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"THERE'S NOTHING TO PROHIBIT SENDING THIS MATERIAL OVERSEAS":

HOW U.S. LAW EXCLUDES INTERNATIONAL VICTIMS IN THE GROWING EPIDEMIC OF ELECTRONIC WASTE EXPORTATION

Jonathan Becker[*]

This Note analyzes the emerging, and under-documented litigation field of illegal dumping of electronic waste (e-waste). U.S. federal courts are inadequately prosecuting and failing to provide avenues for both criminal and civil restitution for international victims. The Resource Conservation and Recovery Act (RCRA), the primary legislation on e-waste recycling, protects only state interests and offers little relief to private actors. Under RCRA, which has both criminal and civil statutes, the exportation of e-waste is lightly monitored and is only scorned under specific circumstances, mainly if the receiving country has not authorized it. Further, most prosecutors elect to bring wire fraud charges under Title 18, the federal Criminal and Criminal Procedure law, rather than RCRA. Therefore, restitution is only granted to companies, not international victims. Using the three major e-waste criminal cases —Executive Recycling, Intercon Solutions, and Total Reclaim— as steppingstones to begin the discussion on international e-waste dumping, this Note demonstrates that victims are only narrowly provided relief, and international victims are virtually unable to seek relief. This Note focuses on administrative action to provide proper prosecutorial direction and critique legislative ignorance of modern environmental issues. In addition, this Note emphasizes international solutions to the growing waste epidemic and discusses how the U.S. can more effectively use these structures to prosecute e-waste smuggling and environmental waste smuggling at large.

[*] J.D. Candidate, James E. Rogers College of Law, Class of 2023. First, thank you to my mentors and those in Public Defense who fight the good fight every day. Your courage and passion in facing an almost insurmountable system drives me every morning I wake up. Thank you, Mom and Dad, for pushing me to always challenge myself and find another hill to climb, and thank you to my sisters and partner for always being there to support me. Also, thank you to AJELP and anyone willing to read my Note. Without everyone's critical and excellent feedback, this paper would be collecting dust. Lastly, thank you to my Note mentor Jason Kreag for your guidance and time.

I. International E-Waste handling in The U.S.

A. Introduction

On April 23rd of 2019, Craig Lorch and Jeff Zirkle, CEOs of Seattle-based company Total Reclaim, were sentenced to a combined 28 months in prison and ordered to pay $945,663 in restitution.[1] Prosecutors charged Lorch and Zirkle with one count of conspiracy to commit the offense of wire fraud under Title 18.[2] Their crime? Exporting millions of cathode-ray tube (CRT) monitors—analog display devices most commonly used as screens for computers and televisions for most of the 20th century—and other units of electronic waste (e-waste) overseas to Hong Kong to be recycled and scrapped for parts. Ideally, these electronics are processed

[1] U.S. Att'y Off., *Owners of Northwest's Largest Electronics Recycling Firm Sentenced to Prison for Wire Fraud Conspiracy* (2019), https://www.justice.gov/usao-wdwa/pr/owners-northwest-s-largest-electronics-recycling-firm-sentenced-prison-wire-fraud.

[2] Indictment, U.S. v. Lorch, No. 2:18-cr-00277-RAJ (2018) W.D. Wash. (available at https://resource-recycling.com/recycling/wp-content/uploads/sites/3/2018/11/TotalReclaim-indictment.pdf) (hereinafter Indictment).

via being broken down into metals, electronics, and plastics; these raw materials are then sent to other proper recycling and manufacturing facilities.[3] However, the Hong Kong laborers given Total Reclaim's e-waste were slowly being poisoned by the cheap process of burning the waste and scrounging for rare parts after the fact.[4] These were Chinese laborers with minimal to no safety regulations in place and no knowledge of the harmful effects of this processing.[5] In a recorded interview, some of these Hong Kong laborers even stated that they did not know the CRT monitors had dangerous chemicals within them, nor did they know they should be wearing proper equipment.[6]

The CRT Monitor was the gold-standard technology for monitors for the brunt of the entire 20th century.[7] Sony sold approximately 16 million CRT monitor parts every year in the mid-1900s.[8] These monitors involved the use of a vacuum tube as a display screen covered with phosphors which immitted light when struck.[9] This note will focus on the legal rather than scientific significance but the importance of the CRT Monitor for our purposes lies within both this vacuum tube (the cathode) and the phosphors used within. Cadmium, a toxic substance, was a common manufacturing chemical used in the phosphors of the monitor, and CRTs could contain up to four to eight pounds of lead within.[10]

The CRT monitor recycling process is a process of breaking down and separating.[11] Housed in a large plastic shell, a typical CRT unit contains elements of glass, electronic chips, wiring, plastic, and chemicals.[12] Recyclers separate the parts of the computer into bins to send these parts out later to other, more specialized, recycling facilities.[13] A CRT monitor, on its own, contains too many mismatched metals and plastics to be effectively recycled as-is. Each monitor also contains glass tubes, which hold a phosphorous coating that requires specialized equipment to effectively remove.[14] After all of the parts are separated, they are transported to other recycling facilities to be further broken down or smelted into reusable materials to be reentered into the manufacturing process.

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[3] Colin Lecher, *American Trash: How an E-waste Sting Uncovered a Shocking Betrayal*, THE VERGE (Dec. 4, 2019), https://www.theverge.com/2019/12/4/20992240/e-waste-recycling-electronic-basel-convention-crime-total-reclaim-fraud.
[4] *Id*.
[5] *Id*.
[6] *The Circuit: Tracking Down America's Electronic Waste* (PBS television Broadcast May 12, 2016) (available at https://www.pbs.org/video/kcts-9-documentaries-circuit/).
[7] Amanda Holland, *What Is a CRT Monitor?,* EasyTechJunkie, https://www.easytechjunkie.com/what-is-a-crt-monitor.htm.
[8] *Press Releases - 21 December 1995,* Toshiba.
[9] *Cathode Ray Tube*, PCMAG, https://www.pcmag.com/encyclopedia/term/crt.
[10] Chris Emery, *The hazards inside the tube*, BALT. SUN (Dec. 22, 2007), https://www.baltimoresun.com/news/bs-xpm-2007-12-23-0712230213-story.html (hereinafter "*Toxic TVs*").
[11] James Kao, *How Are CRT Monitors Recycled?*, GREENCITIZEN, https://greencitizen.com/how-are-crt-cathode-ray-tube-monitors-recycled/ (last visited Mar. 1, 2022) (hereinafter "*CRT Monitors*").
[12] *Id*.
[13] *Id*.
[14] *Id*.

While CRT monitor recycling is quite common, CRT monitor pollution is a growing concern and will only increase in time.[15] Consumers have replaced the CRT monitor with LCD screens, which provide a clearer and sharper image and are much less cumbersome.[16] As a result of consumer demand and preference, the CRT monitor is no longer manufactured, and its use has dwindled as a piece of technology of the yesteryears. Now, CRT monitors sit in junkyards and trash facilities, slowly decaying.

The indictment of Lorch and Zirkle lists their crime as the enticing of customers "to pay Total Reclaim fees to recycle electronic waste . . . by falsely representing that Total Reclaim would dispose of the LCD monitors . . . in accordance with responsible recycling practices."[17] The alleged victims of Total Reclaim's wire fraud were corporations who expected to use Total Reclaim's services to recycle CRT monitors in a clean and eco-friendly manner. This Total Reclaim did not do, though they heavily advertised as such. The scheme of the wire fraud hinged on Total Reclaim purposely lying to corporations using their service to garner business, make a profit off the cheap and environmentally dangerous methods of processing used to recycle these monitors, and not inform any customer of the reality of what Total Reclaim was doing. Companies believed that they were paying Total Reclaim to take their hazardous e-waste and recycle it in accordance with federal and state law.[18] However, Total Reclaim failed to do this. In the process, Total Reclaim saved themselves an estimated 2.6 million dollars in profits through their negligence.[19]

The environmental damage arose from Total Reclaim's mishandling of the CRT monitors, monitors that often leaked and exposed many to the harm of the dangerous chemicals present within. Of note are the lead and mercury stored within these monitors that, if not recycled properly, can create public health issues like increased blood lead levels in disposal sites and damage to multiple organs.[20] The discovery was not found by the United States, but by the Basel Action Network (BAN), a private journalism coalition that conducted their own investigatory work.[21] This coalition conducted the investigation that led to all three international e-waste cases, and points to the lack of oversight and funding the U.S. has available to pursue investigations of this type.

