



Special Section Introduction: Exploring the Nexus between Human Vulnerabilities and Environmental Crime

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COLLECTION:
EXPLORING THE NEXUS
BETWEEN HUMAN
VULNERABILITIES
AND ENVIRONMENTAL
CRIME

EDITORIAL



ABSTRACT

This essay introduces the concept of environmental crime in its multiple forms and highlights the ways both the crimes themselves and related legislations compound existing vulnerabilities and generate new ones within communities, most often in the so-called Global South.

Importantly, the essay argues for environmental crime to be elevated above a conservation issue and instead be treated by policy makers and law enforcement agencies as an existential threat to human populations and, as such, be afforded a higher level of prioritisation.

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This special section of the *Journal of Illicit Economies and Development* explores how environmental crimes directly and indirectly impact individuals and communities. It is now widely accepted that the trafficking in environmental commodities and the illicit exploitation of natural resources is dramatically affecting the biodiversity of the planet. Therefore, environmental crime is aggravated by the cost it places on human populations through loss of clean air and water, extreme weather conditions, reduced food security, increased risk of zoonotic diseases and the threatening of overall health, security and societal wellbeing (Henriksen, et al., 2018). These human costs of environmental crime can sometimes be a neglected area of research, with analysis instead predominantly focussing on the survival of a particular species along with wider biodiversity concerns and impacts.

This absence has resulted in environmental crimes habitually being viewed predominantly as conservation issues by governments and law enforcement agencies, despite such crimes posing an existential threat to human populations (Shaw & Goodwin Unpublished). Unlike other crime markets where the results are seen to directly impact human beings (such as human trafficking, child sexual exploitation and the drugs trade), the impacts of environmental crimes on human communities are largely indirect and protracted. This is seen with the impacts of illegal sand mining which risks the lowering of the water table and thus increased salinity of ground water resulting in agrarian distress making farming unviable as a way of life. This in turn leads to greater rural-to-urban migration leading to increased unemployment in the cities, a consequence of which is a surge in crime rates. (Mahadevan 2019). This detachment between cause and affect has made it difficult for governments to comprehend the true impact these crimes, committed either domestically or internationally, are having on their populations.

Environmental crimes exist in many guises including the illegal trade in flora and fauna, illegal fishing, the extraction of non-renewable resources and the illegal waste trade,¹ amongst others. There is convergence between these illegal trades, as demonstrated with the trade in flora and fauna (and to a lesser extent the extraction of non-renewable resources) due to the geographical overlap of source countries, with those with a high biodiversity of flora also having a high diversity of fauna. This is seen with illegal logging, which is prevalent in countries far more likely to play a significant role in the illegal wildlife trade (The Global Initiative against Transnational Organized Crime 2021).

This also means that the impacts of environmental crime are not shared equally around the world. Source countries with significant natural resources are mostly developing regions in Africa, Asia and South America which suffer from disproportionate levels of environmental crimes (Walker 2021). For the illegal waste trade, the flow is reversed, with the waste of mostly Western countries shipped to less developed parts of South East Asia, where it is illegally dumped or burned resulting in significant harm to the environment, waterways and the atmosphere (Comolli 2021).

Additionally, it is the most vulnerable individuals at both source and destination that experience the greatest harms. Examples are plentiful and varied. Vulnerable and usually young men in South and South East Asia are known to be exploited on board of vessels engaged in illegal fishing (International Labour Organization n.d.). The victims are forced in slavery conditions with little to, often, no pay and are kept at sea for years. This sadly widespread phenomenon also highlights the convergence between environment crime and forced labour and human trafficking (Friedman 2021). Similarly exploitative working conditions are those endured by workers operating informal waste management facilities in Africa and Asia as well as in some European countries where trafficked individuals are forced to work and have their wages stolen by their traffickers (Comolli, 2021). Elsewhere, illegal logging activities not only lead to deforestation but involve the coercion of indigenous communities that are forced to sell valuable trees, are dispossessed of their lands and have their access to vital natural resources offered by the forests curtailed (The Global Initiative Against Transnational Organized Crime 2021a).

