

**Killing Our Home:  
The Case for Creating an International Crime of Ecocide**

ALEXANDRIA M. HANNA\*

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## I. INTRODUCTION

The term *ecocide* is a combination of the Greek word *oikos*, which means house or home, and the suffix *-cide*, which means to kill.<sup>1</sup> Thus, “ecocide” means “to kill our home.” Examples of ecocide lie all around us. During the Vietnam War, the United States engaged in “environmental warfare” when its military sought to remove vegetation to more easily target the enemy and decrease their food supply.<sup>2</sup> The military deployed high-explosive munitions leaving “moonscape-like craters” in the land, while heavy bulldozers lay waste to 325,000 hectares of forest.<sup>3</sup> The military sprayed an estimated 20 million gallons of Agent Orange and other herbicides, which can remain in the soil for over 100 years, on more than 10% of South Vietnam.<sup>4</sup>

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\*Special thanks to Professor Susan Smith for her mentorship during the drafting of this Article

<sup>1</sup> *Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text*, Stop Ecocide Foundation 5 (June 2021) <https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d7479cf8e7e5461534dd07/1624721314430/SE+Foundation+Commentary+and+core+text+revised+%281%29.pdf>.

<sup>2</sup> Eliana Cusato, *From Ecocide to Voluntary Remediation Projects: Legal Responses to ‘Environmental Warfare’ in Vietnam and The Spectre of Colonialism*, 19 *Melbourne J. of Int’l Law* 33, 37 (2018).

<sup>3</sup> *Id.* at 37-38.

<sup>4</sup> *Id.* at 38.

In Bhopal, India in 1984, residents watched in terror as their loved ones suffocated, choking on clouds of poison gas released by the nearby Union Carbide pesticide plant.<sup>5</sup> Thousands live with serious health effects today, and the environment is scarred as well. The chemicals contaminated soil and groundwater, poisoning drinking water for the population.<sup>6</sup> One survivor stated that those who lived through the gas leak “are the unlucky ones; the lucky ones are those who died on that night.”<sup>7</sup>

In the Gulf of Mexico, the 2010 Deepwater Horizon Spill caused disastrous effects to wildlife and to the surrounding ecosystems. The spill affected between 100,000 and one million birds, with many surviving birds now showing “higher rates of oil-related cancers, reproductive issues, and a reduced ability to regulate their body temperatures due to feather damage.”<sup>8</sup>

In the same year, the Ajkai Timfoldgyar alumina plant near Ajka, Hungary released 35 million cubic feet of caustic mud when the dam holding back this waste ruptured.<sup>9</sup> This wave of toxic and slightly radioactive waste flooded seven villages with a force “[r]eportedly powerful enough to suck cars from their garages.”<sup>10</sup> The waste injured at least 250 people and killed ten, contaminated the Danube River, and destroyed “all vegetation other than trees.”<sup>11</sup>

Most recently, the Russia-Ukraine war has had devastating impacts on Ukraine’s ecology. In the first four months of the invasion of Ukraine, over 37,000 fires scorched the country, “affecting approximately a quarter-million acres of forests and other natural ecosystems.”<sup>12</sup> The war has resulted in Ukraine neutralizing or absorbing the impact of hundreds of thousands of explosives, the

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<sup>5</sup> *What Happened*, The Bhopal Medical Appeal <https://www.bhopal.org/continuing-disaster/the-bhopal-gas-disaster/union-carbides-disaster/>.

<sup>6</sup> Manasi Singh, *Environmental Considerations of the Bhopal Gas Tragedy*, LawBhoomi (April 30, 2020) <https://lawbhoomi.com/environmental-considerations-of-the-bhopal-gas-tragedy/>.

<sup>7</sup> *What Happened*, The Bhopal Medical Appeal <https://www.bhopal.org/continuing-disaster/the-bhopal-gas-disaster/union-carbides-disaster/>.

<sup>8</sup> Joan Meiners, *Ten Years Later, BP Oil Spill Continues to Harm Wildlife—Especially Dolphins*, National Geographic (April 17, 2020) <https://www.nationalgeographic.com/animals/article/how-is-wildlife-doing-now--ten-years-after-the-deepwater-horizon>.

<sup>9</sup> Robert V. Percival et al., *CERCLA in a Global Context*, 41 Sw. L. Rev. 727, 763 (2012).

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> Fred Pearce, *Collateral Damage: The Environmental Cost of the Ukraine War*, Yale Environment 360 (August 29, 2022) <https://e360.yale.edu/features/ukraine-russia-war-environmental-impact>.

destruction of over two million hectares of forest, polluted rivers and oil-ridden wetlands, hundreds of species of plants and animals facing extinction, and toxic military scrap strewn throughout the country.<sup>13</sup> The structural collapse of the Kakhovka dam alone, which held back an amount of water about equal to the Great Salt Lake in Utah, proved catastrophic.<sup>14</sup> The collapse killed Ukrainian residents, left villages and over one thousand homes underwater, wiped out nature reserves, and flooded a zoo killing around 300 animals.<sup>15</sup>

Each of these disasters displays a killing of Earth, our home. Actors who cause these disasters deserve to be punished. This Article explores the history and concept of the crime of ecocide, advocating that an international crime of ecocide be adopted by amending the Rome Statute of the International Criminal Court. Such a crime is necessary due to the nature of environmental disasters like these, whose effects are felt across borders when ecosystems perish.<sup>16</sup> Acts of ecocide are deserving of criminal punishment rather than a monetary slap on the wrist from a civil court.

After exploring policy goals and the process of implementation of an international crime of ecocide, this Article advocates that ecocide be defined as “acts committed by a person or persons with a conscious disregard of a substantial and unjustifiable risk that grave destruction will occur to an ecosystem.” This Article then compares this definition with others proposed by international legal experts in the field. Lastly, this Article addresses foreseeable objections to such an international crime.

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<sup>13</sup> *Id.*; Jonathan Watts, The ‘silent victim’: Ukraine counts war’s cost for nature, the Guardian (Feb. 20, 2023, 10:39 AM) <https://www.theguardian.com/world/2023/feb/20/ukraine-war-cost-for-nature-russia>.

<sup>14</sup> “The critical Nova Kakhovka dam is the largest reservoir in Ukraine in terms of volume. It’s the last of the cascade of six Soviet-era dams on the Dnipro River, a major waterway running through southeastern Ukraine. There are multiple towns and cities downstream . . .” Johnny Hallam et. al., Collapse of critical Ukrainian dam sparks region-wide evacuations. Here’s what we know, CNN (June 6, 2023, 03:08 PM) <https://edition.cnn.com/2023/06/06/europe/ukraine-nova-kakhovka-dam-breach-intl-hnk/index.html>.

<sup>15</sup> *Id.*; Radina Gigova, *Russia Is Accused of ‘Ecocide’ in Ukraine. But What Does That Mean?*, CNN (July 3, 2023, 03:55 AM) <https://www.cnn.com/2023/07/02/world/ukraine-ecocide-dam-collapse-crime-climate-intl-cmd/index.html>; Annelyn Close, *Destruction of Ukraine’s Biggest Dam Impacts the Environment*, International Fund for Animal Welfare (June 6, 2023) <https://www.ifaw.org/international/press-releases/destruction-ukraine-dam-impact-environment>.

<sup>16</sup> While “ecocide” may occur absent transboundary effects, the nature of environmental damage and the potential for acts of ecocide to have transboundary effects necessitates an international crime.

## II. BACKGROUND

While the crime of ecocide may appear radical, it is not a new concept. The term has been utilized since as early as the 1970's, when it emerged in discussions about chemical warfare during the Vietnam War.<sup>17</sup> Professor and biologist Arthur W. Galston coined the term in 1970 when he spoke at the Conference on War and National Responsibility. Galston spoke out against the United States' use of chemical warfare, opining that the U.S. may have committed "ecocide" against Vietnam.<sup>18</sup> Two years later, the United Nations held the United Nations Conference on the Human Environment (the "Stockholm Conference"). During this conference, the Prime Minister of Sweden echoed Galston's message, calling actions by the United States during the Vietnam War "ecocide."<sup>19</sup> Since then, the term has frequented discourse and legal scholarship on environmental justice.

In 1990, Vietnam codified the crime of ecocide, becoming the first country to do so. The crime is defined as follows:

Those who, in peace time or war time, commit acts of annihilating en-mass population in an area, destroying the source of their livelihood, undermining the cultural and spiritual life of a country, upsetting the foundation of a society with a view to undermining such society, as well as other acts of genocide or acts of ecocide or destroying the natural environment, shall be sentenced to between ten years and twenty years of imprisonment, life imprisonment or capital punishment . . . .<sup>20</sup>

Currently, a handful of countries have codified ecocide as a crime including Vietnam, Uzbekistan, Tajikistan, Russian Federation, Republic of Moldova, Kyrgyzstan, Kazakhstan, Belarus, France, Ukraine, Armenia and Georgia.<sup>21</sup>

In 2010, British barrister Polly Higgins proposed an amendment to the Rome Statute of the International Criminal Court (hereinafter "the Rome Statute") in which ecocide would be the fifth crime against peace.<sup>22</sup> In 2019, Vanuatu expressed its intention to introduce the proposal to the International Criminal Court. In the same year, Pope Francis spoke before the International Association of Penal Law and

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<sup>17</sup> Anastacia Greene, *The Campaign to Make Ecocide an International Crime: Quixotic Quest or Moral Imperative?*, 30 Fordham Envtl. Law Rev. 1, 7 (2019).

<sup>18</sup> *Id.* at 8.

<sup>19</sup> *Id.* at 10.

<sup>20</sup> Penal Code Vietnam, Ch. 5, art. 342 (1990).

<sup>21</sup> Greene, *supra* n. 17 at 19.

<sup>22</sup> Greene, *supra* n. 17 at 2.

not only endorsed ecocide as an international crime, but also advocated that “‘sins against ecology’ be added to the teachings of the Catholic Church.”<sup>23</sup>

In November 2020, the Stop Ecocide Foundation convened a panel to create a definition of ecocide. The Stop Ecocide Foundation is the “charitable arm” of Stop Ecocide International, an organization co-founded by Polly Higgins to codify the international crime of ecocide.<sup>24</sup> The panel met five times in the first six months of 2021 and created a proposed definition for the crime.<sup>25</sup> Lastly and most recently, the European Parliament unanimously voted on a draft of a new national crime of ecocide closely tracking the panel’s definition.<sup>26</sup>

### III. ANALYSIS

#### A. THE PROCESS FOR ESTABLISHING NEW INTERNATIONAL CRIMES

Currently, the Rome Statute of the International Criminal Court allows prosecution for four crimes—genocide, crimes against humanity, war crimes, and crimes of aggression. There are four stages in amending the Rome Statute to add a fifth crime of ecocide: (1) the proposal, (2) admissibility of the amendment, (3) adoption of the crime, and (4) ratification.<sup>27</sup>

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<sup>23</sup> *Pope Francis: Destroying The Earth Is a Sin and Should Be a Crime*, Stop Ecocide International (Nov. 18, 2019) <https://www.stopecocide.earth/press-releases-summary/pope-francis-destroying-the-earth-is-a-sin-and-should-be-a-crime>.

