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Background Paper

The evolution of and future prospects for transnational environmental crime prevention.

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Abstract

This background paper will pursue the question of whether and how international organizations and criminal law can help us deal effectively with transnational environmental crimes (TEC) and, more broadly, environmental injustice. The paper will also explore the question of whether the climate change justice agenda can benefit from the expanded pursuit of transnational environmental crime. Can international environmental law, refurbished, act as a mitigating factor in climate change? We conclude that while international legal instruments can help spur additional action, in themselves they will do little at this stage. We reach several conclusions: What is needed is a revitalized pursuit of TEC, which will have incidental benefits for the climate justice agenda, and the creation of new norms (*de lege ferenda*) to cope with the immense challenges posed by TEC. In the long run, a new international environmental court is optimal, but it will need a clear agenda and not a murky mission to stop all ecocide on the planet.

About the author

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Selected list of abbreviations

ABNJ: Areas Beyond National Jurisdiction

AOSIS: Alliance of Small Island States

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

COP: Conference of the Parties (for an MEA)

EDF: Environmental Defense Fund

ENMOD: Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques

EU-TWIX: European Union Trade in Wildlife Information Exchange

HELF: Hague Environmental Law Facility

ICCWC: International Consortium on Combating Wildlife Crime

IES: Institute for Environmental Security

INECE: International Network for Environmental Compliance and Enforcement

IUCN: International Union for the Conservation of Nature (also known as the World Conservation Union)

MAD: mutually assured destruction

MEA: multilateral environmental agreements

REDD: Reducing Emissions from Deforestation and Forest Degradation

TEC: transnational environmental crime

UNCCPCJ: United Nations Commission on Crime Prevention and Criminal Justice

UNCLOS: United Nations Convention on the Law of the Sea

UNCTOC: United Nations Convention Against Transnational Organized Crime

UNECE: United Nations Economic Commission for Europe

UNEP: United Nations Environmental Programme

UNEP-DELCC: UNEP Department for Environmental Law and Conventions

UNFCCC: United Nations Framework Convention on Climate Change

UNGA: United Nations General Assembly

UNODC: United Nations Office on Drugs and Crime

WCEL: World Commission on Environmental Law

WEMS: Wildlife Enforcement Monitoring System

WWF: World Wildlife Foundation

1. Introduction

This background paper will pursue the question of whether and how international organizations and criminal law can help us deal effectively with transnational environmental crimes (TEC) and, more broadly, environmental injustice. The paper will also explore the question of whether the climate change justice agenda can benefit from the expanded pursuit of transnational environmental crime. Can international environmental law, refurbished, act as a mitigating factor in climate change? We conclude that while international legal instruments can help spur additional action, in themselves they will do little at this stage. We reach several conclusions: What is needed is a revitalized pursuit of TEC, which will have incidental benefits for the climate justice agenda, and the creation of new norms (*de lege ferenda*) to cope with the immense challenges posed by TEC. In the long run, a new international environmental court is optimal, but it will need a clear agenda and not a murky mission to stop all ecocide on the planet. Keeping in mind the Commission's emphasis on global governance as encompassing "formal institutions and regimes empowered to enforce compliance", we will limit our coverage of agents accordingly, though some non-formal actors will certainly play a role. For example, some of the most consistent perpetrators of TEC are transnational organized crime units; some of the most vocal identifiers are NGOs such as TRAFFIC.

If the ethical obligation of heavily industrialized countries to reduce emissions remains central to any discussion of advances in international law today, it would also be a serious omission if transnational environmental crime were not considered in any discussion of global justice. While *climate justice* often dominates contemporary discussions of global environmental politics and international law, this is but one aspect of the strong linkages between environmental problems and human security. The broader conception of environmental justice is also applicable, and when we contemplate the broad range of environmental injustice that can be found in the world today it becomes self-evident that efforts to prevent, mitigate, and punish environmental crime are vital. International environmental law is widely considered one of the "softer" forms of international law, and there are few formal enforcement mechanisms to pursue it.

Environmental (in)justice provides a normative platform from which we can move on to concrete unapologetic policy prescriptions to remedy situations in which chronic inequality or sudden catastrophe has ensured ongoing harm to vulnerable populations; the 2010 earthquake in Haiti and the Indian Ocean tsunami of 2004 certainly underscore this point, whether viewed from country-specific or global lenses. Although the more traditional eco-violence literature typically leads to calls for greater state capacity to "manage" situations, environmental justice concerns lead us to advocate more fundamental shifts in power relations and access to natural resources. Though such calls can be unrealistic and even counterproductive if they challenge the entire status quo, if articulated in a measured manner, they can be quite reasonable demands based on the enlightened self-interest of all stakeholders. Of course, some of the self-anointed clergy of the more radical branches of the movement would consider this a sacrilegious concession to the rich and greedy. But as political ecology continues its evolutionary curve toward mainstream social significance, and yet capitalism continues to prove its resilience despite recurring economic crisis and technological change, it seems that the art of adaptive governance rather than the unanswered clarion call for a global revolution will effect the changes the poor continue to die waiting for (see Stoett, 2012b). And yet international law remains relatively weak in the area of climate justice, despite hundreds of multilateral environmental agreements (MEA) and several agencies of global governance animated primarily by what is fast becoming best viewed as our collective climate crisis.

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,

use the International Criminal Court in this context, or establish a new world environment court with the mission of outlawing ecocide, can be juxtaposed with more modest efforts to pursue transnational environmental crime (TEC) through conventional means, including multilateral environmental agreements, INTERPOL and other international policing agencies, market-based approaches, and the eventual establishment of an international court for TEC. A robust and interlinked TEC network already exists; efforts to better co-ordinate its activities could lead to more predictable results and perhaps get us closer to the establishment of an international court dedicated to eradicating egregious acts of TEC. The most perplexing and challenging of these will be related to the pursuit of climate justice, a theme I will return to below.

2. What is Transnational Environmental Crime?

There is little doubt that the extent of TEC, even if we are measuring it in conventional terms, is staggering. According to a 2014 United Nations Environmental Program (UNEP) report, the international illegal wildlife trade is estimated at between 50 and 150 billion U.S. dollars per year; illegal fisheries are estimated at between 10 and 23.5 billion; and illegal logging at between 30 and 100 billion.¹ These are frustratingly imprecise figures, but it is impossible to accurately monitor clandestine and closely guarded operations by international criminal consortiums and/or corrupt governments. If we expand the term to include conventional behaviour associated with environmental destruction, then the extent of TEC is simply unmanageable. Below, I will move toward a more precise definition of TEC, guided by the extant literature, but first treat the more expansive term, “Ecocide”, since it is so often evoked today in arguments for stronger international law and a world environmental court.