The Global Initiative's Global Organized Crime Index assessed these source countries (or destination countries in the case of the illegal waste trade) with high criminality predominantly have low resilience, with resilience being a measure of a country's 'ability to withstand and

¹ There are two types of illegal activities relating to waste: illegal trade, which violates import or export bans; and illegal treatment, in the forms of disposal incineration or recycling. See (INTERPOL 2020).

disrupt organized criminal activity as a whole, rather than individual markets, through political, economic, legal and social measures' (*The Global Initiative against Transnational Organized Crime 2021*). For environmental crimes, this is an important measurement of a country's capacity to respond, as it goes beyond solely criminal justice considerations of legislation and enforcement (which are notoriously difficult in the realms of environmental crime due to the grey nature of the illicit flows) to include civil society organizations and social protections aimed at preventing environmental crime instead of solely reacting to it.

LEGALITY AND HARM

Since the reach of national legislation is limited by a state's jurisdiction, a global patchwork of disjointed legislation has developed where countries often cannot agree on what is legal and what is not, thus hindering attempts by the global community to combat illicit flows (*Shaw & Goodwin Unpublished*), including of environmental commodities. Additionally, a country's response to illicit flows is often a predominantly political issue based on national concerns (such as when illicit economies provide income and livelihoods for domestic populations) rather than a law enforcement issue; any international attempt to crack down on activities frequently results in resistance from national governments (*Shaw & Goodwin Unpublished*). This is demonstrated by multiple failed attempts to amend international treaties or conventions, such as additions to the Convention on International Trade in Endangered Species of Wild Fauna and Flora's appendices and the International Union for Conservation of Nature's red list of threatened species.

This issue is compounded by the 'grey' nature of illicit flows passing through multiple jurisdictions. These illicit flows are a combination of both legal and illegal activities which can make it impossible to tell the difference between an illegally acquired commodity and a legal one, especially if the commodity is intercepted far from the source country. In the realm of environmental crime, this presents a significant problem to enforcement agencies who are unable to reliably identify an illegal trade or commodity. This is seen with the trade in African Grey and Timneh Parrots for example, where the ability to determine the legality of a trade in both the import and retail phases is more challenging than the export phase.²

It is well known that the act of criminalizing a product or activity can result in a series of unintended consequences. In Mozambique, for instance, attempts to regulate the mining sector have turned impoverished artisanal and informal miners into de facto criminal actors overnight (*Hunter, Manda & Moberg 2021*). Such consequences can also inadvertently be beneficial to organized crime groups and harmful to both society and the environment as the crime is pushed underground making monitoring and research more difficult. Consequently, a solely law-enforcement focus to these grey illicit flows has been argued to be both inadequate and counterproductive, as it does not consider the social and economic factors pushing people into the illicit economy (*De Greef & Haysom 2022*).

To address this issue, new ways of thinking about transnational organized crime and its impacts have been developed, which place the idea of 'harm' to human populations at the centre of the debate. This is a significant step forward, since the concept of illegality has been for too long the focus of environmental crime, which has resulted in very little attention being placed upon the harms befalling humans, from both the criminal activities themselves but also from the actions of the law enforcement agencies tasked with upholding legislation. If 'harm' is to become the driving force behind responses to organized crime, it is essential that the complex relationship between the different environmental crime types and their associated impacts are researched and understood, especially when they involve human populations.

This is particularly important if governments are to realize and appreciate that the threats posed by environmental crimes are similar, or in some cases greater, than those posed by the drugs trade and other forms of serious crime. In fact, in addition to white collar criminal activities linked to environment crime such as corruption and money laundering (and their related impact on governance and the licit economy) as well as violence, environmental crime is proven to contribute to environmental degradation, habitat destruction and diminishing biodiversity, species endangerment and eventual extinction, pollution and contamination leading to deadly

² Indicators of possible wild-sourced parrots may no longer be reliable because not all captive breeders use leg rings, captive birds may act aggressively due to lack of socialization, and they may also have poor health and feather damage which are possible indicators of illegally traded parrots.

human and animal diseases, as well as food shortages and loss of livelihood (Elliott & Schaedla 2016). Only when governments will have appreciated the magnitude and extent of the harms, these crimes will no longer be treated as mere 'conservation or environmental issues' but for what they are, threats against the continued existence of human populations.