<sup>24</sup> *Who We Are*, Stop Ecocide International <https://www.stopecocide.earth/who-we-are>.

<sup>25</sup> *Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text*, Stop Ecocide Foundation (June 2021) <https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d7479cf8e7e5461534dd07/1624721314430/SE+Foundation+Commentary+and+core+text+revised+%281%29.pdf>.

<sup>26</sup> “The final stage . . . will be agreement from the European Council and the European Commission on the Parliament’s proposed position. Over the coming months, representatives from each of the three institutions will engage in a consultation process known as ‘trilogue’ negotiations.” *European Parliament Proposes Including “Ecocide” in EU Law*, Stop Ecocide International (March 29, 2023) <https://www.stopecocide.earth/breaking-news-2023/european-parliament-proposes-including-ecocide-in-eu-law#:~:text=Following%20a%20historic%20unanimous%20Legal%20Affairs%20Committee%20vote%2C.%E2%80%9Cecocide%E2%80%9D%20in%20the%20EU%E2%80%99s%20revised%20environmental%20crime%20directive>.

<sup>27</sup> *Making Ecocide a Crime*, Stop Ecocide International <https://www.stopecocide.earth/making-ecocide-a-crime>; Rome Statute of the International Criminal Court, art. 121 (1998).

First, a State Party must propose such an amendment to add ecocide as a crime. Currently there are 123 State Parties, countries which have ratified the Rome Statute. Following the proposal, at the next annual assembly of the International Criminal Court, a majority of the present voting State Parties must agree to consider the amendment.<sup>28</sup> For adoption of the crime to occur, at least 2/3 of the State Parties must then vote for the amendment.<sup>29</sup> This means that 82 of the 123 State Parties must support enacting ecocide as an international crime. Lastly, State Parties must then ratify the amendment by submitting their agreement. Following ratification, the State Parties must begin enforcement of the law of ecocide domestically within a year.<sup>30</sup>

## *B. AN INTERNATIONAL CRIME OF ECOCIDE IS NECESSARY*

### *1. Current Law Is Insufficient in Addressing Ecocide.*

Current law has several problems that plague the world's ability to address ecocide. Criminal law in the United States does not effectively deal with ecocide due to the lack of proportional punishment and the requirement of a risk of human harm. Civil law falls short because civil sanctions do not provide enough deterrence. Constitutional due process claims have not prevailed, as is seen in *Juliana v. United States*.<sup>31</sup> A presumption against extraterritorial application of the law and *forum non conveniens* also present hurdles.

Even in the few countries that do have national laws or case law prohibiting acts of ecocide, prosecution has yielded disappointing outcomes. Lastly, the International Court of Justice, the International Criminal Court (absent implementation of the crime of ecocide), and the Inter-American Court of Human Rights fall short in their ability to hear claims of ecocide.

#### *a. Federal law in the United States is vastly limited in addressing*

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<sup>28</sup> Rome Statute of the International Criminal Court, art. 121(2) (1998).

<sup>29</sup> Rome Statute of the International Criminal Court, art. 121(3) (1998).

<sup>30</sup> *Making Ecocide a Crime*, Stop Ecocide International <https://www.stopecocide.earth/making-ecocide-a-crime>; Rome Statute of the International Criminal Court, art. 121(4) (1998).

<sup>31</sup> *Juliana v. United States*, 947 F.3d 1159 (9th Cir. 2020).

*ecocide.*

Criminal law in the United States is limited in addressing ecocide. Currently, there is no federal crime of ecocide. Federal felonies are ineffective in properly punishing those who commit ecocide, because they suffer from one of the following problems: (1) the felony's authorized punishment is not proportional to the act of ecocide and its catastrophic effects; or (2) the felony requires threatened harm to humans instead of harm solely to the environment. A hypothetical is useful for analysis: A plant owner began to cut corners regarding safety measures in their natural gas power plant, leading to the plant emitting hazardous air pollutants. The plant was in a remote, rural location far from any residents so there was minimal danger of human harm. However, the plant's hazardous emissions caused plants in the surrounding area to shrivel up, as well as the death of countless nearby animals and respiratory issues in surviving wildlife.

The plant owner may be prosecuted under 42 U.S.C. 7413(c)(1), which allows for punishment when an "owner or operator of a stationary source knowingly . . . emits a hazardous pollutant . . . in violation of an applicable [National Emission Standard for Hazardous Air Pollutants]."<sup>32</sup> Setting aside the issue of whether the plant owner acted knowingly, the punishment authorized under this provision is five years for a first-time offender. To serve the goal of retribution, proportional punishment is necessary—the punishment must fit the crime. In this hypothetical, even though the plant owner caused extensive death to local plant and animal life they would only be imprisoned for up to five years. On the other hand, a court punishing the plant owner more harshly would necessitate a risk of human harm. 42 U.S.C 7413(c)(5)(A) provides the following, in relevant part: Any person who knowingly releases into the ambient air any hazardous air pollutant listed . . . or any extremely hazardous substance listed . . . and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury shall, upon conviction, be punished by a fine under title 18 or by imprisonment of not more than 15 years, or both.<sup>33</sup>

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<sup>32</sup> *Criminal Provisions of the Clean Air Act: Violation of National Emission Standard for Hazardous Air Pollutants (NESHAP)*, United States Environmental Protection Agency <https://www.epa.gov/enforcement/criminal-provisions-clean-air-act>; 42 U.S.C. 7413(c)(1).

<sup>33</sup> 42 U.S.C 7413(c)(5)(A); *Criminal Provisions of the Clean Air Act: Knowing/Negligent Endangerment*, United States Environmental Protection Agency <https://www.epa.gov/enforcement/criminal-provisions-clean-air-act>.

Notably, an offender must know that they placed another human in imminent danger to be eligible for up to 15 years imprisonment as opposed to a less harsh five-year sentence. In this hypothetical, there was minimal danger of human harm due to the plant's remote location. Accordingly, the plant owner would not be eligible for the more proportional punishment of up to 15 years.

Even if the United States did have a crime of ecocide allowing proportional punishment, federal courts could still decline to enforce the law extraterritorially to punish acts that occurred in other countries. This is true even if the effects were felt in the United States. Federal courts utilize a presumption against extraterritoriality which "assumes that Congress intends its statutes to apply only to *conduct* within the *territory of the United States* unless it says otherwise."<sup>34</sup> The Supreme Court explained: "[w]hen a statute gives no clear indication of an extraterritorial application, it has none, and [also] reflects the presumption that United States law governs domestically but does not rule the world."<sup>35</sup> Unless there is explicit Congressional intent that an environmental crime covers acts occurring outside of the United States, this presumption would prevent application of the law for acts committed in other countries even if they caused international ecological damage.<sup>36</sup>

Moreover, even if the United States *did* have the federal crime of ecocide and even if the United States *could* exercise jurisdiction in cases where the acts were committed elsewhere, federal courts may still decide not to exercise jurisdiction on the grounds of *forum non conveniens*. This was seen in the case of the Bhopal Gas Tragedy.<sup>37</sup>

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<sup>34</sup> Julie Rose O'Sullivan, *The Extraterritorial Application of Federal Criminal Statutes: Analytical Roadmap, Normative Conclusions, and a Plea to Congress for Direction*, 106 Geo. L.J. 1021, 1026 (2018).

<sup>35</sup> *Kiobel v. Royal Dutch Petro. Co.*, 569 U.S. 108, 115 (2013) (quoting *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247, 255 (2010) (superseded by statute on other grounds by the Dodd-Frank Act); *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 454 (2007)) (internal quotation omitted).

<sup>36</sup> See *Kiobel*, 569 U.S. at 124 ("The presumption against extraterritoriality guards against our courts triggering . . . serious foreign policy consequences, and instead defers such decisions, quite appropriately, to the political branches."); *Morrison*, 561 U.S. at 261 ("Rather than guess anew in each case [what Congress would have wanted if it had thought of the situation before the court], we apply the presumption [against extraterritoriality] in all cases, preserving a stable background against which Congress can legislate with predictable effects."); *RJR Nabisco, Inc. v. European Cmty.*, 579 U.S. 325, 364 (2016) (quoting *Microsoft Corp.*, 550 U.S. at 454 (2007)) ("It is a basic premise of our legal system that, in general, 'United States law governs domestically but does not rule the world.' . . . Absent clearly expressed congressional intent to the contrary, federal laws will be construed to have only domestic application.").

<sup>37</sup> See *In re Union Carbide Corp. Gas Plant Disaster at Bhopal*, 809 F.2d 195, 197 (2d Cir. 1987).

Following a gas leak from a pesticide facility in Bhopal, the Second Circuit Court of Appeals determined that claims of citizens of India (or the government as representative of the citizens) arising out of the disaster should not be tried in the United States.<sup>38</sup>

Like criminal law, constitutional law in the United States does not effectively protect citizens against even the most egregious acts of ecocide. In *Juliana v. United States*, the Ninth Circuit Court of Appeals determined that plaintiffs lacked standing to present an environmental constitutional due process claim.<sup>39</sup> In that case, the youth plaintiffs argued they were constitutionally entitled to a “climate system capable of sustaining human life,” and that the United States government acted contrary to climate preservation goals in its continued support of the fossil fuel industry.<sup>40</sup> The plaintiffs requested an order requiring the government to “phase out fossil fuel emissions and draw down excess atmospheric CO<sub>2</sub>,” but the court determined the remedy was beyond the court’s constitutional power to order.<sup>41</sup> Instead of bringing this claim in court, the Ninth Circuit Court of Appeals opined this claim more properly belongs with other branches of government. The Ninth Circuit explained in the following:

[I]t is beyond the power of an Article III court to order, design, supervise, or implement the plaintiffs’ requested remedial plan. . . . [A]ny effective plan would necessarily require a host of complex policy decisions entrusted, for better or worse, to the wisdom and discretion of the executive and legislative branches.<sup>42</sup>

As *Juliana* makes clear, standing remains an immense hurdle to individual plaintiffs seeking to bring claims in court to redress environmental harms.