3. Defining Ecocide²

Ecocide can be defined in either narrow (minimalist) terms or, taking a cue from those who advocate environmental justice, wider (maximalist) terms.³ There is a longstanding causal chain that links conflict to environmental destruction and back again. This chain is an integral part of the history of imperialism, military adventurism, or civil conflicts with outside intervention. Indeed, the entire bipolar approach of the Cold War era—mutually assured nuclear destruction (MAD)—was premised on the ability to perpetuate the ultimate act of ecocide. A test ban treaty was inspired partially by concerns about the environmental impact of nuclear weapons and is often heralded as a partial success; another international arrangement seeks to limit the environmental damage caused by war itself. The former has been remarkably successful, guided by superpower commitment and fairly widespread legitimacy; the other (ENMOD, described below) is but a shell of what might evolve into a substantive instrument to curb future military actions.

There are at least three subtypes of what I refer to as deliberate eco-violence, or the purposeful infliction of harm on ecosystems: the deliberate or neglectful harm of animals, eco-sabotage, and ecocide. I will not expand on animal welfare here, as this subject falls within the category of psychopathic behavior or is a manifestation of the food industry, which, though it seems quite violent to some, is considered quite routinized and even beneficial to others. Meanwhile, ecological sabotage refers largely to terrorist activity (conducted by individuals, states, or other actors)

¹ UNEP Year Book 2014 Emerging Issues Update: Illegal Trade in Wildlife; see also Nettleman, et al, eds., 2014, who use a combined estimate culled from various sources of between 70 and 230 billion USD per year.

² Parts of this section are taken from Stoett (2012a)

³ I treat this distinction at greater length in Stoett (2000); see also Teclaff (1994).

designed to harm or frighten human populations, but the term is also often used to refer to the actions of radical ecologists resorting to the sabotage of property to protect the natural environment itself.⁴ Examples would include ramming a whaling ship and “spiking” old-growth trees with long nails to render them inaccessible to loggers. Of course, most environmental protest movements have involved peaceful resistance, but the use of violence attracts quicker media attention. However, this is not a primary concern when we address TEC.

Maximalist examples of ecocide include everything from driving automobiles, flying to academic conferences, and eating dubiously farmed salmon. Higgins (2010) adopts a maximalist definition that links directly corporate irresponsibility and the concept of ecocide. I am not opposed to these wider uses of the term, but have found that it serves as a better heuristic device than as a legal conceptualization (Stoett, 2000). The more helpful minimalist definition refers exclusively to the deliberate destruction of nature as part of a military strategy designed to subjugate an enemy.⁵ Classic agential violence in which ecosystems suffer, but the end result is, of course, the prolonged suffering of human populations, and thus an act of indirect collective violence is also committed. The minimalist definition is more widely accepted and, in legal terms, only it can make procedural sense because it implies intent on the behalf of the perpetrator. Though some people who drive gasoline-guzzling Hummers might be misanthropic in character, we would not generally assume that they are trying to destroy the biosphere every time they start the engine.⁶

4. A Legal Response to the Links Between Conflict and the Environment: ENMOD⁷

ENMOD (the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques) is the only Convention aimed specifically at restricting the intentional use of weather modification technologies; many would argue that such technologies are ecocidal by definition. Most people would agree that large-scale weather alteration programs had been dismissed as either uncontrollable or unfeasible by the time ENMOD was signed in New York in 1976 and entered into force in late 1978.⁸ The agreement restricts “military **or any other hostile use** of environmental modification techniques” (Article 1). Article 1 also stipulates that

⁴ See Schofield (1999) for a call for domestic and international laws designed to specifically curb environmental terrorism; and Schwartz (1998) for an elaborate discussion of definitions.

⁵ Note the significant ecological footprint of going to war or occupying a country: according to *The Economist*, “American forces consume more than 1m [one million] gallons of fuel a day in Afghanistan, and a similar quantity in Iraq.” As for the British army, calculations are “that it takes seven gallons of fuel to deliver one gallon to Afghanistan.” See the article “Greenery on the March,” *The Economist Technology Quarterly*, December 12, 2009, p. 3. More generally see Austin and Beach, 2000.

⁶ In between the maximalist and minimalist perspectives, we have military preparation, which was an especially deleterious activity during the heights of the Cold War and remains a significant factor today, especially if we include such nasty incidentals as greenhouse gas emissions resulting from military production and weapons shipments, as well as leakage problems related to stored toxic wastes. Indeed, it has become a truism that the military-industrial complex is the largest pollution sector on earth, which makes inherent sense if we consider its breadth. It encompasses uncountable factories, supply routes, and military exercises; herbicide-spraying campaigns over Colombia, Afghanistan, and other drug-growing regions; and risky space-based research: the list is virtually endless and is expanded by today’s emphasis on biotechnology and nanotechnology. Naval ships, some nuclear-powered and some carrying nuclear weapons, patrol the oceans, posing special risks to the marine environment, and there are many other examples of how seemingly routine military actions cause ecological harm, such as the Distant Early Warning system’s deleterious ecological impact in northern Canada.

⁷ Special thanks to Harris Gleckman for suggestions on ENMOD.

⁸ The Additional Protocol to the Geneva Conventions of 1949 Relating to the Protection of Victims of International Armed Conflicts (Protocol I), in force since 1978, also prohibits excessive damage to ecology. See Austin and Beach, 2000.

environmental modification techniques have to be “widespread, long-lasting or [have] severe effects” resulting in “destruction, damage, or injury” to the complaining State. (One could argue that the latter criteria is certainly met for climate-change induced impacts on key countries.

Both the Chemical Weapons Convention and the Biological and Toxin Weapons Convention are firmly established international arrangements, and though there has been controversy about the level of compliance they command, most analysts would agree that these conventions have played a role in curbing the spread of these weapons, which are of course inherently destructive of the environment. But an international arrangement aimed at reducing the environmental harm from warfare does in fact exist. It is perhaps the weakest instrument discussed in this report, but the efforts placed toward its realization are certainly noble and inspired by the quest for human security and the extension of the “just war” tradition in ethical thought (Wunsch, 1980; Reichberg and Syse, 2000). Inspired by post-Vietnam guilt, concern over Soviet biological testing, and a growing environmental movement in the United States and Europe, the treaty expressly forbids the deliberate modification of the environment for military purposes (Goldblat, 1977; Juda, 1978). Regarding the war in Vietnam, there was genuine concern that cloud-seeding techniques to induce flooding or drought had been practiced by the United States Army (“Operation Popeye”), and Operation Ranch Hand was certainly an effort to scar the natural environment and agricultural land in order to achieve military purposes. Fears that mad scientists working with military contracts on either side of the cold war divide would manufacture hurricanes, tsunamis, avalanches, and other natural disasters were not so outlandish in the nuclear era. Biological weapons, which would not just kill people but would permanently harm wildlife and agriculture, were in full development (despite the existence of the loop-holed 1972 Biological and Toxin Weapons Convention mentioned previously; see Miller, Engelberg, and Broad, 2001), and the Chemical Weapons Convention would not come into force until 1997. So there were some big hopes for ENMOD, pushed by the breeze of environmental activism through a window of diplomatic opportunity. And, read loosely, it is indeed a far-ranging convention. According to Chamorro and Hammond (2001), activities if taken in the context of warfare that could violate ENMOD include:

