

# Green Criminology and Environmental Harm: The Case for the (Potential) Crime of Ecocide under International Law

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**Abstract:** *Several decades have been spent by a significant number of international lawyers and environmental activists advocating for the establishment of a universally recognised legal definition of ecocide. This definition would refer to the widespread and long-lasting destruction of the environment attributable to human activities. They intend to establish ecocide as a criminal act under international law. On the other hand, ecocide has only recently gained momentous criminological interest over the last decade, coinciding with the emergence of green criminology, a critical criminological perspective that specifically addresses environmental crime and the detrimental effects of climate change. This article explores the role of green criminology in conceptualising ecocide as a legal notion or scheme to address the criminal acts or omissions that cause climate change and environmental degradation. It suggests that collaboration between international lawyers, environmental activists, and green criminologists is crucial to develop a comprehensive understanding of ecocide and push for its recognition as a crime within the framework of international law.*

**Keywords:** critical criminology, environmental crimes, international criminal law, victimhood, climate change.

## 1. Introduction

Environmental crime and harm started receiving mounting attention from criminologists in recent years. In particular, critical criminologists have been attempting to address the risks of global warming, ‘political and economic structures,’ and our ordinary acts that are now contributing to the fast climate change for the last few decades.<sup>1</sup> Young, a prominent and groundbreaking

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<sup>1</sup> Rob D White and Ronald C Kramer, ‘Critical Criminology and the Struggle against Climate Change Ecocide’ (2015) 23 CC 383, 384.

criminologist, writes, ‘critical criminology is more relevant today than ever.’<sup>2</sup> A few criminological scholarships shed light on the critical evaluation of this statement.<sup>3</sup> Most recently, Ruggiero argues that this view is significant because of the growing insight that crime and criminology are grounded in the rudimentary elements of ‘social structure.’<sup>4</sup> In line with Young’s statement and Ruggiero’s evaluation on the relevance of critical criminology these days, this article highlights its role in addressing the issue of environmental crime and harm. It endeavours to establish that critical criminology has much to contribute – albeit relatively slowly – to dealing with environmental crime and harm within the paradigm of green criminology in the way of, among others, criminalising ecocide at the international level.

McGreal argues that recent years have seen increasing legal attention too on the issue of climate change as many legal actions have been initiated against governments, organisations and individuals who are alleged to have contributed to affecting the environment by their active participation or omissions.<sup>5</sup> Higgins et al. claim that the advancement of green criminology, which is not yet a criminological theory but generally ‘an emergent critical criminological perspective’ or a concept, has drawn the focus on environmental crime and harm escalating climate change.<sup>6</sup>

Critical criminology often challenges the views of conventional criminology and predominant perceptions about crimes and criminal justice policies.<sup>7</sup> It also tends to engage in ‘transformational politics’ to shape and alter the larger world’s understanding.<sup>8</sup> White argues that ‘[n]ot all green criminology can be criminalising as “critical criminology”.’<sup>9</sup> The term green criminology was coined in 1990

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<sup>2</sup> Alana M Henninger, ‘Jock Young: Critical criminologist’ (2014) 38 DA 113, 225. *See generally*, Jock Young, *The Criminological Imagination* (Polity 2011).

<sup>3</sup> Walter S DeKeseredy, *Contemporary Critical Criminology* (Routledge 2011); Vincenzo Ruggiero, ‘Concepts for the Revitalisation of Critical Criminology’ [2021] 60(3) THJ 290.

<sup>4</sup> Ruggiero, *Ibid* [290]; Fabrizio Bernardi, Juan J González, and Miguel Requena, ‘The Sociology of Social Structure’ in Clifton D Bryant and Dennis L Peck (eds), *21st Century Sociology: A Reference Handbook* (SAGE 2006) 162.

<sup>5</sup> Chris McGreal, ‘Big oil and gas kept a dirty secret for decades. Now they may pay the price’ (*The Guardian*, 30 June 2021) <<https://www.theguardian.com/environment/2021/jun/30/climate-crimes-oil-and-gas-environment>> accessed 14 December 2022.

<sup>6</sup> Polly Higgins, Damien Short and Nigel South, ‘Protecting the Planet: A Proposal for a Law of Ecocide’ (2013) 59(3) CLSC 251, 251. *See also*, Vincenzo Ruggiero and Nigel South, ‘Green Criminology and Crimes of the Economy: Theory, Research and Praxis’ [2013] 21(3) CC 359.

<sup>7</sup> Rob D White, ‘Critical Green Criminology’ in Walter S DeKeseredy, Molly Dragiewicz (eds), *Routledge Handbook of Critical Criminology* (Routledge 2008).

<sup>8</sup> *Ibid* 120.

<sup>9</sup> *Ibid*.

by Michael J. Lynch, a critical criminologist of the United States.<sup>10</sup> However, some like-minded criminologists and socio-legal researchers have contested it and proposed alternative terms, for example, ‘eco-global criminology’ and ‘conservation criminology.’<sup>11</sup> This article uses the term green criminology, which primarily includes criminal acts or omissions committed in contravention of the laws defending ‘society and environment.’<sup>12</sup>

In line with the definition of green criminology mentioned earlier, Higgins et al. find that there is no legal notion or scheme to address the criminal acts or omissions that cause climate change and environmental degradation.<sup>13</sup>

South and Walters assert that the notion of ecocide has garnered substantial attention in the previous decade. Consequently, certain scholars have proposed that considering the framework of green criminology, the notion of ecocide can be developed to establish it as a criminal act.<sup>14</sup> Green criminology examines the relationship between temperature changes and human behaviour, and climate change and social strains, while it is argued that ecocide represents harmful behaviour of the powerful entities towards the environment.<sup>15</sup>

The word ‘ecocide’ was initially registered in 1970 at the ‘Conference on War and National Responsibility in Washington, DC.’<sup>16</sup> The term ecocide is a combination of ‘eco’ and ‘cide.’<sup>17</sup> The word ‘eco’ originated from a ‘Greek prefix *oikos*’ – meaning ‘house or home,’ while the ‘Latin suffix *cide*’ means ‘to kill or cut/strike down.’<sup>18</sup> Hence, the verbatim connotation of ecocide is ‘killing our

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<sup>10</sup> Ibid 191.

