

Contemporary Perspectives on Environmental Enforcement

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Angus Nurse¹ 

Abstract

Green criminology allows for the study of environmental and criminal laws, environmental criminality which includes widespread environmental harm, and the abuse and exploitation of nonhuman animals. Yet many environmental crimes are not the core focus of criminal justice systems or public concern about crime and safety despite having the potential to cause far wider social harm and a large number of deaths. Instead much environmental enforcement is regulatory or administrative in nature, particularly in respect of corporate environmental wrongdoing, which is often categorized as accidental wrongdoing, largely considered to be the fault of “rogue” employees or the unintended consequences of governance failures. Unlike traditional street and property crimes, environmental crimes (and environmental harms) frequently have long-lasting and irreversible effects. This raises questions about the effectiveness of justice systems in dealing with environmental offenders and the damage they cause. This paper explores the effectiveness of contemporary environmental enforcement mechanisms. In particular, the paper explores the extent to which they such mechanism are equipped to deal with corporate environmental offending which in many cases is a consequence of the operation of neoliberal markets. This paper examines whether the drive for profits and anthropocentric attitudes toward the environment and exploitation of natural resources create a situation where corporate environmental crime is a foreseeable and even natural/inevitable consequence. Where that is the case and where corporations have the resources to continue paying fines and the expertise to navigate regulatory justice systems, an alternative to the law enforcement “detection apprehension and punishment” approach might be required.

Keywords

green criminology, environmental crime, enforcement, pollution crimes, environmental disasters, green movement

¹Middlesex University School of Law, London, UK

Corresponding Author:

Angus Nurse, Middlesex University School of Law, The Burroughs, London NW4 4BT, UK.

Email: a.nurse@mdx.ac.uk

Introduction

Environmental crimes and harms represent a pressing threat to human society; yet are arguably poorly and inconsistently dealt with by contemporary justice systems. White (2018, pp. 7–8) talks about the “slow crisis” of environmental harms such that “floods in Brazil, Australia and Sri Lanka in early 2011 were generally interpreted publicly as once-in-a-100-year phenomenon” whilst the same was said about “Super Storm Sandy” which occurred along the East Coast of the United States in 2012. Cyclones and hurricanes are also considered “normal” to certain parts of the world and even oil spills and chemical disasters might be described as “upset” incidents, the accidental by-products of legitimate activities. However, such incidents and more “routine” activities like the daily pollution caused by industrial processes and major corporations contribute to increased environmental harm that has potentially serious consequences for human survival as well as being a form of “invisible” crime that falls outside the remit of mainstream crime and justice policies. Lynch and Stretesky (2014) also point to the near exclusion of environmental harms from criminological study of crime and justice policy and practice. Lynch and Stretesky (2014) lament the failure of contemporary justice policy to engage with environmental problems whilst Holley and Shearing (2018, p. 13) suggest that criminology “will be defined by environmental crimes and environmental harms in the age of the Anthropocene” indicating also that criminology may require some rethinking in a contemporary era of human-caused harm. Tombs and Whyte (2015, p. 47) identify a range of contemporary crimes such as “illegal emissions to air, water and land; hazardous waste dumping; and illegal manufacturing process” that cause considerable harm to the environment and that arguably should draw the attention of criminological inquiry.

How best to deal with environmental problems is a matter of considerable debate and is the focus of this article. Unlike traditional street and property crimes, environmental crimes (and environmental harms) frequently have long-lasting and irreversible effects, particularly where they impact on non-human animals. This raises questions about the effectiveness of justice systems in dealing with environmental offenders and the damage they cause. This article argues that within the context of environmental disasters such as the Gulf Oil Spill, problems caused by climate change and associated pollution events that kill thousands of people each year, and the widespread illegal killing of wildlife, we are heading for an environmental apocalypse. Yet many environmental crimes are not the core focus of criminal justice systems and public concern about crime and safety despite having the potential to cause far wider social harm and a greater number of deaths. Criminal justice systems that are predominantly based on the punishment of offenders, often fail to address the harm caused by environmental incidents. This article argues that large scale eco-global crimes are of significance not just because they are “crimes” that have a global reach and impact on both existing communities and future generations, but also because they affect and involve a range of nation states and different justice systems. By considering these issues, green criminology examines complex issues in criminological enquiry that extend beyond the narrow confines of individualistic crime which dominate criminological discourse and are the

main focus of criminal justice policy. Employing a green criminological perspective, this article also argues for a restorative approach to environmental harms and crimes; one aimed at repairing harm rather than primarily punishing offenders.