- Triggering earthquakes
- Manipulating ozone levels
- Alteration of the ionosphere
- Deforestation. (This is a particularly complicated category; it is generally assumed to refer to militarily-purposeful clear cutting, but could be interpreted in a more inclusive manner)
- Provoking flood or drought
- Use of herbicides
- Setting fires (this would include the use of napalm and other agents)
- Seeding clouds
- Introduction of invasive species
- Eradication of species
- Creation of storms
- Manipulation of El Niño / La Niña
- Destruction of crops (Quoted in Smith, 2006:113)

The very brief Convention (it has only twenty-three paragraphs and an annex) sets up two implementation procedures – a periodic Review Conference and an unusual dispute settlement process.⁹ The ENMOD Review Conferences are intended “to ensur[e] that its purposes and provisions are being realized, and shall in particular examine the effectiveness . . . in eliminating the dangers of military or any other hostile use of environmental modification techniques.” In 1984 and 1992 there were two Review Conferences. However— Chamorro and Hammond writing in 2001— note that the treaty is “all but forgotten.” Little has changed in the 14 years since, despite ongoing defoliation campaigns in several areas, including efforts in Colombia to eradicate coca crops and in Afghanistan to target poppy fields involved in the production of heroin and opium.¹⁰ When the Secretary-General polled countries about a third Review Conference in 2013, less than 10 states responded affirmatively and a third Review Conference was not scheduled.¹¹ Under the provisions of ENMOD a Review Conference can also be convened on request by a majority of States Members of the Convention after any period of five years without a Review Conference.¹² This and other mechanisms could perhaps be used to investigate the possible use of ENMOD in a broader campaign to curb climate change.

Indeed, ENMOD might qualify as a “phantom convention”: we suspect it exists, but it is very hard to see it in action, if at all. The number of states required to ratify ENMOD was unusually low at 20, and this, in retrospect, was probably a mistake by its framers (better to have a high ratification number required, even if it risks delaying things, as the agreement will have wider legitimacy once it comes into force). But the harder aspect of ENMOD’s limited effectiveness is that it simply has not proven possible, under international law, to use it in any way, despite the many military conflicts and related ecological damage seen since its inception.

To be fair, ENMOD does not outlaw war or even environmental damage caused by war; it merely outlaws the purposeful use of the environment as a *weapon* in war. But what is war? Most international arrangements that cover this topic are fixated on the state level of interaction, even though many armed conflicts are internal in nature or combine domestic conflict with some form of intervention. The role of the Security Council may indeed condemn ENMOD to the role of an instrument of cognitive evolution only. Importantly, it is administered by the UN Office for Disarmament Affairs, and a separate secretariat would seem to be a prerequisite for generating public attention and offering expert opinion, as more publicity-conscious arrangements, such as the UNCCD (the Convention to Combat Desertification) and the CBD (on biodiversity), demonstrate. And its scope is more limited than many assume, as it does not cover the use of threats of environmental modification (which would challenge the premise of nuclear deterrence) or the testing of products (e.g., biotechnology or nanotechnology) that might result in such modification.¹³ And, of course, it is supposed to operate in the cloaked world of national security, with its secrecy and severe punishments for breaching that secrecy. For example, there is considerable concern, and not just among certified conspiracy theorists, that the American military is conducting experiments aimed at

⁹ Article 8

¹⁰ The crop spraying campaigns are clearly military actions, even if they are dressed as part of the ongoing “war on drugs.” There is little doubt that they are designed to deny income to enemy groups in both Colombia and Afghanistan.

¹¹ See the briefing note on the Convention by the United Nations Office at Geneva, [http://www.unog.ch/80256EE600585943/\(httpPages\)/1C87969B8C841FCAC1257B11005C3E61](http://www.unog.ch/80256EE600585943/(httpPages)/1C87969B8C841FCAC1257B11005C3E61)

¹² Article 8

¹³ Add Chamorro and Hammond (2001), “In addition to its lack of prohibition of development and testing, ENMOD does not prohibit anyone from threatening to use hostile environmental modification. Further, damage in ENMOD must be proven. Thus, difficulty arises in reconciling ENMOD—which requires after the fact scientific assessment of damages—with the Precautionary Principle,” [HRG : Agreed. But the Precautionary Principle was adopted 20 years after the ENMOD and I don’t think that the PP is a part of **any** military-security convention] a cornerstone of environmental law whose emphasis on avoiding environmental damage is quite different than the focus of ENMOD (p. 56).

various measures to control the ionosphere.¹⁴ Because experimentation is not banned by ENMOD, the agreement cannot be used to invoke greater public knowledge about, much less the cessation of, this activity.

ENMOD might be strengthened to advance the protection of the global climate:

*To further the dialogue and visibility of ENMOD's principles, Governments could establish a permanent secretariat for ENMOD – this could be done at relatively low cost.*¹⁵

5. TEC and Environmental Injustice

It is contingent on which definition of ecocide we accept when we look at the pursuit of TEC; a maximalist definition entails we view all environmental destruction as a crime, for example, while for the most part international legal experts accept “pillage” as a war crime but do not even use the term “ecocide” in their discussions. What do we mean by the more precise term, TEC? White (2011:3, 7-8) offers what is perhaps the most extensive peer-reviewed list of TEC:

- Unauthorised acts or omissions that are against the law and therefore subject to criminal prosecution and criminal sanctions;
- Crimes that involve some kind of cross-border transference and an international or global dimension;
- Crimes related to pollution (of air, water and land) and crimes against wildlife (including illegal trade in ivory as well as live animals; in 2013 alone it is estimated that 25,000 elephants were killed for ivory-related trade.¹⁶ See also Wellsmith 2011).