Eventually, the CEOs were prosecuted for defrauding their customers in this matter, and restitution was given to the multiple companies listed as victims.[22] When asked why the prosecutor elected wire fraud over any other appropriate

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[15] Vanessa Forti, et al., UNITED NATIONS INST. FOR TRAINING AND RSCH., THE GLOBAL E-WASTE MONITOR 2020: QUANTITIES, FLOWS, AND THE CIRCULAR ECONOMY POTENTIAL. 25 (2020), https://ewastemonitor.info/gem-2020/ (hereinafter "*E-waste Monitor"*).
[16] *Toxic TVs, supra* note 10.
[17] *See* Indictment at 18.
[18] Lecher*, supra* note 3.
[19] U.S. Att'y Off*., supra* note 1.
[20] Huo et al., *Elevated Blood Lead Levels of Children in Guiyu, an Electronic Waste Recycling Town in China*, 115 ENV'T. HEALTH PERSP. 7 (2007); Eric V. Hull, *Poisoning the Poor for Profit: The Injustice of Exporting Electronic Waste to Developing Countries,* 21 DUKE ENVTL. L. & POL'Y F. 1, 32 (2010).
[21] Lecher, *supra* note 3.
[22] Indictment*, supra* note 2.

statute, he responded that the U.S. does not "have a federal law that specially prohibits sending this material overseas."[23]

Total Reclaim was, and still is, a company in the growing field of international e-waste recycling and dumping. Many international actors, like China and Ghana, have struggled for years with importation of this waste and have accepted substandard levels of usable recyclable material, resulting in the poisoning of laborers.[24] Electronic waste dumps, also "once concentrated in China, are emerging in Nigeria, Ghana, Pakistan, and India."[25] Also growing is prosecution from the Environmental Protection Agency (EPA) for corporations like Total Reclaim who conduct international cost-cutting and often illegal e-waste dumping. However, the U.S. has only prosecuted three improper recycling international e-waste cases, and all three led to Title 18 federal wire fraud charges.[26] While criminal charges under Title 18—Crime and Criminal Procedures—are supported by both legislative statute and administrative agency, the EPA's decision to prosecute under Title 18 has limited victim restitution and hinders environmental progress through its charges. The fact remains, as an administrative duty, that EPA can charge and prosecute crimes at their discretion. The issue then is how to deal with the reality that Title 18 is inadequate to address American actors who commit environmental and humanitarian crimes outside of the U.S.

This paper will focus on the only three U.S. criminal cases that handled international environmental crime prosecutions, as well as cases focusing on Resource Conservation and Recovery Act's (RCRA) civil statutes. Another focus will be on international laws like WEEE, the Basel Convention, and the Indian Environmental court, which specifically address e-waste dumping and enact policies to allow individuals to pursue restitution. The result will be a discussion on how U.S. courts and legislatures can use international law to guide their own policies and adopt a more fundamentally sound strategy for combating e-waste dumping.

Part I will introduce e-waste history and background, then focus on the national and international effects of the vast amounts of waste the U.S. creates every year and how the U.S. regulates this waste. Since the U.S. is one of the top creators of e-waste, its laws are paramount to understand how to effectively take charge and create solutions to e-waste dumping.[27] The international community has both acknowledged and engaged in efforts to control the rise in this sort of pollution. However, the U.S. has been reluctant to join international efforts and has instead pushed for a model that places the consequences of pollution on private actors and individuals. This results in a model that is beneficial only to e-waste producers and limits the resources to state agencies that must combat this epidemic.

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[23] Lecher, *supra* note 3.
[24] Tyrone Siu, *World's largest electronics waste dump in China*, THOMSON REUTERS (July 6, 2015) (hereinafter "*Waste Dump*"); *Hull*, *supra* note 20.
[25] Huo et al., *supra* note 20 at 30.
[26] *Lorch* ; U.S. v. Exec. Recycling, Inc., 953 F. Supp. 2d 1138 (D. Colo. 2013); Indictment, U.S. v. Brundage, 1:16-cr-00812 (2019) N.D. Ill. (available at https://resourcerecycling.com/resourcerecycling/wp-content/uploads/2016/12/Indictment_smaller.pdf).
[27] *E-waste Monitor*, *supra* note 15.

Part II will focus on why criminal statutes, as opposed to civil statutes, are appropriate and effective in ensuring that corporations who pollute are brought to justice and that victims are restituted. Concurrently, the paper will criticize the way most environmental prosecutions are conducted, and how the three international e-waste smuggling cases provide an argument for readjusting prosecutorial initiatives and recycling statutes to effectively counteract the environmental harms done by this ineffective recycling. Title 18 prosecutions remain a focal point for environmental crime prosecutions, and while these initiatives bring criminals to justice, the limited scope of Title 18 statutes provide little to no real restitution for true victims, often laborers from developing nations who are left to deal with this waste. Instead, these innocent people that are fundamentally harmed are often unable to receive restitution. Concomitantly, the criminal statutes under RCRA also provide unclear guidelines for companies shipping out their waste and often place the burden of the consequences of this waste on the international community.

Lastly, Part III will attempt to aggregate U.S. federal law with international law to develop strategies for combating future e-waste smuggling and other types of international environmental crime that stems from the US. With a focus on the recent initiatives of the United Nations, the Basel Action Network, and a look into the National Green Tribunal of India and Hawaii's Environmental Court, the focus will be on examining strategies that are effective and how the U.S. can integrate these initiatives with currently-enacted law. Rather than simply stating the law, this Note will home in on fundamental layers that the U.S. could adopt to create more clear and effective guidelines moving forward.

B. Historical Context

The international community has tried to regulate e-waste through the adoption of both the Basel Convention (Basel) (and as a result, the BAN Amendments) and the Waste Electrical and Electronic Equipment Directive (WEEE).[28] Both initiatives are designed to help regulate waste transported over international borders and, in some sense, hold nations accountable for their waste transportation. Basel was designed to address the issue of transnational border importation of waste and created systems for countries to effectively regulate and monitor waste trafficking with a focus on fostering waste transportation where "it is the best environmental solution, and . . . disposal [is] done in an environmentally sound manner." [29] Conventions under the United Nations (UN) are particularly powerful as they

[28] United Nations Environment Programme, Rep. of the Governing Council, 14th Sess., June 8-19, 1987, U.N. GAOR, 42nd Sess., Supp. No. 25, A/42/25, at annex I, Dec. 14/30 (1987) (hereinafter "A/42/25"); European Comm'n, WEEE Directive (2012), https://environment.ec.europa.eu/topics/waste-and-recycling/waste-electrical-and-electronic-equipment-weee_en.

[29] A/42/25, *supra* note 28; Jennifer R. Kitt, *Waste Exports to the Developing World: A Global Response*, 7 GEO. INT'L ENVTL. L. REV. 485, 486-88 & 493-94 (1995); *CRT Monitors*, *supra* note 11, at 494-96.

legally bind those who sign the treaty to international law.[30] While Basel provided a good step in international waste treaties, the U.S. so far has not adopted Basel.[31] Instead, the U.S. exercises its right to enter bilateral and multilateral agreements of waste disposal with other countries.[32] Rather than hold itself to a set of laws and regulations about its waste disposal, the U.S. chooses a case-by-case strategy to dispose of waste. While effective in the short term, this strategy does not encompass a global chain of recyclers to be effective and consistent in waste reduction.

The U.S. began regulating waste with the adoption of RCRA in 1976.[33] The statute was designed to help regulate domestic transportation of the country's waste products, particularly solid and hazardous materials.[34] The push for RCRA, therefore, was to "minimize the present and future threat to human health and the environment" by drafting standards of waste facilitation with an eye towards eco-friendly initiatives.[35] All these initiatives were focused on a national standard for waste, homing in on activity only within U.S. borders, and international shipments of this waste provided an open field for corporations to dump waste internationally, often to countries that lack the proper capacity for such waste.[36]

While a much more modern issue than RCRA was originally designed to deal with, e-waste is not a new phenomenon. Since the early 2000s, the international community has convened to find solutions in dealing with old and discarded electronics, starting with mobile phones.[37] However, there is confusion in U.S. jurisprudence on the definition of "e-waste"—as the statutory reference to the term is ambiguous.[38] Under RCRA, there is no official definition of e-waste and often, the particularly damaging chemicals in e-waste products are not mentioned as hazardous, including the lead and mercury contained within.[39] Outside of RCRA is a similar struggle to define e-waste. For example, California's statute regarding the matter is unclear as to whether toaster ovens and microwaves fall under e-waste regulation, despite their electronic nature.[40] These products are known to contain aluminum, plastics, and small valuables such as gold, silver, and copper, which

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[30] *See* PREAMBLE OF BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL, Mar. 22, 1989, 28 I.L.M. 657; 1673 U.N.T.S. 125 (1989).
[31] *Parties to the Basel Convention*, http://www.basel.int/?tabid=4499 (last visited Aug. 4, 2021)..
[32] Rebecca A. Kirby, *The Basel Convention and the Need for U.S. Implementation*, 24 GA. J. INT'L & COMP. L. 281, 296, 282 (1994).
[33] 42 U.S.C. § 6902(a)(8).
[34] *Id*.
[35] 42 U.S.C. § 6902(b).
[36] Laura A. W. Pratt, *Decreasing Dirty Dumping? A Reevaluation of Toxic Waste Colonialism and the Global Management of Transboundary Hazardous Waste*, 35 WM. & MARY ENVTL. L. & POL'Y REV. 581, 615-617 (2011) (hereinafter "*Dirty Dumping*").
[37] BASEL CONVENTION, *Mobile Phone Partnership Initiative* (2002), http://www.basel.int/Implementation/TechnicalAssistance/Partnerships/MPPI/Overview/tabid/3268/Default.aspx.
[38] U.S. v. Richter, 796 F.3d 1173, 1183 (10th Cir. 2015) (*see* 6 Colo. Code Regs. § 1007-3:273.2).
[39] 40 C.F.R. §§ 261.41, 261.33.
[40] *See E-waste More Information,* Dep't of Toxic Substance Control, https://dtsc.ca.gov/e-waste-more-information/ (last visited Aug. 4, 2022).

serve as threats to water systems and motivations for developing countries to sift through this waste.[41]

CRT Monitors—often associated with e-waste and older televisions—are one of a few electronic waste objects regulated by the federal government, but their definition as a solid, hazardous, or excluded material depends on how they are being disposed of and can be considered an excluded non-waste if exported in a certain fashion.[42] The exclusion of waste regulation also extends to households and small businesses who are exempt from regulations of electronic waste.[43] The requirements for this exclusion include being defined as a household, or producing less than 220 pounds of waste per month.[44] As such, e-waste is rendered as a colloquial term with no set standards for its regulation. With e-waste becoming one of the fastest-growing sources of waste in the world,[45] RCRA's fundamental lack of clear and precise wording almost certainly will result in exponential damage to the environment.