GOVERNMENTS AND CIVIL SOCIETY

One of the greatest threats that environmental crimes pose is that of zoonotic diseases. They are a direct and serious risk to human populations, as demonstrated by the COVID-19 pandemic. Although not believed to be directly related to environmental crime, the COVID-19 pandemic demonstrated to the world the impact such outbreaks have on global health. The continued intensification of human interactions with their surrounding environment places enormous pressures on fragile ecosystems which in turn intensifies the risk of emerging zoonotic infections and other biological threats. Hai Thanh Luong and Nicholas Thomson explore this risk and the concept of 'health security' in their paper *Trafficking of Contagion*, which is included in this special section. They explain how the COVID-19 pandemic provides a unique opportunity and rationale to explore alternative and complimentary strategies to tackle environmental crimes that have biological threat potential.

Their paper focuses on the Greater Mekong Sub-Region (GMS), which is deemed to be one of the most biodiverse and agrobiodiverse regions in the world (Hughes 2017), and which epitomises the intense pressure between humans and the ecosystems they depend on. They explore different environmental crimes and commodity flows and discuss the associated implications on both health and security, arguing that due to the threats that environmental crimes pose to a nation's economic, environmental, human and national security, governments should attach the same urgency they have placed upon national and regional security. However, World Bank analyses between 1996 and 2019 show that countries in the GMS rate consistently poorly with respect to measures to control of corruption, the rule of law, government effectiveness, freedom of expression, transparent accountability, regulatory quality and political stability.³ This therefore makes any attempt from the government level to seriously tackle environmental crime fraught with peril, especially when corruption is present.

However, even when governments are better equipped to combat the security risks environmental crimes pose, it is unlikely that the realization alone will be enough to induce them to act unless it was supplemented by political pressure placed upon them from their citizenry. This will not be possible until the citizens themselves become aware of the harms associated with environmental crime and how these are affecting their daily lives and wellbeing. This is easier said than done however, as shown with the difficulties faced by environmental campaigners in the struggle to bring attention to the risks and harms associated with global warming and climate change. It is also demonstrated by the research conducted by Luisa Olivi, whose paper *'The public's perception of seriousness of environmental crimes related to environmental pollution and illegal waste trade'*, is included in this special section.

Olivi's paper investigates the perceptions of the population in Brescia, Italy and how they perceive environmental crimes in their region. It explores a variety of factors, including how a population's relationship with the natural environment, the criminal actors, the resulting harms and the idea of violence can influence the view of individuals on whether they are victims of the illegal waste trade. It shows the complex relationship populations have with environmental crimes, even when these are proven to be having negative impacts on the health of the local community. The research also uncovered an element of fear that is present in the population, with several respondents claiming that they are powerless to bring change or raise the alarm due to the dangers posed by the mafia, thus suggesting that collective actions are required with civil society at the centre likely being more effective in raising awareness.

Indeed, civil society organizations, both local and international, have a strong track record of creating successful public awareness and engagement campaigns, as seen in the realms of the illegal wildlife trade (Dang, McDowell, Ruzevich & Spade 2021). Such campaigns are primarily focused on the demand side of an illicit market by educating individuals about the

³ See also Reporters without Borders' World Press Freedom Index <https://rsf.org/en/ranking> and Transparency International's Corruption Perception Index https://www.transparency.org/en/cpi/2021?gclid=CjwKCAjwxOCRbA8EiwAOX8hi8bGGUI6OFYPnk7CzbOuNkgUvZi9fQdPzpsgXLyW4UXgYtC6M-g-nhoCZw0QAvD_BwE.

harms associated with their actions and providing legal/licit alternatives to their activities. However, it becomes significantly more difficult when these programmes are scaled up to include an international audience that is not directly impacted by a particular environmental crime, and thus lack any emotional connection.

LOOKING FORWARD

Despite these difficulties, there are reasons for hope. The most successful environmental protocol to date, the Montreal Protocol, was one of the main tools that helped reverse the depletion of the ozone layer. Yet, the protocol merely reinforced what was already happening, a voluntary switch from aerosols that were damaging to the ozone layer, to products that were not (Hill 2017). This behaviour was due to the problem being framed in a manner that was relevant and accessible to members of the public, using the initialism of the three Ps (Personal, Perceptible and Practicable). Although the challenges of communicating the problems relating to environmental crime are significantly more complex and nuanced, the basic lesson still stands, that it is the responsibility of organizations and institutions conducting research to communicate their conclusions in a clear and accessible manner that is relevant to the intended audience, while offering achievable solutions. It is only then that there will be any hope of the necessary 'buy-in' from an electorate willing to place pressure upon a government.