The Age of the Environmental Apocalypse

The challenges inherent in contemporary green and environmental harm discourse include “industrial pollution of the air, water, and land, toxic waste sites, deforestation, species extinction, excessive pesticides use and pollution, climate change, the excessive use of fossil fuels, acid rain, a growing reliance on coal and oil, the environmental effects of drilling for oil or mining coal, the collapse of coral reefs and fisheries and so on” (Lynch & Stretesky, 2014, p. 11). Tombs and Whyte identify that recent estimates suggest around 800,000 premature deaths occur (globally) from ambient air pollution each year (Cohen et al., 2005) and that “most pollution is produced by commercial activity” (Tombs & Whyte, 2015, p. 49). Thus, they conclude that “corporations certainly produce most of the air pollution that threatens our health, economy and environment” (Tombs & Whyte, 2015, p. 49). The list of problems caused by corporate activity identified by Lynch and Stretesky (2014) and Tombs and Whyte (2015) is not exhaustive, but it sets out a wide range of environmental threats and harms. Many of these problems are the consequences of lawful corporate activity given that the majority of the issues raised above derive from legitimate corporate processes operating within the confines of legal neoliberal markets. The reality is that many things that NGOs, environmental activists, and others object to as environmental harms, are perfectly legal and there is an argument that only those things defined by criminal law as offences can really be classed as green crimes. Situ and Emmons (2000) define this as follows:

The strict legalist perspective emphasizes that crime is whatever the criminal code says it is. Many works in criminology define crime as behaviour that is prohibited by the criminal code and criminals as persons who have behaved in some way prohibited by the law.

(p. 2)

This explanation identifies green crimes by a strict legalist view that argues that crime is whatever the criminal law defines it as being by specifying those actions prohibited under the law. However, an alternative approach to green crimes sometimes advocated by activists is the social legal perspective which argues that some acts, especially by corporations, “may not violate the criminal law yet are so violent in their expression or harmful in their effects to merit definition as crimes” (Situ & Emmons, 2000, p. 3). This approach “focuses on the construction of crime definitions by various segments of society and the political process by which some gain ascendancy, becoming embodied in the law” (Situ & Emmons, 2000, p. 3). However, a central focus of green criminology and consideration of global environmental justice is the notion of environmental *harm*, a conception which

incorporates the victimization and degradation of environments and harm caused to non-human animals, irrespective of legal classifications. Lynch and Stretesky (2014, p. 8) argue that environmental harms are more important than the personal harms of street and property crimes both in terms of being more extensive and damaging. They argue that “the environment around us is under expanded assault, that it is routinely harmed and damaged by humans” (Lynch & Stretesky, 2014, p. 9). Holley and Shearing (2018, p. 3) refer to the period known as the Anthropocene which they broadly define as the post-Holocene period of human interference as a driving force in the planetary system. In their conception, a key criminological challenge is addressing the intractable problems of the Anthropocene, which include climate change, overexploitation of natural resources; related human security and fortress spaces; and the rise of new risks and social harms. Many of the problems of the Anthropocene relate to the type of green crimes discussed within this article and Brisman and South (2018) agree that the Anthropocene “refers to a proposed new geological epoch characterized by the unprecedented impact of human activities on the Earth’s atmosphere and ecology” (p. 26). However, debate continues over when the Anthropocene began and Brisman and South (2018) identify three different definitional dimensions to include: a new geological epoch/history that has not yet been fully and formally validated; an Earth-system science perspective that the Earth is experiencing a shift from its Holocene state and thirdly, the impact of humanity as one in which the relationship between humans and the environment has changed by virtue of the fact that “human action and Earth dynamics have converged and can no longer be seen as belonging to distinct immeasurable domains” (p. 26).

These discussions reinforce the idea of green crimes as being human caused and a social construction influenced by: social locations; power relations in society; definitions of environmental crimes; media; and political process (Lynch & Stretesky, 2003; Nurse, 2016).

This social-legal perspective also allows for consideration of symbiotic green crime which grows out of the flouting of rules that seek to regulate environmental disasters. There are, for instance, numerous minor and major examples of governments breaking their own regulations and contributing to environmental harms. Lynch and Stretesky (2014) in assessing National Crime Victimization Survey (NCVS) data from the US that detailed levels of environmental victimization, concluded that “humans are more likely to be the victims of violent green victimizations than they are to be the victims of criminal acts of violence” (p. 92). The nature of these environmental harms is discussed in more detail later in this article; suffice to say that corporate activity is a significant cause of the alleged violent green victimizations identified by Lynch and Stretesky (2014) and other authors (Nurse, 2016; Sollund, 2015; White, 2008). In reality, many of these harmful acts will be ignored by mainstream criminology and fall outside the enforcement actions of mainstream criminal justice systems; instead being considered by regulatory environmental enforcement structures. Thus, an entire class of offender (the corporation) and of offending (environmental harm) receives scant attention from the mainstream criminological gaze.