In summary, international law has attempted to hold the world accountable for international waste disposal but can only succeed when countries acquiesce to its rules. In separating itself from the world the U.S. has chosen to regulate disposal via RCRA and independent negotiating with individual countries. Private international exporters, therefore, live in a lacuna of regulation that leaves responsibility at the door of the national border. Outside of the previously mentioned bilateral international agreements, it is unclear what anti-pollution standard the U.S. holds these private exporters to. Also, harm only appears to come to these exporters when they harm anyone only within the borders of the U.S.. As such, legislative action needs to be taken to enhance criminal statutes for international crimes and empower individuals with remedies and paths for restitution to get there.

II. RCRA is Inadequate to Prosecute International Waste Trafficking

It is first important to understand why the EPA rarely prosecutes under RCRA and why they have chosen not to in international e-waste smuggling cases. RCRA is designed to "reduce or eliminate the generation of hazardous waste and to minimize the present and future threat to human health and the environment created by hazardous waste." [46] While a significant amount of RCRA is built with intranational transportation of waste in mind, it does regulate some levels of

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[41] Bhawana Jain et al., *Plastics and e-Waste, a Threat to Water Systems*, 54 ENVTL. CHEMISTRY FOR A SUSTAINABLE WORLD 119, 121 (2021); *See Ghana: Digital Dumping Ground* (PBS Frontline/World television broadcast June 16, 2009).

[42] 40 C.F.R. § 261.1(a).

[43] *See* Id. § 261.4(b)(1) (2004) (providing household exclusion); *See also* 81 FR 85732-01 (2016) (providing exemption for companies producing less than 220 pounds of hazardous waste per month).

[44] *Id*.

[45] Vanessa Forti, *Global Electronic Waste Up 21% in Five Years, and Recycling Isn't Keeping Up*, OUR WORLD (July 17, 2020), https://ourworld.unu.edu/en/global-electronic-waste-up-21-in-five-years-and-recycling-isnt-keeping-up.

[46] Crandall v. City & Cnty. of Denver, Colo., 594 F.3d 1231, 1233 (10th Cir. 2010) (quoting 42 U.S.C. § 6902(b)) (internal citation omitted).

international waste. All hazardous waste that leaves for international disposal facilities must, as a matter of course, be exported with the written consent of the named country, even if the named country does not have the resources or capabilities to dispose of the waste properly.[47] In other words, whether a country can properly dispose of these materials is irrelevant if both countries agree to the terms. Because RCRA is effectively void when two countries agree to the transportation of materials, the EPA has no authority to stop dangerous shipments, even if they are aware of the possible damages as a result of them.[48]

RCRA's criminal statute about e-waste states that someone smuggling e-waste is criminally liable when the person:

> [K]nowingly generates, stores, treats, transports, disposes of, exports, or otherwise handles any hazardous waste or any used oil not identified or listed as a hazardous waste . . . and [] knowingly destroys, alters, conceals, or fails to file any record, application, manifest, report, or other document required to be maintained or filed for purposes of compliance with regulations.[49]

A person may be criminally liable if they:

> [K]nowingly export a hazardous waste identified or listed under this subchapter (A) without the consent of the receiving country or, (B) where there exists an international agreement between the U.S. and the government of the receiving country establishing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal of hazardous wastes, in a manner which is not in conformance with such agreement.[50]

The requirement that potential criminals act "knowingly" and the overall ambiguity of RCRA provide a significant barrier to holding people accountable. Because cases have only established a *mens rea* approach with the use of the term "knowingly," it only applies where the defendant "knew" they were disposing of something hazardous, where the defendant must first know the chemical was hazardous.[51] This requirement has been extended to the defendant having "general awareness" of performing acts proscribed by RCRA.[52]

Switching to prosecutorial discretion, the EPA in the early 2000s also chose to limit criminal prosecutions where the charged company has conducted discovery and disclosures "in good faith and the entity adopts a systematic approach to

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[47] 42 U.S.C. § 6938(a)(1)(B).
[48] Jeffrey B. Gracer, *Protecting Citizens of Other Countries, in* THE LAW OF ENVTL. JUSTICE: THEORIES AND PROCEDURES TO ADDRESS DISPROPORTIONATE RISKS 777 (Michael B. Gerrard & Sheila R. Foster eds., 2008).
[49] *See* 42 U.S.C. § 6928(d)(4).
[50] Id. § 6928(d)(6).
[51] U.S. v. Laughlin, 10 F.3d 961, 996 (2d Cir. 1993).
[52] U.S. v. Cover-It, Inc., 2000 WL 1678781 (2d Cir. 2000) (government need only prove that the defendant had a "general awareness that he [was] performing acts proscribed by" RCRA) (citing *Laughlin*, 10 F.3d at 965).

preventing recurrence of the violation." [53] Rather than charge them with any form of criminal negligence, the EPA focuses on rehabilitation measures to ensure future compliance. Criminal liability will therefore only be pushed in circumstances where a corporation does not play fair and continues to break the law. Even in the modern Biden administration, the EPA has chosen to enact shut-down orders for corporate pollution with a focus on compliance, rather than criminal prosecutions.[54] This slap on the hand ignores past harm done to victims and pushes for a style of management where corporations, on their first offense, can make a damaging mistake and correct it for the future.

Nevertheless, the EPA has stated that "entities remain criminally liable for violations that result from conscious disregard of or willful blindness to their obligations under the law, and individuals remain liable for their criminal misconduct."[55] However, a significant portion of environmental criminal prosecution is limited to Title 18 prosecution.[56] About 46 percent of prosecutions by the EPA between 2005 and 2014 were Title 18 prosecutions, while only nine percent were charged under RCRA statutes.[57] In total, the EPA only prosecutes about 20 individuals per year for crimes in violation of RCRA.[58] In 2021, EPA only listed two prosecutions that entire year.[59] This can be attributed to a couple factors: the increase of regulations and corporate oversight in EPA prosecutions, as new initiatives have pushed for more stringent regulations on how corporations dispose of waste;[60] and second, the time and resources that go into environmental criminal cases and the limited budget of the EPA.[61] As a result of these factors, the EPA faces numerous statutory and practical obstacles to environmental criminal prosecutions on an international level. If criminal remedies do not work for addressing victim harm, a question arises whether civil suits can offer protection instead. To make matters worse, the civil function of RCRA is heavily limited in scope and excludes international victims.

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[53] *Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations*, 65 Fed. Reg. 19618 (Apr. 11, 2000) (hereinafter "*Self-Policing*").

[54] *E.g.*, *EPA Uses Emergency Powers to Protect St. Croix Communities and Orders Limetree Bay Refinery to Pause Operations*, U.S. Envtl. Prot. Agency, https://www.epa.gov/newsreleases/epa-uses-emergency-powers-protect-st-croix-communities-and-orders-limetree-bay-refinery (last visited Mar. 3, 2022).

[55] *Self-Policing, supra* note 53.

[56] David M. Uhlmann, *Prosecutorial Discretion and Environmental Crime Redux: Charging Trends, Aggravating Factors, and Individual Outcome Data for 2005-2014*, 8 MICH. J. ENVTL. & ADMIN. L. 297, 314 (2019).

[57] *Id*.

[58] *Id*.

[59] *Summary of Criminal Prosecutions*, U.S. Envtl. Prot. Agency, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm (last visited Mar. 1, 2022) (use search bar to locate prosecutions within a certain year and a certain statute).

[60] *See generally* U.S. Envtl. Prot. Agency, RCRA'S CRITICAL MISSION & THE PATH FORWARD (June 2014), https://www.epa.gov/rcra/resource-conservation-and-recovery-act-critical-mission-path-forward.

[61] EPA BUDGET IN BRIEF U.S. ENVTL. PROT. AGENCY AT 61 (2020), https://www.epa.gov/sites/default/files/2020-02/documents/fy-2021-epa-bib.pdf.

III. RCRA Civil Suits Exist For a Narrow Population that Explicitly Excludes International Victims

RCRA allows for citizen suits in three separate categories, albeit with exceptions.[62] One category allows parties to sue against administrators of waste for "violation of any permit, standard, regulation, condition, requirement, prohibition, or order which has become effective under [RCRA]."[63] RCRA suits are also only for domestic conduct.[64] The civil penalties of RCRA do not apply where waste has been shipped abroad to other countries.[65] The second category applies to the Administrator of the EPA, "where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator."[66] While there may be e-waste smuggling cases with the Administrator of the EPA, the author is not aware of any and the focus of this Note is not on such violators of the law. These two categories are limited in their application so international victims have the clearest opportunities to pursue civil litigation under 42 U.S.C. § 6972(a)(2), wherein a party may pursue suit against any transporter, disposer, or other agency "who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment."[67] However, courts have held that international victims cannot sue under this provision. While international victims and waste shipped abroad no longer fall under RCRA, exploring RCRA's limitations on private citizens is still useful. These limitations have detrimental effects and obstacles to victims wishing to pursue litigation, unless the U.S. abides by an international law that governs such shipments of waste.

