The Transnationalization of Hazardous Waste

...if states and corporations are not planning to reduce toxic inputs into production ... A logical approach would be to export these wastes to global South communities [thus ensuring] the more visible dimensions of pollution are now “out of sight, out of mind”.

Pellow, 2009: 33

INTRODUCTION

Make no mistake about it: waste is a global commodity today, constantly in production, and often circling the globe as people try to profit from its disposal, though it is rarely on the minds of policymakers or those engaged in forming related international law (Barsalou and Picard 2018; Baird et al. 2014; Clapp 2002). Much of this waste can easily be classified as hazardous, and the people who are most likely to be exposed to it are victims of environmental injustice (often quite racial in character); this “toxic waste colonialism” (Pratt 2011) reflects both global inequities and the international risk society (Beck 1992). In this chapter, we discuss the conceptual difficulties of defining hazardous waste and suggest that some of the most harmful cases of transnational hazardous waste-related ecoviolence do not involve the actual transport of waste itself, but rather the international investment in resource extraction that results in threats to the environmental justice and human security of indigenous peoples and other communities.
The conceptual complexity of “hazardous waste” is striking because of its physical nature and its normalization under the market forces of neoliberal capitalism. The generation and transboundary movement of much hazardous waste could well evade legal scrutiny under the blanket of market forces. This raises the distinction made in Chapter 1 between the strict legalist and the social legalist perspective, and begs the question: When is the transportation of hazardous waste treated as a crime? Adopting a social legalist perspective, we suggest that the illegal disposal and treatment of hazardous waste by companies and organizations is, indeed, a violent criminal act undertaken by companies to exploit governance gaps within and among nation-states and intergovernmental organizations. The current global governance system is beset by the growing crisis of hazardous waste and its pernicious effects on human health, ecosystems, and biodiversity. The existing global security mechanisms are simply incapable of keeping up with the behavior of corporations that engage in the illegal disposal of hazardous waste to avoid proper disposal at permitted landfills or facilities and concomitant disposal fees. These companies, it bears emphasizing, are not necessarily faceless entities we never come across during our quotidian consumption practices.

In this chapter, we put questions of environmental justice and human security at the forefront of analysis, critiquing the political economy of the ecoviolence associated with corporate behavior, the eco-mafia, and investor-state dispute settlements (ISDS—settlements often invoked during free trade agreements and bilateral investment treaties between parties in the global market, enforcing the prioritization of corporate rights over the rights of national governments to protect public interest). Organized crime of one stripe or the others has made the hazardous waste trade a staple in Italy, the United States, and elsewhere (see Block and Scarpitti 1985) but the exhausted stereotype of dubious criminals and mafia-esque organizations transporting hazardous waste under the cloak of darkness has given way to a new type of transnational ecoviolence. Today, global investors and multinational corporations can privately enforce public treaties, essentially suing governments for not fulfilling conditions as per free trade agreements treaties, and perpetuating the production of toxic waste in the process; it is part of the social world that accompanies the illegal and legal exploitation of natural resources (Boekhout van Solinge 2014).
Linking environmental justice and human security to the proliferation of hazardous waste promotes an exploration of the choreographed ecoviolence detailed in other sections of this book. This choreography occurs under the rhythmic cadence of “business as usual” tactics, bilateral and multilateral agreements between private and public actors perpetuating processes of environmental degradation on a global scale, blurring the line between agential and structural violence, forcing us to reflect on the direct-structural-cultural violence associated with hazardous waste. Eloquently referred to as the “violence triangle” by Galtung (1990), this metaphor can be used to understand how the global movement and production of hazardous waste constitute not only an event, but a permanent and violent phenomenon of globalization. If we consider, for a moment, how the generation, and unequal distribution, of hazardous waste threatens basic human rights and needs, lowering people’s life chances, we surely wouldn’t hesitate using the conceptual frame of ecoviolence to describe this phenomenon. Downey and Willigen (2005), for example, reveal that industrial pollution and hazardous waste not only impact human health, but also psychological well-being. Exploring the sociology of mental health and environmental inequality, the authors demonstrate that industrial pollution and hazardous waste lead to feelings of communal disorder and personal powerlessness among low-income and racialized communities. This is only one example of the varied dimensions of violence of which Galtung (1990) and Uvin (2001) speak. In our attempt to capture both the agential and structural violence of the generation and transboundary movement of hazardous waste, we can begin to see the need for a strategically interdisciplinary approach to studying global environmental justice as the central ethical frontier for students of ecological thought and international relations theory.

**Conceptualizing Hazardous Waste**

Defining hazardous waste is no easy task, given the governing principles of national, international, and transnational environmental law, and space constraints preclude a lengthy discussion. Nevertheless, we will present an overview of what constitutes hazardous waste, drawing upon key institutional definitions; we proceed under the assertion that investment in activities that produce hazardous waste abroad constitutes a form of transnational ecoviolence—from the environmental justice and human
security perspectives, it is not just trade in hazardous waste across borders that is at issue here.

Hazardous waste is potentially dangerous to human health and the environment. This type of waste comes in many forms: liquids, solids, and contained gases. Equally harmful, these types of waste can be the by-product of manufacturing processes, unused commercial products, and a host of other industrial activities. For the purposes of regulation, hazardous waste usually exhibits the following characteristics: ignitability, corrosivity, reactivity, and toxicity. Ignitability refers to those substances which can create fires due to spontaneous combustion. Examples of ignitable items include waste oil and used solvents. Corrosivity, on the other hand, is a property of certain types of waste which are acids, producing acidic or alkaline solutions. Reactive types of hazardous waste are extremely unstable, even under normal conditions. Reactivity results in substances being highly volatile and explosive, tending to release noxious fumes, gases, and vapors. Finally, toxicity is a characteristic of selected waste which is harmful, or even fatal, when ingested. What makes these waste products all the more dangerous is their propensity to pollute groundwater, travelling far distances from the source of production (Environmental Protection Agency 2019).

