, retold with modern technology and weapons (see Peluso 1993). So the question naturally arises: Why not treat nature in much the same fashion? If private guns can stop environmental crimes, or at least the ones not sanctioned by the “need” for rapid economic growth, why not employ them accordingly?

Arguably, there are cases where law enforcement needs military muscle to be effective, but the broader militarization of conservation efforts is typically decried as illegitimate and, even, counter-productive. It is viewed as a step too far, or as a coy effort to legitimate militarism and/or enforce geopolitical boundaries, as part of a new “green militarization” (Lunstrum 2014) waging the “war to save biodiversity” and an “anti-poaching arms race” that renders local participants/stakeholders powerless (Duffy 2010, 2014). Worse, the private military contractor is pleased to step in, where needed, for the usual mercenary fee:

… green militarisation has opened the doors of conservation to private defence corporations. The most caricatured must be Ivor Ichikovitz’s Paramount Group, thanks in part to his celebrated Mbombe Parabot, the CGI African “superhero” cyborg-robot. These firms seek to create new markets for their hardware and services, markets they actively work to enlarge by exploiting conservation to showcase their hardware at military tradeshows. This also amounts to a perverse form of “greenwashing”. As the firms bedazzle us with their well-advertised commitment to environmental protection, we are left blind to the destruction they leave in their wake in conflict zones around the world. (Lunstrum and Bond 2016)

It would be foolish to not take advantage of the universal disdain for poaching, provided anti-poaching efforts are not simply excuses for the
extension of military power or are showcases designed to overshadow the rampant corruption that enables a successful illegal wildlife trade in the first place. And it is difficult to conceive the pursuit and apprehension of notorious environmental criminals, many of whom are linked to large organized crime organizations, without the application of physical force at some point in the process. But it is equally clear that violence against the people conservation is supposedly designed to help and even empower—indigenous people, local communities, those dependent immediately on the land or coast—is unacceptable as well, and that most of the people involved in poaching, dumping hazardous waste on site, or enslaved in illegal fishing vessels do not deserve to become the objects of a military campaign. Again, we see that human security must be protected and promoted if we are to avoid making bad situations worse (see Duffy et al. 2019). This leads to our next topic, since the use of violence against petty criminals is bad enough, but its employment to deter environmental activism is even more striking in many parts of the world today.

**The Protection of Environmental Activists**

In early February of 2020, Mexican police located the body of Homero Gómez, 50, who managed a butterfly sanctuary in the town of Ocampo in Michoacán state, a region well known for its violent criminal gangs. The speculation was immediate: his murder resulted from his refusal to allow illegal logging on the sanctuary grounds. We discussed the rise of avocado-related violence in Chapter 5: this seems to be another case. A second butterfly protector was found dead a few days later.

This cannot be overstressed: the death rate for environmental activists in many countries (and in some cases on the open seas) is spiking, especially in places where the rule of law is a figure of speech and corruption (defined in terms of governmental involvement in criminal activity) is rife. We mentioned this in Chapter 1 but it is worth revisiting here, since the international human rights community and many of the more staid Western observers and states which promulgate civil liberties seem to have missed the memo on this one. Such murders have been spreading over the past two decades, leading to observations such as that in *Scientific American*: “environmental activists have higher death rates than some soldiers” (Nuwer 2019). A recent Global Witness (2019) report has spurred some measure of media coverage, thankfully, though it is highly unlikely that the report has captured the full extent of crimes against people who
are defending the environment. (The imprisonment of environmental activists is also a travesty, but this is rarely extrajudicial.) The question of how, exactly, we define an environmental activist is an interesting one, but suffice to say that their main political preoccupation should be with the conservation or preservation of the natural environment, which can of course extend to the fight against the commission of environmental crimes—local, regional, transnational, or some combination thereof. This might easily conflate with other human rights activities, such as the promotion of indigenous rights, gender equality, support for the LGBTQ community, and other expressions of solidarity with oppressed groups, so it is difficult to isolate them entirely.

There are also many groups who are in essence lobbyists for industrial concerns who claim to be environmental activists, and some of them have full rights to this claim if they are genuinely convinced their agency serves to promote environmental protection. Then, there are various layers of the legal system, so often under constant threat in states run principally by the corporate-state structure, narco-regimes, or military juntas: many of these lawyers, prosecutors, and judges are deeply concerned about the environment, environmental crime, and related corruption, and they are routinely targeted as well. In an important survey article, Butt et al. define “environmental defenders” as “community activists, members of social movements, lawyers, journalists, NGO staff, indigenous peoples, members of traditional, peasant and agrarian communities, and those who resist forced eviction or other violent interventions” (Butt et al. 2019: 742).

It is unclear whether the Global Witness Report should be seen as a limited snapshot of what is happening on the international scale, but there can be little reasonable doubt that there is a great deal of unrecorded violence against environmental defenders and activists (and, for that matter, against species that make whatever effort they can to defend their habitat from encroachment or destruction). Nonetheless, the Report reaches some startling conclusions: in 2018 alone, 164 land and environmental defenders were reported killed; many more were attacked or jailed. More particularly, and perhaps unsurprisingly given recent political events in some of these countries, the death toll is highest where a combination of high biodiversity and generalized political violence (and land disputes in particular) is found, including the Philippines (30 killed in 2018 alone) and Guatemala (from three killings in 2017 to 16 in 2018). The study found that:
Europe continues to be the continent that’s least affected by defender killings, with only three reported deaths in 2018, all in the Ukraine. The number of reported killings in Africa (14) was also low, which is surprising given the prevalence of conflicts over land there … signs point to a shortage of evidence stemming in part from the fact that less attention is paid by civil society and the media to this issue over others. Overall mining was the deadliest sector, with 43 defenders killed protesting against the destructive effects of mineral extraction on people’s land, livelihoods and the environment. There was an escalation of killings of defenders struggling for the protection of water sources, rising from 4 in 2017 to 17 in 2018. In India, 13 people were killed in the biggest massacre we documented in 2018, in response to a protest over the damaging impacts of a copper mine in the southern state of Tamil Nadu. In a second massacre, gunmen shot dead nine sugarcane farmers and burned their tents on the Philippine island of Negros. The victims included three women and two teenagers.

Again, unsurprisingly, state security forces were linked to many of the murders, while criminal gangs and landowners were also involved. The need for vigilance is obvious: while it is understandable that our attention gravitates toward the more visible and openly violent crimes of thugs, no corporate stone should be left unturned either. Beyond this, however, the state-corporate structure of extractive and pollutive industries remains seemingly unbreakable, strengthened by the privatization of security provision. The tired routine has become nearly universal: those opposed to projects that threaten environmental security (and, as often, their own human security) are deemed foreign infiltrators and/or terrorists—in short, enemies of “the state”—which justifies their oppression. In the Canadian case, this has reached almost comedic proportions as the oil and gas industry struggles to make itself invulnerable to climate change mitigation and has used various federal and provincial governments to link opposition to pipeline construction with devilish foreign influences. But the line between such shallow efforts and the justificatory application of violence can be a thin one. The militarized response to indigenous people defending land from pipeline construction in both the United States and Canada has become so routine that the media barely flinched when protestors of the Dakota Access pipeline construction in
Standing Rock, North Dakota, were sprayed with fire hoses in sub-zero temperatures in late November 2016.\(^4\)