RCRA litigation has only narrowed the scope of what groups can sue under it, and international victims have absolutely no relief therein. Two court cases demonstrate how narrow civil restitution can be under RCRA. Technically, any person may commence a civil action under RCRA; however, the civil action must arise from an ongoing action.[68] In *Meghrig v. KFC Western, Inc.*, a restaurant was ordered to clean up petroleum contamination discovered on its property and filed a civil suit against the previous owner whose negligence created the spill.[69] After cleaning up the petroleum, KFC had hoped to recoup its costs after the cleanup, suing under the civil portion of RCRA. However, the Court declared that Congress did not intend "for a private citizen to be able to undertake a cleanup and then recover its costs under RCRA."[70] While RCRA is a "comprehensive environmental statute that governs the treatment, storage, and disposal of solid and hazardous

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[62] 42 U.S.C. § 6972(a)(1-2).
[63] *Id*.
[64] *See* Amlon Metals, Inc. v. FMC Corp., 1991 WL 202658 (S.D.N.Y. 1991) (demonstrating that RCRA does not apply extra-nationally).
[65] *Id*.
[66] 42 U.S.C. § 6972(a)(2).
[67] Id § 6972(a)(1)(B).
[68] DMJ Associates, L.L.C. v. Capasso, 288 F. Supp. 2d 262, 270 (E.D.N.Y. 2003).
[69] Meghrig v. KFC W., Inc., 116 U.S. 1251, 1252 (1996).
[70] *Id*. at 487.

waste," it is "not principally designed to effectuate the cleanup of toxic waste sites or to compensate those who have attended to the remediation of environmental hazards."[71] RCRA's focus on bringing a civil action against anyone "who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present *an imminent and substantial endangerment* to health or the environment" meant that the danger must meet the standard of imminent and substantial.[72] The court opined that civil suits were not impossible for past clean-up, but the past clean-up must be in response to a threat that is still imminent.[73]

A later court case, *Kara Holding Corp. v. Getty Petroleum Mktg., Inc.*, further clarified that though the impact of the threat may not be felt until later, the threat of this impact must be currently present.[74] The burden of proof under RCRA is defined as "an imminent and substantial endangerment to health or the environment."[75] Courts and defendants of these civil suits have argued that failure to prove this hazardous level of contamination can be sufficient to beat a civil suit even if the cleanup is not complete.[76] Consequently, RCRA does not allow private citizens to sue for relief for environmental damages, and the courts' interpretations of the statute have set the high bar of substantial and imminent danger for plaintiffs. This high bar results in plaintiffs being unable to recover "costs already incurred . . . to respond to an environmental hazard of the defendant's creation," even amidst cleanups.[77]

The question under RCRA, therefore, is whether dismantling electronic devices is an ongoing, present, imminent, and substantial endangerment to international laborers handling these devices. As an example, mercury is present within workers at an e-waste shop in Thailand.[78] Sweden too has acknowledged that even formal recycling of e-waste leads to increased exposure to toxic metals among its workers.[79] The object of pollution itself becomes dismantled and discarded during the process of e-waste dismantling. Further, it may become difficult to prove that the cause of harm was directly a result of the e-waste smugglers, especially when these e-waste landfills becoming overburdened with waste objects from multiple companies. Under RCRA, plaintiffs must demonstrate that the defendant "was or is a . . . transporter of solid or hazardous waste."[80] If shipments are not caught, and boxes lack labeling, then the burden of proof becomes difficult, especially since

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[71] *Meghrig*, at 484.
[72] *Id.* (emphasis added); *See also* 42 U.S.C. § 6972(a)(1)(B).
[73] *Meghrig*, at 480.
[74] Kara Holding Corp. v. Getty Petroleum Mktg., Inc., 67 F. Supp 2d 302, 310 (S.D.N.Y. 1999).
[75] 42 U.S.C. § 6972 (a)(1)(B).
[76] Price v. U.S. Navy, 39 F.3d 1011 (9th Cir. 1994); *See also* Tilot Oil, LLC v. BP Prod. N. Am., Inc., 907 F. Supp. 2d 955 (E.D. Wis. 2012).
[77] *Kara*, 67 F. Supp. 2d at 309.
[78] Somsiri Decharat, *Urinary Mercury Levels Among Workers in E-waste Shops in Nakhon Si Thammarat Province, Thailand*, 51 J. PREVENTATIVE MED. PUB. HEALTH 196 (2018), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6078913/pdf/jpmph-51-4-196.pdf.
[79] Anneli Julander et. al., *Formal recycling of e-waste leads to increased exposure to toxic metals: An occupational exposure study from Sweden*, 73 ENV'T INT'L 243 (2014).
[80] Bologna v. Kerr-McGee Corp., 95 F. Supp. 2d 197, 202 (S.D.N.Y. 2000).

RCRA requires a nexus between the defendant and the solid waste.[81] Cases have even held that the expectation that "incidents [involving environmental regulation violations] will continue to occur" by a party is insufficient to establish imminent harm.[82] Transportation is enough to prove some level of liability under RCRA but the victims bear the burden of proof. Additionally, a victim whose burden fails if the harm is already over, regardless of future possibilities. These standards demonstrate the complexities in applying RCRA to real-world problems and at every stage of the disposing process.

The arduous task of proving imminent and substantial harm, therefore, falls outside of the scope of U.S. jurisdiction and relies on non-government or international actors to study and prove the harm that is being caused. China itself has struggled for years to eliminate its e-waste facilities, ranking as the largest importer of e-waste.[83] Though legislative efforts by Chinese officials attempt to lower the importation of waste, businesses and international communities make substantial profits and reap benefits from this importation.[84] Civil suits and criminal suits are also expensive, and the debts incurred by victims in the process of suits, even before a decision is reached, are substantial. Pursuing these suits is heavily disincentivizing for victims of meager status. These stumbling blocks hinder studies and progress for workers and may make it difficult to prove current harm for laborers.

Non-profits have also struggled to prove harm done by smuggling. The Basel Action Network (BAN), a non-profit organization that played a big part in the three main e-waste prosecutions, has taken upon itself the task of gathering this proof—often involving "white lies"—to shipyards and junk heaps in other countries to assemble and provide evidence back to U.S. courts.[85] In the course of their investigatory work in China, BAN found boxes with large labels for Total Reclaim. With this evidence, BAN established that the Seattle-based company knowingly exported their e-waste to a transporter who sold the waste to a junkyard with inadequate facilities and no safety procedures in place, an enormous display of dishonesty to their customers. Yet, even still, no civil suit was filed and criminal charges were sanctioned to Title 18.[86]

Simultaneously, the international community's adoption of Basel and the WEEE directive has shown attempts to combat this rising tide of electronic waste and provide outlets for victims, usually third-world countries impacted by this waste.[87] However, the U.S. has adopted neither of these directives and has chosen

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[81] Zands v. Nelson, 797 F. Supp. 805, 810 (S.D. Cal. 1992).
[82] Chem. Weapons Working Group, Inc. v. U.S. Dept. of Def., 2003 WL1232579 (10th Cir. 2003).
[83] *Waste Dump, supra* note 24.
[84] EUROPEAN ENV'T AGENCY, WASTE WITHOUT BORDERS IN THE EU? TRANSBOUNDARY SHIPMENTS OF WASTE (2009), https://www.eea.europa.eu/publications/waste-without-borders-in-the-eu-transboundary-shipments-of-waste.
[85] Lecher, *supra* note 3.
[86] Plea Agreement, U.S. v. Lorch, No. CR18-277RAJ (W.D. Wash., 2018) (hereinafter *Lorch*), (available at https://sherloc.unodc.org/cld/uploads/res/case-law-doc/wildlifecrimetype/usa/2019/united_states_of_america_v_craig_lorch_and_jeffrey_zirkle_cr18-277raj_html/CR18-277RAJ_Indictment.pdf).
[87] James Murray, *EU Revamps E-waste Rules with Demanding New Recovery Targets*, THE GUARDIAN (Aug. 14, 2012), https://www.theguardian.com/environment/2012/aug/14/eu-waste.

to take charge of its e-waste generation, with limited success.[88] Instead of the onus of responsibility falling on the government to recycle this waste, the U.S. has adopted a corporate-responsible model, in which individuals and corporations are responsible for effectively recycling their materials.[89] Due to this model of recycling, it is estimated that only about 9.4 percent of the US's e-waste is documented and properly recycled.[90] Because most U.S. waste is being dumped irresponsibly, waste generated by U.S. corporations and private actors affects those outside of the scope of RCRA.

IV. Title 18 Prosecutions for E-Waste Rarely, If Ever, Provide Restitution to those Impacted by the Environmental Effects of E-Waste.

In the case of Total Reclaim, the indictment charged the CEOs with conspiracy to commit wire fraud.[91] Prosecutors charged the two CEOs under Title 18 U.S.C. §§ 1343 and 1349. These two subsections define the crime of wire fraud and conspiracy. A defendant is guilty of wire fraud wherein "having devised or [intends] to devise any scheme or artifice to defraud, or for obtaining money or property by means of false or fraudulent pretenses" and the defendant transmits "communication . . . for the purpose of executing such scheme or artifice."[92] The conspiracy portion extends the penalties for wire fraud to anyone "who attempts or conspires to commit any offense under this chapter."[93] In essence, wire fraud is enacting a scheme to defraud those paying into the scheme.

Total Reclaim's wire fraud stemmed from "falsely representing that Total Reclaim would dispose of the LCD monitors . . . in accordance with responsible recycling practices."[94] However, as made clear through BAN's investigatory work, Total Reclaim sold the monitors to a third party for export to Hong Kong.[95] Total Reclaim lied to corporations and violated Title 18. Though Total Reclaim also properly recycled some waste, this part of their business did not meet the requirements and was not in line with "responsible recycling practices."[96]

Lorch and Zirkle, the CEOs of Total Reclaim, were assessed $945,000 in penalties and were required to serve three years of supervised release.[97] All the victims listed in the restitution grant were corporations (named corporations A–E), who claimed victim status as a result of the scheme of wire fraud.[98] The $945,000 was to be split among Lorch and Zirkle, "most of which is owed to the Washington

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[88] *E-Waste Monitor*, *supra* note 15.
[89] *Id*.
[90] *Id*.
[91] *See* Indictment, *supra* note 2.
[92] 18 U.S.C. § 1343.
[93] 18 U.S.C. § 1349.
[94] See Indictment, *supra* note 2, at ¶ 18.
[95] *Id*.
[96] *See* Indictment at 18.
[97] Mike Rosenberg, *Largest e-recycling fraud in U.S. history sends owners of Kent firm to prison,* SEATTLE TIMES, (Apr. 23, 2019), https://www.seattletimes.com/business/largest-e-recycling-fraud-in-u-s-history-sends-owners-of-kent-firm-to-prison.
[98] *Lorch*.