Lastly, civil sanctions fall short as well because they do not have the same deterrent effect as criminal law.<sup>43</sup> This is because the punishments available under civil law do not provide enough deterrence. Since the remedy provided under civil law is monetary damages rather than imprisonment, the wealthiest polluters can continue to pollute if they are willing to pay monetary sums. The threat

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<sup>38</sup> *Id.*

<sup>39</sup> 947 F.3d at 1164.

<sup>40</sup> *Id.* at 1165.

<sup>41</sup> *Id.* at 1164-65.

<sup>42</sup> *Id.* at 1171.

<sup>43</sup> See Hamdan Qudah, *Towards International Criminalization of Transboundary Environmental Crimes*, Pace University School of Law 9-10 and 20 (2014) <https://digitalcommons.pace.edu/lawdissertations/16/>.

of imprisonment of polluting corporate officials has a larger deterrent effect than the threat of mere monetary damages.<sup>44</sup>

It is worth noting that the United States is not a party to and is not bound by the Rome Statute. Despite this, redress against transnational corporate officials would be available in the countries which are party to the Statute. Under the Rome Statute, a State Party would have a year to implement and enforce a crime of ecocide domestically. “Beyond that, under universal jurisdiction principles, any ratifying nation may, on its own soil, arrest a non-national for ecocide committed elsewhere, as long as they consider the crime to be serious enough.”<sup>45</sup> This would serve as deterrence to corporate officials in the United States and would lead to a decreased chance of these officials committing ecocide even though our country is not bound by the Rome Statute.

*b. Even in countries that recognize ecocide, the law has not adequately redressed alleged instances.*

In 2016, Guatemala became the first country to create a court to hear various environmental crimes including ecocide.<sup>46</sup> In the same year, the court ruled against a palm oil company, Empresa Reforestadora de Palma de Peten SA (“REPSA”), holding that REPSA had committed the crime of ecocide.<sup>47</sup> REPSA was charged for polluting a river with pesticides. The La Pasión River’s resulting high pesticide levels affected “approximately 30,000 individuals who depended on the river for food and water.”<sup>48</sup> Moreover, “[t]he Guatemala National Council for Protected Areas estimates that REPSA’s toxins affected 23 fish species and 21 bird, reptile and mammal species.”<sup>49</sup> The lower court ruled against REPSA, and the

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<sup>44</sup> *Id.*; Greene, *supra* n. 17 at 31 (“[Activists] argue that some criminal regime or framework is required to deter violations of environmental provisions and effect compliance. Otherwise, companies can simply choose to ignore the provisions and absorb the costs of civil liabilities as a cost of doing business. Civil fines can encourage companies to factor in environmental harm as a production expense; if that expense is outweighed by profit, the pollution can still be worthwhile.”).

<sup>45</sup> *Making Ecocide a Crime*, Stop Ecocide International <https://www.stopecocide.earth/making-ecocide-a-crime>.

<sup>46</sup> Payal Patel, *Expanding Past Genocide, Crimes Against Humanity, and War Crimes: Can an ICC Policy Paper Expand the Court's Mandate to Prosecuting Environmental Crimes?*, 14 *Loy. U. Chi. Int'l L. Rev.* 175, 196 (2016); Greene, *supra* n. 17 at 20-21.

<sup>47</sup> Patel, *supra* n. 46.

<sup>48</sup> United States Department of State, *2015 Country Reports on Human Rights Practices - Guatemala*, (April 13, 2016) <https://www.refworld.org/docid/57161262e.html>.

<sup>49</sup> Patel, *supra* n. 46 at 196-197 n. 193 (quoting *Guatemala's Environmental Crimes Court Hears First Case*, SustainableBusiness.com (Jan. 19, 2016),

intermediate court upheld the ruling. Despite this, some have questioned the results:

One environmental activist was murdered on the court steps, and others were threatened and harassed by the palm oil company. After a brief shutdown, the palm oil plant reopened, and continues polluting the river today. [This] case[] [is] perhaps a cautionary tale about the limits of domestic laws against environmental crimes; and the potential need for an international body to adjudicate such cases.<sup>50</sup>

Kyrgyzstan has a national law against ecocide which is defined as follows: “Massive destruction of the animal or plant kingdoms, contamination of the atmosphere or water resources, and also commission of other actions capable of causing an ecological catastrophe, shall be punishable by deprivation of liberty for a term of 12 to 20 years.”<sup>51</sup> In 2012, a Kyrgyz company shipped radioactive coal to various locations including schools, orphanages, and nursing homes.<sup>52</sup> Prosecutors brought charges of ecocide against the head of the coal company and launched investigations of the government officials involved in the shipment. Despite this, the charges were dismissed due to lack of evidence. The officials under investigation were subsequently cleared of wrongdoing as well.<sup>53</sup>

*c. International law is currently inadequate in deterring and remedying ecocide.*

Scholars have proposed three major international judicial bodies as potential forums for redressing environmental claims of ecocide: (1) the International Court of Justice (ICJ); (2) the International Criminal Court (ICC); and (3) the Inter-American Court of Human Rights (IACtHR). The ICJ is limited because it can only hear cases between States, meaning claims of ecocide against individual actors—such as corporate officials at a private company—could not be prosecuted. The same is true for the Inter-American Court of Human Rights, making both unsuitable.

The ICC, as currently written, is limited too.<sup>54</sup> In 2016, the Office of the ICC Prosecutor published a Policy Paper outlining the

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<http://www.sustainablebusiness.com/guatemala39s-environmental-crimes-court-hears-first-case-55448/>).

<sup>50</sup> Greene, *supra* n. 17 at 21-22.

<sup>51</sup> The Kyrgyz Republic Criminal Code, Ch. 34, art. 374 (1997).

<sup>52</sup> Greene, *supra* n. 17 at 21.

<sup>53</sup> *Id.*

<sup>54</sup> See Patel, *supra* n. 46 at 182-193.

office's priorities regarding cases the Prosecutor would investigate and charge.<sup>55</sup> Notably, the Policy Paper stated the following:

The impact of the crimes may be assessed in light of . . . environmental damage inflicted on the affected communities. In this context, the Office will give particular consideration to prosecuting Rome Statute crimes that are committed by means of, or that result in, inter alia, the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land.<sup>56</sup>

The Policy Paper also noted that the Office would cooperate with State-Parties and assist with investigation and prosecution of crimes under national law, including those that constitute “destruction of the environment.”<sup>57</sup>

Despite this promising language, the ICC remains limited in addressing acts of ecocide without a formal amendment and enactment of the crime. This is because, despite the provisions in the Policy Paper and the Prosecutor's ability to weigh environmental harm when choosing which cases to prosecute, the Prosecutor is still limited by the provisions and crimes of the Rome Statute. “The Rome Statute only allows the ICC to prosecute the four ‘core crimes’ of genocide, crimes against humanity, war crimes and aggression. The ICC's jurisdiction only extends to these four crimes [and] . . . only one crime, War Crimes, makes any reference to environmental destruction.”<sup>58</sup> Because of this, it would be difficult to prosecute an environmental crime of ecocide under the Statute as it currently reads—especially instances of ecocide resulting in disproportionate harm to the flora and fauna as opposed to humans.

Lastly, it is worth noting that although the IACtHR has “previously recognized the connection between human rights and a state's environmentally hazardous actions[,]”<sup>59</sup> human rights tribunals have “generally not been favorable towards hearing environmental cases” since “these tribunals are focused on core human rights.”<sup>60</sup> One of the most glaring limitations of the IACtHR, in addition, is that it is

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<sup>55</sup> Office of the Prosecutor, *Policy Paper on Case Selection and Prioritization*, Int'l Crim. Ct. (2016), [https://www.icc-cpi.int/itemsDocuments/20160915\\_OTP-Policy\\_Case-Selection\\_Eng.pdf](https://www.icc-cpi.int/itemsDocuments/20160915_OTP-Policy_Case-Selection_Eng.pdf); Greene, *supra* n. 17 at 22.

<sup>56</sup> Office of the Prosecutor, *supra* n. 55 at 14.

<sup>57</sup> *Id.* at 5.

<sup>58</sup> Greene, *supra* n. 17 at 24.

<sup>59</sup> Timo Koivurova, *International Legal Avenues to Address the Plight of Victims of Climate Change: Problems and Prospects*, 22 J. Env't. L. & Litig. 267, 287 (2007).

<sup>60</sup> Greene, *supra* n. 17 at 46.

a regional human rights tribunal meaning it is limited geographically.<sup>61</sup> Even if one were to overcome the geographic hurdle,<sup>62</sup> the IACtHR may decline to hear the case due to subject-matter. In 2005, the Inuit people of the arctic U.S. and Canada regions filed a petition with the IACtHR alleging that the U.S. had committed human rights violations through its greenhouse gas emissions destroying the Inuit people's environment and culture.<sup>63</sup> The IACtHR, however, "rejected the case as falling outside the ambit of the IAHRT Treaty."<sup>64</sup>

## 2. *The Most Egregious Actors Should Be Punished.*

Especially in recent years but also throughout history, the amount of horrific environmental effects seen because of what can be characterized as ecocide is appalling. These cases illustrate the dire need for an international crime under which such actors can be deterred and, if necessary, punished under the law.

In 1984, a facility operated by Union Carbide India Limited ("Union Carbide") experienced a gas leak resulting in the facility releasing around 32 tons of methyl isocyanate gasses.<sup>65</sup> The gasses, which Union Carbide had previously used for insecticides, spread across the city of Bhopal, India where cold December weather conditions trapped the gas. The gas suffocated the population, leading to gruesome death tolls. When exposed to this gas, "[s]ome vomited uncontrollably, went into convulsions and fell dead. Others choked to death, drowning in their own body fluids. Many died in the stampedes through narrow gullies where street lamps burned a dim brown through clouds of gas."<sup>66</sup> One professor of law stated that estimates for "the

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<sup>61</sup> *What Is the I/A Court H.R.?*, Inter-American Court of Human Rights [https://www.corteidh.or.cr/que\\_es\\_la\\_corte.cfm?lang=en](https://www.corteidh.or.cr/que_es_la_corte.cfm?lang=en) ("The States that have ratified the American Convention are: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, and Uruguay.").

<sup>62</sup> States that have ratified the American Convention include the following: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, and Uruguay.

<sup>63</sup> *Id.* at 46; Patrick Foster, *Climate Torts and Ecocide in the Context of Proposals for an International Environmental Court*, CUNY Academic Works 26 (2011) [https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1039&context=cc\\_etds\\_theses](https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1039&context=cc_etds_theses); Koivurova, *supra* n. 59 at 287.