<sup>11</sup> Nigel South, ‘Green Criminology: Reflections, Connections, Horizons’ (2014) 3(2) IJCJS 5, 5; Carole Gibbs, Meredith L Gore and Edmund F McGarrell, ‘Introducing Conservation Criminology: Towards Interdisciplinary Scholarship on Environmental Crimes and Risks’ (2010) 50(1) BJC 124, 125.

<sup>12</sup> South, Ibid. Michael J Lynch and Paul B Stretesky, ‘The Meaning of Green: Contrasting Criminological Perspectives’ (2003) 7(2) TC 217, 231.

<sup>13</sup> Higgins, Short and South (n 6) 252.

<sup>14</sup> Rob D White, ‘Criminological Perspectives on Climate Change, Violence and Ecocide’ [2017] 3 CCCR 243; Nabil Ahmed, ‘Proof of Ecocide: Towards a Forensic Practice for the Proposed International Crime against the Environment’ (2017) 1(2) AEFS 139.

<sup>15</sup> Ibid, White; Nigel South and Reece Walters, ‘Power, Environmental Harm and the Threat of Global Ecocide’ in Lynne Copson, Eleni Dimou and Steve Tombs (eds), *Crime, Harm and the State* (OUP 2020) 178.

<sup>16</sup> Higgins, Short and South (n 6) 256.

<sup>17</sup> Anastacia Greene, ‘The Campaign to Make Ecocide an International Crime: Quixotic Quest or Moral Imperative?’ [2019] 30(3) FELR 1.

<sup>18</sup> Ibid 54.

home,' which implies environmental devastation.<sup>19</sup> Many environmental activists and international lawyers are still advocating for providing a commonly recognised legal definition of ecocide and establishing it as a crime under international law.

Carbon emissions and coal, gas, and oil industries contributing to global warming are gradually increasing, while responses of the governments, organisations and individuals to this issue are arguably insufficient.<sup>20</sup> White and Kramer observe that neither mainstream nor critical criminologists have offered ample strategic proposals for initiatives to address climate change beyond critical assessments of present policies and legal measures.<sup>21</sup> One of the reasons is that it is not a sudden and isolated event; instead, it is a continuing 'crisis' having massive impacts on ecosystems and human and non-human animals for several decades to come.<sup>22</sup> Therefore, to the degree that critical criminology's relevance is now greater than it has ever been in previous years, this article intends to map the probable avenues for actions by green criminologists, within critical criminology's purview, to proceed against climate change through criminalising ecocide under international law.

To substantiate the aforesaid proposition, this article is divided into four sections. The first section articulates its aim and introduces the concepts leading to establishing its main argument. The second section traces green criminology's evolution by demonstrating how critical criminology's contribution was central for its emergence. This section also briefly defines green criminology. The third section presents legal attention to the aspects of climate change and environmental crime and harm, focusing on the scholarly and institutional efforts for developing the notion of ecocide to criminalise it under international law – especially the most recent attempt of the Stop Ecocide Foundation (SEF)'s Independent Expert Panel for the Legal Definition of Ecocide.<sup>23</sup> It is important to point out that SEF's definition of ecocide has sparked a renewed conversation on making this phenomenon an internationally recognised crime for prosecuting the most severe cases of environmental destruction. This section also sheds some light on the challenges and the way forward from the green criminological perspectives. Finally, the conclusion considers summing up the overall arguments of the article.

## 2. Conceptual Frameworks of Green Criminology

There is a debate as to whether the core perspective of green criminology is

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<sup>19</sup> Ibid.

<sup>20</sup> White and Kramer (n 1).

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Stop Ecocide International, 'Definition of ecocide by authorised body' (2021) <<https://www.stopecocide.earth/legal-definition>> accessed 17 January 2023.

originated from conventional criminology, or critical criminology, or (narrowly) zemiology.<sup>24</sup> The debate between conventional and critical criminology is rooted in former one's propensity "to exclude a diverse range of topics relevant to studying harms and their consequences that ought otherwise to fit within the discipline of criminology."<sup>25</sup> Mainstream criminology essentially limits its territory within the definitions of 'crime and law.'<sup>26</sup> On the other hand, zemiology, the study of 'social harms,' was developed as an alternative to 'crime' in the late 1990s.<sup>27</sup> Since it focuses on 'social harms,' an alternative to 'crime,' imposed by the non-criminalised organisational and state-level 'unequal social practices,' many scholars argue that establishing green criminology's origin in zemiology would affect what coherence it has as a distinct field of study.<sup>28</sup> Nonetheless, instead of exploring the debate regarding green criminology's origin as a whole, this section examines critical criminology's influences on the development of green criminology and attempts to define it.

### 2.1. Influences of critical criminology on the emergence of green criminology

Critical criminology has cautioned about threats to environmental crime and harm based on the studies on 'corporate environmental criminality' at the end of the 1960s.<sup>29</sup> Accordingly, South et al. observe that the derivation of 'environmental criminology' is traced back to the early 1970s.<sup>30</sup> In 1990, the term green criminology was first used by Lynch as a synonymous word for 'environmental criminology' in a short essay.<sup>31</sup> However, it was circulated to a few scholars in North America only and thus, it did not receive much attention. Lynch specifies that green criminology generally covers the 'study of environmentally related harms and crimes.'<sup>32</sup> He

<sup>24</sup> Paddy Hillyard and Steve Tombs, 'Beyond Criminology' in Paddy Hillyard, Christina Pantazis, Steve Tombs (eds), *Beyond Criminology: Taking Harm Seriously* (Pluto Press 2004) 19-20.