Corporate environmental crime might be categorized as accidental wrongdoing, largely considered to be the fault of “rogue” employees or the unintended consequences of governance failures such that blame is laid at the feet of specific

individuals (Bell et al., 2013). In part this reflects societal and policy acceptance of corporations as positive actors who generally provide benefits to society. This paradigm suggests that harm caused by corporations is an aberration in otherwise lawful activity. This perspective also suggests that when corporations cause environmental harm, the corporation may be as much victim as perpetrator, suffering harm to its reputation and the smooth running of its operations. Thus, the dominant paradigm in corporate governance discourse is arguably one that sees corporations as responsible actors with a vested interest in eradicating environmental harm and corporate wrongdoing. Arguably there is also political reluctance to treat corporations as criminal entities given their contribution to the economy (as employers and taxpayers) and to policy debates. Indeed, in some jurisdictions, criminal prosecution of a corporation as the guilty actor is arguably not possible within the confines of the criminal code and criminal procedure rules. Thus, in some cases the legal system itself concludes that corporations cannot be “criminals.”

The reality of environmental harm is that its consequences are wide-reaching, affecting more than just the direct victims of street crime and impacting negatively on ecosystems, future generations and the survival of many human and nonhuman animal species. Hall (2013) identifies that environmental harm has the potential for long term negative impacts on human health (citing examples such as the Bhopal gas tragedy, the Chernobyl nuclear disaster, and the Deepwater Horizon Gulf oil spill where direct human harm was a consequence). Environmental harm also has negative long term economic, social and security implications and is thus worthy of consideration by criminologists as both direct and indirect threat to human populations. Both Hall (2013) and Lynch and Stretesky (2014) identify that environmental harm is often a consequence of neoliberal markets and the exploitation of natural resources by corporations and states. This theme is explored by a range of other writers (Stallworthy, 2008; Walters et al., 2013) and is a core part of green criminology’s claim for developing justice systems and research enquiries that extend beyond concentration on criminal justice systems and the use of the criminal law.

Principles on Protecting the Environment

International law is of significance in respect of identifying shared values between states; particularly the basic idea that the environment should be protected, and that excessive environmental damage should be subject to some form of sanction. Thus, environmental law, particularly in the form of treaties, sets out general expectations as well as specific commitments that states are required to abide by and should implement in national legislation. Nurse (2015) identifies that a range of international environmental law measures seek to achieve everything from preventing the international transfer of toxic waste through to protecting migratory wildlife and requiring states to take measures to ensure such species survival. However, Stallworthy (2008, p. 8) argues that “environmental commitments under international law are typically in the form of ‘soft’ law, which has no binding effect and lacks both specificity and enforceability.” Stallworthy also suggests that international environmental law is primarily

aspirational; setting out principles that might develop into specific laws whilst allowing national sovereignty and a socially constructed notion of environmental protection to be retained. National sovereignty remains important given that states are often required to implement international law through their own domestic legislation which can filter international principles to take account of cultural and social sensibilities. Thus, laws on pollution may well differ between countries, but so too may their enforcement in terms of the agencies employed, the wording and nature of offences and the sanctioning regime. Thus, environmental enforcement might consist of a mixed (civil and criminal) approach in one country or a strict criminal approach in another; dependent on the perceived level of the problem, the influence of lobby and political groups and nature of the justice system itself.

The need for international environmental protection was recognized in the 1972 UN Declaration on the Environment (the Stockholm Declaration). Principle 1 of the Declaration states that man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. Principle 2 states that the natural resources of the earth, including the air, water, land, flora and fauna, and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate. Principle 5 of the Declaration specified that: the non-renewable resources of the earth must be employed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such employment are shared by all mankind. These provisions create a basic framework linking man's fundamental rights and freedoms with the quality of the environment. This arguably creates the principle of sustainable development and identifies that while exploitation of natural resources is generally permissible, such exploitation needs to consider limiting any use that will impact negatively on future generations and cause the serious depletion of resources. For oil and gas extraction industries, for example, Principle 5 could be interpreted as meaning that production should be limited to that which can be sustainably managed. Principle 17 of the Declaration identified that: appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of States with a view to enhancing environmental quality. Thus, states are required to put in place governance procedures to ensure that environmental resources are not just maintained at existing levels but can be improved. Thus again, a principle of limiting corporate exploitation of natural resources is indicated as a necessity, and the principle articulates the need for planning and managing environmental resources in a sustainable way. Principle 21 of the Declaration specifies that: States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