The World Bank also defines hazardous waste by considering the following dimensions: (i) hazardous characteristics, (ii) toxic components, (iii) types of materials, (iv) the processes responsible for the generation of hazards, and (v) the waste streams from which they originate. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal provides the most comprehensive definition of hazardous waste. The Convention outlines categories of waste streams:

- Y1, Clinical wastes from medical care in hospitals, medical centers, and clinics;
- Y2, Wastes from the production and preparation of pharmaceutical products;
- Y3, Waste from pharmaceuticals, drugs, and medicines;
- Y4, Wastes from the production, formulation, and use of biocides and phytopharmaceuticals;
- Y5, Wastes from the manufacture, formulation, and use of wood preserving chemicals;
- Y6, Wastes from the production, formulation, and use of organic solvents;
- Y7, Wastes from heat treatment and tempering operations containing cyanides;
- Y8, Waste from mineral oils unfit for their originally intended use;
- Y9, Waste from oils/water, hydrocarbons/water mixtures, emulsions;
- Y10, Waste from substances and articles containing or contaminated with polychlorinated biphenyl;
- Y11, Waste from tarry residues arising from refining, distillation, and any pyrolytic treatment;
- Y12, Wastes from production, formulations, and use of resins, latex, plasticizers, glues/adhesives;
- Y13, Wastes from production, formulation, and use of inks, dyes, pigments, paints, lacquers, varnish;
- Y14, Waste of chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on (wo)man and/or the environment are not known;
- Y15, Wastes of an explosive nature not subject to other legislation;
- Y16, Wastes from production, formulation, and use of photographic chemicals and processing materials;
- Y17, Wastes resulting from surface treatment of metals and plastics;
- Y18, Residues arising from industrial waste disposal operations.

Source: Secretariat of Basel Convention 2019

Adding to the definitional breadth of what constitutes hazardous wastes, the Basel Convention also outlines the various constituents of wastes: complexes of transition metals with carbon monoxide ligands, metal and metal-bearing wastes, metal wastes consisting of alloys, wastes containing organic constituents, wastes containing inorganic constituents, copper compounds, zinc compounds, lead compounds, mercury compounds, and organic cyanides—to name just a few. Finally, the Convention provides a comprehensive list of hazardous characteristics of substances and compounds which could be classified as hazardous waste. These characteristics include explosive substances, flammable liquids and solids, substances and wastes liable to combustion, oxidizing substances, organic peroxides, poisonous substances, corrosives, ecotoxic compounds, and infectious substances (Secretariat of Basel Convention 2019). We should be clear, however: the Basel Convention has not, despite great intention and effort, stopped the international trade in toxic waste (Clapp 2011). The production of hazardous wastes is a thriving enterprise and it is extremely difficult to assess the potential hazards of the wastes generated and transported within and between countries. In fact, further research is required to establish the measures to identify the negative effects of the items listed in the Convention. This is, perhaps, one of the limitations of
the Basel Convention, as individual countries are charged with the task of developing their own formal tests for hazardous wastes.

The improper management, and disposal, of hazardous waste is equally dangerous and is a growing problem in our globalized world. Whether it is waste in the form of sludge from chemical plants, clinical waste, or contaminated oil, marginalized communities are forced to bear the brunt of hazardous waste. The World Bank (2002) reveals that estimations of the total amount of waste produced are unreliable. This is for many reasons, including the dearth of recorded data on the quantity of waste produced; untrained staff; waste evasion tactics; and the reclassification of “waste” to meet the definitional standards of certain industrial organizations—to name just a few (World Bank 2002). Relatedly, the management of hazardous waste encompasses various components: (i) prevention, (ii) responsibility for waste, (iii) storage of waste, (iv) treatment and disposal facilities, (v) incineration, and (vi) the use of landfills.

The first component, prevention, aims to eliminate certain hazardous wastes, while reducing the generation of others. The most effective prevention measures include the imposition of hefty financial penalties for the continued generation of waste, or incentives for cleaner production methods and waste minimization initiatives (Caravanos et al. 2013). Responsibility for waste is the second component of the management regulatory framework and this involves the deterrence of the illegal dumping of hazardous waste. Companies, therefore, are encouraged to internalize disposal costs by exercising responsibility for the sustainable, and equitable, disposal of waste. This suggests a sense of coordination between the generator, the disposal facility, and the transporter of these materials (Fazzo et al. 2017). The storage of waste is the next component of the management framework and it highlights the regulations governing the storage of waste at transfer and disposal facilities. The aim of these measures, simply put, is to prevent the accumulation of neglected piles of deteriorating waste—most of which is potentially harmful to the environment (Caravanos et al. 2013).

The various functions of treatment and disposal facilities comprise the next component of managing waste. This step refers to stages of storing, recovering, and treating waste, while blending different waste streams and recovering other materials during the process. This stage is extremely important as the operators of these facilities require the technical, financial, and managerial capabilities in order to earn a license to
operate such facilities (Perkins et al. 2014). The management of waste also
involves processes of incineration, which entails the thermal destruction
of gaseous, liquid, and solid wastes. The benefits of thermal oxidation,
for example, aid in converting complex organics into simple compounds,
reducing the volume of waste. Most importantly, incineration occurs in
purpose-built facilities and requires careful operation and stringent moni-
toring over the elimination of waste materials; the poor construction
of these facilities can lead to the emission of particulates, acidic gases,
unburned wastes, and traces of hazardous by-products (Barrett 2014).
The final component of the management framework is the use of land-
fills, which serve as properly engineered and operated hazardous waste
facilities. These secure sites are designated areas for minimal quanti-
ties of remaining waste and are designed to control the segregation of
waste and groundwater monitoring. Considered the “final destination” of
hazardous waste, waste material ends up at these sites after all reduction
and treatment methods have been carried out.