<sup>25</sup> Michael J Lynch and Paul B Stretesky, *Exploring Green Criminology: Toward a Green Criminological Revolution* (Routledge 2014) 25.

<sup>26</sup> Peter Francis, Pamela Davies and Tanya Wyatt, 'Invisible Crime, Social Harm and the Radical Criminological Tradition' in Pamela Davies, Peter Francis and Tanya Wyatt (eds), *Invisible Crimes and Social Harms. Critical Criminological Perspectives* (Palgrave Macmillan 2014).

<sup>27</sup> Steve Tombs, 'For Pragmatism and Politics: Crime, Social Harm and Zemiology' in Avi Boukli and Justin Kotzé (eds), *Zemiology: Reconnecting Crime and Social Harm* (Palgrave Macmillan 2018) 11.

<sup>28</sup> Lois Presser, 'Social Harm/Zemiology' in Avi Brisman, Eamonn Carrabine and Nigel South (eds), *The Routledge Companion to Criminological Theory and Concepts* (Routledge 2017) 168.

<sup>29</sup> Nigel South, Katja Eman and Gorazd Mesko, 'History of Green Criminology' in Gerben Bruinsma, David Weisburd (eds), *Encyclopedia of Criminology and Criminal Justice* (Springer 2014) 2174.

<sup>30</sup> *Ibid* 3-4.

<sup>31</sup> Michael J Lynch, 'The Greening of Criminology: A Perspective for the 1990s' [1990] 2(3) CC 3.

<sup>32</sup> *Ibid*; Nigel South and Rob D White, 'The Antecedents and Emergence of a 'Green' Criminology'

also suggests that it is concerned with the ‘legal, political, economic and class relationships’ that construct the actions causing environmental destruction.<sup>33</sup>

The framework of green criminology started receiving greater national and global attention after a special issue of *Theoretical Criminology* was issued in 1998.<sup>34</sup> A group of scientific studies concerning ‘green issues’ were published in it.<sup>35</sup> In addition, Margaret Zahn’s American Society of Criminology Presidential Address of the same year underscores the importance of criminological attention towards environmental crime and harm to introduce ‘a new definition of victims to include species other than humans and a definition of offenders to include those who pollute for convenience ...’<sup>36</sup>

Herbig and Joubert have introduced ‘conservation criminology,’ which primarily signifies integrating critical criminology with other disciplines such as ‘natural resources’ for strengthening environmental protection.<sup>37</sup> Correspondingly, Gibbs et al. point out that ‘conservation criminology’ deals with ‘humans and natural resources’ concerning subjects of social control, obedience, and crime based on ‘environmental assessments.’<sup>38</sup> The ‘environmental assessments’ are related explicitly to environmental pollutions, wildlife crises, and other impacts of acts of human populations on the natural resources.<sup>39</sup> After two years, White has proposed ‘eco-global criminology’ as an investigative framework to concentrate on wrongdoings against ecological communities and human and non-human animals.<sup>40</sup>

As the field of green criminology invites the perspectives that were developed after its inception, South et al. argue that it is an ‘invitational’ and ‘open’ framework, originated from the practices of critical criminology.<sup>41</sup> It

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in American Society of Criminology Annual Meeting (San Francisco, 2013) 3-4.

<sup>33</sup> Lynch (n 31) 4.

<sup>34</sup> Nigel South, Avi Brisman and Piers Beirne, ‘A Guide to a Green Criminology’ in Nigel South and Avi Brisman (eds), *The Routledge International Handbook of Green Criminology* (Routledge 1998) 159-61.

<sup>35</sup> Ibid 148.

<sup>36</sup> Margaret Zahn, ‘Presidential Address - Thoughts on the Future of Criminology’ (1999) 37 *Criminology* 1, 2.

<sup>37</sup> Friedo Herbig and Stefan Joubert, ‘Criminological Semantics Criminology - Vision or Vagary?’ (2006) 19(3) *AJCV* 88, 89.

<sup>38</sup> Gibbs, Gore and McGarrell (n 11).

<sup>39</sup> Ibid.

<sup>40</sup> Rob D White, *Crimes against Nature: Environmental Criminology and Ecological Justice* (Routledge 2008). See also, Rob D White, ‘The Four Ways of Eco-global Criminology’ [2017] 6(1) *IJCJS* 8.

<sup>41</sup> South, Brisman and Beirne (n 34) 160-61.

appears as a field of study that unites worldwide scholars in examining and realising the origins and outcomes of environmental crime and harm.<sup>42</sup> The works of the scholars associated with this field have thus contributed to developing the contents of green criminology. The studies and findings of critical criminologists shed light that their scholarly contributions are significant, whether they give attention to ‘social harms,’ ‘crimes of the powerful,’ or ‘organised and corporate crime.’<sup>43</sup> In so doing, they have developed an array of theoretical perspectives and methodologies in the twenty-first century involving the subject matters of green criminology.