However, White goes on to add transgressions that are harmful to humans, environments and non-human animals, regardless of legality per se; and environmental-related harms that are facilitated by the state, as well as corporations and other powerful actors, insofar as they have the capacity to shape official definitions of environmental crime in ways that allow or condone

¹⁴ This is the controversial High Frequency Active Auroral Research Program. Many websites claim potentially dangerous consequences, but the official HARP site denies this research has immediate military applications. See <http://www.harp.alaska.edu/>.

¹⁵ Harris Gleckman (personal communication, January 2015) calls for a more robust approach linking ENMOD to climate change:

- *To open a supplemental intergovernmental forum to UNFCCC, 42 States could call for a Third Review Conference to identify, based on the latest IPCC report, which climate modification technologies fall under the scope of the convention and to develop effective and efficient procedures for country applications to the Consultative Committee of Experts.*
- *To lay the basis for claims under the Warsaw International Mechanism on Loss and Damage, international environmental lawyers could draft a prototype application to Consultative Committee of Experts on the use of military and related hostile technologies whose continued use is causing widespread, long term and severe effects on developing countries, particularly to island and low lying coastal developing countries; and.*
- *To provide a series of media opportunities for SIDS and other developing countries to demonstrate the consequences of inaction on climate change, each developing country or SIDs could bring separate applications against each developed country State for their on-going hostile use of individual weather modification technologies*

At the same time, the UNEP's post-crisis environmental assessment programme is an important contribution, though it has not produced a report since 2011; see

<http://www.unep.org/disastersandconflicts/Introduction/PostCrisisEnvironmentalAssessment/UNEPsEnvironmentalAssessments/tabid/54635/Default.aspx>

¹⁶ The price for ivory runs around \$2200 per kg in China; Rhino horn can fetch prices as high as \$66,000 per kg., placing it well above the price of gold.

environmentally harmful practices. This considerably broadens the agenda and suggests that TEC can assume the mantle of universal law (see Charney 1993 for an earlier argument in this direction).

More specifically, White lists:

- illegal transport and dumping of toxic waste;
- transportation of hazardous materials such as ozone-depleting substances;
- the illegal traffic in real or purported radioactive or nuclear substances;
- proliferation of 'e'-waste generated by the disposal of tens of thousand of computers and other equipment;
- the unsafe disposal of old ships and aeroplanes;
- local and transborder pollution, that is either systematic (via location of factories) or related to accidents (e.g. chemical plant spills);
- biopiracy in which Western companies are usurping ownership and control over plants developed using 'traditional' methods and often involving indigenous peoples in the third world (note that the CBD's Nagoya Protocol is intended to address this issue);
- illegal fishing and logging: illegal logging might be the most injurious TEC related to climate change at this stage. According to a Criminal Intelligence Officer with INTERPOL's Environmental Security Sub-Directorate, "Every two seconds, an area of forest the size of a football field is clear-cut by illegal loggers. In fact, 15 to 30 percent of all timber traded globally is estimated to come from illegal sources. In some key forested countries, the situation is even worse, with 50-90 percent of timber exports qualifying as illegal. The highest rates of deforestation can be found in the regions where illegal logging is at its worst – the Amazon Basin, Central Africa and Southeast Asia."¹⁷

Lorraine Elliot offers an even more detailed list of potential TECs:

"the trafficking of illegally logged timber (sometimes called 'stolen' timber), the illegal trade in endangered and threatened species, the black market in ozone depleting substances and other prohibited or regulated chemicals, the transboundary dumping of toxic and hazardous waste, and illegal fishing. Other challenges such as carbon fraud and corruption with REDD projects (Reducing Emissions from Deforestation and Forest Degradation) are also now included under this rather broad heading." (2011:2)

Moving toward the maximalist scale, Westra (2004) suggests that ecocrimes are a form of unprovoked aggression, and offers another list of incidents of ecoviolence, including: increased exposure to ultra violet rays due to ozone thinning; direct impacts of climate change, including flooding and extreme temperatures; exposure to toxic wastes, and toxic/hazardous byproducts; chemical residues in food and food additives, including long-term low-level exposures; new or renewed infectious diseases; loss of biodiversity; increased presence of particulates; and diminishing supply of fresh water. She also suggests we can link ecocrimes with genocide (see also Shover and Routte, 2005).

¹⁷ Davyth Stewart: <http://forests-liisd.org/guest-articles/clear-cut-crime-scenes-why-the-international-day-of-forests-matters/>, accessed Oct. 24 2014. A new book will be published soon on the illegal logging mafia in Malaysia (Straumann, 2014); I have not had a chance to read it at present.

Thus there are wide range of definitions and inclusions attached to the TEC label, and if we add the climate justice agenda we widen and deepen them further. I will try to be as inclusive as possible below.

6. Active Institutions and Agents in the Fight Against TEC

The first line of defence against TEC, ideally, are governments; and indeed environmental crime is easily construed as a threat to national security (Ivanović, 2011). Space and time preclude an even rudimentary survey of **domestic environmental crime legislation and enforcement**, but it 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.¹⁸ 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. The IUCN, UNEP, and FAO have merged efforts to create an expansive database of environmental law (Ecolex), including domestic court cases.¹⁹

At the international level, the UN system broadly defined is at the heart of TEC prevention and prosecution; lately its involvement in wildlife crime has become most prominent. 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 Feb. 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.²⁰ Even the Security Council has been involved: in January 2014 it adopted two resolutions sanctioning wildlife trafficking. This was spurred primarily by the growing links between TECs and armed rebel groups.²¹ The October 2014 COP of the UN Convention Against Transnational Organized Crime (UNCTOC) in Vienna featured a special exhibit on rhinoceros poaching in South Africa, and UNODC Executive Director Yury Fedotov emphasized the need to pool resources and share information.²²

With 191 Member States as Parties, the UNCTOC forms the legal basis for international cooperation against all types of serious crimes. Its Global Programme for Combating Wildlife and Forest Crime supports regional and national law-enforcement responses against the criminal poaching of protected species.²³ **A Special Protocol to this convention would be a good place to start the**

¹⁸ See the work of the German-based Environmental Law Network International: <http://www.oeko.de/elni/elniinfo.htm>

¹⁹

http://www.ecolex.org/ecolex/ledge/view/About_en_US;DIDPFDSIjsessionid=5AB446360AEEAB75B8BF587C2C2016AE

²⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/281289/london-wildlife-conference-declaration-140213.pdf

²¹ 13 October 2014: During a visit to the Garamba National Park, the head of the UN Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO) called for increased national and international efforts to preserve the Park's wildlife. Despite intensified anti-poaching efforts, more than 60 elephants have been killed in the park since April 2014. Martin Kobler, the head of the Mission, said, "Armed group activity in eastern DRC (Democratic Republic of the Congo) is largely funded by the proceeds from illegal trade and trafficking of the country's rich natural resources." He noted the large contribution of the Lord's Resistance Army (LRA) to such activity in the country. See <http://biodiversity-lisid.org/news/monusco-cites-lra-in-garamba-national-park-poaching/>

²² South Africa is one of the most targeted countries by rhinoceros poachers; in 2007, 13 rhinoceros were poached in the country; by 2011 this had jumped to 448. In 2013, the number more than doubled to 1,003. On the trend, UNDOC indicates that crime syndicates have recently started adding rhinoceros poaching to their portfolios, driven by rising demand and prices for rhinoceros horn in Asia.