However, legal instruments such as international treaties are rarely self-sufficient (Pirjatanniemi, 2009) requiring implementation through national legislation before they become effective. As a result, arguably states comply with international environmental law only to the extent to which doing so serves national interests and local governance needs. Accordingly, flexibility exists in how states approach their international environmental law obligations and how they implement the requirements of law, commensurate with the idea that states have autonomy and discretion over how best to exploit national resources (Nurse, 2015; Stallworthy, 2008). This is especially true in respect of “soft” international law which is not directly enforceable, but which sets out shared standards or aspirations for states, albeit these may be subject to varied interpretations commensurate with state interests. For example, White and Heckenberg (2014) identify that in relation to wildlife trade, the function of law is to define legal notions of harm and criminality and not to provide for the health and well-being of animals. In this regard, the logic of international wildlife law “is not simply to protect endangered species because they are endangered; it is to manage these ‘natural resources’ for human use in the most equitable and least damaging manner” (White & Heckenberg, 2014, p. 133). Thus, exploitation of natural resources is generally legal (Stallworthy, 2008) and offences occur primarily when such exploitation exceeds the limits set by laws and regulations or fails to comply with the specific requirements of governance systems, often dominated by licensing and permit systems. In this regard, political sensibilities also govern the regulation of corporate activities that might harm the environment, requiring a balancing act between corporate and political interests and environmental protection. Ruhl (1997) set out (six) basic principles of environmental law which (somewhat paraphrased) contend that:

- (1) environmental law should be based on principles of libertarianism (freedom of contract and markets);
- (2) there should also be limited acceptance of regulatory restraint;
- (3) regulatory approaches should balance (market) interests with minimizing environmental harm.
- (4) Ruhl’s principles also indicate a preference for the operation of substantive environmental law through the use of sustainability and precautionary principles;
- (5) an adherence to environmental justice and the sharing of costs and benefits among citizens’ and
- (6) a deep green perspective is required, prioritizing ecological over human interests which arguably is enshrined in the basic texts and principles of international environmental law.

Environmental Crime and Environmental Justice

Discussion of green crimes inevitably concerns the transnational nature of such crimes and the extensive harm caused to global ecosystems. Criminologist White (2007, 2012a) observes that given the potential for environmental harms to extend far beyond

the impact on individual victims that are the norm with “traditional” crimes of interpersonal violence and property crime, green crimes should be given importance if not priority within justice systems. Eco-global crimes such as the illegal trade in wildlife, pollution crimes and environmental harm are of significance not just because they are crimes that have a global reach and impact on both existing communities and future generations, but also because they affect and involve a range of nation states and different justice systems. By considering these issues, green criminology examines complex issues in criminological enquiry and extends beyond the focus on street and interpersonal crimes to encompass consideration of “the destructive effects of human activities on local and global ecosystems” (South & Beirne, 1998, p. 147). In doing so green criminology considers not just questions of crime as defined by a strict legalist/criminal law conception (Situ & Emmons, 2000) and which is discussed within this article, but also questions concerning rights, justice, morals, victimization, criminality, and the use of administrative, civil, and regulatory justice systems. Green criminology also examines the actions of non-state criminal justice actors such as Non-Governmental Organizations (NGOs) and civil society organizations (White, 2012b).

The reality of corporate environmental offending is such that much of the activities under discussion as corporate environmental “crime” are strictly speaking not crime but instead fall within a broader conception of corporate wrongdoing and non-compliant behavior. Situ and Emmons (2002, p. 2) identify a strict legalistic definition of crime as being “whatever the criminal code says it is” and encapsulate a strict definition of environmental crime as follows:

An environmental crime is an unauthorized act or omission that violates the law and is therefore subject to criminal prosecution and criminal sanctions This offense harms or endangers people’s physical safety as well as the environment itself. It serves the interests of either organizations – typically corporations – or individuals.

Situ and Emmons (2000, p. 3)

This definition clearly identifies environmental crime as being a violation of existing law albeit it also requires that for something to be classed as an environmental crime it must be subject to criminal prosecution and criminal sanctions. The definition is arguably also confined to only the most serious of environmental offences and would omit minor or associated offences such as permit breaches, or other technical offences that arguably cause no tangible harm and other activities that have somehow escaped the attention of legislators.

However, the reality is that much of the environmental harm caused by corporations would not meet Situ and Emmons’ (2000) strict definition of crime. This is because in contrast to definitions of prohibited acts contained within criminal law, much environmental wrongdoing is carried out by legal actors and is classified within environmental legislation that, strictly speaking does not fall within the criminal law albeit the option for criminal penalties is available within some statutes. As Stallworthy (2008) notes environmental law “is distinctly public law, with widespread regulation

of activities, through substantive and procedural constraints; including process controls, emission limits, and environmental quality requirements” (p. 4). The underlying principles are, thus, not ones of criminalization, instead they primarily allow continued exploitation of natural resources, subject to regulatory control. Thus, an activity could well be permitted but the offense is one of going beyond what the law and permits allow. For example, Lynch and Stretesky (2014, p. 7) identify that the law allows corporations to emit certain types and volumes of pollution noting that while this activity may be legal it is not without harmful environmental consequences. Their argument is thus that “just because a behavior isn’t defined as criminal behavior doesn’t mean that there is no harm, and that the harm is minor, or that the harm is adequately defined in law” (Lynch & Stretesky, 2014, p. 7). If a company pollutes above the level allowed by its permits, arguably this is a regulatory or administrative breach rather than a crime. Accordingly, Lynch and Stretesky (2014) and indeed other green criminologists argue for a definition of environmental or green crime that considers crime from the perspective of harm and the impact on the environment rather than the narrow legal classification of crime.