## 2.2. Conceptual contour of green criminology

At first, it should be clarified that ‘[t]here is no green criminological theory as such.’<sup>44</sup> Ruggiero and South recognise that green criminology denotes diverse ‘perspectives’ and ‘approaches.’<sup>45</sup> Then again, Halsey argues that the vagueness of the theoretical setting of green criminology challenges criminologists to do compelling studies into environmental crime and harm to address the ongoing climate change crisis.<sup>46</sup> As an initial attempt to conceptualise the ‘perspective’ of green criminology, South offers a list of ‘ten green connections for a green criminology,’ which were proposed to be criminological concerns for addressing the environmental issues.<sup>47</sup> The first item points out that ‘[a] green perspective requires that criminology reappraises traditional notions about what should be seen as serious crimes, offences and injurious behaviours ...’<sup>48</sup>

Afterwards, many scholars have offered various definitions of green criminology based on their viewpoints and approaches. ‘Human-centred’ and ‘nature-centred’ approaches have been developed, focusing on the studies on the harms caused to human beings and the environment, respectively.<sup>49</sup> However,

<sup>42</sup> Avi Brisman and Nigel South, ‘Green Criminology and Environmental Crimes and Harms’ [2018] 13(1) SC 50.

<sup>43</sup> Hillyard and Tombs (n 24). *See generally*, Steven Bittle, Lauren Snider and Steve Tombs, *Revisiting Crimes of the Powerful: Marxism, Crime and Deviance* (Routledge 2018); and Frank Pearce and Steve Tombs, *Toxic Capitalism: Corporate Crime and the Chemical Industry* (Routledge 2019).

<sup>44</sup> White (n 40) 14.

<sup>45</sup> Vincenzo Ruggiero and Nigel South, ‘Critical Criminology and Crimes against the Environment’ (2010) 18(4) CC 245, 246; Rob D White and Diane Heckenberg, *Green Criminology: An Introduction to the Study of Environmental Harm* (Routledge 2014).

<sup>46</sup> Mark Halsey, ‘Against ‘Green’ Criminology’ (2004) 44(6) BJC 833, 338-39.

<sup>47</sup> Nigel South, ‘A Green Field for Criminology? A Proposal for a Perspective’ (1998) 2(2) TC 211, 225-27.

<sup>48</sup> *Ibid* 225.

<sup>49</sup> Gibbs, Gore and McGarrell (n 11).

Ruggiero and South's definition combining both approaches receive more attention to date.<sup>50</sup> The definition reads as follows:

Green criminology can be defined as a framework of intellectual, empirical and political orientations toward primary and secondary harms, offences and crimes that impact in a damaging way on the natural environment, diverse species (human and non-human) and the planet.

They have also highlighted that it studies reasons behind and responses to the 'corporate crimes' and activities, which contribute to climate change.<sup>51</sup> Potter identifies that it reflects the tendency of critical criminologists to demonstrate their 'scientific interests,' and highlight the 'crimes of the powerful.'<sup>52</sup> It is now deep-rooted that the role of critical criminology is to address not only environmental crime and harm caused by the powerful such as government or states and corporations, but also harms attributable to 'globalisation' or 'the capitalist system.'<sup>53</sup>

Although the existing conceptual framework of green criminology is not much criticised, Ruggiero and South indicate a critical argument that it focuses on 'institutional-level offenders' in large part, instead of 'individual-level offenders.'<sup>54</sup> They have also identified two reasons for this: first, it is problematic to deal with environmental harm in criminological framework due to its definitional ambiguity; and second, the powerful offenders, who cause the environmental harm most, often dismiss the proposal to apply 'criminal definitions' to them.<sup>55</sup> Hence, it is high time to find out means through which it can essentially address individual-level environmental crime and harm.

Green criminologists contend that the activities that green criminology covers are generally overlooked by conventional criminologists.<sup>56</sup> However, the emergence of green criminology as a diverse enterprise – instead of theorising it as a unitary discipline – has made it a 'theoretical laboratory' to study environmental crime and harm, including 'environmental law and policy' from a

<sup>50</sup> Ruggiero and South (n 6) 360.

<sup>51</sup> Ibid 360-61.

<sup>52</sup> Gary R Potter, 'Justifying 'Green' Criminology: Values and 'Taking Sides' in an Ecologically Informed Social Science' in Malcolm Cowburn, Marian Duggaand and Anne Robinson (eds), *Values of Criminology and Criminal Justice* (Policy Press 2013).

<sup>53</sup> Paul Stretesky, Michael Long and Michael Lynch, *The Treadmill of Crime: Political Economy and Green Criminology* (Routledge 2013) 3; David R Goyes, 'Green Activist Criminology and the Epistemologies of the South' [2016] 24 CC 503.

<sup>54</sup> Vincenzo Ruggiero and Nigel South, 'Green Criminology and Dirty Collar Crime' (2010) 18(4) CC 251, 254.

<sup>55</sup> Ruggiero and South (n 45) 246.

<sup>56</sup> Stretesky, Long and Lynch (n 53).



criminological perspective.<sup>57</sup> Therefore, in the next section, I have focused on the argument that the present-day climate change and environmental crime and harm demand ‘radical responses from legal systems, including support for proposals to introduce a named crime of ecocide into international law.’<sup>58</sup> Overall, the following discussion highlights how conceptualising ecocide under the legal framework of international law – particularly international criminal law – intersect with the field of green criminology, and how green criminologists can play an important role in advocating for establishing it as an international crime.