The monitoring framework described above is aspirational at best,
laying the groundwork for how hazardous waste should be treated,
handled, and disposed. The disjuncture between theory and practice,
however, allows us to reflect on the myriad opportunities for illegal activ-
ities to unfold. There is a tremendous scholarship on the transboundary
movement of waste and the proliferation of illegal waste disposal compa-
nies, questionable disposal methods, and even the influence of terrorist
and organized criminal groups (Cheyne 1994; Hyatt and Trexler 1996;
Lynch and Stretsky 2003; Gibbs et al. 2010; Boudier and Bensebaa
2011; Lawhon 2013; Lambrechts and Hector 2016; Kitt 1995; Reed
2009; Pratt 2011; Stoett 2019; Pulido 2000). The common motif in this
research is a central focus on political economy—specifically, the struc-
tural economic conditions used to explain the transboundary movement
of hazardous waste. Consider, for example, the illicit disposal of hazardous
waste by multinational corporations within nation-states. It bears empha-
sizing that this pernicious activity isn’t conducted by faceless entities, but
by the seemingly banal and innocuous companies consumers frequent on
a rather frequent basis. Let us quickly apply a political economy lens to the
transportation of hazardous waste by Canadian company, Chronic Inc.
Canada and the Global Waste Trade

Perhaps the most disappointing, and shameful, practice in Canada’s recent history of waste management was the country’s dismal delay in addressing its role in the global waste trade—a billion-dollar industry. Misbegotten attempts by Chronic Inc., a Canadian company based in Whitby, Ontario, to transport waste to developing countries have resulted in sheer misery for workers from the Philippines who lack the capacity for working with hazardous material, risking their health and lives to process illegally transported substances. The unconscionable acts of the Canadian company, and the government’s failure to act, have resulted in highly controversial Filipino President Rodrigo Duterte threatening to declare war on Canada in 2019. Allegations of Canadian companies mislabeling electronic waste as plastics for recycling since 2013, and using the Philippines as a dumping ground, confirm the Basel Action Network’s (BAN) findings that Canada has played an active role in illegally transporting waste to other countries such as Pakistan and Hong Kong (Abedi 2019).

The political economy of the global waste trade theorizes transnational ecoviolence as the result of socio-economic factors and global economic strain. We could begin our analysis of the politics of hazardous waste with reference to select European countries proposing an amendment to the Basel Convention in 1995. The push for a complete ban on the exportation of hazardous waste was met with some resistance from other countries, one of which was Canada. Today, stringent environmental laws, coupled with the exorbitant cost of waste management, compel companies to exploit the imperfect implementation of waste management treaties (WMTs). Consider, for a moment, Article 11(2) of the Basel Convention, which stipulates that parties can negotiate bilateral, regional, or multilateral pacts to trade waste in an “environmentally sound manner” (ESM). Nwankwo and Okafor (2018) suggest that such stipulations undergird the Global North-South inequalities and the thriving poison-for-cash industry whereby developing countries accept toxic waste from developed countries for an embarrassingly low fee. This is all part and parcel of trade liberalization policies under the market forces of globalization and capitalism. In Canada, for example, it costs approximately $40 per ton to dump garbage; the amount of waste illegally exported to Manila was 2500 tons for a total of $100,000. The economic strain felt by waste disposal companies forces them to explore innovative, albeit socially irresponsible, methods such as those used by Chronic Inc.
The mislabeling of materials as recyclables and donations has led to the proliferation of hazardous waste, electronic waste, and incinerator ash being illegally transported across the globe and disproportionately shouldered by developing countries. The Pacific Centre for Environmental Law and Litigation reveals that Canada violated multiple sections of the Basel Convention, perpetuating an acrimonious relationship between the Canadian and Philippine government. Philippine authorities have locally disposed of 34 of the 103 containers of approximately 2500 tons of hazardous waste that Canada dumped in Manila. This, according to President Duterte, is unacceptable and he is putting pressure on the Canadian government to absorb the cost for the disposal. After a lengthy six-year battle between the two countries, the Canadian government agreed in 2019 to ship the waste back to Vancouver, British Columbia. Incidentally, during the diplomatic row between Canada and the Philippines, Malaysia declared that it was preparing to ship approximately 450 tons of imported waste back to its source countries—one of which was also Canada (Abedi 2019). Clearly, the political economy of hazardous waste illuminates the global socio-economic differentials and dimensions of this egregious trade and its harmful effects on the environment and human health, as well as the conflictual politics that are resulting from its ongoing occurrence.

**Waste Disposal in the United States**

While much of the literature on transnational ecoviolence focuses on southern hemispheric communities as victims and/or agents of change, we would be remiss if we did not comment on the waste disposal problems that exist in the North American context. Such case studies add to the breadth of our understanding of the intersections between ecoviolence, political economy, and the interminable struggle for environmental justice. Let’s expand our understanding of environmental justice as a framework by way of an example: the illegal dumping of hazardous waste by an all-too-familiar retailer and the use of geographic visualization tools for detecting transnational flows of hazardous waste.

In May 2013, Wal-Mart (often referred to as the world’s largest retailer) agreed to pay approximately $82 million in civil and criminal charges after pleading guilty to violating California’s Clean Water Act and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) by improperly disposing insecticides and fertilizers into municipal trash dumpsters and down sewer systems ("Wal-Mart fined for dumping
hazardous waste in US”, 2013). The Wal-Mart example serves as a micro-cosm for the politics of transnational environmental crime insofar as it highlights the etiologies of the every-day violations and transgressions against the environment. Surely, the employees of Wal-Mart didn’t mean to inflict harm on the unsuspecting citizens of California and Missouri, but the company’s distinctive organizational culture seemed to have neutralized rule breaking to the extent that putatively law-abiding and rational people were willing to endanger themselves and others by illegally disposing hazardous waste. We can give these employees the benefit of the doubt and assume they didn’t mean to harm the environment and others, but were simply not trained on how to dispose of these materials. While the latter conjecture is most commonly held by the public, green criminologists are more analytical and inclined to theorize this behavior, situating this example of environmental crime in a complex matrix of corporate greed and power to maximize profit and gain unfair economic advantages over the competition—hence the emphasis on the political economy of the illegal dumping of hazardous waste.