The wider consideration of harm is arguably integral to examining and defining corporate crime through legal systems. Uhlmann (2009) identifies the complexity of (US) environmental law, noting that “environmental law raises conceptual and practical challenges even for respected scholars and experienced practitioners. Much of environmental regulation involves sophisticated and technologically advanced industrial processes. As a result, at least from a theoretical perspective, environmental law and criminal law could be difficult to integrate effectively” (Uhlmann 2009, p. 1232). Cohen (1992, p. 1059) identifies that “traditional legal theories posit that criminal punishment serves four goals: deterrence, incapacitation, rehabilitation and retribution” whilst noting that many of these goals can be achieved other than by reliance on the criminal law. In his discussion of environmental enforcement, Cohen (1992) notes for example that in the Exxon Valdez case,¹ the question of criminal liability was more controversial than that of liability for damage to private property under tort law for damages caused by the spill (p. 1058). Cohen notes that the debate in this case focused on “whether or not Exxon was morally culpable for the spill” and that “despite the appearance of the spill as an accident the government sought criminal charges” on the grounds that Exxon’s culpability went higher than simple negligence. Criminal law through its goal of identifying and bringing an offender to justice and punishing the harm and loss of marine life caused by the Exxon Valdez spill arguably demanded that an offender be made to pay. Thus, criminal prosecution of Exxon “reflected the moral sensibilities of the community” (Cohen, 1992, p. 1059).

In part when defining corporate environmental crime, consideration of the remedy/sanction is appropriate. Cohen (1992, p. 1059) notes that “torts and crimes also have different remedies. Whereas tort remedies generally involve the compensation of victims and are designed to deter the tortfeasor, criminal convictions generally result in punitive sanctions which are designed primarily to punish.” The criminal sanction is, thus, primarily aimed at retribution and deterrence more than it is at remedying harm which raises concerns about its effectiveness in dealing with environmental harm. This

is especially the case in corporate environmental crime where a corporation's operation must, by necessity continue in order to generate profits. Thus, one challenge for criminal punishment is whether it can ever be truly effective where the punishment is meted out to individual staff that can be replaced, or where punishment is focused on a corporation that can afford to pay whatever fine is imposed. Evidence exists, for example, that corporations simply absorb the cost of regulatory action and fines as part of the cost of doing business (Nurse, 2015). Thus, one question for addressing corporate environmental crime relates to the extent to which law and regulatory mechanisms can keep up with corporate practices (Wilson et al., 2018) and the resources available to the corporate offender.

Arguably corporate environmental offending is a product of opportunity conditioned by poor monitoring regimes and weak enforcement environments (Situ & Emmons, 2000), and a Governmental approach to corporate wrongdoing that promotes risk-based or responsive regulation and sees prosecution as a last resort (Gouldson et al., 2009; Tombs & Whyte, 2012). Accordingly, corporations understand that they will often be allowed to continue with polluting and non-compliant behavior and that fines and settlements are the likely enforcement response to environmental offending rather than criminal prosecution. Arguably, this is understandable given that corporations are generally legal actors given legitimacy as a consequence of various societal structures (e.g., paying tax on corporate earnings, rules of incorporation, commercial law, and government policy structures). Political considerations (e.g., jobs and managing the economy) arguably dictate that corporations will generally be treated sympathetically (if not leniently) by justice systems and policy.

White (2012a, p. 15) identifies that "the systematic causal chains that underpin much environmental harm are located at the level of the global political economy – within which the transnational corporation stands as the central social force" and arguably corporations have considerable influence over legal and political structures. Transnational corporations are dominant social and economic actors with considerable influence over political and legal considerations on environmental protection. While legislative regimes may not directly reflect *individual* corporate interests, they frequently take into account the underlying principle that corporations and neoliberal markets should be allowed to continue operating with minimal state interference (Lynch & Stretesky, 2014; Stallworthy, 2008). This sets up a potential conflict between the need for continued production and the free operation of markets and the desirability of protecting the environment both for its intrinsic value and to ensure the preservation of environmental resources as a public good that should be protected for the benefit of future generations (Curry, 2012; Weston & Bollier, 2013). The reality of environmental exploitation is that the harms caused in use of natural resources are often deemed necessary to sustain a way of life based on capitalist principles. Thus, states and corporations who are in positions of power arguably have a vested interest in continued production over environmental protection. Higgins (2015) argued for "a radical and rapid shift from protection of private interests to protection of public interests" (p. XIV) for the protection of the wider community and an environmentally conscious way of life. However, what gets criminalized and what gets protected can

involve a complex interplay of social policy and political considerations. Regrettably “those who determine and shape the law are very often those whose activities need to be criminalized for the sake of planetary wellbeing” (White, 2012a, p. 24). Thus the public good of environmental protection may conflict with other societal benefits (e.g., continued consumption, tax revenues, employment) and political and policy considerations may inhibit effective environmental protection.