### 3. Establishing Ecocide as an International Crime

Mainstream criminology generally devalues ‘hypothetical’ concepts and categorisations of ‘crime, deviance and harm’ to attain ‘justice and rights.’<sup>59</sup> In contrast, although green criminology is criticised for focusing more on group-level offenders than individual-level offenders, it is known for its ‘openness’ because it endorses contemporary means of responding to environmental issues beyond the prevailing criminological boundaries.<sup>60</sup> Moreover, green criminology’s normative shift towards responding to environmental crime and harm is true in the attempt to criminalise ecocide at the international level.<sup>61</sup>

#### 3.1. Historical and legal milieu for defining and classifying acts of ecocide

Within the frame of green criminology, South offers that ‘crimes of war’ and ‘violations of human rights’ could be viewed as ‘new’ areas of international significance.<sup>62</sup> However, he did not directly link the above ‘green connection’ and the termed crime of ecocide, perhaps because when the development of green criminology was taking place in the 1990s, ecocide was not yet familiar in criminology. It is, nevertheless, worth noting that while analysing the effect of applying ‘herbicidal chemical sprays against plant-drug crops in various Central and Latin American countries’ from critical criminology’s viewpoint, del Olmo introduces the term ‘eco-bio-genocide,’ involving ecocide and genocide to refer to the crimes attributable to lack of interest of the powerful, who allegedly commit

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<sup>57</sup> South, Brisman and Beirne (n 34).

<sup>58</sup> Brisman and South (n 42) 3.

<sup>59</sup> Martin Crook, Damien Short and Nigel South, ‘Ecocide, Genocide, Capitalism and Colonialism: Consequences for Indigenous Peoples and Glocal Ecosystems Environments’ (2018) 22(3) TC 298, 300.

<sup>60</sup> Rob D White, ‘Environmental Issues and the Criminological Imagination’ (2003) 7(4) TC 483, 495.

<sup>61</sup> Lorenzo Natali and Rob D White, ‘The Ecocide-genocide Nexus: A Green Criminology Perspective’ (2019) 13(3) RIC 186, 187.

<sup>62</sup> South (n 47) 226.

one crime to prevent another crime.<sup>63</sup>

This term ecocide is primarily used in legal and political discourses and ‘environmental commentary’ as a ‘word of warning’ to generally refer to the importance of responses to the ‘crime of environmental destruction’ from the 1970s.<sup>64</sup> Falk first reveals a draft of a convention prepared based on a comprehensive examination of ecocide’s concept to criminalise it.<sup>65</sup> Later, he suggests that wartime acts that cause environmental destruction due to the excessive use of various military weapons should be considered ecocide.<sup>66</sup> Afterwards, Gray attempts to establish ecocide’s concept within the framework of international law via scholarships.<sup>67</sup> He also demonstrates the possibility to introduce ecocide as a transnational crime. Then, Lytton suggests to rely on existing documents concerning human rights and environmental justice to develop its notion.<sup>68</sup> Further, Broswimmer argues that the historical actions that human beings have been carrying out to destroy the environment for decades should be termed acts of ecocide.<sup>69</sup>

Berat defines ecocide irrespective of whether the acts are done during ‘wartime’ or ‘peacetime.’ She proposes the term ‘geocide’ and describes it as ‘intentional destruction’ of entirety or part of the global ecology by endangering the ‘species’ through some specific acts.<sup>70</sup> The actions include but are not limited to killing, causing grave physical or psychological harm, imposing measures leading to annihilation, and implementing birth prevention measures.<sup>71</sup> The term geocide, however, fails to eclipse ecocide. Subsequently, when seeking to situate the crime of ecocide within international law, Gray argues that ecocide consists of three elements, namely: ‘(a) the act must have caused serious and extensive or long-lasting ecological damage; (b) the damage must have had an international

<sup>63</sup> Rosa del Olmo, ‘Aerobiology and the War on Drugs: A Transnational Crime’ (1987) 30 CSJ 28, 30.

<sup>64</sup> Alexander Dunlap, ‘The Politics of Ecocide, Genocide and Megaprojects: Interrogating Natural Resource Extraction, Identity and the Normalization of Erasure’ (2021) 23(2) JGR 212, 225.

<sup>65</sup> Richard A Falk, ‘Environmental Warfare and Ecocide - Facts, Appraisal, and Proposals’ (1973) 4(1) BPP 80, 83.

<sup>66</sup> Richard A Falk, *Revitalizing International Law* (Iowa University Press 1989) 167.

<sup>67</sup> Mark Allan Gray, ‘The International Crime of Ecocide’ (1995) 26(2) CWILJ 215, 216.

<sup>68</sup> Christopher H Lytton, ‘Environmental Human Rights: Emerging Trends in International Law and Ecocide’ (2000) 13(1) ECJ 73, 77.

<sup>69</sup> Franz Broswimmer, *Ecocide: A Short History of the Mass Extinction of Species* (Pluto Press 2002) 69; Kepten D Carmichael, ‘Strict Criminal Liability for Environmental Violations: A Need for Judicial Restraint’ [1996] 71(3) *Indiana Law Journal* 729.

<sup>70</sup> Lynn Berat, ‘Defending the Right to a Healthy Environment: Toward a Crime of Geocide in International Law’ [1993] 11 BUILJ 327.

<sup>71</sup> *Ibid* 343.

dimension; and (c) the act must have been wasteful (inflicting higher costs on society than benefits).<sup>72</sup> Gray's definition suggests that ecocide occurs when there is significant and enduring environmental harm, with cross-border impacts, and when the costs of the act to society outweigh the benefits.

In 2010, Higgins submitted a draft 'Model Law to the UN Law Commission' in which she offers a definition of ecocide that is now widely accepted.<sup>73</sup> She defines ecocide as 'the extensive damage to, destruction of 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>74</sup> She divides ecocide into two approaches: (i) 'human-caused ecocide,' which refers to the human actions that cause massive environmental destruction; and (ii) 'naturally occurring ecocide,' which includes environmental destruction caused by events like tsunamis or floods. 'Human-caused ecocide' involves the principle of 'superior responsibility' that applies to the big business and/or nations, whereas 'naturally occurring ecocide' leads to governments' responsibility.<sup>75</sup> Higgins proposes that if a country is at risk or is directly injured due to environmental harm as a result of human-caused ecocide, the law would ascribe a 'legal duty of care' on all the nations to offer assistance to the affected country.<sup>76</sup> Later, Neyret et al. define ecocide as 'the intentional acts committed in the context of a widespread and systematic action that have an adverse impact on the safety of the planet.'<sup>77</sup> It should be highlighted that Higgins's definition of ecocide effectively incorporates the aspects of human actions, intentions, and consequent accountability in the context of defining ecocide as an international crime.