Materials Management & Financing Authority, an extended producer responsibility organization that funds collection and processing across the state."[99]

Wire Fraud charges block out the international laborers from being listed as victims and entitled to victim restitution. Victim restitution aims to make one whole again, and to directly compensate those who were directly harmed by the action, however, as discussed below, Title 18 charges contemplate who exactly is a "victim."

A. The Definition of a "Victim" from Environmental Crimes is Narrow and can Affect Who Is Entitled to Restitution, Sometimes to the Detriment of Non-Established Victims

Environmental crime victims are narrow in scope and are often the only ones who are affected by the pollution to such an extent that they must conduct a clean-up.

The first avenue for victims of environmental crime is the Victim and Witness Protection Act of 1982 (VWPA), which allowed for restitution, or payments to make "victims whole, to fully compensate victims for their losses, and to restore victims to their original state of well-being."[100] The court may make an order of restitution under 18 U.S.C. § 3663. The court can order, in addition to any other penalty associated with a crime, that the defendant "make restitution to any victim of such offense."[101] However, restitution under VWPA is discretionary and limited to factors like the defendant's assets and resources.[102] As well, victims are only those that are "directly and proximately harmed" by the crime, which it can be difficult to calculate this impact.[103] The prosecutor also has the discretion to not ask for restitution in cases involving multiple victims.[104] With this discretionary statute, victim restitution for environmental crime is generally done so under the Mandatory Victim Restitution Act (MVRA), which necessitates, rather than recommends, restitution.[105]

First, clean-ups and repairs costs can be recouped through the MVRA, which is the general route for environmental crime restitution—particularly, if the elements of the damage resulting from the crime have an environmental effect.[106] The MVRA mandates restitution for victims during a criminal defendant's sentencing

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[99] Colin Staub, *Details on Total Reclaim prison Sentences*, E-SCRAP NEWS, Apr. 25, 2019, https://resource-recycling.com/e-scrap/2019/04/25/details-on-total-reclaim-prison-sentences/.
[100] Victim and Witness Protection Act of 1982, Pub. L. No. 97-291, § 4, 96 Stat. 1248, 1249-53 (1982); U.S. v. Simmonds, 235 F.3d 826, 831-33 (3d Cir. 2000).
[101] 18 U.S.C. § 3663(a)(1)(A).
[102] Id. § 3663(a)(1)(B)(i).
[103] U.S. HOUSE OF REPRESENTATIVES, SENTENCING GUIDANCE IN ENVIRONMENTAL PROSECUTIONS INCLUDING THE USE OF SUPPLEMENTAL SENTENCING MEASURES at B-3, https://docs.house.gov/meetings/JU/JU05/20160428/104872/HHRG-114-JU05-Wstate-UhlmannD-20160428-SD001.pdf (last visited Mar. 2, 2022).
[104] *See* 18 U.S.C. § 3771(d).
[105] 18 U.S.C § 3663(a), *See* U.S. v. Phillips, 367 F.3d 846, 850 (9th Cir. 2004) (environmental investigation and cleanup costs).
[106] *Phillips*, 367 F.3d at 850.

for certain crimes.[107] Under its provisions, those crimes include offenses against property—including fraud or deceit—[108] under Title 18; this can include environmental pollution. In *U.S. v. Sawyer*, the Sixth Circuit held that an "offense of conviction, which resulted in the asbestos contamination of nearly 300 acres of land, certainly qualifies as an 'offense against property' within the meaning of § 3663A."[109]

Methamphetamine labs, as an example, are often associated with environmental damage victim restitution funds. In a Montana case, *U.S. v. Quillen*, a hotel room was converted into a meth lab for the sale and smuggling of the illegal drug.[110] The hotel itself requested restitution for the repair and tidying of the room, which was deemed uninhabitable by the Montana Department of Environmental Quality. The court concluded that "clean-up or repair costs may be ordered under the MVRA" as long as the elements of damage related to the crime charged.[111] If someone builds a meth lab in a room that bleeds chemicals into the walls they should be held responsible for the environmental cleanup. This thinking also extends to the containment and storage of chemicals that leak and other types of environmental damage requiring cleanup.[112]

According to the Idaho Supreme Court, physical and mental harm can also be recouped under RCRA.[113] In the case *Dominguez ex rel. Hamp v. Evergreen Res., Inc.* Dominguez, the plaintiff, watered down barrels containing cyanide and phosphoric acid, which resulted in the creation of hydrogen cyanide gas. Dominguez was ordered to do this by his employer and became unwittingly exposed to the dangerous chemical without proper safety equipment, causing permanent brain damage.[114] His boss was convicted of knowingly endangering employees under RCRA, and Dominguez received restitution accordingly.[115] Dominguez's case was clear-cut, and the cause of action was easily demonstrated by the overwhelming evidence. Dominguez washed the barrels, the barrels released the gas, and he unfortunately was permanently scarred.[116]

A significant amount of victim restitution also goes to the U.S. government for its clean-up initiatives. Most EPA criminal convictions occur on U.S. property, and as such, the restitution often goes to government agencies who clean up the

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[107] S. REP. NO. 104–179, at 2 (1995)., https://www.congress.gov/104/crpt/srpt179/CRPT-104srpt179.pdf.
[108] 18 U.S.C. § 3663(a)(c)(1)(B).
[109] U.S. v. Sawyer, 825 F.3d 287, 292 (6th Cir. 2016).
[110] U.S. v. Quillen, 335 F.3d 219 (3d Cir. 2003).
[111] *Id*. at 226 (citing U.S. v. Menza, 137 F.3d 533, 539 (7th Cir. 1998); U.S. v. Sharp, 927 F.2d 170, 174 (4th Cir.1991)).
[112] *See Menza*, 137 F.3d at 533 (litigation concerning a chemical leak).
[113] Dominguez ex rel. Hamp v. Evergreen Res., Inc., 121 P.3d 938 (2005); *See also* U.S., *Environmental Crime Victim Assistance*, U.S. Dept. of Justice, https://www.justice.gov/enrd/environmental-crime-victim-assistance (last visited Apr. 8, 2022).
[114] *Id*.
[115] U.S. *Idaho Man Given Longest-Ever Sentence for Environmental Crime*, U.S. Dept. of Justice (Apr. 29, 2000), https://www.justice.gov/archive/opa/pr/2000/April/239enrd.htm.
[116] *See also* Anderson v. Pac. Gas & Elec., No. BCV 00300 (Cal. Super. Ct. 1993) (case challenging corporate pollution practices and made famous by Erin Brockovich), https://law.justia.com/cases/california/court-of-appeal/2d/218/276.html.

waste.[117] Drawing from the exponential amounts of EPA prosecutions that result from damages to environmental land, the U.S. is often the victim in cases of governmental property and public lands and is restituted accordingly.

Therefore, defendants can restitute victims for clean-up costs and for physical damages, however there is a lack of restitution for those abroad and those that do not have a clear claim of damages. In Total Reclaim's case, it would prove difficult to demonstrate that the long-term effects of mercury and lead within the CRTs resulted from Total Reclaim's exported resources. It would thus fall on victims to prove the heart of these damages, many of whom do not have the resources to investigate and litigate such matters.

B. When Prosecutors Choose the Crime to Charge, They Also Choose the Victims Who can be Restituted

The problem of the Total Reclaim case is not that the definition of "victim" needs to be expanded, but rather that when prosecutors chose the crime to charge, they also chose what groups can be victims. In the present cases, wire fraud therefore inherently prevents laborers and workers who disassemble products from claiming restitution.

Title 18 defines a victim as:

> "[A] person directly and proximately harmed as a result of the commission of an offense for which restitution may be ordered, [and] in the case of an offense that involves as an element a scheme, conspiracy, or pattern of criminal activity, any person directly harmed by the defendant's criminal conduct in the course of the scheme, conspiracy, or pattern."[118]

The relationship, therefore, is between the act of the crime and those that are proximately harmed by the act.

Early definitions of the VWPA hold that restitution "is authorized only for losses caused by the conduct underlying the offense of conviction and not for other acts," under any criminal statute, including Title 18 and RCRA.[119] Restitution is therefore "intended to compensate victims [of criminal convictions] only for losses caused by the conduct underlying the offense of conviction."[120] The victims are only the ones directly harmed by the criminal conduct and not those harmed by any extension relating to the criminal conduct.