If we are serious about preserving biodiversity and protecting ecosystem resilience, we must be prepared to counsel governments and corporations to help avoid the physical annihilation of those trying to achieve these goals on the ground, whether it be through assassination or the “slow violence” described by Nixon (2011) and others (see also Middeldorp and LeBillon 2019). This will take many readers (abruptly in some cases) out of their comfort zones, since it is the commodities that are consumed in largely Western and Asian markets that are at least in part driving this behavior; and the capital investment involved is often a dizzying multinational tapestry. The Global Witness Report includes a case study from the Philippines, where the Dole Corporation (which exported roughly $647 million of bananas and banana products in 2016 and 2017 alone, mainly to China, Japan, and South Korea) is owned by Dole Asia, which in turn is owned by the Japanese Itochu Corporation, which in turn receives investment from the Japanese Development Bank, US investment bank JP Morgan Chase, and CP Worldwide Investment Company from Hong Kong. A local gun manufacturer has been sub-leasing part of an indigenous community’s ancestral lands for banana production, despite serious irregularities in the licensing process. The community … allege[s] fraud was used to fake their consent. They told police that a local government official attempted to coerce community members into signing the agreement, and even threatened community members with imprisonment if they failed to sign it … Those who have protested have faced violence and intimidation. On 1 August 2016, according to a human rights group, 73 year-old Estrella Bertudez, a member of the indigenous community, was confronted by two security guards of the De Leon ranch and told her to leave her land or something might happen to her. Later that month her house, as well as those belonging to her community, were allegedly destroyed by armed security guards who three days later went on to uproot the community’s crops, fired gunshots and threatened to kill several people.

\(^4\)See https://www.washingtonpost.com/news/morning-mix/wp/2016/11/21/police-citing-ongoing-riot-use-water-cannons-on-dakota-access-protesters-in-freezing-weather/.
Thankfully, criminologists and other academics take this agential violence seriously (see Lynch et al. 2018; Middeldrop and LeBillon 2019). But until governments, many of them complicit in these crimes, take it seriously as well, the onslaught will continue. As Nathalie Butt and her colleagues suggest, this is to a large degree about eliminating violence from the supply chains of many of the commodities we take for granted (Butt et al. 2019); to pursue environmental justice in these cases might well mean we live without those commodities altogether, or at least ensure companies are acquiring them without accompanying murder, displacement, and other threats to human security.

**High Tech Approaches**

Technology doesn’t exist in a vacuum, and its use depends on people with commitment, motivation, context and the means to best protect our intimately-bound habitats and ecosystems. (Davies 2013)

Environmental crime requires high-tech solutions. (Higgins 2017)

We lump these themes together as they so often, but not always, will go hand in hand in the future. Intelligence-led policing demands substantive investments, on and off the ground, yet it is clear that the complex supply chains described in this book cannot be intercepted without serious intelligence, informants, and technological innovations such as DNA tracking. We live in the age of surveillance, even if much of it is designed to influence market behavior and sell products (including, of course, the very products that enable mass surveillance). Using the big data produced and utilized across a variety of sectors to limit violence against the environment seems a logical enough direction at this stage, providing it is not violating privacy in the process. The UN has been working to develop a web-based tracking system that it calls Situational Awareness Geospatial Enterprise (SAGE) to track threats to human security including armed attacks in conflict zones. As always, there are real challenges to implementing technology that relies on informants and privacy concerns abound for not just private landowners but small communities and others. (This applies to any surveillance program designed to protect the environment, including the threat to the autonomy of legitimate farmers, fishers, foresters, and others—see, for example, Devitt et al. 2019.)
Control and power: who can produce, control, and disseminate this data? How far can governments go to procure it, and should they work with social media platforms and other companies willing to cooperate? Another issue that must be considered is the analytic and pragmatic distinction between crime detection and crime prevention: most of the policing techniques discussed here, including robust surveillance, are based on the former as the *raison-d’etre* of policing, but we all know that environmental crime must be prevented since it is generally too late once detection takes place to protect the people and the natural systems being harmed (see Gore et al. 2019). The combination of emerging technology and the digitalization of transnational environmental crime has led researchers to explore how related technologies can mitigate crimes against the environment (Ayling 2013a, b; Agranoff 2013; Alacs and Georges 2008; Anderson-Rodgers and Crawford 2018). A rhetoric of urgency concerning the digitalization of transnational crime has dominated public discourse, especially when discussing the pervasiveness of illicit social platforms such as the “dark web” or “darknet” and new decentralized digital crypto-currencies. The ingenuity of certain criminal organizations involved in money laundering, human trafficking, and illicit drug and arms/weapons trading has driven the development of new and emerging technologies to combat these crimes at the local, national, and international level. Many of these organizations also partake in the burgeoning field of TEC, threatening the environmental and human security of billions of people in the process as they drive endangered species closer to extinction, further diminish already rapidly decreasing fish stocks, poison water tables, destroy critical wildlife and plant habitat, and contribute unrecorded emissions of greenhouse gases to the climate crisis.

As we have stressed throughout this book, it is important to focus on local communities, including indigenous peoples and civil society, because these groups are most vulnerable to the deleterious impacts of environmental crime. Proponents of the use of emerging technology in anti-TEC efforts aim to empower such communities, highlighting the importance of civic science and its role in creating a sustainable relationship between national law enforcement agencies, international agencies, and non-governmental organizations (such as INTERPOL, the World Bank, the United Nations Office on Drugs and Crime, and the wildlife trade monitoring NGO, Traffic), and the private sector. Such relationships can harness the technological expertise from these groups so that
capacity building and best practices for protecting the environment are exercised. The Wildlife Enforcement Monitoring System (WEMS), which began largely as an Asian-based effort spearheaded by the United Nations University and CITES, now involves domestic law enforcement units and several African states. Among other things, the WEMS has explored the use of drones in Chitwan National Park in Nepal and the refinement of investigatory DNA and isotope analyses to trace wildlife sources.

Emerging technologies are increasingly in general use among law enforcement personnel and members of civic society—drones with thermal imaging cameras, range finders, light-intensifying binoculars, Open Data Kits (ODKs), DNA analysis instruments, pesticide drift catchers, aerial mapping kits, spectrometers, near-infrared imaging units, etc. (Higgins 2017; Davies 2013). The broader socio-legal concerns with these emerging technologies have been examined in both academic study and public debate (Higgins 2017). Of late, researchers have turned to the putative potential of blockchain technology as a solution to combating transnational environmental crime, securing global supply chains to ensure that certain products are ethically and sustainably sourced. As an open, distributed ledger that records transactions between parties, and which cannot be altered retroactively, blockchain technology holds immense promise in stunting certain transnational environmental crimes due to its decentralized yet reliable structure (Zheng et al. 2017).

The merit of blockchain technology is its potential to create accountability and transparency among its users, ensuring that the information registered to certain wildlife resources, for example, can be trusted and is not open to tampering. Radocchia (2018) maintains that blockchain technology provides greater transparency into certain supply chains—namely, timber, non-human animals, flora, and waste—and is the key to environmental regulation in the twenty-first century. While such emerging technology is at the forefront of discussions on enforcement, there is a pronounced absence, overall, of studies that have examined the attitudes of law enforcement personnel toward the effectiveness of these new and emerging technologies. Gaps in the literature include study of (1) how law enforcement personnel feel about the digitalization of transnational environmental crime; (2) how emerging technology can be harnessed among law enforcement personnel to foster accountability and transparency in the realm of environmental governance in both the national and international contexts; and (3) how governments can best facilitate the utilization
of advanced technology in anti-crime efforts without compromising the human security of civilians.