Through a political economy perspective, we recognize that capitalist economic relations create structural conditions that promote crime. In the case of Wal-Mart, the company’s organizational goals of cutting costs on the sustainable disposal of hazardous waste created a criminogenic culture whereby employees were encouraged to cut corners, leading to environmental injustice and serious harm to the general public. This form of organizational illegality often evades the legal gaze because it is increasingly difficult to establish intent, determine individual responsibility, and apply traditional civil-criminal distinctions (Geis and Meier 1977; Schrager and Short 1978; Clinard and Yeager 1980; Braithwaite 1989). Nevertheless, governance regimes have evolved, institutionalizing norms for the effective enforcement of environmental laws and regulations—the Wal-Mart case is instructive in this regard, as the company was fined under state legislation. Not long thereafter, the company declared that it had designed, and implemented, comprehensive environmental programs, reducing hazardous waste by more than 30% since 2010 (DeVroom 2013).

There is also burgeoning literature on what is referred to as the pollution or waste haven hypothesis (Kellenberg 2012; Rauscher 2005), which contends that affluent nations illegally export waste to poorer nations in a concerted attempt to evade putatively stringent environmental regulations. Nost et al. (2017), however, reveal that despite their differential
economic status, some countries agree to the importation of hazardous waste. This is an observation recorded by Jacott et al. (2004), who suggest that developed countries engage in the trade of waste, despite international treaties such as the Basel Convention. Couched under the institutional discourses of the North American Free Trade Agreement (NAFTA), the movement of hazardous waste among members of what was formerly known as NAFTA has become a mere corollary of trade under market forces.

The example of the international hazardous waste trade provides us with ample opportunity to identify potential environmental justice interventions (McEntee and Ogneva-Himmelberger 2008; Pulido 2000), grasping the nuances of waste flows (Davies 2012) and its effects on communities. A report by Nost et al. (2017) confirms that the United States, Canada, and Mexico import hazardous waste from other nations. In fact, their research reveals that over 118,000 containers of hazardous waste were imported into the United States between 2007 and 2012. Using sophisticated geographic visualization tools such as HazMatMapper, the authors referred to American censuses and community surveys to collect data on the racial composition of the communities forced to bear the disproportionate brunt of this waste. Exploring variables such as one-mile radius, census tract, zip-code, and state, the findings were nothing short of remarkable: waste processing sites in Arkansas were located near surrounding minority communities defined by extremely high rates of poverty. One processing site was located in the city of El Dorado and adjacent to a community which “falls in the highest quintile (top 20%) across all US import sites regarding poverty” (Nost et al. 2017: 19). What is all the more alarming is the fact that this particular site imported approximately 1 million kilograms of waste from 2007 to 2012. The method of disposal is also cause for concern, as the El Dorado site disposes waste by way of incineration, a practice which engenders environmental and public health concerns because incinerators release a plethora of pollutants depending on the composition of the waste. For example, the release of particulate matter, metals, acid gases, and sulfur leads to higher incidences of cancer, respiratory symptoms, congenital abnormalities, hormonal defects, and increase in sex ratio (Sharma et al. 2013). The importation, and incineration, of hazardous waste at the El Dorado site also produces detrimental effects for the surrounding communities—most of which have a poverty rate of 30.3% (Nost et al. 2017). The importance of applying an environmental
justice perspective is captured in the El Dorado case study, adding a richer discussion about how environmental degradation and social inequality intersect. Environmental justice is poised to play an important role in addressing the varied dimensions of inequality and violence associated with the disproportionate environmental and health risks low-income and racialized communities are forced to bear (Beck 1992). In a related vein, environmental justice also captures grassroots activism, community development, and empowerment, encouraging communities to mobilize in an attempt to improve the manner in which government regulations and environmental policies are administered. One need only reflect on the phenomenon known as “nimbyism” (Ehrman 1990) to bear witness to the potential environmental justice holds in challenging the grossest forms of injustice.  

**Transnational Waste and the Eco-Mafia**

Barnett et al. (2010) assert that notions of security have been monopolized by the bureaucratic state, failing to capture the fears, concerns, and insecurity of impoverished and marginalized peoples within these states. Let us apply the human security framework to the activities of one of the most notorious criminal organizations known for trafficking hazardous waste: the “eco-Mafia”.

The transboundary movement of waste is a very profitable criminal activity, attracting myriad organized criminal groups (Banks et al. 2008). Global trade has opened up a space for transnational networks seeking a niche for the importation and exportation of hazardous waste. The issue of waste management, also, is compounded by the emergence of these clandestine criminal organizations. Some organized criminal networks, colloquially referred to as the “eco-Mafia”, have operated successfully as a trans-European criminal organization. These groups are concentrated in the southern regions of Italy and serve as an extension of powerful crime families. The “eco-Mafia’s” modus operandi includes the illegal dumping of garbage; the smuggling of archeological riches; and, of course, the wanton disregard for environmental and zoning rules covering large-scale projects in Italy and other European countries. The incendiary comments made by Sergio Costa, Italy’s newly-installed Minister of the Environment, in 2018 during a public rally reveal how harmful the activities of the
“eco-Mafia” have been. Announcing that the country must rid its terri-
tory of the “menace of the eco-Mafia”, Costa has joined a global chorus
denouncing the ecoviolence perpetrated by organized criminal networks.