Restorative Justice and Environmental Harm

Many environmental damage incidents such as major chemical or oil spills or widespread deforestation also have severe and irreversible consequences that extend beyond the initial event. Where this is the case; the criminal justice system, predicated on notions of punishing offenders rather than repairing harm, may be inadequate to deal with the consequences and alternatives may be required. Accordingly, alternatives to the use of criminal justice as a potential solution to dealing with environmental harms (including wildlife crime) may be required given the inadequacies of continued reliance on the criminal law and the law enforcement perspective of detection, apprehension and punishment that usually only takes place once environmental harm has occurred (Bright, 1993). This article questions whether reactive detection, apprehension and punishment are effective as an environmental crime response. Arguably a better approach can be found in the concept of restorative justice as applied to environmental crime; explicitly considering how justice systems need to do more than just provide punishment and social disapproval. Given the finite nature of environmental resources the notion of “repairing the harm” should arguably be integral to green justice; incorporating a restorative element into any proceedings aimed at addressing environmental harm or crime. But challenges exist in considering and implementing restorative principles especially when environmental harm has already occurred.

The ideal for effective environmental restorative justice is that offenders are held to account for what they have done, realize the harm that they have caused and are persuaded or compelled to repair that harm (so far as is possible). Successful restorative justice also avoids the escalation of legal justice and its associated costs and delays (Marshall, 1999) by engaging both offender and victim in finding a resolution to environmental crime problems. Braithwaite (2004) argues for “reintegrative shaming” (disapproval of the crime act within a continuum of respect for the offender) as a means of preventing crime through forgiveness. Braithwaite identifies restorative conferences as a means through which offender and victim discuss the consequences of a crime and draw out the feelings of those who have been harmed. Effective victim/offender meeting and mediation can lead to: an apology; a chance for victims to get answers to questions; a chance for victims to tell offenders the real impact of their crimes and for offenders to understand this impact; a chance to achieve some form of reparation; and a chance for victims to achieve some form of closure from events. Thus, the ideal for effective restorative justice is dialogue that allows for offenders to be held accountable for their actions and gain greater understanding of the harm they have caused. Personalizing the victim prevents offenders from distancing themselves

from the consequences of their actions and may mitigate the use of neutralization techniques (Sykes & Matza, 1957) such as denial of injury or arguments that crimes such as burglary are victimless because householders can have goods replaced through household insurance. While this “pure” form of restorative justice may not always be possible in environmental harm cases, some means of recognizing and addressing the harm caused to the environment and affected communities should be part of any approach to addressing environmental harm via restorative justice. This may involve offenders making some form of redress for the damage they have caused.

For example, following a pollution incident in 2007, Thames Water one of the UK’s biggest water utilities companies was originally fined £125,000 (Jowitt, 2009) although this amount was cut on appeal (BBC News, 2010). The incident involved chlorine from the company’s sewage works polluting the river, allegedly killing thousands of fish and impacting negatively on restoration works that had taken place at the site. However, in addition to the fine imposed by the court, a settlement was reached with the Anglers Conservation Association that saw Thames Water agree a remediation package worth close to £500,000. This included £10,000 compensation for two local angling clubs and £30,000 to meet the costs of restocking the river together with an ongoing survey to assess damage to the river’s ecology. The company also agreed to pay £200,000 to the Wandle Trust to support additional project fund raising and conservation activity aimed at delivering access and habitat improvements along the length of the river. It also agreed to pay £250,000 over 5 years for a restoration fund to support local projects to improve the river environment. While the settlement in this case was negotiated rather than being court imposed, it illustrates several restorative principles. First, the settlement considers the harm caused to the environment and non-human nature but also to the affected community (the anglers). It also seeks to repair or at least address the harm by having the polluter pay the costs of remediation. In this case this involved restocking the river and also meeting the costs of long term mitigation of the harm caused.

In one sense the Thames Water example is not perfect in that it rests on the company acknowledging the impact of its actions and somewhat voluntarily entering into a settlement agreement. But arguably this is preferable to a lengthy court battle to force remedial action and the courts also applied a fine. In a broader sense, applied to environmental damage, restorative justice also provides for legal enforcement of Corporate Environmental Responsibility (CER) by requiring corporations to understand and mitigate their harms, offering hope of behavioral change. Examining arguments that traditional justice may be ill-served to deal with the specialized nature of environmental problems, this article also argues for the use of specialist environmental courts and alternative dispute mechanisms (ADR) such as Environmental Ombudsmen. In doing so it specifically links to green criminology’s exploration of environmental harm as a social problem requiring a harm-reduction rather than punitive response (Lynch & Stretesky, 2014).