Before we envision a high-tech world where artificial intelligence and deep machine learning stops transnational ecoviolence before it is even committed, a note of caution applies: even in states with relatively advanced technological and criminological infrastructures, wildlife crime enforcement lags very far behind other aspects of law enforcement (see Wellsmith 2011; Halley and Shearing 2016; Ayling 2013b; Felbab-Brown 2017). Some of the situational prevention methods of choice, such as closing logging roads and using unmanned drones, involve serious opportunity costs and/or investments in technology. (Drones are being deployed to some effect, however, and this seems a promising technology, if one that will be used by logging companies, illegal fisheries, and other actors interested in extractive resource use as well.) The technology transfer necessary for DNA typing for species identification is quite demanding and remains prohibitively expensive (see Tube and Linacre 2010; Ogden 2011). Another issue is the use of the internet for trade in endangered species, which is by most accounts thriving. As more remote areas in range states become connected to the internet, there are both positive and negative implications for anti-crime efforts. Moreover, there are legitimate concerns that the policing approach to the criminology of environmental crime will, by design, reflect a Western agenda that dovetails with neoliberal, managerial efforts to rationalize and commodify nature and overlook the local needs of the people who are most violently affected by environmental crime. Put another way:

ideas about crime, law, policing and related policies – or criminological thinking – are also subject to (de)politicization. They too are shaped by uneven power dynamics that can privilege ideas and voices from the Global North and uncritically promote positivistic crime science, policing and legalistic approaches to understanding and addressing crime in differing contexts. Such dynamics are important in understanding how crime, perpetrators, causes and the needed solutions are defined, understood, and justified. We now find these dynamics from criminology and policing overlapping and intersecting with Conservation concerns, policymaking and practice. (Massé et al. 2020: 27)

An awkward but necessary marriage, perhaps—but the central point remains: programs, policies, police actions, and other efforts are doomed in the long run without local legitimacy. If we want to avoid the resort
to violence and authoritarianism (which of course simply profits small segments of society), then we need to avoid insensitivity to the concerns of those who do not fit the typical, Western-inspired model of conservation. Although intelligence-led policing holds great promise, it also demands considerable resources and time, and many environmentalists would argue we do not have much of either. If technological innovations can help, they are certainly welcome, but more research needs to be conducted into both the practical and ethical consequences of its deployment.

**International Efforts**

At the international level, where we function in an “anarchical society” (Bull 1977) with a loose social fabric based on a combination of commonly accepted norms and principles within the context of an intensively competitive and global economy and a highly militarized geopolitical system, the UN system broadly defined is at the heart of prevention and prosecution related to transnational ecoviolence. Lately, its involvement in fighting international wildlife crime has become the most prominent aspect. At the UN Office on Drugs and Crime (UNODC), the Vienna-based Commission on Crime Prevention and Criminal Justice (UNCCPCJ) took on wildlife crime in 2007 and 2013 resolutions. The February 13, 2014, “London Declaration on the Illegal Wildlife Trade” was signed by over 40 countries and the EU, and it requested the UN Secretary-General to establish a Special Representative on the issue. Even the Security Council has been involved: in January 2014, it adopted two resolutions sanctioning wildlife trafficking, though some have suggested it was motivated primarily by a dubious link between the wildlife trade and terrorist organizations and rebel groups.

We hope this book has demonstrated the need to think beyond the wildlife crime fixation and to consider other forms of transnational ecoviolence, and while there is no international convention designed to do that specifically, there is one that could very well apply to a wide spectrum of cases. With 191 Member States as Parties by 2020, the UN Convention Against Transnational Organized Crime (UNTOC)\(^5\) arguably forms the legal basis for international cooperation against all types of serious criminal activities.

\(^5\) See [https://www.unodc.org/documents/treaties/UNTOC/Publications/TOC%20Convention/TOC#ebook-e.pdf](https://www.unodc.org/documents/treaties/UNTOC/Publications/TOC%20Convention/TOC#ebook-e.pdf).
crimes. Its Global Programme for Combating Wildlife and Forest Crime supports regional and national law-enforcement responses against the criminal poaching of protected species. UNTOC itself defines organized crime in a particular way and covers only certain crimes:

(a) “Organized criminal group” shall mean a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefit;
(b) “Serious crime” shall mean conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty;
(c) “Structured group” shall mean a group that is not randomly formed for the immediate commission of an offence and that does not need to have formally defined roles for its members, continuity of its membership or a developed structure.

Clearly, these definitions do not exclude all environmental crimes, but they do preclude many of them. Unfortunately, for example, not many environmental crimes are met by a “deprivation of liberty” (generally, a jail sentence), of at least four years; in some of the areas we have covered in this book, the legal response has been rather lukewarm and environmental crimes are not typically met with prison sentences. This is slowly changing, but in most national jurisdictions environmental crime is barely an issue, let alone one that evinces serious detention or sentences. And many would argue that the largest environmental crimes would be considered nonviolent in the conventional sense and would not even involve criminal courts. Article 3 does give some latitude to the location of transnational crimes, however:

2. For the purpose of paragraph 1 of this article, an offence is transnational in nature if

6At the present (2020) time, Canadian, Australian, and American laws present the ability for courts to prescribe sentences of more than 4 years for wildlife crime, and if an international transaction was involved, this qualifies them under UNTOC and can trigger the UNTOC provision on extradition and seizure of assets.
(a) It is committed in more than one State;  
(b) It is committed in one State but a substantial part of its preparation, planning, direction or control takes place in another State;  
(c) It is committed in one State but involves an organized criminal group that engages in criminal activities in more than one State; or 
(d) It is committed in one State but has substantial effects in another State.

The last clause does open some interesting possibilities. We return to international courts below, but suffice to say that the idea of an international climate tribunal would be based on a similar conception of how a major crime against humanity perpetrated in several key states has had an impact on the rest of humanity. This is far off from any sort of legal convention, however, and will most likely remain there given current power configurations.

The UNTOC has three protocols, all signed by most countries: the Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, which entered into force on December 25, 2003; the Protocol against the Smuggling of Migrants by Land, Sea and Air, which entered into force on January 28, 2004; and the Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition, which entered into force on July 3, 2005. Adding an additional Special Protocol to this convention would be a good place to start the broader pursuit of environmental crimes and demand more resource pooling and information sharing among member states. Sporadic efforts at producing one have been bogged down by endless debates over its intended purpose and definitions. Also within the UN orbit, research is undertaken at the UN Interregional Crime and Justice Research Institute located in Turin, Italy, and the United Nations University in Tokyo. That this barely-funded body is looking into wildlife crime suggests perhaps that a new protocol to the UNTOC would be sensible today. However, despite calls for this Special Protocol, it has proven too contentious an issue for international diplomacy to channel into something concrete. It is becoming increasingly unlikely that this can be attributed to apathy; rather, governments are always reluctant to enter into agreements that might, in even some small fashion, limit their sovereign jurisdiction, especially where natural
resources are part of the equation. Recent (2020) concern over the link between the illegal wildlife trade and zoonotic pandemics might reignite this diplomatic energy, however.

Also largely within the UN orbit are the multitude of international conventions that color the constellation of global environmental governance (see Stoett 2019). The UN Environment’s Department for Environmental Law and Conventions (DELC) runs the Montevideo Programme, which conducts sequential ten-year reviews on the effectiveness of multilateral environmental agreements (MEAs). Though we should not overestimate their influence, MEAs play a key role in defining and in some cases, resource-pooling to combat formally recognized environmental crimes. A partial list would include:

- UN Convention on Biological Diversity, 1992, and its protocols;
- UN Convention on the Law of the Sea, 1982, and the Convention for Prevention of Maritime Pollution by Dumping Wastes and Other Matters;
- Convention on International Trade of Endangered Species of Wildlife Fauna and Flora (CITES), 1973;
- International Tropical Timber Agreement (ITTA), 1983, renegotiated last in 2006;
- Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989; and the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa;
- United Nations Framework Convention on Climate Change, 1992; Kyoto Protocol, 1997; Paris Agreement, 2015;
- Antarctic Treaty, 1959;
- Convention on the Regulation of Whaling, 1946;
- Convention to Combat Desertification and Land Degradation (UNCCD), 1994;
- Agreement Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995 (not yet in force—requires 30 ratifications);
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International
Trade, 1998 (not yet in force—applied on a voluntary basis until 50 ratifications are obtained);
- Convention on Migratory Species (Bonn Convention), 1993.