The region of Vesuvius has garnered serious attention due to exten-
sive police investigations into a sequence of cases featuring illegal waste
trafficking. In particular, Casal di Principe, a small village located in the
province of Caserta, has become synonymous with organized crime. It is
alleged that the municipality has been under the control of the Neapolitan
mafia, colloquially referred to as the Camorra. In 2015, Italy’s environ-
mental police discovered a massive dump in the backyard of this crime
family’s residence, unearthing barrels of industrial sludge containing
medical waste and asbestos. Similarly, certain regions of Caserta have been
dubbed the largest illegal dump in Europe, featuring approximately 2
million cubic meters of hazardous waste beneath its topsoil. Police theo-
rize that the trafficking of this hazardous waste is attributed to the illicit
activities of the Camorra, who have been facilitating the flow of waste
from destinations like Germany since the early 1980s. The concentration
of this hazardous waste, furthermore, has polluted the groundwater and
led to incessant fires between Naples and Caserta, earning the moniker
“Land of Fires” due to the Camorra lighting fires to rid the regions
of the waste (“Toxic waste: An international business which benefits the
eco-Mafia”, 2015).

The economic gain associated with the transboundary movement of
waste comes at substantial social, economic, and environmental expense
for communities, their livelihoods, and habitats. Indeed, organized envi-
ronmental crime is identified by the UN as a key factor in the impov-
ernishment, displacement, and violent conflict experienced by millions of
people, notably in low-income regions. If we apply the dimensions of the
human security framework, identifying the different aspects of victimiza-
tion, we begin to see the truly harmful effects of the “eco-Mafia”. For
example, consider the potential threats to Italy’s economic and health
and environmental security: the poisoning of the area stretching between
Naples and Caserta can lead to utter disaster for the country, affecting
local economies. The “Land of Fires” may also instigate a mass migra-
tion of villagers wishing to evade the ecological degradation, indirectly
affecting the local economy. Secondly, the residents’ health is compro-
mised by the activities of the “eco-Mafia”. The aforementioned substances
discovered in the region of Vesuvius have been linked to behavioral
abnormalities, cancer, genetic mutations, physiological malfunctions (e.g.,
reproductive impairment, kidney failure), physical deformations, and birth defects (EPA 2019). The loss of public funds to corruption is tremendous; indeed, one of the greatest transfers of public wealth to corrupt officials and organized crime occurred when feigned cleanup costs, referred to as “ghost recoveries”, were paid out in the Campania region (Peluso 2016). Finally, hazardous waste threatens Italy’s environmental security by reducing the country’s biodiversity, limiting the ability of ecosystems to survive, and increasing “environmental refugees” due to dislocation and forced migration (Humphreys and Smith 2011). This situation will only be exacerbated by the particularly harsh toll of the COVID-19 virus pandemic in Italy in 2020, an unprecedented public health crisis that threw the entire country into economic turmoil.

SYNCRETIC ANALYSIS: INVESTOR-STATE DISPUTE SETTLEMENTS (ISDS)

Wherever there is transnational ecoviolence, there is attendant human misery and exploitation. We assert that environmental crimes are effectively human security issues and should be treated as such by governments, but what happens when the movement of hazardous waste ends up being a function of recognized bilateral and multilateral treaties? How can we ensure that the quiet institutional violence inflicted on unsuspecting communities that end up being the victims of free trade policies is made visible?

Globalization has facilitated an acceleration of interconnectedness between nations, multinational and transnational organizations, and non-governmental organizations. Free trade agreements and bilateral investment treaties (BITs) have become a common motif of our global economy, concentrating political power in the hands of investor states and corporations. A tremendous amount of wealth has been generated as a result of Foreign Direct Investment (FDI). In an attempt to protect these investments, investor-state dispute settlements (ISDS) have been used as a means of regulating International Investment Agreements (IIAs). Soares (2017: 2) maintains that ISDS provide “an adequate forum to ensure that substantive commitments that countries have made to one another to protect mutual investments are duly respected”. ISDS clauses have been embedded in Mega-Regional Trade Agreements under negotiation such as the Regional Comprehensive Economic Partnership (RCEP) between the Association of Southeast Asian Nations (ASEAN); the EU-Canada
Comprehensive Trade and Economic Agreement (CETA); and the US-EU Transatlantic Trade and Investment Partnership (TTIP) between the United States and the EU—to name just a few. ISDS clauses allow foreign investor states to invoke arbitration as a means of bringing disputes related to international treaties against host states. Simply put, then, if a country is found to be in breach of an IIA, the investor can seek monetary compensation or perhaps other forms of legal redress through ISDS, which enforce compliance with investment treaty provisions (Gaukrodger and Gordon 2012).

Of late, scholars of law and globalization have taken heed of the controversial dimensions of ISDS, especially the potential damage this legal instrument can cause against host states in favor of investor states. A chorus of opposition has been sung by members of civil society, NGOs, and legal scholars who suggest that ISDS impact a host state’s sovereignty. Soares (2017), for example, reveals that the amount of compensation awarded to claimants by international tribunals ranges from $10 million to $500 million, and these cases are usually related to infrastructure claims: electricity, gas, water, sewage and waste systems, construction, and civil engineering projects. If we consider the nature of some IIAs and how they might negatively affect a host state’s environment and its citizen’s human health, we begin to recognize the institutional violence embedded in ISDS. For instance, we can identify an overwhelming concentration of ISDS arbitration in Latin America, which has signed over 650 trade agreements; this translates into approximately 35% of all ISDS arbitration cases. Argentina, alone, has been presented with over 60 ISDS disputes and this has started a conversation about the global inequalities surrounding the disproportionate use of ISDS among developing nations (Soares 2017).