²³ See <http://forests-lisid.org/news/un-crime-convention-cop-highlights-impacts-of-rhinoceros-poaching/>; and <https://www.unodc.org/unodc/treaties/CTOC/CTOC-COP.html>

broader pursuit of TECs and demand more resource pooling and information sharing amongst member states.²⁴

Also within the UN orbit, research into TEC is undertaken at the UN Interregional Crime and Justice Research Institute located in Turin, Italy, and the United Nations University in Tokyo. Of course, more can be done, especially research into the modern threats posed by biotechnology, but also the opportunities offered by modern technology to sponsor anti-TEC activities (we return to this theme below).

The UNEP's Department for Environmental Law and Conventions (DELIC) runs the Montevideo Programme, which conducts sequential ten-year reviews on the effectiveness of MEAs.²⁵ Though we should not overestimate their influence, MEAs play a key role in defining and in some cases, resource-pooling to combat TEC. A partial list would include:

- 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; In 2013 alone CITES added over 200 timber species, as well as several species of shark, manta rays, and turtles;
- International Tropical Timber Organization (ITTO);
- 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;
- United Nations Framework Convention on Climate Change, 1992; and the Kyoto Protocol, 1997;
- Antarctic Treaty, 1959 (44 parties);
- Convention on Biological Diversity, 1992 (and two protocols);
- 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)

²⁴ This was one of the key recommendations made by the Norwegian/Swiss funded Global Initiative Against Transnational Organized Crime's 2014 report on TEC; see <http://www.globalinitiative.net/download/global-initiative/Global%20Initiative%20-%20Organized%20Environmental%20Crime%20-%20Key%20Messages%20and%20Core%20Recommendations%20-%20June%202014.pdf>. The United Nations Convention against Transnational Organized Crime, adopted by General Assembly resolution 55/25 of 15 November 2000, is the main international instrument in the fight against transnational organized crime. It opened for signature by Member States at a High-level Political Conference convened for that purpose in Palermo, Italy, on 12-15 December 2000 and entered into force on 29 September 2003. The Convention is further supplemented by three Protocols, which target specific areas and manifestations of organized crime: the Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children; the Protocol against the Smuggling of Migrants by Land, Sea and Air; and the Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition. Countries must become parties to the Convention itself before they can become parties to any of the Protocols. A fourth protocol on TEC is suggested here.

²⁵ For the summary of the 4th Montevideo Programme (2010-2020), which includes concrete suggestions for action strategies, see <http://www.unep.org/delc/Portals/119/MontevideoIV.pdf>

- 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

Only the Basel Convention on Hazardous Waste and the Council of Europe Convention on the Protection of the Environment Through Criminal Law explicitly oblige parties to criminalize offences. It is a truism that international law is based on voluntarism. There may be room, however, to encourage further criminalization under extant MEA's and negotiate a Special Protocol to the UNCTOC, as discussed above, that could significantly increase government's obligation to criminalize violations of MEAs.

On the policing side, international agencies need to play an investigative role. The only substantial source of manpower and engagement here stems from INTERPOL, which has formed an Environmental Compliance and Enforcement Committee, which receives reports from the [Wildlife Crime Working Group](#), [Pollution Crime Working Group](#), and [Fisheries Crime Working Group](#).²⁶ Working with CITES, UNODC, the World Bank, and the World Customs Organization, INTERPOL helped develop the International Consortium on Combating Wildlife Crime (ICWC) which in 2012 developed the Wildlife and Forest Crime Analytical Tool Kit. INTERPOL also engages in specific operations such as Project Predator (aimed at curtailing trade in Asian big cats) and Operation Wisdom (focused on ivory and the rhino horn trades). Perhaps the most impressive collaborative action has been the establishment of the Wildlife Enforcement Monitoring System (WEMS), which began largely as an Asian-based effort spearheaded by the United Nations University and CITES, but now involves domestic law enforcement units and several African states.²⁷ Amongst 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. As Elliot (2011) reminds us, another example of TEC that must now be considered is "carbon fraud", which will probably subsume more of INTERPOL's time as climate agreements, including offsetting arrangements, are reached and implemented.²⁸

Beyond the research units discussed above, the scientific community offers many opportunities for furthering the mission of TEC prevention. Most notable perhaps is 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.

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

²⁶ Curiously, unlike INTERPOL's fast immersion into TEC, EUROPOL has not yet followed suite; it does not include TEC on its lengthy list of official priorities, though Cigarette Smuggling and Outlaw Motorcycle Gangs make the grade.

²⁷ This involves formal collaboration with the UNU's Institute for Advanced Studies, the University of Twente's Faculty of Geo Information Science and Earth Observation and the Lusaka Agreement Task Force. See <http://wems-initiative.org/index.cfm>

²⁸ See INTERPOL's Environmental Crime Programme, Guide to Carbon Trading Crime, June 2013, p11: Unlike traditional commodities, which at some time during the course of their market exchange must be physically delivered to someone, carbon credits do not represent a physical commodity but instead have been described as a *legal fiction* that is poorly understood by many sellers, buyers and traders. This lack of understanding makes carbon trading particularly vulnerable to fraud and other illegal activity. Carbon markets, like other financial markets, are also at risk of exploitation by criminals due to the large amount of money invested, the immaturity of the regulations and lack of oversight and transparency.

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.

As is often the case in environmental affairs, **civil society groups** have played leading roles. The World People's Conference on Climate Change and the Rights of Mother Earth adopted the Universal Declaration of Rights of Mother Earth in Cochabamba, Bolivia, on April 22 of 2010. This mirrors the Earth Charter and the broader Earth Jurisprudence movement (see Burdon, 2011, for discussions on the associated "wild law"). Indeed civil society actors are usually far ahead of governments when it comes to calling for innovative legal structures, and environmental NGOs have been perhaps the most vocal and persistent in this context.

NGOs operate largely with the agenda of public knowledge sharing and shaming corporations and governments that are committing acts of TEC. 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. However 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 co-ordination with CITES, in monitoring wildlife crime.