Only the Basel Convention on Hazardous Waste (see Chapter 3) and the Council of Europe Convention on the Protection of the Environment Through Criminal Law explicitly oblige parties to criminalize offenses. It is a truism that international law is based on voluntarism. There may be room, however, to encourage further criminalization under extant MEAs and negotiate a Special Protocol to the UNTOC, as discussed above, that could significantly increase government’s obligation to criminalize violations of MEAs. Many of the MEAs have Secretariats that can be relatively influential, working to facilitate relevant diplomacy, raise funding for projects, and even contributing original scientific and policy analysis. The question of the effectiveness of international bureaucrats is still an open one, but as it receives accumulating academic interest it is becoming clear that Secretariats do make a difference (see Young 1999; Bauer 2006; Biermann and Siebenhuner 2009; Birnie et al. 2009; Stoett 2019).

On the trade front, the premier international arrangement remains the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which is entering its sixth decade; we described this arrangement in some depth in Chapter 2 (see also Duffy 2013). Many would argue that CITES has been largely successful, and that without it many of the species protected in Appendix 1 would be extinct today, but it simply does not have enough of a mandate for its success to either spread horizontally across sectors or dig into the actual roots of the illegal wildlife trade (it is also criticized as an instrument that justifies the trade in animals overall, and thus as part of the broader problem of speciesism and the commodification of nature; see Sollund 2019). Even the widely respected former Secretary General of CITES (2010–2018), John Scanlon, laments the lack of efficacy of the Convention; while maintaining CITES as a regulatory instrument, he would prefer to also see an international agreement devoted specifically to wildlife crime embedded within the UNTOC:

This could include, obliging countries to criminalise certain wildlife crimes, enhancing cooperation across international borders, including the exchange of information, training and technical assistance, providing a common agreed definition of wildlife crime that addresses illegal harvesting, poaching and illicit trafficking, and assisting CITES Parties to enforce
its provisions through the criminal justice system. It could apply to CITES-listed species as well as species that are being illegally exploited by transnational organised criminals but are not yet listed under CITES. (Scanlon 2019)

Scanlon’s idea is timely and it has been discussed at great length in conservationist circles. The suspected involvement of illegal wildlife trade in the origins of the COVID-19 pandemic in early 2020 might, sadly enough, be the impetus needed to move states to take the proposition seriously and toward realization. Again, embedding such an arrangement in a Special Protocol of the UNTOC makes sense, if political obstacles can be overcome.

**Regional networks** are also active, such as the South Asia Wildlife Enforcement Network, the Congo Basin Forest Partnership, the EU-TWIX (EU Trade in Wildlife Information Exchange), the Asia Regional Partners’ Forum on Combating Environmental Crime (ARPEC), the Multilateral Environmental Agreements Regional Enforcement Network (MEA-REN), the ASEAN Wildlife Enforcement Network (ASEAN-WEN), the South Asian Wildlife Enforcement Network (SA-WEN), the European Network of Prosecutors for the Environment, and the Regional Environmental Centre in Budapest. The UNECE Aarhus Convention can serve as a model for regional agreements, though it is probably far too radical an advance in participatory rights for most governments to consider.

At the regional level, it is possible to find encouraging examples of a broad approach. Though the Council of Europe’s intent in 1998 to give birth to a Convention on the Protection of the Environment through Criminal Law was not successful for lack of ratification, it did inspire the adoption of an identically named European Directive ten years later. The Directive 2008/99/EC of 19 November 2008 became the common legal basis for the member states of the European Union to address all types of environmental crime together from a criminal law perspective. Of course, we know in 2020 that the European Union faces its own problems related to internal cohesion, and even if it were the gold standard, few regions have the adaptive or diplomatic capacity to follow its more ambitious designs.

Another ongoing form of international collaboration is global or regional **certification programs**, which have proliferated in many areas today but perhaps most noticeably when it comes to fisheries and forestry
products. On the one hand, this is a form of market intervention that boosts the ideal of consumer choice; on the other hand, the programs are quite varied in terms of their authenticity, robustness, and impact (one can argue, for example, that certification programs can actually increase consumer demand and therefore encourage illicit and mixed market supply chains). We refer to certification schemes in Chapter 4, related to the global fishing industry, and in Chapter 6, related to the extraction of rare earth and other minerals essential for green technology.

Finally, international financial institutions were once widely denounced as displaying conditional immunity to environmental and justice concerns, but they have changed with public perception in the past several decades. The World Bank’s emphasis on corruption has led inexorably to a concern with wildlife and fisheries crime, for example. The London Declaration on wildlife crime mentioned above makes explicit reference to the Global Environment Facility (GEF), and indeed, it has proven instrumental in many areas as a funding mechanism, but also mentions the Asian and African Development Banks. Private IFIs are also involved, since private investment opens opportunities for environmental crime as well as its prevention. (For every opportunity to launder the proceeds of transnational crime, there is a corresponding opportunity to legally pursue it with cooperation from banks.) The Equator Principles related to environmental impact assessment, which have been adopted by some 80 multinational banks, certainly preclude any investments that violate extant environmental laws (domestic or international), though the record of implementation here is rather spotty and difficult to verify. Banks have a corporate social responsibility to invest resources into the fight against crime, but more importantly they need to stop financing large-scale projects that are in essence acts of violence against nature and people. This opens a wide door, of course, and is an imprecise imperative subject to much discussion. But as a 2017 report on organized crime in the southern hemisphere concluded,

Laundering the proceeds of, and therefore sustaining, this industry is the global shadow financial system: a vast network of banks, intermediaries, and secrecy jurisdictions around the world that move all forms of illicit money, from the proceeds of tax evasion, to revenue from organized crime, to the resources of terrorist organizations. Increasing financial transparency, especially through the creation of public registries of beneficial ownership information, limiting secrecy jurisdictions, and curtailing trade
mis invoicing, along with improved information sharing across government agencies, has the potential to significantly shrink all forms of transnational crime simultaneously. (May 2017)

Meanwhile, efforts by the UN to monitor the activities of multinational corporations have a mixed record at best (Sagafi-nejad 2008); earlier efforts to realize the goals of the UN Commission on Transnational Corporations largely sputtered (it was often attached conceptually with the New International Economic Order movement, which called for some redistribution of global wealth, debt relief, commodity price stability, and other measures that would benefit the southern hemisphere, rejected by northern industrial countries). The 2000 Global Compact received great fanfare but no one is under the false impression that it changed much. The jury is still out as to whether the UN Guiding Principles on Business and Human Rights endorsed by the UN Human Rights Council in 2011 will have a serious and lasting impact (see Ruggie 2015, for an account by the central progenitor of the Principles). The Principles rest on three pillars:

1. The state duty to protect against human rights abuses by third parties, including business, through appropriate policies, regulation, and adjudication;
2. An independent corporate responsibility to respect human rights, which means that business enterprises should act with due diligence to avoid infringing on the rights of others and to address adverse impacts with which they are involved;
3. Greater access by victims to effective remedy, judicial and non-judicial.