<sup>64</sup> Greene, *supra* n. 17 at 46.

<sup>65</sup> Jayanth K. Krishnan, *Bhopal in the Federal Courts: How Indian Victims Failed to Get Justice in the United States*, 72 Rutgers U. L. Rev. 705, 706-707 (2020).

<sup>66</sup> *What Happened*, The Bhopal Medical Appeal <https://www.bhopal.org/continuing-disaster/the-bhopal-gas-disaster/union-carbides-disaster/>.

figures [of death tolls] run from approximately 5,200 to 15,000 to 25,000.”<sup>67</sup> Over 500,000 survivors exposed to the gasses currently live with injury as a result.<sup>68</sup> On the other hand, the Second Circuit Court of Appeals presented more conservative numbers, stating that “the deaths of over 2,000 persons and injuries of over 200,000 [were] caused by lethal gas known as methyl isocyanate . . . .”<sup>69</sup>

Union Carbide operated under its parent company, Union Carbide Corporation (“UCC”), which was American based. As a result, following the tragedy, discussions focused heavily on which country the plaintiffs would bring the resulting lawsuit in.<sup>70</sup> American lawyers representing victims from Bhopal ended up suing UCC in the U.S., with around 145 class actions filed in U.S. federal district courts.<sup>71</sup> The plaintiffs’ lawyers chose to bring suit in the United States for a number of reasons, including the question of jurisdiction over the parent company who was domiciled in the U.S., the backlogged state of the Indian courts, and “the fact that Indian law did not offer adequate mass tort remedies.”<sup>72</sup> The district court, however, dismissed the case on the ground of *forum non conveniens*.<sup>73</sup>

More recently, on April 20, 2010, the Macondo well for British Petroleum (“BP”) blew out, causing the Deepwater Horizon oil rig to catch fire. The well began leaking oil into the Gulf of Mexico, causing immediate environmental consequences. These included the following: “surface oil slicks, fishery closures, contaminated beaches, oiled wildlife, and increasing reports of health problems among spill workers.”<sup>74</sup> BP was finally successful in stopping the oil leak after multiple failed attempts, but only after oil had leaked into the Gulf for 87 days.<sup>75</sup> Over three months after the spill, the federal government announced its estimate that BP had leaked around 4.8 million barrels of oil into the Gulf.<sup>76</sup> The environmental effects of this spill are unspeakably broad:

The timing of the oil spill disrupted the reproductive cycles of many species, including the oysters that the Gulf is famous for. Oysters

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<sup>67</sup> Krishnan, *supra* n. 65 at 707.

<sup>68</sup> *Id.*

<sup>69</sup> *In re Union Carbide Corp. Gas Plant Disaster at Bhopal*, 809 F.2d 195, 197 (2d Cir. 1987).

<sup>70</sup> *Id.* at 708.

<sup>71</sup> *Id.* (quoting *Bi v. Union Carbide Chems. & Plastics Co.*, 984 F.2d 582, 583 (2d Cir. 1993)).

<sup>72</sup> Krishnan, *supra* n. 65 at 708.

<sup>73</sup> *In re Union Carbide Corp. Gas Plant Disaster at Bhopal*, 809 F.2d at 202.

<sup>74</sup> Robin Kundis Craig, *Legal Remedies for Deep Marine Oil Spills and Long-Term Ecological Resilience: A Match Made in Hell*, B.Y.U.L. Rev. 1863, 1865 (2011).

<sup>75</sup> *Id.*

<sup>76</sup> *Id.*

are a keystone species in the Gulf - that is, “an organism that exerts a shaping, disproportionate influence on its habitat and community.” The spill probably impacted bluefin tuna as well. The Gulf is considered part of the bluefin’s “essential fish habitat,” and “the Ocean Foundation estimated that the spill could have affected 20% of the 2010 season’s population of bluefin tuna larvae, further placing at risk an already severely overfished species.” Endangered species of whales and sea turtles were also impacted by the oil spill: wildlife responders collected 1144 sea turtles and 109 marine mammals that had been injured by the spill, and many more undiscovered injuries of the same types are suspected to have occurred.<sup>77</sup>

Environmental disasters such as the Bhopal Gas Tragedy and the Deepwater Horizon Spill present stark examples of actors that have harmed our environment in unthinkable ways. In each situation, not only were human beings harmed but our environment was harmed as well. Animals, plants, our atmosphere, our waters, and nature itself was injured and killed because of reckless behavior. Our society could more readily punish the individuals responsible with an international crime against ecocide.

*C. AN ECOCIDE STATUTE SHOULD BE DESIGNED TO PROTECT HUMAN HEALTH AND ECOSYSTEMS BY DETERRING ECOCIDE AS WELL AS ACHIEVING RETRIBUTIVE JUSTICE*

Ecocide presents a junction of criminal law and environmental law. Both fields introduce guiding policy goals to consider when crafting and analyzing a statute.

In criminal law, courts justify punishment in a variety of ways. The Supreme Court has said, for example, “A sentence can have a variety of justifications, such as incapacitation, deterrence, retribution, or rehabilitation.”<sup>78</sup> While an ecocide statute may further the policy goal of incapacitation depending on the sentence, the proper form of punishment the statute should authorize is outside the scope of this Article. Rehabilitation should be less of an objective, at least in crafting an international law of ecocide. To rehabilitate one polluting corporate actor charged with this crime may be a positive, but there will certainly be countless more cooperate employees ready to fill the corporate

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<sup>77</sup> *Id.* at 1866-67 (citations omitted).

<sup>78</sup> *Ewing v. California*, 538 U.S. 11, 25 (2003) (citing 1 W. LaFare & A. Scott, *Substantive Criminal Law* § 1.5, 30-36 (1986) (explaining theories of punishment)).

actor's shoes. Thus, other goals such as deterrence should take precedence. Accordingly, in evaluating the following proposed definitions of ecocide it is key to remember that an ecocide statute should primarily further the goals of deterrence, both general and specific, as well as retribution.

One legal expert explained that “[g]eneral deterrence focuses on how the punishment of the individual offender translates into deterring others from committing future crimes” while “[s]pecific deterrence focuses on how the offender’s punishment will deter the individual offender in the future from committing similar acts against society.”<sup>79</sup> Specific deterrence is related to incapacitation. “Retribution/retaliation/just deserts”<sup>80</sup> provides a different rationale for punishment under an ecocide statute. Put simply, this reflects the notion that “[t]he punishment must fit the crime.”<sup>81</sup> Retribution justifies punishment through the argument that a guilty offender deserves punishment in proportion to their “moral desert.”<sup>82</sup> Legal scholar Michael S. Moore explained the justification as follows:

Retributivism is a very straightforward theory of punishment: We are justified in punishing because and only because offenders deserve it. Moral culpability (“desert”) is in such a view both a sufficient as well as necessary condition of liability to punitive sanctions. Such a justification gives society more than merely a right to punish culpable offenders. . . . For a retributivist, the moral culpability of the offender also gives society a *duty* to punish.<sup>83</sup>

An ecocide statute should further the goals of deterrence and retributivism. If implemented into the Rome Statute, the law should provide both general and specific deterrence. Depending on the type of punishment authorized under the statute, it should provide general deterrence because actors may be dissuaded from committing acts carrying the risk of harm to the environment if there is the threat of punishment under such a statute. Specific deterrence should be provided to those charged with ecocide, because the offender will be

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<sup>79</sup> Melanie Reid, *Crime and Punishment, a Global Concern: Who Does It Best and Does Isolation Really Work?*, 103 Ky. L.J. 45, 56 (2014-2015).

<sup>80</sup> *Id.* at 49 (internal quotation omitted) (citing Wayne R. Lafave, *Principles of Criminal Law* 11 (2d ed. 2010) (demonstrating that these words are used synonymously)).

<sup>81</sup> Reid, *supra* n. 79 at 51 (internal quotation omitted) (quoting Arnold H. Loewy, *Criminal Law in a Nutshell* 6 (5<sup>th</sup> ed. 2009)).

<sup>82</sup> Joshua Dressler and Stephen P. Garvey, *Criminal Law: Cases and Materials* 41-42 (8th ed. 2019) (quoting Michael S. Moore, *The Moral Worth of Retribution*, Responsibility, Character and Emotions: New Essays in Moral Psychology (Ferdinand Schoeman ed., 1987), 179-182).

<sup>83</sup> *Id.* (emphasis in original).

less likely to commit acts similar to those that led to the charges after experiencing prosecution for such a crime. Retribution is a particularly persuasive aim of an ecocide crime, given the frequency and magnitude of environmental disasters in previous years. For example, if Union Carbide India Limited (“Union Carbide”) or the Union Carbide Corporation (“UCC”) were indeed responsible for the Bhopal Gas Tragedy, the moral deserts of the corporate actors provide justification for punishment as well as a *duty* of society to punish these actors.

Environmental law presents a different focus, in general, than criminal law. Environmental law covers a diverse range of legal issues from pollution and waste management, to mineral resource sustainability, to wind turbine siting, to preservation of animal species. Various policy goals may be at play in an environmental statute, including the following: (1) the health of our current generations; (2) the health of future generations; (3) ecosystem protection; and (4) maintaining resources and lifestyle.<sup>84</sup> A sound ecocide statute should further each of these goals.

An ecocide criminal statute should deter acts of ecocide, which in turn will further environmental policy goals. Deterrence of ecocide furthers the health of both current generations and future generations. This is because it leads to less damage to our environment with ecosystems left intact, which also furthers the fourth goal of ecosystem protection. Ecocide deterrence also leads to less disasters that directly result in human life, like in the Bhopal Gas Tragedy.

Although preservation of the health of both current and future generations should certainly be a consideration, protection of our environment should be bio-centric rather than human-centric. One scholar states that “[t]he provisions relating to environmental damage in the Rome Statute are directed mainly towards addressing humanitarian harm. The focus on the humanitarian dimension of environmental damage is emblematic of the prevailing anthropocentric ontology shaping international law that relegates non-human life to a purely utilitarian function.”<sup>85</sup> This approach is antiquated; each member of an ecosystem—whether plant, animal, or fungus—plays a role in the functioning of our ecological systems. While human harm

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<sup>84</sup> *What Is Environmental Law?*, EnvironmentalScience.org  
<https://www.environmentalscience.org/environmental-law>.