In the face of mounting criticisms against the potentially dangerous implications of ISDS, the name of these investor dispute mechanisms was rebranded by the European Commission as the Investment Court System—also referred to as ICS. Eberhardt (2016) argues that the nature of these dispute settlements has not changed under the new label of ICS; in fact, the proposed ICS merely perpetuates oppressive arrangements between investors and host states, empowering multinational companies to sue countries that reneg on IIAs. Despite the putative procedural improvements under the ICS, judges have now taken on the responsibility of arbitrators, leading to a perversion of democracy and justice. Under the guise of transnational law, millions of taxpayers’ dollars have been paid to multinational corporations, facilitating global inequality between
investor states and host states. Under the new ICS regime, corporations could, theoretically, challenge a country’s environmental, health, and public safeguards, putting many at risk. So where, then, does political economy, environmental justice, and human security fit into this matrix of market-oriented international trade?

We have alluded to varied dimensions of violence in other sections of this book, and we contend that ISDS and ICS constitute a particularly egregious form of institutional violence, inflicting ecological degradation and human misery on innocent civilians of southern hemispheric states. Consider the case of Texaco Petroleum/ Chevron Corporation v. the Republic of Ecuador. In 2009, Chevron Corporation filed a case against Ecuador before the Permanent Court of Arbitration in The Hague. Under the US-Ecuador bilateral investment treaty, the transnational company accused the Republic of Ecuador of causing damages to their operations. Such claims enabled the company to evade a multibillion-dollar court ruling handed down to the company for the pollution of the Amazon rainforest.

In order to lay bare the complexity of this case, we have to contextualize the activities of this multinational corporation. Near the close of the twentieth century, Ecuadorian citizens of the Oriente region sought a class action lawsuit in a United States federal court against Texaco. The complainants alleged that over the course of 26 years, the company polluted the rainforests and rivers of Lago Agrio, a canton of Ecuador, located in the Sucumbios Province, resulting in irreversible environmental damage due to the disposal of large quantities of toxic water in the country’s jungles. Approximately 30,000 residents—most of whom were members of indigenous communities residing in the country’s interior—suffered from increased rates of cancer as well as other health problems. Texaco, which was later absorbed by Chevron Corporation, denied these claims and the lawsuits were dismissed by the federal courts in 2002 on the legal grounds of forum non conveniens (FNC: the court decided the lawsuit would be better pursued in another legal forum). After an interminable legal battle between Ecuador’s indigenous peoples and Chevron, in November 2013, the country’s highest court ruled against Chevron, ordering the multinational corporation to pay $9.5 billion for cleanup and healthcare initiatives. Chevron, in turn, failed to comply with the sentence and accused the country’s indigenous and peasant communities of extortion.
Not long thereafter, Chevron invoked the tenets of ISDS to challenge Ecuador’s highest court, deferring to an investor-state tribunal, which relied on the terms of the bilateral investment treaty to order Ecuador to compensate Chevron for the costs associated with cleaning up the country’s jungles, in conjunction with the attendant legal fees incurred by Chevron in its investor-state claim. Under the ISDS, specifically, Chevron claimed that its rights were violated under the bilateral treaty with the host state and, most importantly, convinced the investor-state tribunal to order Ecuador to violate its own constitution by reversing a ruling upheld on appeal in its court system (Chevron Corporation and Texaco Petroleum Corporation v. The Republic of Ecuador 2018). The ramifications of this legal maneuvering are chilling, as Chevron convinced the investor-state tribunal that it was the victim of unjust treatment and the denial of justice. This, in turn, led to a decision under the ISDS to oblige Ecuador to pay the oil company $112 million in damages.

The case of Chevron v. Ecuador reveals the structural economic conditions giving rise to ICS/ISDS regimes. In our global economy, geo-economics and the geopolitics of oil serve as drivers of environmental destruction, destroying the environs of host states in the name of corporate greed, trade, investment, and profit. Consider, for instance, the claim made by Chevron that the company suffered “damages” at the hands of the Ecuadorian government. The demand for arbitration is merely an example of the architecture of transnational trade and an attempt for multinational companies to profit by exploiting host states’ constitutional sovereignty. The geo-economy is extremely competitive, featuring ruthless transnational, multinational energy corporations. These entities seek clever ways to evade environmental regulations so that they may protect their bottom line. Chevron, for example, is one of the leading transnational corporations across the globe, boasting an operative income of $134 billion and profits of close to $40 billion in 2017 (Amazon Defence Coalition 2018).

Chevron’s behavior can be interpreted as a direct result of macro, economic processes and global structural circumstances. Using a political economy framework, we can investigate the outward foreign direct investment (FDI) of Western multinationals, such as Chevron, and many other multinational corporations. According to Miller and Hicks (2016: 8), “the United States is the world’s largest single country source of outward FDI, providing 24% of the capital stock ($ 6.4 trillion)”. What is more, over one-quarter of the ISDS claims registered stem from
investments in the oil, gas, and mining sectors. This suggests that the petroleum geo-economy is extremely lucrative for corporations, opening limitless opportunities for these entities to flout the national environmental regulations of host states. This is substantiated by Ecuadorians who witnessed Texaco’s disregard for the ecological integrity of the Amazon; local regulations merely served as a hindrance to the company’s oil operations, which resulted in the illegal dumping of 30 billion gallons of waste and crude oil in the communities of many indigenous peoples. The use of ISDS by Chevron not only legitimizes the production of hazardous waste in Ecuador, it continues to drive the transnationalization of hazardous waste by enabling multinational corporations to evade internationally agreed-upon principles and standards of accountability and liability, placing environmental (and financial) burdens upon host states. ISDS are profitable and advantageous for transnational corporations investing abroad, especially if they do not meet their financial projections during ground operations (Falgueyrac 2019).

If environmental injustice encompasses disproportionate exposure of communities of color and the poor to pollution, we can identify a tapestry of ecoviolence and injustice crashing down on the local peoples of Ecuador. Let’s begin with the importance of Ecuador’s geography to the country’s indigenous peoples: for centuries, the original people of this Latin American country have relied on the region’s abundant vegetation and availability of natural resources, but during the course of Texaco’s extractive operations in Ecuador, numerous wells were drilled on these sacred lands, spanning an area equivalent to 430 hectares (Cabrera 2019). The most obvious way in which environmental justice can be used to theorize the protracted arbitration process between Chevron and Ecuador is through the principle of disproportionality, but disproportionality on two disparate dimensions. The first dimension explores the disproportionate concentration of environmental hazards in Latin America generally, and the other dimension explores the disproportionate use of ISDS instruments in Latin American countries as a way of maintaining the presence of transnational hazardous waste.