The pillars are certainly strong ones, of course. A similar set of principles on environmental security, embedding a combination of the interrelated environmental justice and human security concerns discussed throughout this book, would at least set the spotlight firmly on the nexus between corporate decisions and the transmission of transnational ecoviolence. Within the context of climate change and the need for ever-expanding regulatory scope to control greenhouse gas emissions, the practicality of monitoring the activities of multinational corporations will once again be at the center of a diplomatic firestorm.
INTERPOL and NESTs

INTERPOL is a relative newcomer to the world of transnational organized environmental crime. Originally conceived as part of the battle against the rise of anarchist violence in Europe in the late 1800s, INTERPOL has undergone various priority shifts over the past century. Informally, the International Criminal Police Commission began meeting in Vienna in 1923; INTERPOL (the International Criminal Police Organization) was not officially formed until 1946 (see Fooner 1973). Since 1992, and especially from 2008 onward, INTERPOL has played an increasing role in assisting a variety of response agencies to deter, detect, and disrupt environmental crime, with particular emphasis on pollution and wildlife crime. In this time, INTERPOL has acted as a coordinating hub and conduit for building capability and capacity to effectively respond to this crime type, whether domestic or transnational.

Despite its global reach and extensive mandate, INTERPOL does not, however, have any policing powers of its own, and it suffers from its own legitimacy issues (this was exacerbated when Meng Hongwei, INTERPOL President from 2016 to 2018, was abducted by Chinese authorities on what many consider fabricated corruption charges). Instead, its primary roles lie in coordinating and supporting, and the secure exchange of information through its I-24/7 global police communications system. Any actual or on-the-ground policing and enforcement work is performed collaboratively by staff from member countries individually or in cooperation with other member countries.

In 1992, INTERPOL established an Environmental Crime Committee, and in 1993–1994, a Pollution Crime Working Group (PCWG) and a Wildlife Crime Working Group (WCWG). The activities of the two Working Groups were bolstered in 2005 by the secondment of an officer from the US Environmental Protection Agency (EPA) and funding provided initially by the International Fund for Animal Welfare, and then complemented by funding from Environment Canada and the EPA. From its modest beginnings in 1992, at which time there were only one or two key staff, the INTERPOL Environment section has grown to between 40 and 45 individuals. Whereas the bulk of the early funding (roughly 80%) for its activities came from NGOs, the environment crime

7 https://www.theguardian.com/world/2019/jun/20/former-interpol-chief-meng-hongwei-put-on-trial-for-bribery-in-china.
section now receives over 60% of its funding from governments. In 2008, INTERPOL established a dedicated Environmental Crime Programme (the ECP). The key “streams” at the center of the Environmental Crime Programme are biodiversity (illegal trade in wildlife), natural resources (illegal logging and illegal fishing), and environmental quality (illegal transport and trade in hazardous waste). NGO funding, especially from NGOs such as the International Fund for Animal Welfare, Humane Society International, and the Wildcat Foundation, has played a vital role in expanding INTERPOL’s interest and operations in relation to the illegal wildlife trade.

In 2014, the Environmental Crime Committee was evolved into the Environment Compliance and Enforcement Committee. The establishment of this committee represented a significant step up in terms of organizational presence and influence. It coincided with the establishment within INTERPOL of an Environmental Security Sub-Directorate. Both developments, one representational (i.e., member country participation) and the other organizational (i.e., internal deployment of people and resources within INTERPOL), reinvigorated the fight against environmental crime to a strategic level, with various working groups retaining the operational and tactical focus of past practice. INTERPOL’s Working Groups on Wildlife and Fisheries Crime support the creation of channels of communication between member countries and could provide a home for an expanded database of information on transnational organized environmental crime. The role of the International Consortium on Combating Wildlife Crime (ICCWC) could also be enhanced. This initiative was launched in 2010 as a collaboration amongst several intergovernmental organizations: CITES, INTERPOL, UNODC, the World Bank, and the World Customs Organization (WCO). Its purpose is to bring coordinated support to the national wildlife law enforcement agencies and to the sub-regional and regional networks. Other existing international institutions and networks could provide interesting models such as the Environmental Network for Optimizing Regulatory Compliance on Illegal Trade (ENFORCE) which was established in 2011 by the eleventh meeting of the Conference of the Parties to the Basel Convention. In addition, the role of regional agencies is essential. For instance, EUROPOL, whose mandate includes the fight against different forms of environmental crime, created EnviCrimeNet in 2011. It is an informal network of practitioners sharing information, best practices and methods, and covering wildlife crime as well as pollution crime.
A concrete example of how effective a role INTERPOL can play is the outcome of Operation Thunderstorm, which targeted illegal wildlife trafficking in 2010; the month-long operation (May 1–31) was coordinated by INTERPOL and the World Customs Organization, with the Secretariat of the Convention on International Trade in Endangered Species and the International Consortium on Combating Wildlife Crime. Thunderstorm involved 92 countries and resulted in close to 2000 seizures of illicit items, including several tons of timber, more than 1200 kgs of raw or processed ivory, and 43 tons of wild meat, including bear, elephant, crocodile, eel, whale, and zebra; 27,000 reptiles, including 869 alligators/crocodiles, 9590 turtles, and 10,000 snakes; and almost 4000 birds, including pelicans, ostriches, bats, parrots, and owls. In Canada,

Officers intercepted items such as finished products made of Rosewood, shark fins, controlled snakes, and commercial products such as briefcases and handbags made with endangered species. Canadian authorities detained 18 tonnes of suspected European eel meat arriving from Asia, which is designated as endangered and has been banned for export, by the European Union, since 2010. (Press release: June 20, 2018, https://www.canada.ca/en/environment-climate-change/news/2018/06/canadas-enforcement-officers-work-with-international-partners-to-combat-wildlife-crime-and-illegal-trade-of-protected-species.html)

INTERPOL currently has several ongoing projects in collaboration with other agencies and various national governments, and they all have implications for sustainable development initiatives in host countries where environmental crime has become a major burden. Collaboration between the UN Environment Programme and INTERPOL has also resulted in some important research and publications that have contributed immensely to public and policy knowledge on TEC (see Nellemann et al. 2014, 2016; and Nellemann 2012). On-the-ground law enforcement collaboration has also taken place. For example, Project Leaf is devoted to curtailing illegal logging, long associated with organized crime, government corruption, and conflict and discussed in Chapter 5. Project Scale, meanwhile, is focused on illegal fisheries, one of the major contributions to the current oceans crisis discussed in Chapter 4. Project Eden, on the other hand, is designed to limit the illegal trade and disposal of hazardous waste, discussed in Chapter 3: Operation Enigma Phase I targeted the
movement of electronic waste between Europe and Africa, and Operations Haz and Haz II targeted the illegal transport of waste between the United States and Canada. We isolate two others, Project Wisdom and Project Predator, below.

Initially, all of these projects had a core goal of establishing effective National Environmental Security Task Forces (NESTs), which provide direct liaison between national bureaucracies and INTERPOL National Central Bureaus. While these projects have limited resources and influence, they can be seen as foundational to the emergence of a web of regulatory enforcement that is deemed by most observers as highly necessary, if fraught with the usual complications experienced by global governance agencies and national governments (see also Halley and Shearing 2016). At its most basic level, a NEST is a task force of a firmly established team of experts who can work together to address specific issues, comprised of senior criminal investigators, criminal analysts, training officers, prosecutors, financial specialists, forensic experts, and others, drawn from police, customs, environmental and other specialized enforcement agencies, and also involving non-government and regional organizations as appropriate (Fig. 7.1).