In the case where an offense involves some element of a scheme, a victim is one directly harmed by the defendant's criminal conduct in the course of the scheme.[121] A party wishing to be granted restitution from wire fraud must therefore

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[117] *E.g., Former Fulton County Tannery Owner Charged with Illegally Storing Hazardous Waste, U.S. Dept. of Justice* (April 10, 2018), https://www.justice.gov/usao-ndny/pr/former-fulton-county-tannery-owner-charged-illegally-storing-hazardous-waste.
[118] 18 U.S.C. § 3663(a)(2).
[119] Id. § 3579(a) (current version at 18 U.S.C. § 3663); https://www.ussc.gov/guidelines/amendment/571.
[120] Hughey v. U.S., 495 U.S. 411, 419 (1990).
[121] *Id*.

provide a showing of financial loss as a result of a scheme. For reference, Ponzi schemes are the neon sign of such financial loss.[122]

C. Total Reclaim's Legal Victims Highlight the Inadequacy of these Prosecutions

As Total Reclaim's only charged crime was a conspiracy to commit wire fraud, the victims are only those directly harmed by the scheme itself, which is narrow. This pattern repeats for the other international e-waste cases charging wire fraud.[123] The act of pollution itself is not a crime under wire fraud. In fact, the scheme itself is not an element of a crime—only that a scheme itself exists. It is the "scheme" that is founded on "false or fraudulent pretenses" that is the action of cause for a criminal conviction.[124] Under *U.S. v. Executive Recycling*, one of the other international e-waste cases, restitution was determined by the amount of harm corporations faced due to their contract with the company.[125] Specifically, it was only those that were harmed by the scheme, and not the action of the scheme, that were granted restitution; and no environmental restitution was granted.[126] Simultaneously, Executive Recycling's CEO, Richter, was also assessed restitution for fraud, resulting in restitution to be sent to the U.S. government, and money sent to corporations that were defrauded.[127]

In the other case against Intercom Solutions, the last of the three international e-waste cases, U.S. District Judge Joan Humphrey Lefkow imposed a three-year prison sentence and ordered Intercom Solutions CEO, Brian Brundage, to pay more than 1.2 million dollars in restitution to his victims.[128] All of these victims were

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[122] A Ponzi scheme is an investment fraud that pays existing investors with funds collected from new investors. Statistics show that in these types of schemes, also referred to as Multi-Level Marketing (MLM) schemes, "only 25% of . . . participants turn a profit." Nick Perry, *10 MLM Statistics You Need to Know in 2021*, FUNDERA, Dec. 16, 2020, https://www.fundera.com/resources/mlm-statistics (last accessed Aug. 4, 2022).

[123] While the author has no intention to discuss the intricacies of rules of evidence or of expert witnesses, it is important to note that the initial suit against Richter and the other CEOs of Executive Recycling led to a jury trial in 2013 for mail and wire fraud, smuggling, obstruction of justice, and RCRA violation. However, in 2015, the Tenth Circuit dismissed all charges but obstruction of justice against Richter and wire fraud for all defendants. The nexus of the dismissal of these charges was due to the testimony of a Mr. Smith, whose testimony was determined to be erroneously allowed and unfairly biased, so much so that it essentially drew a legal conclusion for the jury and acted as expert testimony in lieu of actual expert witness status by the courts. Later in time, all defendants plead guilty to wire fraud. *See* U.S. v. Richter, 796 F.3d 1173 (10th Cir. 2015).

[124] 18 U.S.C. § 1343.

[125] U.S. v. Exec. Recycling, Inc., 953 F. Supp. 2d 1138, 1156 (D. Colo. 2013).

[126] Id.*U.S.*

[127] *Richter*, 796 F.3d at 1180.

[128] *Indiana recycling executive sentenced to 3 years in federal prison for scheming to illegally landfill and re-sell potentially hazardous electronic waste, U.S. Immigration and Customs Enf't* (2019), https://www.ice.gov/news/releases/indiana-recycling-executive-sentenced-3-years-federal-prison-scheming-illegally.

corporations using his services.[129] The charge against Brundage was also a conspiracy to commit wire fraud.[130]

Two distinct atrocities occur within these victims' restitutions. First, all the victims are simply those that paid fees for the "proper recycling" of materials. However, no corporation or person listed as a victim conducted any clean-up of the damages from these crimes, nor did they claim personal or physical damages because of the environmental damage. Instead, they were granted restitution because they were lied to. All of these corporations would have paid the same or similar prices going through another established e-waste recycler, so their pocketing of restitution is only punitive in value. The waste here is already gone most of the time and the waste ends up in another country. This restitution does not sufficiently handle the environmental damage done nor does it positively affect anyone who was damaged directly by it—especially since monetary penalties are the only "solution" at the moment.

In conclusion, victim restitution was not available for these distinct international e-waste dumping schemes and the flaws within both criminal and civil statutes of RCRA provide little relief for those currently and posthumously experiencing forms of environmental harm as a result of e-waste smuggling. The solution to these problems, therefore, does not lie within the statutes themselves, but the adoption of new and transfigured statutes of law that aim to progress towards holding private actors truly accountable for damaging waste exportation. The focus should now be on looking to international laws and regulations to see the progress made through their environmental channels and also look towards their faults in hopes that a new variation of laws can be founded and standardized in the U.S.

V. International Problems and National Solutions to the Problem of E-Waste

The focus of this section is threefold. First, the Basel Amendments and WEEE will be developed to introduce readers to the scope of international environmental law. Second, the problems of international prosecution must be addressed. While other countries have criminal laws and regulations for environmental crimes that have strengthened their fight against pollution, there is also a steep lack of victim restitution and transborder regulations. This simultaneously couples itself with a "hot potato" theory of waste, where countries kick the can of waste down the road until it stops somewhere.[131] The third part will focus on solutions already present and the use of those as stepping stools to help guide and influence U.S. law. The overarching goal of this section is to envision a future for international victim

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[129] *Id*.
[130] *Id*.
[131] *See generally* DJ Rebovich, *Dangerous Grounds: The World of Hazardous Waste Crime* (2014) (analyzing illegal disposal of waste goods, the perpetrators of improper waste disposal, and government responses to the epidemic), https://www.routledge.com/Dangerous-Ground-The-World-of-Hazardous-Waste-Crime/Rebovich/p/book/9781412856010.

restitution and discuss policy changes and goals that will strengthen and provide prosecutors tools to effectively charge international e-waste crime.

A. How the BAN Amendments Help Guide International E-Waste Policies

The Basel Convention of 1989, and the further BAN amendment, which was officially adopted in 2019 after Croatia signed (though the U.S. has not so yet), hold committed countries to a standard to create and enact ways in which to effectively deal with hazardous waste.[132] The Convention stated that "illegal traffic in hazardous wastes or other wastes is criminal" and that "each Party introduce appropriate national/domestic legislation to prevent and punish illegal traffic and co-operate with a view to achieving the objects of the Convention's provision pertaining to illegal traffic."[133] It also applies "policing provisions" which give individual countries leeway to produce routines and procedures to effectively deal with the waste in their respective country.[134]

The BAN Amendment also enacts more provisions and clearly defined what exactly waste *is* and how this waste should be transported between countries.[135] It includes most Persistent Organic Pollutants (POPs), which entail "most electronic wastes, most obsolete ships, most flammable liquids, and most toxic heavy metals"[136] While not every type of waste falls under this Amendment, CRT monitors do, and as such, about 97 countries have enacted the provisions of the BAN Amendment as of 2019.[137]

Included in Basel is a list of materials deemed as "wastes to be controlled," including clinical waste, waste emulsions, and a list of chemicals that, if contained within, make a waste hazardous, including copper, zinc, and mercury.[138] The BAN Amendment, while short in nature, applies these definitions to the adopters of the Amendment and focuses on prohibiting the transboundary movements of these waste materials.[139] These two in tandem include various chemicals to create an

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[132] Byung-Sun Cho, *Emergence of an International Environmental Criminal Law?* 19 UCLA J. ENVTL. L. & POL'Y 11, 15 (2001).
[133] BASEL CONVENTION, MANDATE, http://www.basel.int/Implementation/LegalMatters/IllegalTraffic/Mandate/tabid/3436/Default.aspx.
[134] *Id*.
[135] BASEL ACTION NETWORK, The Entry into Force of the Basel Ban Amendment (2020), https://ipen.org/sites/default/files/documents/ban-basel-fact-sheet-v2_1-en.pdf. (hereinafter "*Entry into Force*").
[136] *Id*.
[137] *Basel Ban Amendment becomes law*, DOWN TO EARTH (Sept. 10, 2019), https://www.downtoearth.org.in/news/waste/basel-ban-amendment-becomes-law-66651. (hereinafter "BAN").
[138] Basel Convention, On the Control of Transboundary Movements of Hazardous Wastes and their Disposal 46-48 (2014), https://www.basel.int/Portals/4/Basel%20Convention/docs/text/BaselConventionText-e.pdf.
[139] *The Basel Convention Ban Amendment*, U. N. Env't Programme, http://www.basel.int/Implementation/LegalMatters/BanAmendment/Overview/tabid/1484/Default.aspx (last visited Apr. 8, 2022).

entire panorama of waste definitions to apply.[140] Many of these descriptions are general so that countries can be adequately informed of their requirements.