It is not purposefully anti-capitalistic to agree that **corporations** are responsible for much of the TEC that takes place today (Stewart 2001). It may be more convenient to lay blame elsewhere, and indeed organized transnational criminal operatives deserve much of it. But corporations are often behind their actions as well. That said, market incentives do exist to move corporations in the opposite direction, especially if we consider the long-term impact of changing norms in consumer behavior.

The near-universal 2014 New York Declaration on Forests, which emerged from the UN Secretary-General's Climate Summit, is a "global compact" pledging to cut the rate of natural forest loss in half by 2020 and altogether by 2030, while restoring 150 million hectares by 2020 and another 200 million by 2030. Importantly, 24 of the largest palm oil producers in the world, including Wilmar (45% market share), Cargill (10% market share), and Goldern Agri-Resources (5% market share), adopted policies to support net zero deforestation by 2020, part of a partnership with the Indonesian Chamber of Commerce. Palm oil companies also committed to ensuring sustainable third-party supply chains, protecting indigenous community rights, and helping to form a legal framework for these policies under Indonesian law. Of course, the palm oil industry has reached the upper heights on notoriety in recent decades, and one must be skeptical about their participation in such compacts. But private industry needs opportunities to be part of the solutions as well.

Finally, international financial institutions were once widely denounced as displaying conditional immunity to TEC 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 the Global Environment Facility as a funding mechanism, but also mentions the Asian and African Development Banks. Private IFIs are also involved, since private investment opens opportunities for TEC as well as TEC prevention. 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.²⁹

7. Preliminary Conclusions: where to go from here?

There are several points I would like to emphasize, each of which can lead to further research and emphasis. I do not list them in order of importance.

The term “ecocide” will remain highly contentious since it evokes murder -- the resonant ring with the term “genocide” is very strong -- and it is so open to interpretation. **The term “transnational environmental crime” (TEC) is more prescribed and will attain wider currency as the discussion continues.** Activists determined to employ the word “ecocide” because it resonates with genocide are in my view making a strategic error. A broad survey of international legal experts, academics, activists, and government leaders could substantiate this claim.

Despite the innovations offered by the advent of the Rome Statute of the ICC toward individual responsibility in international law, we are far from an international arrangement that shines harsh light on culpability for environmental crimes, let alone for negligence of ENMOD or other conventions (Orellana, 2005). In general, arms control treaties are not designed to promote ecological harmony, human rights, gender equality, or any of the other conceptual steps we need to take toward a more humane and sustainable future. To move in those directions, we need an enhanced vision of security, in a manner that emphasizes the need for sustainable life opportunities for individuals and groups other than as citizens of the contemporary, and often highly militarized, state. The establishment of transfrontier “peace parks”—protected areas on the borders between states prone to hostile relations—may be a nice step in this direction, though this initiative, too, is subject to the usual problems of control and corruption and displacement of local people (Ali, 2007; Brock, 1991; Duffy, 2002a; Peluso and Watts, 2001).

Ironically, perhaps, efforts at conserving nature are also possible sources of environmental injustice, and there is a little information on the level of displacement of both indigenous and non-indigenous persons caused by conservation projects (for historical treatments see Warner, 2006, and Brockington, Igoe, and Schmidt-Soltau 2006). **It is imperative that we retain human security, indigenous peoples’ rights, women’s rights, and other human rights-based themes in equal standing to anti-TEC measures lest they become convenient excuses for the spread of state power or the forceful economic disenfranchisement or physical dislocation of ethnic and other groups.**

Ecocide will persist as a military strategy, especially in local conflicts. The advent of new technology, such as drone surveillance and strike-capacity, will not alter this fact, though it may lead to “cleaner” strikes that cause less environmental harm. And experts have long called for greater scrutiny of the military uses of biotechnologies (see Lang, 1990). It would be phantasmal to expect actual military operations to take some sort of sudden green turn. Nonetheless, there is doubtlessly more environmental sensitivity to military preparations than previously known. The U.S. Air Force once used killer whales for target practice; now, naval exercises involving significant sonar impacts can be curtailed if whales are detected in the area (Stoett, 1997:107). However, despite its promise, it is doubtful that ENMOD will emerge as a useful vehicle with which to pursue a greener world unless some creative energy is poured into its development.³⁰ It has little if any currency amongst the

²⁹ <http://www.equator-principles.com>

³⁰ For example, in its section on “Environment and Military Activities”, the UNEP-DELIC 4th Montevideo strategy cited above does not even mention ENMOD.

major military powers, and has no secretariat to further its scope. If we want ENMOD to have a more pronounced impact it is essential that we establish a permanent secretariat for it. However, **the normative shift towards integrating environmental crimes into transitional justice contexts in the aftermath of conflict, which may prove to serve a deterrent, is happening** (see Carranza, 2008; Drumbl, 2009). This is a significance development that will extend beyond legal action and hopefully permeate conflict resolution and negotiation efforts in the future.

Another preliminary conclusion is that **there is an obvious need to expand the discussion and civil society support for the widespread criminalization of TEC outside the European Union**. It is painfully clear that at present this is largely a European initiative.³¹ Participation by Asian and African states in initiatives such as the WEMS may be attributed largely to efforts to placate western donors. Recent EU elections indicate there is mixed support within the EU itself for Union-wide projects. But Europe – as is so often the case with international law – is so far ahead of the rest of the world, it looks as if this is a European project. For example, there is already a European Network of Prosecutors for the Environment (ENPE), as well as a EU Forum of Judges for the Environment. The International Network for Environmental Compliance and Enforcement (INECE) does have its own Prosecutors Network, but the ENPE is the only advanced regional affiliation.³² The WCCEL's Specialist Group on Compliance and Enforcement is coordinating with INECE and the Organization of American States on a strategy for the implementation of capacity building programs for prosecutors in Latin America. These extra-European initiatives should be strongly encouraged; this is not to suggest that European efforts should be diminished in any way, but that all efforts must be made to circumvent the post-colonial charges a solely European-led initiative is bound to raise. This will be particularly important if there is a serious movement toward the establishment of a new world court. **IIIM**

It is strongly suggested here that every effort should be made to internationalize this discussion, and especially to include China and southern hemispheric states in the process of furthering the goals of TEC enforcement. **The INECE should be the focal point for this discussion and western states should increase their financial and personnel support for this fledgling institution.**³³ Currently based in Washington, D.C., it would be optimal if the INECE could open spoke-hubs in Nairobi (proximity to the UNEP), the Hague (as the centre of international law) and in each of the other continents.