Alas, the NEST idea might not take root in many places; so far it has failed to gain much traction. As of 2020, the concept has yet to be implemented to any substantive degree. It could be viewed as highly intrusive, cast unwanted light on corruption, and seen as a facile attempt to set up the eventuality of conditional aid or as some sort of standard qualification for foreign funding. And surely so-called developed states—Western industrialized advanced capitalist liberal democracies and or autocracies—need NESTs too? Sovereignty is always a factor in multi-lateral arrangements. The heart of a polity, many would agree, is the judicial system, and law enforcement is not an issue many government representatives like to see discussed openly with international agencies. The experiences of dealing with structural adjustment programs cannot be a strong incentive to engage in a process that opens government policy to scrutiny, especially if the shadow of corruption is cast over everything a government does.
Fig. 7.1 National environmental security taskforces (Source: Higgins and White [2016], INTERPOL [2014])
**Two Quick Examples: Predator and Wisdom**

Project Predator was launched in 2011, at the 80th INTERPOL General Assembly in Hanoi, Vietnam. It is focused exclusively on building law enforcement capacity for the conservation of Asian big cats, most notably the tiger. (Notable diplomatic initiatives include the St. Petersburg Tiger Declaration and the Bishkek Declaration on the Conservation of the Snow Leopard.) Though estimates oscillate, wild tiger populations are falling at a precipitous rate, down from over 100,000 at the start of the twentieth century to less than 4000 today—the most recent estimates from the IUCN put it at between 2154 and 3159 across 13 range states (Goodrich et al. 2015). The main threat is habitat destruction; tigers are large carnivores needing abundant prey, and they are highly territorial and need large ranges to survive each other. Poaching, however, remains a serious problem throughout the range states. Predator’s “Operation Prey” of 2013 was conducted across Asian big cat range countries and collectively led to 42 arrests and the seizure of live tigers, tiger and leopard skins and bones, and other protected wildlife and flora products.

As with all the INTERPOL projects, Predator seeks the creation of NESTs (see above; this has not materialized in any permanent manner to our knowledge); it also seeks to strengthen SAWEN, the South Asia Wildlife Enforcement Network. Its main partners include DEFRA (the UK Department for Environment, Food and Rural Affairs), Environment Canada, the International Fund for Animal Welfare (IFAW), the Smithsonian, USAID, and the Global Tiger Initiative. The latter is an umbrella formed in 2008 by the World Bank, the Global Environment Facility, the Smithsonian, and the Save the Tiger Fund. It is related in turn to the International Tiger Coalition, which is comprised of some 40 NGOs in thirteen tiger range countries; the CITES Secretariat is a formal partner. It is too early to tell whether Predator will prove successful, but it has certainly established an initial credible record as a crime-fighting network.

Project Wisdom has an equally, if not more impressive, track record at this early stage, specifically targeting illegal trade in two of the most profitable and highly visible commodities: elephant ivory and rhinoceros horn. These species are both central to the image of CITES as an effective mechanism to control trade. But they also play key roles in ecotourism and scientific research, both components of sustainable development projects across Africa. African elephants are found across 37 range states on that continent. The vexing question of how to reduce the ivory
trade has been with us for decades, inspiring a long debate over CITES Appendices, the informal market in ivory, the precautionary principle, the preservationist-conservationist divide, and other points of departure (see Stoett 1997b). Project Wisdom operates within the broader context of the African Elephant Action Plan as outlined in the London Declaration of 2014.

Two major operations have defined the success of Wisdom so far. Operation Wendi (2013), an INTERPOL-IFAW collaborative effort, was devoted to combating the trafficking in elephant ivory and other illegally traded species in West and Central African countries. Along with 66 arrests, nearly 4000 ivory products and 50 elephant tusks were seized, along with 148 animal parts and derivatives and 88 firearms. Additionally, 222 live animals were released back into the wild. Earlier in 2012, Operation Worthy focused on the illegal trade in elephant ivory and rhinoceros horn in 14 African countries. Seizures included nearly two tons of contraband elephant ivory, more than 20 kg of rhinoceros horn, various other wildlife products, and more than 30 illegal firearms. While it is easy to dismiss these operations as proverbial “drops in the ocean” against the illegal wildlife trade, they can serve as prototypes for future cooperation between governments and international agencies.

One of Project Wisdom’s stated goals is to “ensure that assistance delivered contributes to broader civil objectives, including conservation and rule of law”. This broader mandate implies that INTERPOL is moving beyond simply tracking and arresting poachers and traders and into the more controversial area of national legal development. This will be the ultimate test of whether INTERPOL can play a supporting role in sustainable development initiatives by contributing to the fight against illegal trafficking in endangered species through Wisdom, Predator, and its other target projects. A robust research agenda is necessary to delve into the impact these operations are having on local communities on the ground in Africa and Asia; their impact so far on legal infrastructure development and the adoption of germane technology; and their collaboration with other agencies, national and international, working in conservation and development.

A familiar lament will be heard among conservation biologists and local community leaders engaged in CITES-related activities: both Predator and Wisdom, built on the foundation of Western involvement and fundraising initiatives, can be seen as reflections of a “first-world” agenda,
devoted to the conservation of the typically framed charismatic megavertebrates that so often drive campaigns originating in the United States and Europe, and challenging the legal autonomy of select African and Asian states. No doubt, tigers, elephants, and rhinos are three of the iconic species of conservation today (and have been for the past several decades), but focusing on one iconic species, even a keystone species, devalues the importance of taking an ecosystems (including socio-ecological systems) approach.

Operations Leaf, Scale, and Eden represent broader efforts at habitat conservation and inject a much-needed ecosystemic perspective into anti-TEC operations. And there is a practical bent to this preference: it is quite beyond the scope of INTERPOL or any other agency such as UNDOC to focus separate energy on all the species listed in Appendix I of CITES. So while Predator and Wisdom may serve as specific cases, they might not be seen as a useful reference point for future action by conservationists. It is possible that similar consortium-inspired collaborative operations will form for other species that generate concern and dollars, including other great cats, primates, and marine species, but most scientists and community leaders tend to view the problems associated with species decline in a much broader manner, and the popularity of the One Health concept, promoted formally by the CBD, attests to this (see WHO-CBD 2015). It can be argued that the prevalence of ecoviolence in many areas necessitates its thematic inclusion in any habitat conservation effort, and that the complex links between environmental crime and human and livestock disease are especially worthy of exploration and action. Should they actually gain traction in political terms, NESTs should pursue these discussions at various levels, including the local input of citizens in rural and urban areas.

**International Courts, Real and Imagined**

International criminal law (which can entail the prosecution of individuals) has evolved considerably over the past several decades. Article 8(2)(b)(iv) of the Rome Statute, which created the International Criminal Court, also criminalizes, as a war crime in international armed conflict, “[i]ntentionally launching an attack in the knowledge that such attack will cause ... widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated”. As Mark
Drumbl notes, “other war crimes in the Rome Statute could incidentally address environmental harms. Examples include article 8(2)(a)(iv) (prohibiting extensive destruction and appropriation of property not justified by military necessity and carried out wantonly and unlawfully), article 8(2)(b)(xvii) (prohibiting the use of poison and poisoned weapons), and article 8(2)(b)(xviii) (prohibiting the employment of asphyxiating, poisonous, or other gases). These, however, are not environmental crimes \textit{stricto sensu} but are “anthropocentric”—that is, they criminalize things or practices that principally are inhumane and only incidentally have devastating effects on the environment” (Drumbl 2009: 9).