B. How WEEE Helps Guide International E-Waste Policies

WEEE, acting as a further extension of BAN and Basel, has been adopted formally as European Union law. It states that a "minimum collection rate to be achieved annually by a member state shall be 65% of the average weight of electrical and electronic equipment placed on the market in the three preceding years or, alternatively, 85% of WEEE generated on the territory of a member state."[141] It also enforces the reporting of procedures, encourages the recycling of electronics. In extension, WEEE requires the creation of labs designed to observe and report how waste is being disposed to the EU governing body.[142] WEEE also contains a criminal portion, which states that direct environmental crimes are prosecutable. For example, the first of WEEE prosecutions involved defendants which pleaded guilty to failure to comply with Packaging Waste Regulations and failing to register as a producer of electrical and electronic waste.[143] Something to consider, though, is that WEEE prosecution falls into the similar trap of U.S. restitution and minimal payouts since this company was ordered to pay £20,150 ($30,942.34) : £7.135 ($10,956.51) in compensation to the Environment Agency for loss of registration fees, additional fines and fees of £3,605.11 ($5,536.00), and a £15 ($23.03) victim surcharge.[144]

However, the Netherlands—via the E-Waste Monitor Report—has shown much success with their adoption of WEEE, increasing their recycled materials from one-third in 2010 to almost half in 2018.[145] This observation arises due to the Netherlands' various adoptions of WEEE. Included in this is their creation of the National WEEE Registrar (NWR) and the adoption of Article 16 of WEEE. This article "stipulates that all producers that put [electrical and electronic equipment] (EEE) on the market should provide information within one year about this EEE with regards to preparations for reuse and treatment."[146] Companies that produce EEE are therefore incentivized to create materials and assets that can be used and recycled effectively, something that most corporations were not held responsible for in the past.[147]

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[140] *All POPs listed in the Stockholm Convention*, U. N. Env't Programme, http://chm.pops.int/TheConvention/ThePOPs/AllPOPs/tabid/2509/Default.aspx (last visited Apr. 8, 2022).
[141] Council Directive 2012/19/EU, art. 47, 2012 O.J. (L 197) at ¶ 16, https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:197:0038:0071:en:PDF.
[142] C.P. Baldé, et. al., *The Dutch WEEE Flows 2020*, at 19, https://ewastemonitor.info/wp-content/uploads/2021/09/Dutch_WEEE_flows_ENGNL1.pdf (last visited Apr. 8, 2022) (hereinafter "Dutch WEEE Flows 2020").
[143] Nick Mann, *EA secures first ever prosecution of WEEE producer*, Letsrecycle (Sept. 7, 2010) https://www.letsrecycle.com/news/ea-secures-first-ever-prosecution-of-weee-producer/.
[144] *Id*. Exchange rates based on rates at time of the restitution order, Sept. 7, 2010, according to ExchangeRates.org.uk.
[145] *See Dutch WEEE Flows 2020, supra* note 138.
[146] *Id.* at 22.
[147] *Id.* at 13.

The adoption of such initiatives and mindsets can even be seen in more recent news with the EU's adoption of a standard universal phone charger.[148] This came much to the dismay of individual phone companies like Apple, who argued that this would stifle innovation.[149] While corporations might always be unsatisfied with hindering regulations, focusing instead on how to effectively use electronics—such as having set standards to decrease obvious waste—are paramount to protect the environment.

Both WEEE and BAN also act as a fight against "toxic colonialism," or the "dumping of the industrial wastes of the West on territories of the Third World."[150] By separating developed global actors with access to sufficient recycling and reuse methods and those that do not have such resources, BAN attempts to shield these countries for first-world waste. As many countries lack the "training, funding, and administrative infrastructure," developed adopters of Basel and BAN have taken initiatives to prevent transporting waste to these countries to further reduce harm.[151]

C. How Other International Frameworks Help Guide International E-Waste Policies

Outside of the UN, Delhi has drafted its own e-waste rules. In 2011, Delhi enacted the "E-Waste (Management & Handling) Rules" of 2011, which aimed to reduce e-waste by mandating the collection of e-waste by producers.[152] The Rules, which were amended on in 2016, contain a list of straightforward items to be collected, such as "telex . . . telephones . . . and washing machines."[153] Included in this list are chemicals that, if in the waste, are to be inducted into this take-back system, such as mercury, certain phosphorus, and a significant number of halogenic lamps.[154] The implementation guidelines summarize these two lists as "(i) IT and Telecommunication Equipment and (ii.) Consumer Electricals and Electronics."[155]

This directive also mandates that corporations—including transporters—have to come up with an extender producer responsibility plan, where each producer must detail a plan "for channelisation of e-waste to an authorized dismantler [or] recycler to ensure environmentally sound management of such waste."[156]

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[148] Cristina Criddle, *EU rules to force USB-C chargers for all phones*, BBC NEWS (Sept. 23, 2021), https://www.bbc.com/news/technology-58665809.
[149] *Id*.
[150] *Dirty Dumping*, *supra* note 36 (quoting Tam Dalyell, *Thistle Diary: Toxic wastes and other ethical issues*, NEW SCIENTIST (July 2, 1992) at 50).
[151] Jennifer R. Kitt, *Waste Exports to the Developing World: A Global Response*, 7 GEO. INT'L ENV'T L. REV. 485, 486 (1995).
[152] *E-Waste Management Rules* at 1, Gov't of India (Mar. 23, 2016), http://jaipurmc.org/PDF/Auction_MM_RTI_Act_Etc_PDF/E-WASTE%20MANAGMENT%20RULES%202016.pdf (last visited Apr. 8, 2022).
[153] *Id*. at 17.
[154] *Id*. at 18.
[155] Central Pollution Control Board, Delhi Guidelines on Implementation of E-Waste (Management) Rules (2016) 3, https://cpcb.nic.in/displaypdf.php?id=aHdtZC9HVUlERUxJTkVTX0VXQVNURV9SVUxFU18yMDE2LnBkZg== (last visited Apr. 8, 2022) (hereinafter "*Environmental forensics*").
[156] *Id*. at 2.

Corporations must therefore put in place collection mechanisms to effectively reduce improperly dealt with waste. Unlike the U.S., which emphasizes the consumer to effectively recycle, this system places the onus of responsibility on corporations, who are much better equipped and more knowledgeable on what is in the asset and how to effectively recycle it.

Interestingly, India has also had more success in civil environmental prosecutions due to the enactment of the "National Green Tribunal Act 2010."[157] Before the enactment of this Green Tribunal, India's pending caseload for environmental civil suits hovered between 55 percent and 96 percent, and a significant amount of criminal environmental charges were dropped due to high evidence requirements.[158] However, with the creation of the National Green Tribunal (NGT), India has dropped 60 percent of environmental cases in the first four years, and 82 percent filed in 2015.[159] Its "primary intent of expediting and ensuring the effective disposal of civil cases relating to the environment" and the tribunal has jurisdiction over all civil cases which involve a "substantial question relating to the environment."[160] This tribunal even includes a "unique structure: three-member panels composed of two lawyers and one scientist, installing procedurally the notion that environmental law must rest on a firm scientific basis."[161]

The NGT sits in an interesting spot in Indian courts, a system built on English common law, in that it exists as "a mix of Civil and Criminal sanctions."[162] The cases are brought to court via individual and community suits; however, the tribunal has resources available to it to employ "environmental forensics" strategies and use state resources to help in the investigations.[163] In *Raghunath,* the tribunal "ordered the Maharashtra Pollution Control Board (MCB), the government agency primarily responsible for monitoring and controlling pollution in the State, to work out the remediation cost with the help of experts."[164] While civil suits in the U.S. often rely on individuals to employ private or state institutions to conduct and gather evidence, the NGT sits with the authority to investigate the claims of persons using state-funded evidence gathering. This lowers the costly burden on plaintiffs, lowers the presumptive burden of proof for plaintiffs (from beyond a reasonable doubt to preponderance of the evidence), and also engages and encourages the state to both

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[157] Muhammed Siddik Abdul Samad et. al., *Environmental Forensics in India – Four Years after the National Green Tribunal Act, 2010,* 30 PROCEDIA ENV'T SCI. 91. (2010).
[158] Yukti Choudhary, *Tribunal on Trial*, DOWN TO EARTH, Nov. 30, 2014, http://www.downtoearth.org.in/coverage/tribunal-on-trial-47400. *See also* Navya Jannu, *India's National Green Tribunal: Human Rights and the Merits of an Environmental Court*, 46 ENVTL. L. REP. NEWS & ANALYSIS 104 (2016).
[159] Nat'l Green Tribunal, Note on Judgments as Announced on 10th December 2015, https://greentribunal.gov.in/sites/default/files/all_documents/Note_on_Judgments_as_announced_on_10th_December_2015_1.pdf.
[160] Lye Lin-Heng et al., *National Green Tribunal*, in 2 COMPARATIVE ENVIRONMENTAL LAW & REGULATION (2022).
[161] Jonathan Zasloff, *W(h)ither Environmental Justice?*, 66 UCLA L. REV. DISCOURSE 178 (2019).
[162] *Environmental forensics*, *supra* note 154.
[163] *See Raghunath S/o Rakhamji Lokhane v. MPWPB& Ors* (Original Application No. 11/2013(THC)(WZ)).
[164] *Environmental forensics, supra* note 154.

prosecute and work on the case more productively, rather than letting individuals sort it out. This acknowledgment of individual rights by the state is an immense step forward, as it acts as a combination of civil and criminal law, and asserts an enormous right of individual Indian citizens—personal liberty through the right to a healthy environment.[165]

D. Hawaii's Environmental Court Demonstrates How E-waste Litigation can be Applied to the American System Effectively

Hawaii has adopted a similar court system through its adoption of the Hawaii Environmental Court, one of only two environmental state courts in the US.[166] Its jurisdiction covers both civil and criminal cases through its "public trust" duty under the Hawaiian Constitution.[167] This court "mandate[es] that natural resources, including 'natural beauty,' be conserved and protected for 'future generations' and that such resources be developed and utilized 'in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.'"[168] This court has allowed for judges to apply specialized knowledge-based approaches to environmental law, where there were none previously. By focusing on environmental law, courts can do things such as "provide an understanding of the [public trust] doctrine's effect on standing and the proper framework for applying the . . . doctrine to water or other natural resources."[169] These initiatives lower the enormous knowledge burden placed on standard courts to learn, research, and make decisions on the cumbersome nature of scientific events and instead provide a specialized court to deal with such matters.