### 3.2. Efforts for criminalising ecocide under international criminal law

Several scholars have attempted to address the devastating effects of ongoing environmental destruction around the globe by introducing ecocide within the framework of international criminal law. They advocate recognising ecocide as a distinct crime similar to 'war crimes' or 'genocide'. Furthermore, they aim to utilise the mechanisms of international criminal law, such as the International Criminal Court (ICC), to ensure more legal safeguarding against ecocide, mainly considering perpetrators' current trend of enjoying impunity.<sup>78</sup>

<sup>72</sup> Gray (n 67) 216.

<sup>73</sup> Higgins, Short and South (n 6).

<sup>74</sup> Polly Higgins, *Eradicating Ecocide* (Shepherd-Walwyn 2015) 63.

<sup>75</sup> *Ibid* 61.

<sup>76</sup> *Ibid*.

<sup>77</sup> Laurent Neyret, *Draft Convention against Ecocide* (Cambridge Centre for Environment, Energy and Natural Resource Governance 2017) 35-7 (article 2(1)).

<sup>78</sup> Dunlap (n 64) 225.

After the Vietnam War (1955 – 1975), the *UN Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques Convention* (the ENMOD Convention) was adopted.<sup>79</sup> It rules out the malicious use of methods that have ‘widespread, long-term, or severe’ effects.<sup>80</sup> Articles 35(3) and 55(1) of the *Additional Protocol I to the 1949 Geneva Conventions* (AP I) forbid the use of ‘methods or means of warfare which are intended, or may be expected to cause, widespread, long-term and severe damage to the natural environment.’ The main objective of the above provisions is to prevent or minimise the potential harm during the armed conflicts; however, it is crucial to acknowledge that the protection provided is not without limitations. In these provisions, the term “widespread” refers to the extent of the damage in terms of geographical coverage, but there is a lack of consensus on the specific measurement of this scope; for example, while some authors argue that it should extend across thousands of kilometres, others contend that a few hundred square kilometres would be sufficient.<sup>81</sup> The drafters of Protocol I defined “long-term” as a period of several decades, with a minimum duration of twenty or thirty years.<sup>82</sup> Lastly, the term “severe damage” refers to the extent of tangible harm that has been inflicted on the environment.<sup>83</sup>

The ICC was formed in 2002 under the Rome Statute 1998 to prosecute genocide, crimes against humanity, war crimes, and crimes of aggression. The crime of environmental destruction was incorporated in the early draft of the Rome Statute, which was, however, removed for disagreement of the United States, the United Kingdom and the Netherlands.<sup>84</sup> Instead, article 8(2)(b)(iv)) of the Rome Statute considers it a ‘war crime’ to deliberately cause ‘widespread, long-term, and severe damage to the natural environment which would be clearly excessive’ to the targeted military advantage. It means that the ICC endorses environmental destruction as a ‘war crime’. Nonetheless, the wartime offence has hardly been enforced because the protections are ambiguous, and most military activities do not fall foul of this provision.<sup>85</sup>

<sup>79</sup> Ibid 226.

<sup>80</sup> Ibid.

<sup>81</sup> Yoram Dinstein, ‘Protection of the Environment in International Armed Conflict’ [2001] 5 MPYUNL 522; 524 Philippe Antoine, ‘International Humanitarian Law and the Protection of the Environment in Time of Armed Conflict’ [1992] 32 IRRC 517, 526.

<sup>82</sup> Karen Hulme, *War Torn Environment: Interpreting the Legal Threshold* (Leiden, Netherlands: BRILL, 2004) 94.

<sup>83</sup> Ibid.

<sup>84</sup> Nicholas Kusnetz, Katie Surma and Yuliya Talmazan, ‘Ecocide: An International Crime against the Environment’ (*World Ocean Forum*, 7 April 2021) <<https://medium.com/world-ocean-forum/ecocide-an-international-crime-against-the-environment-4ad50276f1c4>> accessed 16 December 2022.

<sup>85</sup> Shireen Daft, ‘Environmental Destruction is a War Crime, But It’s Almost Impossible to Fall Foul of the Laws’ (*The Conversation*, 11 August 2019) <<https://theconversation.com/environmental->

In contrast, the Promise Institute for Human Rights (PIHR) argues that, under the purview of article 7(1)(k) of the Rome Statute, considering the acts of destroying environment within the category of ‘other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health’ is a promising avenue for environmental crime and harm.<sup>86</sup> It also argues that as the acts ‘must be committed as part of a widespread or systematic attack directed against any civilian population,’ the term ‘attack’ can be defined as causing harm that is a known by-product of any direct action.<sup>87</sup> Besides, environmental crime and harm requires a distinguished explanation of the context of attacking the ‘civilian population’ as ecocide’s concept of ‘victim and victimhood’ is essentially different.

In 2020, the SEF formed an ‘Independent Expert Panel for the Legal Definition of Ecocide’ (the Panel) to propose an amendment to the Rome Statute to include ecocide as a crime.<sup>88</sup> The Panel consists of twelve legal practitioners having experiences in ‘criminal, environmental and climate law.’<sup>89</sup> Their definition of ecocide, approved by consensus in June 2021, reads as: “‘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>90</sup> While developing it, the Panel considered principles of customary international law and precedents and practices of international courts/tribunals.<sup>91</sup> As the Rome Statute does not explain the terms ‘widespread,’ ‘long-term,’ and ‘severe,’ they have proposed definitions of these terms too.