The ICC has not taken on environmental destruction as a crime at this point. However, on September 15, 2016, ICC Prosecutor Fatou Bensouda published a Policy Paper announcing a shift in focus toward assessing crimes that result in “the destruction of the environment or of protected objects”. There has been some confusion about this: while the Policy Paper does indicate a willingness to investigate crimes that are related to ecocide or land grabs (which we discussed in Chapter 6), the ICC is “not expanding the number of core crimes it will prosecute. Thus, any case brought before the ICC must still constitute a violation of one of the four existing crimes within the ICC’s jurisdiction” (Durney 2018: 415) which include genocide, war crimes, crimes against humanity, and crimes of aggression. It is conceivable, even without the expanded priorities introduced in 2015, that an individual could be charged with crimes against humanity if they purposefully destroyed the natural environment (i.e., engaged in ecocide) to harm a specific group (Megret 2011; Durney 2018). The Special Tribunal for the Charles Taylor trial referred specifically to pillage in the list of indictments, since the illegal timber trade played a key role in financing his bloody intervention in Sierra Leone, though this jurisprudence took place outside the ICC context. Durney looks at the cases of the Rohingya expulsion from Myanmar and land grabs in Cambodia, concluding that:

8 OFFICE OF THE PROSECUTOR, POLICY PAPER ON CASE SELECTION AND PRIORITISATION, para. 40 (hereinafter “2016 Policy Paper”): https://www.icc-cpi.int/itemsDocuments/20160915_OTP-Policy_Case-Selection_Eng.pdf [https://perma.cc/UY3N-C62R]. The paper actually says that “The Office will also seek to cooperate and provide assistance to States, upon request, with respect to conduct which constitutes a serious crime under national law, such as the illegal exploitation of natural resources, arms trafficking, human trafficking, terrorism, financial crimes, land grabbing or the destruction of the environment.”
For both the Rohingya crisis and the Cambodian land grab crisis, the actions against the environment—whether in targeted burning and destruction of land as an “extermination”, or the “deportation” of Cambodian citizens under threat of force—were used in tandem with other extreme tactics to either target a specific group or the general civilian population … these cases stand as possible ICC investigations in light of the recent Policy Paper’s intended shift to prosecuting crimes “committed by means of, or that result in, inter alia, the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land. (Durney 2018: 428)

However, it is highly unlikely that the ICC will habitually assume responsibility for prosecuting ecocide as a crime, and calls for the ICC to assume responsibility for corporate criminality are equally problematic (see Kremnitzer 2010); it may well be that there will be limited opportunities to integrate environmental concerns with international criminal law in the future. And of course the ICC has its own limitations: a virtual Security Council veto on specific cases, an overloaded set of extant demands, and limitations on funding and time.

The International Court of Justice, also located in The Hague, Netherlands, has an equally limited mandate: it can only try cases if and when states request it to do so. A well-publicized case (Australia/New Zealand vs. Japan) on southern ocean “scientific whaling” is exemplary: Australia (and later New Zealand) and Japan both had to agree that the ICJ should look at the case, which essentially charged that Japan was whaling illegally in the southern ocean—in contravention of the International Convention on the Regulation of Whaling, which permits genuine “scientific whaling”; the Court decided against Japan on the basis not that whaling or even whaling for science was against international norms, but that Japan was not conducting Convention-regulated scientific whaling but was in fact running a small commercial whaling operation.9 Japan agreed to adhere to the decision, though it has since left the International Whaling Commission and has resumed small-scale commercial whaling within its own exclusive economic zone. But as in keeping with ICJ’s mandate, no individuals were charged with any form of crime, and no sanctions have been placed on Japan despite decades of misconduct.

9Reference here is to the International Convention on the Regulations of Whaling of 1946, which created the International Whaling Commission. See Stoett (1997a), Fitzmaurice (2018).
The ICJ offers no hope as a venue to pursue transnational environmental crime other than when the alleged crime is in contravention of a treaty or border dispute, though it can be (and often has been) called on to provide advisory opinions. The Court has issued multiple advisory opinions in the past, and it would be of benefit if the court were required to offer an opinion on the legal responsibility of industrialized states to reduce carbon emissions, for example (see Chapter 6). Small island states face an existential threat from rising sea levels (and many other problems related to climate change): the Alliance of Small Island States (AOSIS) has attempted to at least get an advisory opinion from the ICJ, but this has yet to move forth despite a relatively low bar (the threshold established for such an action involves either an authorized UN organ such as the Security Council or a simple majority of the General Assembly—UN Charter Article 96). Some analysts have suggested the International Tribunal for the Law of the Sea would be a more realistic venue at this time (ITLOS Rule 138; see Gerrard and Wannier 2013). Others have suggested that the Warsaw International Mechanism for Loss and Damage offers “an opportunity to start putting in place a facility for loss and damage finance under the auspices of the United Nations Framework Convention on Climate Change” (Wewerinke-Singh and Salili 2019).

By default, then, the establishment of a new world court mandated specifically by the UNGA to pursue charges of transnational environmental crime or ecoviolence would seem the only way forward here, even if it is not going to happen any time soon. But we need not couch this in such negative terms: it could be seen as a monumental step forward for both international law and environmental governance. This enticing possibility, in myriad forms, has been debated by scholars and jurists for decades (see Hey 2000; Hinde 2003; Westra 2004; Pederson 2012). An example of such an ideal vision would involve a permanent court, with universal jurisdiction, with reliable funding. Some have even suggested the construction of a court which

will also be able to act preventively, by rendering preliminary measures … It will provide services of arbitration and advisory opinions … it will respond to requests of preliminary ruling by national courts, according to the successful example of the European Court of Justice. Civil remedies shall include interlocutory or perpetual injunction. The court will be able to issue orders for redress of an injured individual, for payment of the cost for the restoration of the damaged environment, or for payment into a World Environmental Fund. The UN Security Council will be entrusted with enforcement of the judgments. (Avgerinopoulou 2003: 16)
This is what some would refer to as a wish list—one that would not have a remote chance of realization given the reluctance of governments to sacrifice sovereignty (the idea of a court able to pronounce a “perpetual injunction” is quite remarkable) and make commitments that could limit their ability to utilize natural resources. Even the ICC, which was quite a step forward for international criminal law, has come up against hard limits and lacks the support from the most powerful states that it would need to broaden its impact (it has also been accused of being a neo-colonial instrument unfairly targeting African governments, and of harming the peace process in several ongoing conflicts, but that is another set of issues). And the ICC had dedicated champions fighting for it (and a Democrat, Bill Clinton, in the White House). It is highly unlikely that the United States, China, or Russia—all permanent members of the Security Council, who would essentially have a veto on establishing such a court, and all of whom refuse to sign on the International Criminal Court—would support a robust international court for the environment as described above; the larger countries in the southern hemisphere, especially Brazil and India, are currently dedicated to the deregulation of environmental law and policy.

As a first step, developing, signing, and ratifying a special protocol for the UNTOC would open room for governments to selectively apply universal jurisdiction in their own countries and try people accused of crimes against the environment, or to extradite the accused back to their home countries. There is also a growing body of case law on the international governmental level that can apply to environmental crime; as Durney writes, “three international human rights tribunals—the African Commission on Human and Peoples’ Rights, the European Court on Human Rights, and the Inter-American Commission on Human Rights … have all started incorporating environmental damage into considerations of human rights violations. The African Commission in particular has adopted enumerated protections for the people regarding the environment. The European Court and the Inter-American Commission have used similar human rights protections to the Rome Statute and broadened their interpretation to incorporate environmental harms into the analysis” (2018: 419). Advancing domestic acceptance of an expanded UNTOC and supporting the work of regional tribunals (or, perhaps, regional tribunals specifically devoted to transnational ecoviolence) would seem the most feasible paths to take at the present and would not preclude future efforts to establish an actual court of international environmental
justice once a more favorable (indeed, less openly hostile) political environment is formed. Given the gravity of transnational ecoviolence, and the forces amassed against it, this is not chimerical. But it will be a rough road ahead, and an empty one if we rely entirely on international institutions and courts to solve the problems outlined in this book. And any concerted effort to establish a stronger international regime would need to address the question of how to redress the victims of transnational ecoviolence (see Hall 2013a, b, 2014; Skinnider 2011). Problematically, some of those victims will be entire communities harmed by climate crimes, and this will be a highly contentious area of law in the future.