The combination of these initiatives point to a clear direction of where green-initiative-based countries are heading. By expanding, defining, and enforcing environmental law and policy through the court systems and legislative statutes, countries are beginning to fight the enormous load of e-waste. However, there are some issues with these initiatives which must be addressed before the U.S. can adopt these initiatives with success.

E. Problems in Current National Law

The first of many obstacles to adopting widespread environmental reform is that countries tend to be isolationist in their environmental policies, oft to the exclusion of others.[170] While the BAN Amendment and WEEE have held ratifying countries to the standard that they will not import or export specific types of waste,

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[165] *See* Normawati Binti Hashim, *Constitutional Recognition of Right to Healthy Environment: The way forward*, 105 Asia Pacific Int'l Conference on Env't-Behavior Studies204, at 206 (2013).
[166] Hon. Michael D. Wilson, *The Hawaii Environmental Court: A New Judicial Tool to Enforce Hawaii's Environmental Laws*, HAW. B. J., August 2015, at 4.
[167] *Id*. (*quoting* Haw. Const. art. XI, § 9).
[168] *Id*.
[169] *Id*.; *See* In re Iao Ground Water, 128 Haw. 228, 287 P.3d 129 (2012); *see also* Kauai Springs, Inc. v. Planning Comm'n of Cnty. of Kauai, 324 P.3d 951, 982 (2014).
[170] Andreas Follesdal, *Sustainable Development, State Sovereignty and International Justice,* SUSTAINABLE DEVELOPMENT: ON THE AIMS OF DEVELOPMENT AND CONDITIONS OF SUSTAINABILITY at 70 (W. Lafferty & Oluf Langhelle eds., 2011).

including "most electronic waste," to countries not in the EU state, the Organization for Economic Co-operation and Development (OECD) (of which the U.S. is a part of), or Lichtenstein (all referred to as the Article VIII Nations); the countries that have not adopted BAN—a group which the U.S. is a part of— are not subject to these regulations.[171] The U.S. has no obligations under BAN and can still conduct individualized treaties with individual nations.[172]

Also, the U.S. has not enacted extended producer responsibility (EPR) legislation and lacks some level of administrative standing to enact sweeping environmental laws to the states. EPR is defined as a concept where "manufacturers and importers of products should bear a significant degree of responsibility for the environmental impacts of their products throughout the product life-cycle, including upstream impacts . . . impacts from manufacturers' production process itself, and downstream impacts from the use and disposal of the products."[173] The goal of EPR legislation is to reduce waste by making private sector actors responsible for managing their products through the product's entire lifespan, including recycling after use.[174]

On a federal level, the government left the initiatives to states to implement EPR laws.[175] Only 23 states have so far, with reports that some lack this framework due to the cost of implementation.[176] Also, the U.S. claims to not agree to be a party to Basel because the federal government lacks "sufficient domestic statutory authority to implement all of its provisions" and Basel requires "implementing legislature" that the federal government cannot force on states.[177] Due to self-imposed constitutional restraints, it would be an uphill battle against the courts to implement a widespread environmental legislature.

Similarly, the U.S. also has competitive interests between the OECD and recent BAN amendments, which have stirred tensions. The recent BAN amendment to Basel has labeled that non-OCED are not to accept waste from OCED countries. While the U.S. has not adopted this amendment, to do so would significantly impact the U.S.'s exportation agreements with various countries.[178]

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[171] *Entry into Force*, *supra* note 134.
[172] *See The Agreement Between Canada and the U.S. Concerning the Transboundary Movement of Hazardous Waste* (1986).
[173] *Fact Sheet: Extended Producer Responsibility*, Org. for Econ. Coop. & Dev., https://www.oecd.org/env/waste/factsheetextendedproducerresponsibility.htm (last visited Mar. 1, 2022).
[174] *Id*.
[175] *Ten Lessons Learned From State E-Waste Laws*, Electronics TakeBack Coalition, http://www.electronicstakeback.com/wp-content/uploads/Lessons-Learned-from-State-E-waste-laws.pdf (last visited Apr. 8, 2022).
[176] *Id*.
[177] *Basel Convention on Hazardous Wastes*, https://www.state.gov/key-topics-office-of-environmental-quality-and-transboundary-issues/basel-convention-on-hazardous-wastes/ (last visited Apr. 8, 2022); *Frequent Questions on International Agreements on Transboundary Shipments of Waste*, U.S. Envtl. Prot. Agency, https://www.epa.gov/hwgenerators/frequent-questions-international-agreements-transboundary-shipments-waste (last visited Apr. 8, 2022).
[178] *Why isn't the U.S. a Member of the Basel Convention, Recognized Trading & Shipping,* https://recognizedtrader.us/why-isnt-the-united-states-a-member-of-the-basel-convention/ (last visited Apr. 8, 2022).

WEEE has also faced multiple issues in developing countries, where a significant portion of waste is eventually dumped. The BAN amendment fosters a north-south divide via the creation of its Article VIII Nations, which, at a quick glance, separate countries between countries that are much more industrialized, and those that are not as much. In a sense, this has furthered the idea that well-to-do countries should take care of their waste, but this simultaneously has incentivized non-BAN adhering countries to send their waste outwards. WEEE has also faltered in some countries, such as Georgia and Kazakhstan, where implementation of WEEE is hindered by a lack of specific statutes and a lack of EPR systems for the collection of e-waste.[179] While WEEE provides initiatives, states will always fall mercy to their inadequacy to prioritize international environmental standards. As such, prosecution for failure to monitor these is lackluster on private actors and lacking for nations. Sometimes, it falls on individual nations to take appropriate steps forward.

VI. The U.S. Should Focus on the Implementation of an Environmental Court System and Drafting of Legislation to Combat the E-Waste Epidemic

The biggest obstacle faced by the U.S. in the fight against e-waste is best said by the prosecutor of Total Reclaim: the U.S. doesn't "have a federal law that specifically prohibits sending this material overseas."[180] The focus of the U.S. should therefore be implementing clear legislation on e-waste and fostering an environment where corporations and individuals are assigned responsibility for their waste and held accountable when they fail.

A clear definition of waste is first needed to accurately prosecute violators of illegal e-waste exporting. As such, clear direction, and implementation, along with a standardized system for documentation would allow U.S. exporters to correctly label items at shipping, avoiding easy to prevent harm.[181] With the BAN's definition of waste—and more importantly, what is hazardous being labeled in Annex 3—enacting countries can look at an item and determine its definition among clear, easy to understand definitions.[182] The U.S. has no such clear definition and the EPA can be ineffective in its descriptions of them, and therefore corporations inherently struggle with proper implementation and documentation.[183] A clear definition of waste would also give the EPA a clearer path to determining that corporations are "knowingly" committing crimes. While Total Reclaim was egregious and a direct violation of law it is not the only example to have left international countries devastated.[184]

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[179] UN INSTITUTE FOR TRAINING AND RESEARCH, Regional E-Waste Monitor 11 (2021), https://ewastemonitor.info/wp-content/uploads/2021/11/REM_2021_CISGEORGIA_WEB_final_nov_11_spreads.pdf.
[180] Lecher, *supra* note 3.
[181] Kirby, *supra* note 32, at 21.
[182] BAN, *supra* note 136, at 13.
[183] *Need for U.S. Implementation, supra* note 179, at 286.
[184] Kirby, *supra* note 32, at 14.

The U.S. should also pull from Delhi, which uses simple definitions and clear labels to direct recycling efforts. Everyone may not understand what chemicals are in an object, but most people know what a lamp is. Also, by using Congress's spending powers to have states adopt EPR legislation, like Delhi is, Congress can essentially guide corporations in the U.S. to handle their objects from the cradle to grave effectively and safely.

WEEE also provides a framework for procedures and implementation of e-waste research and labs. In particular, WEEE's demonstrated success in Europe exemplifies that if implemented effectively, the U.S. would be able to significantly impact and reduce its e-waste usage. It also requires a much more demanding reporting scheme for producers, which, if implemented in the U.S., would increase corporate accountability. It would adopt a more "cradle to grave" approach to international waste as well.

WEEE also includes criminal statutes about environmental crimes. Rather than the U.S.'s focus on criminal RCRA provisions being cursory to the focus of the EPA, a more direct criminal statute of RCRA would help guide individual actors away from misuses of the law. RCRA's criminal provisions are broad and undefined and are essentially non-existent when the waste leaves U.S. borders.[185] As such, WEEE through its global lens, does in a sense provide a way for prosecution internally or a crime committed internationally. Adoption of this would help ensure that the EPA can effectively prosecute these crimes.

Doing so would also support international victims, who, through the use of victim restitution laws, would be allowed an avenue to effectively argue for compensation. This would be a precedential enactment for the U.S. to essentially allow international victims to be afforded access to criminal courts and seek help within.

Lastly, the implementation of Hawaii's "natural resource" and environmental court would astronomically create pathways for civil victims to pursue litigation against environmental criminals. Environmental courts would simply be specialized courts for environmental cases. This can be done either through the federal system, and more importantly the criminal system, as this would place power within federal prosecutors to charge cases, or the state system, which may suffer from slow implementation. Opening the federal criminal system to an environmental court would allow individuals harmed to have a way to claim restitution. It would also grant more power to prosecutors to directly charge the nature of the offense, rather than having to resort to fraud charges.

VII. Conclusion

The U.S.'s lack of direction and success in e-waste exportation has already caused disastrous effects internationally. To combat this, the U.S. must look to international laws and national strategies to combat this epidemic. As well, the U.S. must begin to effectively protect those harmed by the actions of those that violate the law and human morality. Therefore, the U.S. must change and

[185] RCRA § 3008.

implement new legislation and law to effectively address the harm that is e-waste exportation.