Similarly, though international wildlife crime is a grave threat to biodiversity, it cannot dominate the public landscape on TEC as it often does. Not only are other forms of TEC (formal and informal, including toxic waste disposal, illegal logging, whaling, and fisheries, and many others – and, perhaps, what is emerging as climate crime) just as important, the wildlife crime agenda is

³¹ This should not surprise us; the Council of Europe adopted a Convention on the Protection of the Environment Through Criminal Law as early as 1998, which is echoed in EU Directive 2008/99/EC. See Collantes 2001; Faure 2000.

³² The Latin American Environmental Prosecutors Network is a partial exception.

³³ From its website: The International Network for Environmental Compliance and Enforcement (INECE) is a partnership of government and non-government enforcement and compliance practitioners from more than 150 countries. INECE's goals are: raising awareness to compliance and enforcement; developing networks for enforcement cooperation; and strengthening capacity to implement and enforce environmental requirements. INECE is dedicated using regulatory and non-regulatory approaches to guide compliance with and enforcement of environmental laws and regulations that promote the sustainable use of natural resources and the protection of ecosystem integrity at the global, regional, and national levels.... The Network is comprised of more than 4,000 members from international organizations, governmental agencies, and non-governmental organizations. The Dutch and US environmental agencies, who founded INECE in 1989, remain key funders, with additional support from the United Nations Environment Programme (UNEP), the World Bank, and the European Commission, as well as Environment Canada and the Organisation for Economic Co-operation and Development (OECD). See www.inece.org

perceived by many to be driven by western romanticized notions of charismatic species survival not a less culturally-sensitive ecosystem approach advanced by the CBD and others.

What about the international court system for TEC? Article 8(2)(b)(iv) of the Rome Statute now 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.”³⁴ However, **it is highly unlikely that the ICC will assume responsibility for ecocide as a crime, or even as a war crime.** Calls for the ICC to assume responsibility for corporate criminality are equally problematic (see Kremnitzer, 2010). Rather, it will remain partially focused on property crimes and pillage during wartime (including civil conflicts), and thus there will be a small avenue toward integrating environmental concerns with international criminal law. (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 intervention in Sierra Leone).³⁵ No doubt there is a future for the crime of pillage, often associated with environmental destruction, within the confines of the ICC.³⁶ But it would be chimerical to expect it to go any further under present circumstances, which include a virtual Security Council veto on specific cases, an overloaded set of extant demands, and limitations on funding and time. Preliminary interviews with anonymous legal staff members at the ICC strongly support this prediction. Again, it is clear that we need more robust efforts to add environmental crimes to the post-war transitional justice agenda (see above, and Gilman, 2007). But at present it will be a local legal activity and not a function of global governance. This could change if a new international court could be established to deal specifically with TEC.

The International Court of Justice will only handle cases that involve what many would consider to be ecocidal in nature if and when states request it to do so. The latest high-profile case (Australia/New Zealand vs. Japan) on southern ocean “scientific whaling” is exemplary: 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 running a small commercial whaling operation. Japan agreed to adhere to the decision, though it publicly retains the threat of leaving the International Whaling Commission altogether. 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.³⁷ The ICJ offers no hope as a venue to pursue transnational environmental crime other than when it is part of a treaty or border dispute, though it might be called on to offer more advisory opinions in the future. It would be of benefit if the court were required to offer an advisory opinion on the legal responsibility of industrialized states to reduce carbon emissions, for example. It has been suggested that the Alliance of Small Island States (AOSIS) should seek such an opinion, but since the threshold established for such an

³⁴ Though as Drumbl (2009:9) 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 *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. Note the language in Article 8(2)(b)(iv) borrows largely from ENMOD.

³⁵ For a special symposium on the Taylor trial, albeit one that does not cover the environmental dimension at any length, see *Journal of International Criminal Justice* 11:4 (2013).

³⁶ A robust literature exists on the prosecution of pillage (see Stewart, 2011; Drumbl 2009).

³⁷ I attended the opening statements of this case, which was quite unique and well-covered, especially by the Japanese media and those with an interest in the “whale wars” television docudrama. The Australian legal team did an excellent job of presenting a sound case. The finding, read closely, is not as earth-shattering as many anti-whaling proponents have painted it, but who can blame them?

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 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).³⁸ I disagree: surely we are nearing the point where the UNGA can muster a simple majority on this issue.

The establishment of a **new world court** mandated specifically by the UNGA to pursue charges of TEC would seem, by default, the only way forward here. National governments can, of course, adopt ecocide legislation (including universal jurisdiction, as complicated as that will prove) and tighten their own environmental policy, but ultimately a new convention and court will need to be established. Indeed, scholars have been debating the merits of a new international environmental court for decades (see Hey 2000). The overriding concern that is expressed by opponents of the idea is that environmental issues are too close to the sovereign heart, and that a court that would languish without major power support is not worth the diplomatic energy its creation would demand at this point in time (see Hinde, 2003 for other critiques). These are good points, and surely interim efforts deserve serious attention at this stage. But long-term thinking is valuable as well.

Pederson (2012) covers the lobby for the establishment of an International Environmental Court in some detail; he ultimately rejects the idea but acknowledges there are long-term benefits to keeping the dream alive. Earlier efforts³⁹ cumulated in the development of an ICE Coalition, which “began campaigning for an international environmental court in the build-up to the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties 15 (COP15) meeting in Copenhagen in December 2009.” The UK-based Coalition has largely moulded its advocacy “on the experience of the Coalition for the International Criminal Court, which successfully advocated for the creation of the ICC (Pederson 2012: 549-550; see also Hinde 2003 on the role of NGOs and non-state actors in the prescribed court). Though there were unique circumstances related to the establishment of the ICC, the networking of like-minded civil society agents is proceeding at a similar pace. Problematically, however, there are very few governmental champions, unlike the case with the ICC and the human security agenda in the 1990s.⁴⁰ There also divisions between those who would prefer an ICC-based model (i.e., a court focused on the prosecution of individuals) and a court capable of actually trying states, with or without their consent (the latter is so far-fetched at this point I won’t trouble with it here).

³⁸ Ambassadors for Responsibility on Climate Change.....Frustrated by a lack of progress in major UN climate change negotiations, Palau’s President, Johnson Toribiong, announced a new strategy for tackling climate change in September 2011. In his speech at the UN General Assembly (UNGA), he called for that body to request an advisory opinion on climate change from the International Court of Justice (ICJ). See also Korman and Barcia 2012.