<sup>85</sup> Rosemary Mwanza, *Enhancing Accountability for Environmental Damage Under International Law: Ecocide as a Legal Fulfillment of Ecological Integrity*, 19 *Melbourne J. of Int'l Law* 125, 146 (2018).

should be a factor in analyzing the harm to an ecosystem, it should not be the sole focus of the inquiry:

While the idea of protection of human wellbeing is an important purpose for law generally, the issue with anthropocentrism is its disregard of the fact that humans are environmentally-embedded beings. Because of [this], the wellbeing of humans cannot be achieved in isolation from the protection of the wellbeing of nature.<sup>86</sup>

Finally, ecocide is also heavily tied to the goal of resource maintenance. Polly Higgins stated that with ecocide “the focus is ultimately on war prevention [since] [f]urther destruction of resources will rapidly dissolve into violent conflict over allocation of resources.”<sup>87</sup> Ecocide manifesting in catastrophic events can lead to destruction of valuable resources, as was seen in the forest destruction following Agent Orange. Each policy goal is necessary to consider when analyzing the following definitions of ecocide.

#### *D. DEFINING ECOCIDE*

Although there have been several proposed definitions of ecocide over the years, two are especially worthy of analysis. Polly Higgins was a trailblazer in seeking to prevent ecocide, authoring a book on the subject and proposing an amendment to the Rome Statute in 2010. Her definition is noteworthy due to her expertise, efforts in advocating for enactment of the crime, and the definition’s feature of strict liability. In November 2020, the Stop Ecocide Foundation convened a panel to craft a definition of ecocide. The panel was comprised of twelve lawyers with diverse backgrounds from around the world. This definition is noteworthy since the Panel brought a broad range of voices and perspectives to the table when crafting the definition. The Panel’s Commentary and Core Text also provides helpful insight and analysis. Moreover, both Higgins’ definition and the Panel’s definition were crafted specifically as amendments to the Rome Statute—as this Article advocates.

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<sup>86</sup> *Id.* at 132.

<sup>87</sup> Polly Higgins, *Eradicating Ecocide: Laws and Governance to Prevent the Destruction of Our Planet* 68 (2d ed. 2015).

### 1. Polly Higgins' Proposal

In 2010, barrister Polly Higgins proposed State Parties amend the Rome Statute to include the fifth crime of ecocide. Higgins defined ecocide as “[t]he extensive destruction, damage to or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished.”<sup>88</sup> Higgins subsequently expanded her previous definition into the following model law:

1. Acts or omissions committed in times of peace or conflict by any senior person within the course of State, corporate or any other entity's activity which cause, contribute to, or may be expected to cause or contribute to serious ecological, climate or cultural loss or damage to or destruction of ecosystem(s) of a given territory(ies), such that peaceful enjoyment by the inhabitants has been or will be severely diminished. 2. To establish seriousness, impact(s) must be widespread, long-term or severe.<sup>89</sup>

A few aspects of Higgins' first definition and model law are notable. First, her model law indicates that “any senior person” may commit ecocide. This amendment applies to individual persons, not to the States or corporations themselves. So, for example, an oil company CEO or corrupt head of state could be subject to prosecution.<sup>90</sup> Thus, corporations are *not* punishable actors, rather, their head officials would be subject to punishment.

Higgins also requires an “extensive” magnitude of the harm.” To warrant punishment under her definition, an individual must cause harm (or commit acts that are likely to cause harm) to the “extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished.”<sup>91</sup> Higgins' definition and proposed law could be used to punish acts that have not yet led to harm. A person commits ecocide under the proposed law when they commit an act that “*may* be expected to cause serious ecological . . . damage . . . such that peaceful enjoyment by the inhabitants. . . will be severely diminished.”<sup>92</sup> This shows Higgins wanted to punish acts that have been committed but have not yet resulted in harm, as long as they are expected to lead to extensive harm in the future.

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<sup>88</sup> *Id.* at 62.

<sup>89</sup> Greene, *supra* n. 17 at 2 (quoting *Ecocide Law*, Mission Lifeforce <https://perma.cc/L326-S4KA>).

<sup>90</sup> Greene, *supra* n. 17 at 3.

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

Higgins' use of the word "territory" is also notable, since it demonstrates her desired scope of the crime. Rather than target individual ecosystems explicitly, Higgins uses the word territory which would indicate an area of land large enough to be bound by a governmental authority.

Higgins' definition, contrary to criminal law in most states, also does not include a *mens rea* requirement. Rather, it is strict liability.

## 2. *The Independent Expert Panel for the Legal Definition of Ecocide*

In November 2020, the Stop Ecocide Foundation convened a panel to create a definition of ecocide. The Independent Expert Panel for the Legal Definition of Ecocide ("the Panel") created the following proposed definition for the crime:

For the purpose of this Statute, 'ecocide' means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.<sup>93</sup>

The panel elaborated with the following definitions:

- a. "Wanton" means with reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated;
- b. "Severe" means damage which involves very serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life or natural, cultural or economic resources;
- c. "Widespread" means damage which extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings;
- d. "Long-term" means damage which is irreversible or which cannot be redressed through natural recovery within a reasonable period of time;
- e. "Environment" means the earth, its biosphere, cryosphere, lithosphere, hydrosphere and atmosphere, as well as outer space.<sup>94</sup>

Several aspects of this definition are important to note. First, it does not explicitly limit the crime to acts committed by individuals, as

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<sup>93</sup> *Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text*, Stop Ecocide Foundation 5 (June 2021)  
<https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d7479cf8e7e5461534dd07/1624721314430/SE+Foundation+Commentary+and+core+text+revised+%281%29.pdf>.

<sup>94</sup> *Id.*

opposed to corporations. However, the Panel's definition is intended to punish individuals rather than companies, like Higgins' model law. This is implied through its inclusion in the Rome Statute, which punishes individuals rather than corporations. This is also supported by the Panel's decision not to explicitly allow for punishment of corporations.<sup>95</sup>

As for the *mens rea* requirement, the Panel stated that it "proposes a *mens rea* of recklessness or *dolus eventualis*, requiring awareness of a substantial likelihood of severe and either widespread or long-term damage."<sup>96</sup> This is a marked departure from Higgins' strict liability approach. The recklessness requirement is also a departure from the default *mens rea* for Rome Statute crimes: "A person has intent where...that person means to cause that consequence or is aware that it will occur in the ordinary course of events."<sup>97</sup> The Panel determined this default *mens rea* requirement was too narrow, stating the following:

While there is some debate regarding the scope of [the] language [of the default *mens rea*], most decisions and commentators have concluded that it requires an awareness of a near certainty that the consequences will occur. Given the high thresholds for the consequences within the definition of ecocide, the Panel assessed that the [Rome Statute's] default *mens rea* for such consequences was too narrow and would not capture conduct with a high likelihood of resulting in severe and either widespread or long-term damage to the environment.<sup>98</sup>

The Panel's proposed *mens rea* is closer to general intent in the United States, while the default *mens rea* described in the Rome Statute is similar to specific intent. Bouvier Law Dictionary explains the two. General intent "refers to whether a defendant intended deliberate, conscious or purposeful action, as opposed to causing a prohibited result through accident, mistake, carelessness, or absent-mindedness. . . . [T]he prosecution need not establish that the accused intended the

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<sup>95</sup> *How the ICC Works*, ABA-ICC Project <https://how-the-icc-works.aba-icc.org/> ("The ICC cannot investigate or prosecute governments, corporations, political parties, or rebel movements, but may investigate individuals who are members of groups.")

<sup>96</sup> *Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text*, Stop Ecocide Foundation 11 (June 2021) <https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d7479cf8e7e5461534dd07/1624721314430/SE+Foundation+Commentary+and+core+text+revised+%281%29.pdf>.

<sup>97</sup> *Id.*

<sup>98</sup> *Id.*

precise harm or precise result which resulted from his acts.”<sup>99</sup> Specific intent, on the other hand, “is the motivation to commit an act not merely for the act’s sake but for the purpose of causing a particular result from the act.”<sup>100</sup>

Accordingly, the Rome Statute’s default *mens rea* is closer to specific intent since the person must intend to cause the consequence, or must be nearly certain the consequence will occur. The Panel determined that this definition was too narrow, as explained above, and decided to use a *mens rea* closer to general intent. Under the Panel’s definition, the actor need not intend the consequences of their actions—or even be aware of a near certainty that they will occur—as long as the actor is aware of only a substantial likelihood damage will occur.

As for the magnitude of harm required under the Panel’s definition, there is no requirement of a showing of harm but rather a showing of the *risk* of harm. The Panel states that its definition of ecocide is “formulated as a crime of endangerment rather than of material result . . . .”<sup>101</sup> However, the risked harm must be “severe and either widespread or long-term damage that is criminalized.”<sup>102</sup>

Lastly, the panel does not define or constrain the effects using the term “territory” like Higgins did. Instead, in describing the geographical area harmed, the Panel defined “widespread” as “damage which extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings.”<sup>103</sup> However, again, the harm must be widespread *or* long-term, so it is not necessarily geographically constrained.

### 3. An Alternate Definition

This Article proposes the following definition of ecocide: For the purposes of the Rome Statute of the International Criminal Court, ‘ecocide’ means acts committed by a person or persons with a conscious disregard of a substantial and unjustifiable risk that grave destruction will occur to an ecosystem. One may be charged under this

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<sup>99</sup> *General Intent (Basic Intent)*, Bouvier Law Dictionary (Desk ed. 2012).

<sup>100</sup> *Specific Intent*, Bouvier Law Dictionary (Desk ed. 2012).

<sup>101</sup> *Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text*, Stop Ecocide Foundation 12 (June 2021) <https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/60d7479cf8e7e5461534dd07/1624721314430/SE+Foundation+Commentary+and+core+text+revised+%281%29.pdf>.

<sup>102</sup> *Id.*

<sup>103</sup> *Id.* at 5.

statute if: (a) grave destruction has already occurred, or (b) serious damage has already occurred, and there is a substantial likelihood that grave destruction will occur to an ecosystem within the next five years. This statute pertains to acts or omissions occurring during times of peace and during times of conflict.

The crime would include the following definitions to add clarity. *Grave destruction* occurs when an ecosystem is damaged beyond repair within a reasonable time through feasible means. This can include damage to social, economic, or cultural resources. Use of the term “grave destruction” indicates the heightened severity of the risk of harm required. *Feasible* means with currently available technology and at an affordable cost for the party victim to the conduct. *Serious damage* refers to damage that will not be naturally repaired within a reasonable period of time.