This definition requires the perpetrators to have ‘knowledge’ about the ‘damage to the environment.’<sup>92</sup> The commentary clarifies that ‘knowledge’ of this definition signifies ‘recklessness’ or ‘*dolus eventualis*.’<sup>93</sup> This explanation somewhat supports the argument in favour of ‘strict liability’ to create an

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destruction-is-a-war-crime-but-its-almost-impossible-to-fall-foul-of-the-laws-121180> accessed 17 January 2023.

<sup>86</sup> The Promise Institute for Human Rights, *Report of the Expert Workshop on International Criminal Law and the Protection of the Environment* (University of California School of Law 2010).

<sup>87</sup> *Ibid* 5.

<sup>88</sup> Stop Ecocide Foundation (SEF), ‘Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text’ (June 2021) <<https://www.stopecocide.earth/legal-definition-of-ecocide>> accessed 22 January 2022.

<sup>89</sup> *Ibid*.

<sup>90</sup> *Ibid*.

<sup>91</sup> *Ibid*.

<sup>92</sup> *Ibid*.

<sup>93</sup> *Ibid*.

indisputable ban of severe environmental harm, where no mental element would be required, for instance, ‘the offence of causing death by careless driving.’<sup>94</sup> It is, however, severely confusing why the Panel used the word ‘knowledge’ with a different connotation because article 30(3) of the Rome Statute defines ‘knowledge’ as ‘awareness that a circumstance exists or a consequence will occur in the ordinary course of events.’ Setting this requirement different from the existing meaning might challenge getting its international recognition.

#### **4. Challenges and the Way Forward to Criminalise Ecocide at the International Level**

Under the purview of international law, causing massive environmental destruction is not an offence outside of ‘wartime.’ Higgins et al. have rightly indicated that governments and corporations have regularised ecocide to justify the world economy practices.<sup>95</sup> Therefore, we need to identify how an interdisciplinary approach uniting the study of international law and green criminology can produce an effective system to change the ecocidal practices and the world. The response lies upon prohibiting mass environmental destruction and imposing ‘legal duty of care’ on individuals with ‘superior responsibility.’ These measures mutually support the proposal of criminalising ecocide under international law.

Many scholars writing in green criminology have used the term ecocide to explain climate change and environmental destruction. White and Heckenberg emphasise calling for solemn responses to make ecocide a crime in their book.<sup>96</sup> Again, Weinstock uses ecocide to explain the ‘economic power’ and ‘planned assassination’ of the species of the states.<sup>97</sup> The last few years have also seen green criminology’s development in connection with the venture of ‘southernising criminology’, where euphemisms like genocide, ecocide and ‘ethnocide’ are pre-eminently used. Green criminology’s recent expansions and concern for undertaking effective measures to administer ‘environmental justice’ should thus call for promoting the proposal to recognise ecocide as a crime under international law.

From both criminological and legal positions, this article finds that ‘ambiguities’ of the definition of ecocide and the resistance from the powerful to

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<sup>94</sup> Carmichael (n 69) 730.

<sup>95</sup> Higgins, Short and South (n 6) 264.

<sup>96</sup> White and Heckenberg (n 45).

<sup>97</sup> Ana Mariel Weinstock, ‘A Decade of Social and Environmental Mobilisation against Mega-mining in Chubut’ in David Rodríguez Goyes, Hanneke Mol and Avi Brisman (eds), *Environmental Crime in Latin America: The Theft of Nature and the Poisoning of the Land* (Palgrave Macmillan 2017) 147-48.

the criminalisation process are still the significant challenges.<sup>98</sup> As a general rule, characterising the ‘crimes of the powerful’ from criminological aspect implies a harm-based approach. The legal aspect of the same involves proving that the alleged perpetrators either intended, or had knowledge, or acted recklessly/negligently to cause the environmental destruction. In this regard, Shover and Routhe observe that this ‘can be a high standard to meet in most cases.’<sup>99</sup> South offers that to avoid this legal challenge, the approach of critical criminology to contemplate environmental crime and harm as ‘violations of rules that do not require demonstration of intent to violate’ can be adopted.<sup>100</sup> Nevertheless, removing the ‘element of intent,’ a crucial element of a crime, is somewhat aspirational. Besides, it should be recognised that criminology always encounters the challenge to distinguish between crimes and harms. Also, lack of symmetries in ‘legal definitions and law enforcement enable corporations to do what is prohibited at home in other jurisdictions without breaking any laws.’<sup>101</sup>

Hence, considering that the crime of ecocide takes place in the situation of foreknowledge and getting global political support to criminalise it without knowledge requirement is rather ambitious, the recent proposal of White may pave a way to influence the policy outcomes on green criminology and ecocide law.<sup>102</sup> He suggests that ‘[f]rom a critical criminological perspective, ecological destruction accompanying natural resource extraction such as the oil and gas industries, coal mining, logging and so on should be proceeded against under an international law of ecocide.’<sup>103</sup> In the question of perpetrators’ ‘knowledge’ or ‘intent’ requirement, he indicates to legally conceptualise the ‘generalised scientific knowledge’ that confirms massive environmental destruction and climate change are apparent ‘unless carbon emissions and deforestation are not radically reduced.’<sup>104</sup> Unfortunately, the SEF’s recent definition of the crime of ecocide does not resemble these views of critical criminologists; instead, the intuitive use of the term ‘knowledge’ sets its meaning considerably inferior to ‘specific intent.’<sup>105</sup>

This article proposes to draw green criminology’s attention to connect with ‘victimology’ within the frame of critical criminology to address the impact of

<sup>98</sup> White (n 14).