The extractive sector, for instance, takes advantage of ISDS, as numerous oil, gas, and mining companies have used this arbitration instrument in approximately 24% of known claims. According to Moore and Rocha (2019), the geographic distribution of ISDS cases is heavily concentrated in Latin America. In fact, LAC countries account for
28.6% of all known investor-state disputes across the globe. Specifically, Argentina, Venezuela, Mexico, Ecuador, Bolivia, and Peru represent 77.3% of the total sum of arbitration claims against LAC countries. Olivet et al. (2017: 2) state “LAC States have already had to pay foreign companies 20.6 billion USD, which could cover Bolivia’s budget for health and education for four whole years”. The global inequalities linked to ISDS are captured in the statistics recorded by the Trade Justice Network, an activist network dedicated to challenging ISDS regimes, which reveals that Ecuador is one of the most targeted countries in the world with respect to ISDS claims. Olivet et al. (2017) also address the global inequities of international treaties, and the attendant arbitration mechanisms, suggesting that Texaco and Chevron’s activities constitute racism. Their views are substantiated by Pablo Fajardo, an Ecuadorian lawyer, who has accused the American company of failing to recognize indigenous and poor peoples’ right to environmental justice (Rusche 2012).

This merely illuminates the global dimensions of environmental racism and the deliberate exclusion of Ecuador’s indigenous peoples from meaningful participation in arbitration rulings. The country’s former president, Rafael Correa, has accused Chevron of deliberately polluting the Amazon rainforest by dumping toxic waste in nearly 1000 pits. Correa has been very vocal in his lament over the nefarious practices of Chevron, stating: “the techniques they used here were against the law in their own country. They weren’t interested in the human beings who lived in the Amazon region. To me, it is a question of racism” (as cited in North 2015). Chevron’s behavior can be construed as a self-evident violation of environmental justice because the country’s indigenous peoples were not granted their rights to meaningful participation in the development, implementation, and enforcement of environmental laws.

The dimensions of environmental racism are further demonstrated when we reflect on what Feige (2008) refers to as Chevron’s environmental legacy in Ecuador, which entails approximately 16 million gallons of spilled crude oil and hundreds of toxic waste pits laced with cancer-causing polycyclic aromatic hydrocarbons. The communities that are forced to bear the brunt of these environmental hazards are Ecuador’s 30,000 poor who reside in the country’s rainforests. This marginalized group of people are literally pushed to the margins of Ecuador, having been displaced from their traditional lands due to extensive pollution, a process some scholars refer to as toxic/waste colonialism (Kitt 1995;
Reed 2009; Pratt 2011; Pulido 2000; Lawhon 2013). The distinct difference here, however, is the manner in which Chevron’s hazardous waste is transnationalized. While conventional definitions of toxic/waste colonialism entail the exportation of hazardous waste from developed nations to developing nations, it does not account for the exportation of the methods responsible for the production of hazardous waste. In the case of Chevron, mirrored in other cases such as Shell in Nigeria, the company had the technology to conduct their oil production activities in a sustainable manner but, for whatever reason, opted for practices which were deleterious to the environment and surrounding indigenous communities.

Let us turn to the potential human security issues surrounding the case of Texaco Petroleum/Chevron Corporation v. the Republic of Ecuador. When unpacking the implications of economic and food security, we see that Chevron’s generation of toxic waste during its operations in Ecuador, in conjunction with the invocation of ISDS, threatens Ecuador’s economic and food security in irreversible ways. Consider, for example, how the indigenous peoples’ livelihoods might be affected by hazardous waste. Economic security guarantees reliable social safety nets for citizens, but the effects of toxic waste have destroyed such safety nets, spiraling community members into a vicious cycle of desperation and poverty. The emergence of what is colloquially referred to as “toxic tours” exemplifies the long-term effects of toxic waste and its ramifications. (Sadly, Ecuador has numerous “toxic tours” for environmental activists and NGOs interested in witnessing the effects of ecological degradation firsthand—eerily reminiscent to the “conflict tours” that were available following conflicts in Sarajevo, Belfast, and elsewhere.) Extraction and deforestation campaigns continue unabated on indigenous lands, accelerating the decline of myriad resources upon which local communities rely. This facilitates the displacement of thousands of Ecuadorians who are forced to flee their lands in search of viable employment. For avid proponents of “modernization-at-all costs”, the delicious irony behind this economic displacement is the fact that members of indigenous peoples are forced to enter the wage economy, seeking work in the very industry which brought misery to their communities (Sarlieve 2019). Finally, the threats to economic security are evident in the ISDS claims brought against Ecuador, whose taxpayers’ economic security has been threatened by arbitration and the projected $112 million in damages the country owes to Chevron Corporation.
Food insecurity—that is, the inability to access basic foods—is also tied to economic security insofar as the contamination of water leads to a marked decline of game and fish, staples of local peoples’ diet. Many farmers, for example, have lamented that oil pollution has compromised agricultural productivity, affecting the food they consume, the water they drink, and the air they breathe. The severity of soil pollution has captured the attention of scientists who suggest that affected food supply chains violate a nation’s food security and necessitates global action from international organizations and actors (Sun et al. 2017). The imposition of ISDS, also, places a strain on the country’s ability to produce food for its citizens, forcing producers to turn to the exportation of food items which could have been used to sustain local, indigenous economies and communities.