There is a tension between how tailored an ecocide definition should be versus how heavily the ICC should rely on prosecutorial discretion. Since this crime is novel at the international level and not common at the national level, relying on prosecutorial discretion heavily could lead to varied results. This is not a desirable outcome given the gravity of the offenses the crime seeks to punish.

This definition utilizes a recklessness standard, as opposed to strict liability. Higgins provided four reasons for choosing to advocate for a strict liability crime: (1) ecocide is a crime of consequence; (2) “the gravity and consequence of extensive damage and destruction to the environment justifies conviction without proof of any criminality of mind”; (3) legislation would be “largely ineffective” absent absolute liability; and (4) strict liability focuses on harm prevention rather than blame of the accused.<sup>104</sup>

Firstly, Higgins argues that “ecocide is a crime of consequence. It not often the conduct itself that is in question but the consequences of the conduct.”<sup>105</sup> Under this Article’s proposed definition, the ICC will instead punish conduct. This is key to further the policy goals of deterrence and retribution. Using a strict liability approach, an individual may commit the crime of ecocide without even realizing it. It is difficult to deter conduct an individual is not aware of, and this renders the punishment ill-fit to the culpability of the actor.

Higgins, on the other hand, asserts that “the gravity and consequence of extensive damage and destruction to the environment

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<sup>104</sup> Higgins, *supra* n. 87 at 68.

<sup>105</sup> Higgins, *supra* n. 87 at 68.

justifies conviction without proof of any criminality of mind.”<sup>106</sup> This, however, is contrary to the culpability requirement which is a cornerstone of criminal liability in most jurisdictions. The more severe the crime, arguably the more important it is that a culpability requirement be imposed. This is because, as a just society, we should not delve out harsh punishments except to those who have acted to deserve them. A recklessness standard—as well as a high magnitude of harm requirement—allows the ICC to punish only the most egregious of actors, and aids against the statute having overly broad effects. Because of this safeguard, this Article’s definition can punish harm to a potentially smaller geographic area of “an ecosystem” as opposed to a “territory” which may overlook regional ecosystems.

Higgins’ third reason for strict liability is that legislation would allegedly be largely ineffective without it. However, she offers this reason in support of her first definition of ecocide under which corporations can be punished.<sup>107</sup> Under her subsequent definition, only a “senior person” can be punished.<sup>108</sup> Higgins stated that, “[h]istorically, courts had assumed that since a corporation could not have a criminal state of mind in isolation from its directors, it could only be guilty of an offence which did not include any mental element.”<sup>109</sup> Since the ICC punishes individuals instead of corporations and since this Article’s proposed definition does not target corporations, this argument is unpersuasive.<sup>110</sup>

Lastly, Higgins states the following as justification for strict liability: “[It] places the focus on the onus of first preventing the harm, not on the blame of the accused.” However, harm prevention can be accomplished through the deterrent effect of the statute. Were the ICC to pass an ecocide statute with a recklessness requirement, individuals would be deterred from acting recklessly to create environmental harm. This would allow for harm prevention, without encouraging an *overabundance* of caution. An overabundance of caution could manifest itself in the Government allocating more money than is

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<sup>106</sup> *Id.*

<sup>107</sup> Under this same definition, though, Higgins later opines that “[a]ll rights vested in a corporation can be shifted to the correct legal person by fully imposing those rights upon those who have taken on the positions of superior responsibility. . . . [I]t is for the directors to shoulder that responsibility entirely . . . .” Polly Higgins, *Eradicating Ecocide: Laws and Governance to Prevent the Destruction of Our Planet* 112 (2d ed. 2015).

<sup>108</sup> *Id.*; Greene, *supra* n. 17 at 2 (quoting *Ecocide Law*, Mission Lifeforce <https://perma.cc/L326-S4KA>).

<sup>109</sup> Higgins, *supra* n. 87 at 68.

<sup>110</sup> Corporate liability imposed for directors and officers (D&O) liability insurance can aid in proving necessary mental elements.

necessary to environmental protection at the cost of dedicating *less* money to pressing areas such as education and health. For all of these reasons, strict liability should not be utilized instead of a recklessness requirement.

Another difference between the other two definitions and this Article's definition is that this definition cannot be used to punish actors who have not yet caused harm. The harm must have materialized. Rather than punish someone solely for the risk of harm, under this proposed definition an actor can only be punished under contemplative risk of "grave destruction" *if* "serious damage has already occurred." This is further limited by the requirement that grave destruction is substantially likely to occur within the next five years, imposing an imminence requirement. This allows the ICC to prevent grave destruction before it has occurred, but also serves to ensure that the statute only punishes the worst actors who are worthy of punishment under the international criminal system in turn furthering the policy goal of retribution.

#### COMPARISON OF ELEMENTS OF THREE DEFINITIONS OF ECOCIDE

	Polly Higgins' Definition <sup>111</sup>	The Panel's Definition <sup>112</sup>	This Article's Definition <sup>113</sup>
Who is punishable?	"Any <i>senior person</i> "	Not explicit, but applicable to <i>persons under terms of</i>	"A <i>person or persons</i> "

<sup>111</sup> "Acts or omissions committed in times of peace or conflict by any senior person within the course of State, corporate or any other entity's activity which cause, contribute to, or may be expected to cause or contribute to serious ecological, climate or cultural loss or damage to or destruction of ecosystem(s) of a given territory(ies), such that peaceful enjoyment by the inhabitants has been or will be severely diminished. To establish seriousness, impact(s) must be widespread, long-term or severe."

<sup>112</sup> "[U]nlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts."

<sup>113</sup> "[A]cts committed by a person or persons with a conscious disregard of a substantial and unjustifiable risk that grave destruction will occur to an ecosystem. One may be charged under this statute if: (a) grave destruction has already occurred, or (b) serious damage has already occurred, and there is a substantial likelihood that grave destruction will occur to an ecosystem within the next five years."

		<i>ICC jurisdiction</i>	
Intent Requirement	None- Strict Liability	Recklessness- “requiring <i>awareness of a substantial likelihood of severe and either widespread or long-term damage</i> ”	Recklessness- committed “with a <i>conscious disregard of a substantial and unjustifiable risk that grave destruction will occur to an ecosystem</i> ”
Magnitude of Harm	“ <i>Serious ecological, climate or cultural loss or damage to or destruction of ecosystem(s)</i> ”	“ <i>[S]evere and either widespread or long-term damage that is criminalized</i> ”	(a) <i>Grave destruction</i> has already occurred, or (b) <i>Serious damage</i> has already occurred, and there is a substantial likelihood that <i>grave destruction</i> will occur to an ecosystem within the next five years.
Imminency Requirement	Can be used to punish acts which have not yet led to harm but <i>may be expected to in the future</i>	Endangerment liability- no requirement of materialization of harm	Grave destruction has occurred or is substantially likely to occur <i>within five years</i>

**Figure 1.** Comparison of proposed ecocide definitions.

Under this Article's proposed definition of ecocide, head figures of the Union Carbide India Limited ("Union Carbide") could be charged with ecocide for the Bhopal Gas Tragedy. The following elements must be met: (1) a person or persons (2) committed an act or omission (3) with a conscious disregard of a substantial and unjustifiable risk that grave destruction will occur (4) to an ecosystem. In this case, these elements may be demonstrated: (1) corporate officials at Union Carbide (2) allowed safety systems to become inoperative (3) despite the substantial and unjustified risk that a gas leak would occur, killing plants, animals, and humans (4) in the ecosystems present in Bhopal.

The factory ceased production of pesticides in 1980s. According to the Bhopal Medical Appeal, management appeared to reason that since the plant was not actively producing pesticides, there remained little threat of harm.<sup>114</sup> As a result, "[a]lthough [methyl isocyanate] is a particularly reactive and deadly gas, the Union Carbide plant's elaborate safety system was allowed to fall into disrepair. . . . Every safety system that had been installed to prevent a leak of MIC – at least six in all – ultimately proved inoperative."<sup>115</sup> One professor described the appalling state of the factory and the occurrences of that night with the following:

At 11.00 PM on December 2 1984 . . . an operator at the plant noticed a small leak of methyl isocyanate (MIC) gas and increasing pressure inside a storage tank. The vent-gas scrubber, a safety device designed to neutralize toxic discharge from the MIC system, had been turned off three weeks prior. Apparently a faulty valve had allowed one ton of water for cleaning internal pipes to mix with forty tons of MIC. A 30 ton refrigeration unit that normally served as a safety component to cool the MIC storage tank had been drained of its coolant for use in another part of the plant. Pressure and heat from the vigorous exothermic reaction in the tank continued to build. The gas flare safety system was out of action and had been for three months. At around 1.00 AM, December 3, loud rumbling reverberated around the plant as a safety valve gave way sending a plume of MIC gas into the early morning air. Within hours, the streets of Bhopal were littered with human corpses and the carcasses of buffaloes, cows, dogs and birds.<sup>116</sup>

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<sup>114</sup> *What Happened*, The Bhopal Medical Appeal <https://www.bhopal.org/continuing-disaster/the-bhopal-gas-disaster/union-carbides-disaster/>.

<sup>115</sup> *Id.*

<sup>116</sup> Edward Broughton, *The Bhopal Disaster and Its Aftermath: A Review*, *Environmental Health* 4 (May 10, 2005) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1142333/>.

Members of management did not require regular maintenance and repair of the facility's safety system. This decision was made despite a "substantial and unjustifiable risk that grave destruction will occur to an ecosystem." The substantial and unjustifiable risk involved was a gas leak, which can lead to a host of medical conditions in humans and animals, poisoned water supplies, unhealthy soil, and other effects. The risk that methyl isocyanate (MIC) would leak was substantial even though the facility was not producing pesticides because the facility still held over 60 tons of MIC.<sup>117</sup> This risk was unjustifiable since it could have been mitigated through regular maintenance of the facility's safety systems, or through closing the facility entirely and properly disposing of the MIC. The gas leak killed thousands of human beings, animals, and plants, disrupting the local ecosystem.<sup>118</sup> In fact, Union Carbide's parent company, Union Carbide Corporation ("UCC"), failed to clean the factory site. As a result, "[t]he plant continues to leak several toxic chemicals and heavy metals that have found their way into local aquifers. Dangerously contaminated water has now been added to the legacy left by the company for the people of Bhopal."<sup>119</sup>

Under this Article's definition of ecocide, corporate officials at BP could also be charged with ecocide for the results of the Deepwater Horizon Spill. Again, the following elements must be met: (1) a person or persons (2) committed an act or omission (3) with a conscious disregard of a substantial and unjustifiable risk that grave destruction will occur (4) to an ecosystem. In this case, these elements may be demonstrated: (1) corporate officials at BP (2) used defective plan for the Macondo well (3) despite the substantial and unjustified risk that the well would blowout, causing extensive environmental damage (3) to the Gulf ecosystem.