<sup>99</sup> Neal Shover and Aaron S Routhe, ‘Environmental Crime’ in Michael Tonry (ed), *Crime and Justice: A Review of Research* (University of Chicago Press 2005) 324.

<sup>100</sup> South (n 11) 9.

<sup>101</sup> Nikos Passas, ‘Lawful but Awful: ‘Legal Corporate Crimes’’ (2005) 34(6) JSE 771, 773-74.

<sup>102</sup> White (n 14).

<sup>103</sup> Ibid 247.

<sup>104</sup> White (n 7).

<sup>105</sup> SEF (n 88).

the crime of ecocide on the victims. Fitzgerald emphasises that while building a critical attitude over a context, it is imperative to comprehend the perceptions of ‘victims and victimhood,’ and how they are challenged and surrounded in cultural and historical terms.<sup>106</sup> Later, Sollund argues that animals are marginally rendered ‘victim’ status, but a ‘green critical victimology’ can change it in the process of criminalising ecocide.<sup>107</sup> She suggests that green criminologists must continue examining the environmental crime and harm of the powerful engaging the victims in the studies.<sup>108</sup> In so doing, ‘future generations’ can also be considered victims of environmental crime and harm.<sup>109</sup>

From the perspective of ‘victims and victimhood’ as indicated above, the SEF’s definition of ecocide can be considered significantly ‘human centric’. Firstly, to define ‘wanton’, it says that ‘[w]anton means with reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated.’<sup>110</sup> This explanation allows the perpetrators to justify their actions as beneficial for the ‘social and economic benefits’ because it is almost impossible to establish what they have anticipated before undertaking any initiatives. Moreover, it is stated in the commentary that ‘the Panel was mindful that socially beneficial acts, such as housing developments and transport links, can cause severe and either widespread or long-term damage to the environment.’<sup>111</sup> This statement somewhat builds that the definition considers both nature and animals inferior to the benefits of humans. Therefore, this article suggests that green criminology should play a significant role in adequately defining the crime of ecocide concentrating on both human-centred and nature-centred viewpoints, as well as criminalising it under international law.

## 5. Conclusions

A key conclusion of this article is that critical criminology has much to offer in an endeavour to criminalise ecocide as a subject of green criminology to increase accountability for environmental crime and harm in both wartime and peacetime. The analysis of green criminology’s emergence from critical criminology has strengthened my awareness of why ‘critical criminology is

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<sup>106</sup> Amy J Fitzgerald, ‘The ‘Underdog’ as ‘Ideal Victim’? The Attribution of Victimhood in the 2007 Pet Food Recall’ (2010) 17 IRV 131, 132. □□□□

<sup>107</sup> Ragnhild Sollund, ‘Green Criminology: Its Foundation in Critical Criminology and the Way Forward’ (2021) 60(3) THR 304, 313.

<sup>108</sup> Ibid 317.

<sup>109</sup> White and Kramer (n 1) 395.

<sup>110</sup> SEF (n 88).

<sup>111</sup> Ibid.



more relevant today than ever,' and why it is still necessary.<sup>112</sup> This article puts forward that critical criminologist began demonstrating their awareness about environmental crime and harm from the end of the 1960s. Thereby, the concept of environmental criminology derived at the beginning of the 1970s. Over the last decades, several alternative terms have been presented to imply this phenomenon, but green criminology has been around as an 'open' perspective, approach, or framework. This article suggests that green criminology has become a 'theoretical laboratory' to address environmental crime and harm caused by the powerful, including states and corporations, which mainstream criminology has ignored. Therefore, it argues that green criminologists have greater prospects to address emergent environmental crime and harm and climate change. It is worth noting that green criminology is dynamic and crucial in addressing environmental crime and harm attributable to globalisation or the capitalist system.

It is Identified in this article that green criminology has given scant attention to 'individual-level offenders' who might be accountable for causing environmental crime and harm. It also indicates that recent years have seen a mounting interest among green criminologists to criminalise the concept of ecocide with some arguing that large-scale environmental degradation should rise to the level of an international crime. The notion of the crime of ecocide has been developing since the 1970s, although it has received criminological attention apparently from the past decade. Presently, along with international lawyers and environmental activists, critical criminologists, especially green criminologists, have been struggling to adequately define it and advocating for criminalising it under international law.

This article also points out that it is still a moot question whether ecocide should be recognised as an international crime. Still, the main challenges are related to the context in which it occurs and the uncertainty of receiving global political acceptance. At this point, this article underlines what Crook et al. write, '[l]aw may serve humans, but history shows it does not serve the planet, nor does it serve all humans equally.<sup>113</sup> The challenge for laws against ecocide and genocide must be to do better'. Hence, critical criminology – particularly green criminology – has an important role in this regard. The SEF's most recent definition of ecocide reflects significantly the 'human-centred' and slightly 'nature-centred' approaches of green criminology.<sup>114</sup> However, the Panel of the SEF did not include any green criminologist, and the criminological aspect is not 'explicitly' reflected in the definition. The definition consists of a lower threshold of 'knowledge' requirement, which might affect international political supports to

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<sup>112</sup> Henninger (n 2) 115.

<sup>113</sup> Crook, Short and South (n 59) 311.

<sup>114</sup> Gibbs, Gore and McGarrell (n 11).

consider it as an international crime. Moreover, it is a 'human centric' definition as it does not sufficiently consider nature and animals from the victims' perspectives. This article thus offers that a collaborative effort of the international lawyers, environmental activists, and green criminologists to adequately conceptualise the crime of ecocide and advocate for criminalising it at the international level can lead to an effective mechanism of addressing environmental crime and climate change.