Traditional criminal justice with its focus on individualistic offending and punishment may be inadequate to deal with the problem of environmental crimes. Problems exist not just in the classification and investigating of environmental crimes but also in

the presentation of cases at court. In particular, a lack of expertise on the part of prosecutors and jurists risk perpetuating a justice system that works as intended by punishing offenders, but which fails to resolve the problems created by a particular environmental crime (Nurse, 2015). In a 1992 article and lecture entitled *Are the Judiciary Environmentally Myopic?* Lord Woolf, at the time one of the most senior UK judges, questioned whether the judiciary was equipped to deal with environmental cases. Lord Woolf noted that a single environmental incident, for example pollution, could comprise of multiple offences under various different pieces of legislation. An incident which killed wildlife and resulted in human harm while also constituting regulatory breach by exceeding emission limits and other pollution controls could engage with criminal, civil and administrative laws and the need for punishment, remediation, and civil damages. Such incidents could also engage with analysis and development of policy which Lord Woolf contended the judiciary lacked competence to deal with and which were better dealt with by professional policymakers (Woolf, 1992).

The need to consider consequences beyond the initial direct impact requires consideration of a “therapeutic jurisprudence approach” that makes offenders accountable for their actions and facilitates rehabilitation (Ward, 2014, p. 2). The “therapeutic jurisprudence” concept incorporates focus on the therapeutic and anti-therapeutic benefits of consequences of the court process; the perception that court processes can go beyond pure punishment to incorporate reform and rehabilitation (Hoyle, 2012). The notion of specialist green courts reflects perceived benefits of specialism versus generalism (Stempel, 1995; Woolf, 1992). Lord Woolf’s contention was that without specialist knowledge of environmental matters, judicial scrutiny through criminal law processes risked being inadequate. Similarly, White (2013, p. 269) identifies that empirical evidence shows that when specialist courts are in place or when judicial officers with specialist environmental knowledge are placed within generalist systems, there is greater likelihood of both offender prosecution and use of appropriate sanctions. Accordingly, Woolf’s (1992) conclusion that a case exists for a special environmental tribunal with general responsibility for overseeing and enforcing environmental law which would be a “multi-faceted, multi-skilled body which would combine the services provided by existing courts, tribunals and inspectors in the environmental field” has merit (p. 14). Part of Lord Woolf’s analysis related to the distinctive aspects of environmental crimes such as “the possibility of a single pollution incident giving rise to many different types of legal actions in different forums—a coroner’s inquest if deaths are involved; criminal prosecution, civil actions, and judicial review if public authorities are involved” (Macrory, 2010, p. 64). Similarly, within wildlife crime some incidents involve multiple offences such as the poisoning of birds of prey on (UK) shooting estates which can involve criminal offences relating to killing of wildlife, health and safety and prohibited substance offences in relation to handling and use of pesticides, civil actions where non-target species (e.g., companion animals) are harmed. The implication of Lord Woolf’s analysis was that a single specialized environmental forum with expertise to deal with all matters relating to the environmental incident would be better than the current system.

Since Lord Woolf's 1992 analysis, environmental courts have arguably become widespread with Pring and Pring (2009) identifying over 80 Environmental Courts and Tribunals in 35 different countries and further expansion taking place since their analysis. Environmental Courts are primarily concerned with "mainstream" environmental issues; land use, planning law, pollution and regulatory environmental offences. Walters and Westerhuis (2013, p. 283) for example, describe the jurisdiction of the New South Wales Land and Environment Court (LEC) as being to compel compliance with environmental law through both civil and criminal enforcement. They describe the court's cases as including a range of matters; "environmental planning and protection appeals, tree disputes, valuation, compensation and Aboriginal land claims, civil enforcement and judicial reviews" (Walters et al., 2013, p. 283) the nature of the case determining whether they are dealt with as criminal or civil matters.

Macrory and Woods (2003, p. 20) also advocated specialist environmental courts or tribunals and identified a number of features which justified a separate environmental tribunal. They identified that environmental cases often involved evidential and judgmental issues involving complex technical/scientific questions, usually of a quite different sort to those found in [ordinary] environmental law decisions. Such cases might also involve a challenging legislative and policy base, which is rapidly developing and the overlapping of remedies (civil and criminal) as well as interests (public and private). Environmental regulatory issues are also critically connected with the subsequent enforcement of environmental standards under criminal law. Environmental cases also engaged with a powerful and increasing body of EC legislation and a growing number of interpretative judgments of the Court of Justice of the European Union (notably in areas such as IPPC, waste management, water pollution, genetically modified organisms, and habitats protection). Decisions of the European Court of Human Rights on the right to a healthy environment and biodiversity could also be added to this criteria, and there exists a substantial body of international environmental treaties and law covering issues such as trade in endangered species, pollution of marine waters, transnational shipments of hazardous waste and climate change. In addition, litigating environmental cases can involve engaging with the development of certain fundamental environmental principles such as the precautionary approach, polluter-pays, prevention at source, and procedural transparency as well as the emergence of principles concerning third party access to environmental justice, and the requirement under the Aarhus Convention for review procedures that are timely and not prohibitively expensive. Environmental law and protection might also require consideration of the emergence of the overarching principle of sustainable development which underpins the contemporary policy approach to environmental issues.