**Earth Jurisprudence**

A more robust approach to fighting ecoviolence involves changing the prevalent mind-set that narrates the human-nature relationship. It’s fairly clear that the market liberal approach to nature dominates today: a utilitarian perspective that sees nature largely as a resource bank, or perhaps as a life support system, for the human race, and as fuel for the processes of global capitalist accumulation and production. Nature has no rights, since it can be owned like any material good; its owners have rights, but that is not the same thing at all. Earth Jurisprudence is an effort, in its infancy at the present, but based on much older traditions of thought that precede the development of global capitalism and the modern state, to change this ontology. Many authors have advocated some version of “wild law” or “earth law” (see Burdon 2011; Cullinan 2003; Humphreys 2016; Koons 2012) and argued that legal systems should be constructed accordingly. But many indigenous perspectives also place nature at the center of life, and this was reflected in the Bolivian Law of Mother Earth (“Ley de Derechos de La Madre Tierra”) adapted in by the Bolivian Plurinational Legislative Assembly in late 2010 after a large international gathering in that country, and which

draws on Andean spiritual traditions seeing Mother Earth (or Pachamama) as a sacred deity, and entitles nature with rights as a collective subject of interest .... [it] aims at preventing “human activities causing the extinction of living populations, the alterations of the cycles and processes that ensure life, or the destruction of livelihoods, including cultural systems that are part of Mother Earth” (Article 8); while people, and public and private
legal entities, have the duty to “uphold and respect the rights of Mother Earth” (Article 9). Similarly, by granting legal status to the Whanganui River, New Zealand found an innovative way to honour and respect the Maori traditional worldview of nature as “an indivisible and living whole”. (Coscieme et al. 2020: 40; see also Hutchinson 2014)

Ecuador has also led the way in the application of these rights. Between 2011 and 2019, 32 trials were conducted in the interests of elements of nature, sometimes by civil society, sometimes by the state itself, and 25 were ruled in nature’s favor (Derechos de la Naturaleza 2019: https://www.derechosdelanaturaleza.org.ec/). In March 2017, a court in the northern Indian state of Uttarakhand granted the Ganges and Yamuna rivers the same legal rights as human beings (Safi 2017).10

One of the central animating ideas behind Earth Jurisprudence is that nature (and even specific ecosystems) should have inherent rights, and not just the right to exist presently, but the right to maintain healthy ecosystems and to exist in the future. Adopting this approach would mean that both formal and informal environmental crimes and all forms of ecoviolence are, inherently, violations of those rights, and individuals (not just poachers, or illegal miners or foresters or fishers, but anyone benefiting financially along the supply chain) should be charged accordingly. This does not exclude corporations or even governments. Some green criminology research is beginning to explore Earth Jurisprudence as a viable framework for analysis; for example, Lampkin and Wyatt offer a nicely constructed case study of unconventional hydraulic fracturing for shale gas in the United Kingdom (Lampkin and Wyatt 2019). We are not at the point where this approach has been widely applied in a transnational context, crossing borders in its application, though the Ecuadorian context is very complicated and clearly transnational, as indicated in our discussion in Chapter 3 on Chevron’s legal actions. While earth law initiatives are making headway at the municipal level, and there are visible shades of its precepts in European Union law and elsewhere, including the United Nations’ ambitious if still rather obscure “Harmony With Nature” programme (http://www.harmonywithnatureun.org/env

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10 See also the work of the Australian Earth Laws Alliance, which has been pushing for greater acceptance of Earth Jurisprudence for nearly a decade: https://www.earthlaws.org.au/.
It is of course very difficult to entertain the notion that the IJC or the ICC will serve as a receptive cultural reference point or a magnetic source of legal authority which actively espouses Earth Jurisprudence. Perhaps the best one can hope for at this historical juncture is that those operating within this jurisprudential orbit are educated about transnational ecoviolence and the need to comprehend the environment as an ally, and not an enemy or simple utility, in the quest for collective survival. But could a new court, forged out of genuine concern for the immense threats to security and other risks posed by the climate, biodiversity, oceans, and other interconnected crises, adopt such a legal perspective from its point of origin? From its very inception? It would be nice to see this development, given the stakes involved, but if the court simply replicates the inter-state system in all of its current arrangements and trappings, it is difficult to see how this would indeed be a progressive development. And if such a legal movement is not matched with genuine efforts to conserve ecosystems and to promote the human security of the indigenous peoples whose wisdom animates it, then it is an empty shell. But this should not deter us from trying to reimagine the human-nature relationship in the anthropocene. On the contrary, we ignore serious efforts to move toward Earth Jurisprudence at our collective peril.

**Conclusion**

There have been many responses to both formal and informal environmental crime and transnational ecoviolence and we have only touched on a few in this book and in this concluding chapter. Many of them have been tried and tested over the preceding century, while others are relatively immature and the jury is still out regarding their effectiveness. Some spheres of transnational ecoviolence, such as the illegal wildlife trade, have received quite a bit of attention in recent decades, owing primarily to Western public opinion, but it is fair to say that none of them have been treated with the seriousness their impact, both human and ecological, demands. This is, certainly and thankfully, starting to change.
Governments have a principal role to play, not only in constructing regulatory regimes and enforcement measures, but in mitigating corruption, educating the public, and protecting defenders of the environment instead of persecuting them. The marketplace is also significant: consumer behavior will influence market dynamics and can discourage ecoviolence through the intelligent design of certification programs, though there are frequent lapses in our knowledge of the supply chain. Corporations have responsibilities: their actions on the international stage should be no less prone to critical evaluation (and where necessary condemnation and legal punishment) as their domestic behavior. Multilateral agreements continue to set the context for domestic environmental law and can influence the formation of international norms, though it would be chimerical to expect them to form a cohesive form of global governance that has immediate effect. Global policing is changing with time and technology, but lacks enforcement powers; it is more effective when it works with national governments and civil society groups to pursue the perpetrators of transnational ecoviolence, though there are limits to how much obtrusion governments and politicians will accept; thus, INTERPOL’s various projects (Scale, Eden, Wisdom, Predator, and Leaf) have seen early successes, but the NEST conception—embedding INTERPOL expertise in state legal system—has gained little traction. International courts also have limited impact, though there are potential avenues to have more court involvement and, in the long run, the need for an international environmental court might well outweigh the pronounced opposition to international law in some political circles. Finally, we examined Earth Jurisprudence as a deeper reform that might give nature a fighting chance by nudging governments toward the legal recognition of her inherent rights; no one is under the illusion that this would stop illegal fishing, wildlife trade, mining, forestry, pollution, or other spheres of transnational ecoviolence any time soon, but conceptualizing a seismic shift in the normative context is the first step toward its acceptance as a possibility.

There is, obviously, much work to be done. The reader is strongly encouraged to delve further into the methods that can be employed in the fight against the many forms of violence against nature that continue to shape the dangerous anthropocene we have entered in recent decades. There are endless opportunities to make a difference and contribute to fashioning a better future. Of one thing we are sure: a more humane and sustainable global political economy would be buttressed by the common
acceptance of human security and rights and environmental justice as cornerstones of the development of human society.

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