³⁹ These include the drafting of a statute that, if it were ever accepted, would change the very nature of international law. Its scope was breathtaking, though it is probable those who drafted the statute were well aware of how unreachable their goals were. As described by Avgerinopoulou (2003:16):

“The International Court of the Environment is intended to be a permanent organ with global jurisdiction, comprised of 15 independent judges, elected by the United Nations General Assembly (UNGA) and paid out of the budget of the United Nations. States and non-state actors, such as intergovernmental organizations, non-governmental organizations and individuals, will have access to the Court. The subject-matter jurisdiction of the court will include every environmental dispute that has caused or may cause substantial environmental damage at the international or national level and has not been settled through arbitration within a period of 18 months. The court will also be able to act preventively, by rendering preliminary measures. It will be able to carry out investigations and inspections either upon request or ex officio, in the case of urgency. It will provide services of arbitration and advisory opinions on global environmental issues. In addition, 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.” The latter sentence certainly encourages pause.

⁴⁰ See <http://icecoalition.com>

One advantage the establishment of an environmental world court would bestow would be the coalescence and further development of legal expertise in international environmental law. The lack of qualified personnel in TEC enforcement is noticeable in many respects. There are extant attempts to remedy this; Gallas and Werner (1998) offered a helpful suggestion: personnel exchanges; and the think-tank Institute for Environmental Security (IES) produced a feasibility study calling for the establishment of a new Hague Environmental Law Facility (HELFF).⁴¹ As an obvious necessity and as a step toward assembling the critical mass of expertise to move toward the development of a new court, a **HELFF-like institution should be funded and encouraged by the international community**. Ultimately, however, the goal of a new court remains a central feature of contemporary thinking about the direction of international environmental law, and though it is unlikely to garner support from major powers, it remains a possibility.

This said, we are a long way off from such a court's establishment. In the interim there are two paths that are both viable and logical. The first is to take advantage of **extant regional networks and work toward more effective compliance and potential prosecutions for violations of domestic and international law**. One country in each region could assume the primary responsibility (on a rotating basis) for leading the charge against TECs, supplying a regional office for the INECE. More radically, this could also involve the establishment of ad hoc courts, along the lines of the special tribunal on Sierra Leone. UNEP's Regional Seas Programs are examples of regional co-operation on environmental issues and they should be used to aggressively pursue fisheries and other oceans-related TEC. The Council of Europe Convention on the Protection of the Environment Through Criminal Law could serve as a model for other regional agreements, though its ability to rely on the European Committee on Crime Problems to settle disputes (Article 19) is a unique context.

Secondly, and more generally, authorities need **expanded capabilities to pursue investigations of TECs**; not expanded legal powers (though in some cases, for example involving foreign investment, this might be necessary), but expanded capacity in data collection, regional co-operation, undercover operations, links with civil society (EDF, TRAFFIC, etc.). The private sector must also play a significant role. For example, commodity tracking is essential (see Crossin, Hayman, Taylor 2003; Brack and Kayman 2002) for the pursuit of many TECs, involving a long line of commodity production links and many industry agents.

MEAs will continue to have a significant impact on human and state behavior, though they do not generally require criminalization of related TECs, nor do they effectively protect the commons. UNCLOS, for example, is widely accepted as the governing international authority on oceans governance, but it has severe limitations in terms of its ability to animate legal proceedings or to actually protect the oceanic commons (Orrego, 2007). One exciting suggestion here is the negotiation of an **Implementation Agreement to UNCLOS for the Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction (ABNJ)**.⁴² This could not only serve to increase conservation collaboration on the open seas but could also serve as a model for other MEAs to expand their operational orbit and move toward more robust international regimes. For example, the recent near-consensus on enhancing forest conservation and related crimes reached at the New York Climate Summit in September 2014 could be carried forth in an effort to develop an Implementing Agreement to the ITTO on Forestry Conservation and Crime. The HELFF

⁴¹ See http://www.envirosecurity.org/helf/HELFF_Report2.pdf

⁴² See Hart, 2008: Elements of a Possible Implementation Agreement to UNCLOS for the Conservation and Sustainable Use of Marine Biodiversity in ABNJ; IUCN Environmental Policy and Law Papers Online, Marine Series #4, at <https://portals.iucn.org/library/efiles/documents/EPLP-MS-4.pdf>

initiative mentioned above would attempt to co-ordinate verification and enforcement functions of various MEAs and pursue measurable non-compliance mechanisms as well as the utilization of satellite and drone technology in the pursuit of TEC prevention and discovery.

Then there is the even larger question of how **climate justice** can fit into this puzzle. First of all we should note that, at least within the American and European contexts, Domestic courts are becoming increasingly active in climate-related litigation cases (see Markell and Ruhl, 2011; Walters and Westerhuis, 2013), and it is already a serious lacuna in international law if there is no court designed specifically to handle climate issues, which have surely risen to a level of prominence equal to human rights concerns. The voluntary nature of climate law will not be superseded by a global understanding of the crisis; whatever agreement arises from the Paris conference in 2105, it will depend heavily on the good will of participating states; though there will be demands for more reliable verification measures, much as in arms control measures. If a post-Kyoto regime is to be effective, non-compliance will need to exact some sort of price, whether it is related to trade and investment sanctions or the criminal prosecution of key decision-makers in the government or private sectors. Lima offers an opportunity to test the diplomatic currents on such ideas.

Policy Implications

1. Establish a permanent secretariat for ENMOD, and publicize its existence, and explore the possibility that it could be linked with climate change inaction;
2. Ensure that anti-TEC initiatives do not violate human security and human rights in their application;
3. Seek an advisory opinion from the ICJ on the obligations of states to pursue serious domestic measures to mitigate climate change, as requested of the UNGA by AOSIS;
4. Ensure that the Paris 2015 climate agreement contains compliance mechanisms that will offer the opportunity to identify states that have not adjusted domestic policies to reflect their commitments;
5. Negotiate a protocol to the Convention on Organized Crime on TEC;
6. Increase resource support for the INECE, and establish several permanent regional offices;
7. Increase research support for the UN Interregional Crime and Justice Research Institute in Turin, and ask it specifically to look into carbon fraud, online activity, and the mis-use of biotechnology as new areas of concern;
8. Negotiate an Implementation Agreement to UNCLOS for the Conservation and Sustainable Use of Marine Biodiversity in ABNJ, and explore other areas where similar agreements could prove fruitful;
9. Revisit the proposal by the IES to establish HELF (in the Hague) as a center for environmental law expertise development and technological methodology;
10. Increase support for regional anti-TEC networks, perhaps with special regional tribunals established on a rotating basis;
11. Intensify present efforts to solidify links between governmental and civil society agents involved in anti-TEC actions, including private corporations.

This is a tremendously ambitious agenda. Yet we face a tremendous set of problems driving the perpetuation and in some cases the expansion of both transnational environmental crime and climate injustice. Governments must reflect on the long-term consequences of inaction in these areas.

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