Macrory and Woods' analysis is consistent with those of other scholars that the case for dedicated green courts incorporates a need for specialist expertise not just in judicial consideration of cases but also as regards "valuation of the harm degree of seriousness, extent and nature of victimization and remedies" (White & Heckenberg, 2014, p. 262). Calls have also been made for an international environmental court to be established (Pedersen, 2012) although that function is partially fulfilled by the ICJ whose specialist environmental chamber was under used. A potential flaw in using the ICJ as

an international environmental court is its requirement for states to bring action whereas a broader international environmental court could be constituted to allow cases to be brought by NGOs and other recognized enforcers. However, short of establishing an international environmental court, national courts and ADR mechanisms such as ombudsmen come into play.

Conclusions on Averting the Environmental Apocalypse

Unlike traditional crimes, environmental crimes (and environmental harms) frequently have long-lasting and irreversible effects. This raises questions about the effectiveness of justice systems in dealing with environmental offenders and the damage they cause. Lynch and Stretesky (2014) argue “there is little doubt that humans produce an extraordinary amount of pollution and harm the world in numerous ways by damaging the environment” (p. 8). Other green criminologists (Nurse, 2013; Schneider, 2012; Wyatt, 2013) have commented on the negative, damaging impacts of the illegal trade in wildlife on rare and threatened species, with its knock-on effect on ecosystems. The reality is that environmental crime, and particularly those crimes which impact on non-human animals, represent an unsustainable attack on natural resources. WWF’s (2014) *Living Planet* report, which includes the Living Planet Index (LPI) measuring trends in thousands of vertebrate species populations, argues that there has been a decline of 52 between 1970 and 2010. Put another way, WWF (2014) argues that “vertebrate species populations across the globe are, on average, about half the size they were 40 years ago” (p. 8). Once a species has become extinct through human persecution there is likely little that can be done unless captive breeding programs were already in place prior to extinction or genetic samples of sufficient quality exist in storage so that the species might be revived through scientific means.

This article has discussed both formal and informal conceptions on environmental justice, examining the need to consider how courts and other justice systems need to evolve to deal with environmental offending and disputes. In accordance with Foucault’s conception that power exists only when it is put into action, this article argues for restorative justice as one means of giving power back to the victim (Dreyfuss & Rabinow, 1982). While this is potentially problematic in environmental cases where the rights of the environment as crime victim may not be formally recognized, several mechanisms exist through which restorative justice, both “pure” and partial, can be applied to environmental offences. Fines levied in individual cases may not provide a sufficient deterrent to prevent future wrongdoing and do not address any harm incurred by others in a similar position who may not have directly raised a complaint. As in some areas of crime, offenders may simply regard fines as the cost of doing business and criminological theory (see for example Lemert, 1951 and Merton, 1968) also explains how many business offenders do not see themselves as operating unlawful or criminal practices that need to be modified even when prosecuted. Restorative justice may, therefore, provide a means of changing business behavior by ensuring that business becomes aware of the impact of their actions on consumers and the consequences of business practices that breach regulations in much the same way that restorative

conferencing requires burglars to see their victims as individuals whose lives have been severely affected as a direct result of their actions.

Environmental harm cases represent a challenge for “traditional” justice systems. As Woolf (1992) identified, jurists are not always familiar with the scope and technicality of environmental cases. The implications of such incidents also represent a challenge to punishment-based criminal justice systems.

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ORCID iD

Angus Nurse  <https://orcid.org/0000-0003-2486-4973>

Note

1. The Exxon Valdez oil spill occurred on 24 March 1989 at Prince William Sound off the coast of Alaska. The oil tanker Exxon Valdez owned by the Exxon oil corporation ran aground on Blich sound. The accident resulted in the spilling of nearly 11,000,000 gallons of crude oil. The incident was considered to be a major environmental disaster and eventually polluted around 1,300 miles of shoreline. Piatt et al. (1990) indicate that more than 30,000 dead birds of 90 species were retrieved from the polluted areas by 1 August 1989. Thousands of workers and volunteers were involved in cleaning up the spill which eventually killed a wide range of native wildlife. In addition to birds, otters, whales, bald eagles, salmon, and herring were affected and persistent, toxic subsurface oil exposure continued to kill wildlife more than a decade after the incident (Petersen et al., 2003).

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