Food security, naturally, is tied to the idea of health security. Defined as protection from infectious disease and the guarantee of personal access to personal health care, the health security of approximately 30,000 Ecuadorians was compromised by Chevron’s disregard for the country’s environmental regulations. The health statistics reveal that the oil company extracted thousands of cubic feet of gases, which led to the contamination of water ingested by local villagers and animals. Such contamination, inevitably, results in an uptick in the rates of cancer among individuals residing in contaminated regions. Specifically, for those living in close proximity to Chevron’s oil wells, cancer rates of 31 cases per 1000 people have been recorded. This is in stark contrast to the national average of cancer rates which is 12 cases per 1000 people (Cabrera 2019). This is, unequivocally, a public health crisis which demands a human security framework to prevent such catastrophic impacts on human health.

Environmental security refers to citizens’ right to a healthy living environment, and this right was clearly violated by the activities of Chevron and the company’s innovative use of ISDS during arbitration. For example, the oil extraction methods employed by the multinational corporation revealed the vulnerability of Ecuador’s natural biomes through the degradation of rivers, lakes, and the concomitant impacts on surrounding flora, fauna, and indigenous populations. Shaw (2013) views the irreversible degradation in Ecuador as evidence of ecocide, resulting in the destruction of ecosystems and harmful effects on the health and well-being of all species (White and Heckenberg 2014). Ecuador boasts bountiful biodiversity, including what could be thousands of undiscovered species of plants and animals which have been threatened by ecocide since
Chevron’s predecessor, Texaco, commenced oil production in the 1960s. Today, uncovered pools of toxic residue continue to plague Ecuador’s local ecological integrity, poisoning the water, soil, and air. The act of ecocide has been denounced by the country’s political figures. Rafael Correa, for instance, has argued that the ecocide caused by Chevron-Texaco was 85 times bigger than the oil spill in the Gulf of Mexico in 2010 (North 2015). ISDS merely compound the problem of ecocide, as these legal instruments, as mentioned above, have been used to evade cleanup responsibilities and environmental remediation initiatives, merely perpetuating the ecoviolence inflicted upon the people of Ecuador.

Personal security and community security are also affected by the hazardous waste produced by Chevron. While the former refers to physical safety from crime, the latter entails a strong sense of community membership and collective cultural identity. Both types of security have been violated through ecological disorganization (Lynch 2013) within contaminated regions. For example, the proliferation of toxic waste has created environmental refugees; these are local Ecuadorians fleeing their homes and communities as a result of the state of anomie which has pervaded local economies. Shaw (2013) suggests that the abandonment of local villages has opened a vacuum for other illegal activities in regions bordering Colombia. Lago Agrio, in particular, has been the site of increased drug trafficking, prostitution, and other forms of organized crime. This affects both personal security and community security by placing the residents of Lago Agrio in a very volatile position: communities have been fragmented and forced to separate seeking new livelihoods and means of sustenance. Moreover, many residents have formed chronic drug and alcohol addictions, further contributing to their economic marginalization and vulnerability (North 2015).

The final dimension of security which warrants analysis from a human security perspective is political security, which refers to freedom from state oppression. While it is clear that Ecuador vehemently opposed Texaco and Chevron’s production of hazardous waste, the use of ISDS can be construed as a threat to political security: the use of this arbitration instrument clearly violates the sovereignty of Ecuador as the country’s national courts lost their capacity to administer justice as a result of the economic and political pressure applied by the Permanent Court of Arbitration. The inherent bias of the ISDS regimes in Latin American countries is also cause for concern, as the disproportionate use of ISDS in these host states reveals an unjust global system of foreign investment. Through the use
of ISDS, Chevron used its economic power to buy impunity and delay environmental remediation in Lago Agrio. Bilateral investment treaties placed corporate interests above national priorities in the case of Texaco Petroleum/Chevron Corporation v. the Republic of Ecuador, disfiguring global democracy and paving the way for transnational corporations to threaten the political security of nations, availing themselves of special privileges and rights as foreign investors.

**Conclusion**

This chapter has touched on several factors that are apparent in the complex web of environmental injustice and human insecurity that hazardous waste disposal has created over the preceding century. While it has been a magnet for organized crime, and much of the international trade in hazardous waste reflects the larger North-South economic disparity, it is just as evident that northern corporations in the resource extraction sector, particularly mining, oil, and gas, are willing to use multilateral mechanisms to ensure they can pursue profit despite, or escape responsibility for, the production of toxic waste at the site of investment. There is a very broad landscape of hazardous waste exposure to vulnerable populations in both the southern and northern hemispheres; we did not have the space to properly elucidate concerns around microplastic waste, radioactive waste, electronic waste, biohazardous medical waste, waste associated with recycling plastic, or other forms of problematic waste disposal that often involves the crossing of borders either directly or through investment. China’s decision to stop accepting the world’s plastic waste for recycling, for example, is having serious ramifications for the global movement to limit plastic waste and to reduce unsafe practices related to plastic recycling, including the growth of more illegal imports and arrests of people trying to profit from the situation in Malaysia and elsewhere. These developments are not welcome if we want to minimize the harm caused by pollution in the future, but relying on China to recycle the world’s waste was a result of marketplace decisions without any guidance from a global governance perspective; conceptualizing the pollution of the commons (oceans, lakes, air) as a form of transnational ecoviolence may help us formulate a clearer understanding of our concerns.
We turn next to an examination of one the most pernicious global environmental problems, overfishing and illegal, unreported, and unregulated fishing. As with the transmission and improper storage of hazardous waste, overfishing is often the result of careless decisions taken thousands of miles away from the site of immediate and even medium-term impact, with grave repercussions for the environmental justice and human security of those most affected.

**Notes**

1. NIMBY = Not In My Back Yard.
2. See [https://www.cnn.com/2019/04/26/asia/malaysia-plastic-recycle-intl/index.html](https://www.cnn.com/2019/04/26/asia/malaysia-plastic-recycle-intl/index.html).

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