In April 2010, BP was nearly six weeks behind schedule in drilling the Macondo well, and the company was over \$58 million over budget.<sup>120</sup> One legal professor explains that "[t]he commercial pressures BP faced as a result of these cost overruns likely led it to take shortcuts, and these shortcuts probably help to explain why. . .the Macondo well blew out."<sup>121</sup> One petroleum geologist, Arthur Berman,

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<sup>117</sup> *Id.*

<sup>118</sup> Broughton, *supra* n. 116; Mary Elliott Rolle, *Unraveling Accountability: Contesting Legal and Procedural Barriers in International Toxic Tort Cases*, 15 *Geo. Int'l Env't. L. Rev.* 135, 137 n. 4 (2003).

<sup>119</sup> Broughton, *supra* n. 116 at 6.

<sup>120</sup> Craig, *supra* n. 74 at 1864.

<sup>121</sup> *Id.*

also argues that the plan for the Macondo well was defective, stating that “[a] plan that does not include enough cement to overlap the final and previous casing strings, and that does not require running a cement-bond log to ensure the integrity of the seal is a defective plan.”<sup>122</sup> This was the case with the Macondo well. Berman argues that “[t]he fact that there have not been blowouts on previous wells does not justify the approval and use of an unsafe plan.”<sup>123</sup>

In this case, actors at BP cutting corners regarding safety to save money arguably ignores the substantial and unjustifiable risk that the well may blowout. BP should have instead used enough cement and ensured the integrity of the well’s seal to mitigate this risk. A well blowout can lead to grave destruction to an ecosystem. As was seen with this spill, the harms that occurred were particularly grave and necessitated months of vigorous cleanup efforts. One legal scholar commented that cleanup efforts took years and involved “tens of thousands of employees.”<sup>124</sup> Moreover, cleaning efforts have cost over \$ 14 billion.<sup>125</sup> The spill triggered both immediate and lasting effects on the surrounding ecosystem. “Close to two million gallons of dispersants were used in an attempt to cope with the spill. Although the dispersants helped break up the oil slicks, many of the chemicals used were assertedly toxic and posed environmental risks, and some traces have lasted for years without fully breaking down.”<sup>126</sup> Acts causing this damage are certainly the sort worthy of punishment under this Article’s definition.

### *E. THE PROPOSED ALTERNATIVE BETTER MEETS OUR POLICY GOALS OF CRIMINALIZING ECOCIDE*

An effective and ideal ecocide statute should provide deterrence, retribution, protection of the health of current and future generations, and ecosystem protection including the preservation of resources. Each of the three analyzed definitions furthers these goals in different ways. These differences are reflected in Figure 2.

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<sup>122</sup> Arthur E. Berman, *What Caused the Deepwater Horizon Disaster?* Resilience.org (May 21, 2010) <https://www.resilience.org/stories/2010-05-21/what-caused-deepwater-horizon-disaster/>.

<sup>123</sup> *Id.*

<sup>124</sup> Jay M. Zitter, Annotation, *Major Event Litigation: Deepwater Horizon Incident*, 102 A.L.R.6th 1, 2.

<sup>125</sup> *Id.*

<sup>126</sup> *Id.*

### 1. Deterrence

The Panel's definition and this Article's definition would serve the policy goal of deterrence more effectively than Higgins' definition. This is because Higgins' definition utilizes strict liability, allowing for conviction of an individual who may not even have realized they were committing a crime. Unintentional conduct is difficult to deter.

The Panel's definition and this Article's definition, on the other hand, would further the goals of both specific and general deterrence. An individual charged with ecocide under either definition, would be less likely to commit ecocide in the future. Under either definition, given the recklessness standard, the individual will know which conduct is prohibited and can adjust their behavior accordingly. With Higgins' definition, however, since circumstances are punished rather than conduct it is difficult to know precisely which acts to avoid.

### 2. Retribution

Again, the Panel's definition and this Article's definition would serve the policy goal of retribution more effectively than Higgins' definition. Retribution reflects the notions that "[t]he punishment must fit the crime"<sup>127</sup> and that punishment is justified in proportion to the offender's "moral desert."<sup>128</sup> Higgins' definition is less compatible with the goal of retribution because punishment absent moral culpability remains possible under her definition. The Panel's definition and this Article's definition, on the other hand, ensure that only the morally culpable are punished through imposition of the recklessness requirement. Moreover, language in both definitions further narrow the crime so that only the most egregious actors may be charged. For example, the high magnitude of harm required prevents an overbroad application of the crime.

However, it is worth noting that the Panel's definition is formulated as a crime of endangerment. An individual can be punished for "acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment

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<sup>127</sup> Reid, *supra* n. 80 at 51 (internal quotation omitted) (quoting Arnold H. Loewy, *Criminal Law in a Nutshell* 6 (5<sup>th</sup> ed. 2009)).

<sup>128</sup> Joshua Dressler and Stephen P. Garvey, *Criminal Law: Cases and Materials* 41-42 (8th ed. 2019) (quoting Michael S. Moore, *The Moral Worth of Retribution*, Responsibility, Character and Emotions: New Essays in Moral Psychology (Ferdinand Schoeman ed., 1987), 179-182).

being caused by those acts.”<sup>129</sup> Because of this, an individual may be punished under this definition for creating the risk of harm rather than for materialized harm. Under this Article’s proposed definition, at the very least an individual must have already caused serious damage. One who has caused damage and materialized harm is more blameworthy than one who has simply created conditions in which damage may occur. Accordingly, the Panel’s definition does not further the goal of retribution as effectively as this Article’s proposed definition.

### 3. *Health of Current and Future Generations*

Although each definition is likely to further the goal of protecting the health of current and future generations, Higgins’ definition is best equipped to do so. This is because, due to strict liability, her definition could be used to punish actors that caused harm to health who would not otherwise be punishable under the Panel’s definition or this Article’s definition.

A hypothetical is illustrative: An individual committed an act without awareness of the action’s risks, and that action led to immense air pollution. The air pollution caused detrimental health effects in a local population, as well as birth defects in the population’s subsequent children. Under the Panel’s definition as well as this Article’s definition, the ICC could not punish the individual because they have not acted recklessly. Under Higgins’ definition though, depending on the extent of the damage caused by the pollution, this individual may be punished regardless of their lack of recklessness.

That Higgins’ definition is more protective of the health of current and future generation does not necessarily mean it is superior. It is notable that this definition may cause *inefficient* preventative measures. Her definition focuses more heavily on health protection, but it is not justifiable in terms of the costs and benefits. For example, the cost of prosecuting the individual who caused the air pollution may be enormously high while the benefit may be low especially since the individual acted without awareness. The cost of international prosecution does not justify punishing actors who did not realize they were causing harm.

The Panel’s definition and this Article’s definition still would serve the goal of protection of health. It is only in the exceedingly rare

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<sup>129</sup> *Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text*, Stop Ecocide Foundation 5 (June 2021).

instance that an individual would commit an act of ecocide entirely ignorant of the risks. Both definitions, although allowing for only a narrow application compared to Higgins', still protect health because the deterrent effect of the crime will lead to harm prevention. If actors are deterred from engaging in behavior that risks ecocide, they will be less likely to cause environmental disasters leading to adverse health outcomes for current and future generations.

#### *4. Protection of Ecosystems*

Under the same logic, Higgins' definition could be used to punish actors who cause ecological harm that would not otherwise be punishable under the Panel's definition or this Article's definition. These actors are those who commit ecocide negligently or even accidentally. However, again, protection of ecosystems is still furthered under both the Panel's definition as well as this Article's definition.

Notably, this Article's definition is the only one that requires materialized harm to an ecosystem prior to the Prosecutor filing charges. The other two definitions permit punishment for endangerment or the threat of ecocide. Because of this, the other two definitions are applicable to a wider range of defendants and accordingly may be more effective in preventing harm to ecosystems in general. However, the requirement of materialized harm serves to prevent an overly broad application of the crime and is thus necessary.

#### *5. This Article's Definition Most Effectively Serves Our Identified Policy Goals*

Higgins' definition is noteworthy for its emphasis on furthering the goals of protecting the health of current and future generations, as well as protecting ecosystems and resources. However, this is at the expense of effectively furthering the goals of deterrence and retribution which makes this definition weaker. The goals of deterrence and retribution are necessary to prevent future acts of ecocide and to justly punish offenders. While both the Panel's definition and this Article's definition further these goals, this Article's definition serves retribution more effectively due to the requirement of materialization of harm. This ensures the punishment fits the crime by allowing charges only for egregious actors that have damaged our ecosystems. Since this Article's definition serves all four policy goals and is the most well-

rounded of the three definitions, it is a viable and effective definition of this crime.

**COMPARISON OF ABILITY TO SERVE OUR IDENTIFIED  
POLICY GOALS**

	Polly Higgins' Definition <sup>130</sup>	The Panel's Definition <sup>131</sup>	This Article's Definition <sup>132</sup>
Deterrence	Low- Punishes individuals who may not realize they are committing crimes	High- Individuals are less likely to commit acts even potentially risky due to the recklessness standard	High- Individuals are less likely to commit acts even potentially risky due to the recklessness standard
Retribution	Low- Due to strict liability, the punishment may not fit the crime due to	Acceptable- May punish individuals who have not caused harm, but serves the policy goal	High- Only punishes individuals who have caused damage, uses a recklessness standard to

<sup>130</sup> "Acts or omissions committed in times of peace or conflict by any senior person within the course of State, corporate or any other entity's activity which cause, contribute to, or may be expected to cause or contribute to serious ecological, climate or cultural loss or damage to or destruction of ecosystem(s) of a given territory(ies), such that peaceful enjoyment by the inhabitants has been or will be severely diminished. To establish seriousness, impact(s) must be widespread, long-term or severe."

<sup>131</sup> "[U]nlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts."

<sup>132</sup> "[A]cts committed by a person or persons with a conscious disregard of a substantial and unjustifiable risk that grave destruction will occur to an ecosystem. One may be charged under this statute if: (a) grave destruction has already occurred, or (b) serious damage has already occurred, and there is a substantial likelihood that grave destruction will occur to an ecosystem within the next five years."

	lack of a “moral desert”	more effectively than Higgins’ definition due to the recklessness requirement	ensure moral culpability
Health of current and future generations	High- Strict liability allows for application in a broader range of cases, can punish acts leading to health detriments even if the actor was not aware of the risks of their actions	Acceptable- While this definition may not further health to the same degree Higgins’ since it has a narrower application, it will still lead to harm prevention through its deterrent effect	Acceptable- While this definition may not further health to the same degree Higgins’ since it has a narrower application, it will still lead to harm prevention through its deterrent effect
Protection of Ecosystems	High- Under the same logic strict liability allows for application in a broader range of cases, can punish acts leading to harm even if the actor was not aware of the risks of their actions	Acceptable- The deterrent effect of this crime will lead to actors avoiding actions that risk ecological harm	Acceptable- The deterrent effect of this crime will lead to actors avoiding actions that risk ecological harm, although requirement of materialization of harm leads to a narrower application

**Figure 2.** Comparison of definitions and their ability to meet desired policy goals.

*F. THE ALTERNATIVE PROPOSED DEFINITION OVERCOMES  
OBSTACLES TO ADOPTION*

*1. Hesitancy about Economic Disadvantages Is Outweighed by Costs  
of Environmental Disasters and Issues of Equity.*

State Parties considering amending the Rome Statute to include the crime of ecocide may be hesitant to do so out of fear of placing themselves at an economic disadvantage from enforcing the crime domestically. This concern ignores the reality of the exorbitant price of addressing environmental disasters such as those previously discussed. Enforcement of the crime of ecocide, from an economic viewpoint, can be thought of as a tradeoff—one that results in lessened harm to our environment and a world that will be more hospitable to future generations. State Parties pay the price of penal enforcement now to avoid the price of addressing consequences of environmental tragedies that would have otherwise occurred later.

The cost of ecocide, purely from an economic standpoint, is high. Polly Higgins wrote the following:  
The Economics of Ecosystems and Biodiversity (TEEB) study is a major international initiative analyzing the global economic benefits of biodiversity, the growing costs of biodiversity loss and ecosystem degradation and the failure to take protective measures versus the costs of effective conservation. . . . TEEB has put the conservative cost of global ecocide by the world's top firms at \$2.2 trillion for 2008, a figure bigger than the national economies of all but seven countries in the world. The figure for 2009 is \$4 trillion.<sup>133</sup>

Moreover, enforcement of this crime would lead to increased global equity. Developing countries disproportionately feel the effects of transnational corporate actors harming our environment. Requiring other countries to enforce this crime, especially State Parties with high

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<sup>133</sup> Higgins, *supra* n. 87 at 64.

CO2 emissions such as Lexemborg and Australia, will ease the burden felt on developing State Parties that are disproportionately affected. Developing countries' vulnerability to environmental disasters paired with the inequity in allowing developing countries or countries in transition to shoulder the burden of enforcement of ecocide crimes and the cleanup of environmental disasters is unjust. One legal scholar stated the following:

[W]ealthier countries continue to produce the majority of GHG emissions and to benefit economically from their high-emissions activities, while poorer countries produce disproportionately lower emissions per capita but face the most serious negative consequences of climate change. The reality that climate change threatens to multiply existing patterns of global economic disparity, by now, is well understood.<sup>134</sup>

If State Parties were to implement ecocide as a fifth crime in the Rome Statute, equity would be served because the cost of enforcing this crime would be shared. State Parties must begin enforcement of the law of ecocide domestically within a year following ratification. As developed countries begin to take a more active role in fighting manmade environmental disasters, they will distribute the burden more equitably. Moreover, the ICC will aid developing countries in prosecuting these crimes if necessary.<sup>135</sup> Accordingly, due to both the heavy toll imposed by environmental disasters from ecocide as well as increased equity and burden-sharing under the ICC, State Parties would be wise to implement this crime.

## *2. The ICC's Inability to Punish Corporations Is Permissible Due to the ICC's Ability to Punish Corporate Actors, Paired with the Law's Deterrent Effect.*

One may argue that a limitation of each definition of ecocide is that the crime punishes individuals, not corporations. This argument is weakened because corporate actors, such as CEOs or members of management, can be charged with ecocide. The enactment of such a

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<sup>134</sup> Cinnamon P. Carlame & JD Colavecchio, Balancing Equity and Effectiveness: *The Paris Agreement & The Future of International Climate Change Law*, 27 N.Y.U. Envtl. L.J. 107, 114 (2019).

<sup>135</sup> Office of the Prosecutor, *supra* n. 55 at 5 (“The Office will also seek to cooperate and provide assistance to States, upon request, with respect to conduct which constitutes a serious crime under national law, such as . . . the destruction of the environment.”).

crime and the mere threat of charges can have significant deterrent impacts, especially on transnational corporate officials. This is especially so since, after a State Party ratifies and implements the crime of ecocide nationally, “under universal jurisdiction principles, any ratifying nation may, on its own soil, arrest a non-national for ecocide committed elsewhere, as long as they consider the crime to be serious enough.”<sup>136</sup> Being unable to travel to other countries without fear of criminal charges of ecocide can deter corporate officials of companies who operate transnationally.

On this point, Higgins stated that allowing corporate directors to be subject to criminal punishment for ecocide would cause directors to take their duties more seriously. She wrote that when a director risks incarceration, “the impetus of proceeding along a potentially destructive course of action is greatly tempered. Quite simply, in this manner, the appetite for pursuit of profit would immediately be contained and restricted to activities that do not cause damage or destruction.”<sup>137</sup> Although charges may not be brought against a corporation, an international crime of ecocide will accordingly deter behavior presenting risk of destruction to our ecosystems.

### *3. An International Crime Is Necessary Even Though Some Nations Adopt a National Crime.*

Another critique of the international crime of ecocide is that it would be more properly punished at the national level. Currently, at least ten countries have laws prohibiting ecocide—far fewer than one would hope. As was seen in Guatemala and Kyrgyzstan, the results of charges for acts of ecocides have yielded disappointing results, in what one legal scholar has characterized as “a cautionary tale about the limits of domestic laws against environmental crimes; and the potential need for an international body to adjudicate such cases.”<sup>138</sup> Moreover, the effects of environmental disasters often reach far beyond the location the acts or omissions occurred. An international crime is again necessary to navigate such jurisdictional issues that arise. Higgins noted that “[t]he capacity of ecocide to be trans-boundary and multijurisdictional necessitates legislation of international scope.”<sup>139</sup>

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<sup>136</sup> *Making Ecocide a Crime*, Stop Ecocide International <https://www.stopecocide.earth/making-ecocide-a-crime>.

<sup>137</sup> Higgins, *supra* n. 87 at 112.

<sup>138</sup> Greene, *supra* n. 17 at 21-22.

<sup>139</sup> Higgins, *supra* n. 87 at 62.

#### *4. The Substantial Factor Test Allows for a Finding of Causation.*

Environmental crimes present unique issues of causation. Using a “but-for” definition of actual causation leads to a nearly insurmountable standard. For example, if multiple power plants recklessly dump waste into a nearby water supply which then leads to the death of a native fish population, it may be nearly impossible to argue that one power plant is the but-for cause of the fish death and any resulting harm, since other power plants were likewise heavily polluting. However, the substantial factor test has long been used in both criminal law and tort law in such situations. In the case of the multiple power plants, the court would analyze whether each power plant’s actions were substantial factors in causing the resulting harm. Such an approach allows the ICC to hold corporate officials responsible for the environmental harms of their company, even if other officials or corporations also contributed to destruction.

It is also worth noting that *Juliana v. United States* presents an instance in which the court found that the plaintiffs had demonstrated causation, at least for the purposes of surviving summary judgement. The Ninth Circuit Court of Appeals stated the following:

The causal chain here is sufficiently established. The plaintiffs’ alleged injuries are caused by carbon emissions from fossil fuel production, extraction, and transportation. A significant portion of those emissions occur in this country; the United States accounted for over 25% of worldwide emissions from 1850 to 2012, and currently accounts for about 15%. And, the plaintiffs’ evidence shows that federal subsidies and leases have increased those emissions. About 25% of fossil fuels extracted in the United States come from federal waters and lands, an activity that requires authorization from the federal government.<sup>140</sup> Using the substantial factor test, the Ninth Circuit held that “[t]here is at least a genuine factual dispute as to whether those policies were a ‘substantial factor’ in causing the plaintiffs’ injuries.”<sup>141</sup>

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<sup>140</sup> *Juliana v. United States*, 947 F.3d 1159, 1169 (9th Cir. 2020).

<sup>141</sup> *Id.*

### 5. State Party Majority Agreement Can Be Achieved.

The most obvious obstacle to the ICC adopting ecocide as an international crime is achieving the vote of at least 82 out of 123 State Parties to adopt the crime. However, as each of the previously presented obstacles are addressed and overcome, State Parties will be more inclined to support the amendment.

The Ninth Circuit in *Juliana* stated the following:

The record leaves little basis for denying that climate change is occurring at an increasingly rapid pace. . . . [S]ince the dawn of the Industrial Age, atmospheric carbon dioxide has skyrocketed to levels not seen for almost three million years. For hundreds of thousands of years, average carbon concentration fluctuated between 180 and 280 parts per million. Today, it is over 410 parts per million and climbing. Although carbon levels rose gradually after the last Ice Age, the most recent surge has occurred more than 100 times faster; half of that increase has come in the last forty years.<sup>142</sup>

We find ourselves at a crossroads, a dire juncture. Climate change and environmental disasters are increasingly worsening. The longer State Parties remain willfully ignorant about the consequences of inaction, the worse the damage will be—and the greater the chance it will be irreparable. As scientific evidence continues to illustrate the dangers of climate change and as individuals around the world begin to demand action, State Parties will be wise not to find themselves on the wrong end of history.

## IV. CONCLUSION

Without an international crime of ecocide, much of the world is without meaningful remedy when individuals commit egregious acts leading to environmental damage and the death of our home. Even in countries that do have laws against ecocide, the results of litigation for these crimes have yielded unsatisfactory results. Defining ecocide as “acts committed by a person or persons with a conscious disregard of a substantial and unjustifiable risk that grave destruction will occur to an ecosystem” prevents the statute from having overly broad effects and ensures only the most egregious actors are punished, both through the *mens rea* requirement of recklessness and through the magnitude of harm requirement of “grave destruction.”

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<sup>142</sup> *Id.* at 1166.

With each new environmental disaster, ecosystems morph and are sometimes damaged beyond feasible repair. Species of plants and animals die off or are riddled with health defects for generations. Nature wilts and saddens before our eyes. Water supplies are poisoned, and aquatic life choked out. Children are born with health conditions as the result of environmental toxins. As our home dies around us, the call to protect this earth has never been louder—and the international crime of ecocide has never been more necessary.