However, the past two decades have shown that the geopolitical landscape can change rapidly and so it is important that multinational organizations, national governments, and civil society organizations involved in monitoring and responding to organized crime can adapt their approach. The increase of geopolitical rivalries along the fault lines of democracies vs autocracies, the ever-increasing inequalities fuelled by the lingering effects of the financial crisis, along with the COVID-19 pandemic and the subsequent global inflation, have all contributed to the status-quo where the rich and corrupt can use the global system to their advantage with near impunity. This is all happening when the human population is directly threatened by climate change.

The ability to predict where illicit economies are likely to develop could also help effectively respond to these fast-paced changes, by allowing for more proactive measures to be implemented before they can take hold. In his article '*Preventing Environmental Crime and Human Vulnerability Through the MGPOC Framework: The Case of Zimbabwe's Lithium Industry*,' Fausto Carbajal-Glass explores the possibility of using the micro-geopolitics of organized crime (MGPOC) as an actionable early-warning tool aimed to prevent organized crime groups from creating illicit economies out of environmental commodities. His paper is based on a case study from Zimbabwe where there is a risk of an illicit lithium economy emerging to meet the global demand, which is expected to outstrip global supply by 2023 (O'Brian & Nickel 2016). Issues surrounding the transparency of the mining sector, along with the role of the state as an enabler of organized crime has left Zimbabwe's lithium industry particularly vulnerable to organized crime groups. Carbajal-Glass identifies five key structural variables which, when combined, will increase the risk of further political volatility and conflict in Zimbabwe, thus increasing human vulnerabilities, especially in the areas surrounding the lithium mines. He goes on to warn that on the global scale, as the world transitions away from fossil fuels towards renewable resources, the risks associated with conflict and corruption will become more pertinent as new industries and supply chains develop to meet demand.

CONCLUSION

As the preceding discussion and the ensuing articles elucidate, environmental crime in its multiple forms feeds of and exacerbates human vulnerabilities by directly, e.g., exploitative working conditions, and indirectly, e.g. destroying ecosystems on which humans rely, undermining lives, especially within already vulnerable communities. The enactment of environmental crime-related legislation also has the potential for generating an array of unintended consequences, especially in the case of bad legislation or ineffective enforcement. Once again, this would disproportionately affect regions and communities that are already fragile from a socio-economic, political and/or environmental standpoint.

The dynamic and fast-evolving nature of organized crime sits in contrast to the often-slow endeavours of the response (*The Global Initiative against Transnational Organized Crime 2021*). These responses are predominantly concerned with enforcement action, headed by law enforcement agencies that are (due to the low political priority associated with

environmental crime) ill-equipped to tackle the complex societal and political factors that allow illicit economies to thrive. Instead of addressing the enabling issues associated with the criminal flows, law enforcement is largely concerned with achieving fast results by targeting local people operating in the informal economy, hovering between both the legal and illegal. Because of law enforcement focussing on the lower levels of the networks, the illicit flows are generally not affected. Therefore, they continue to generate profits and thus continue to attract individuals who become involved in the illicit economy, not out of choice but out of necessity, as it becomes the only viable option to provide income and security.

To break this cycle, the attraction of illicit flows both in terms of opportunity and profit, must be reduced.

Although illicit flows are largely transnational, the criminal markets and actors that support the flows are generally local, drawing on local knowledge and contacts to operate efficiently. Any successful strategy to combat environmental crime must be focussed on a local response, with the aim of attracting people back into the legal economy through creating opportunities and stability. To achieve this, the negative effects of poor legislation and the associated enforcement need to be addressed, and consideration should also be given to moving the focus away from law enforcement-driven approaches. Instead, it is crucial to create and promote legal livelihoods towards which participants in the illegal trade can be diverted. This can be achieved through different approaches to regulation or through improving access to alternative livelihoods and social safety nets / support programmes.⁴

For these approaches to be successful there will need to be an effective partnership between national governments, local populations, the private sector and civil society organizations to develop strategies capable of mitigating the risks associated with environmental crime. In 2021, the G7 issued the '2030 Nature Compact' which acknowledged the impact organized crime has on the environment and the important role Indigenous Peoples and local communities have in designing and implementing effective strategies to protect the environment (G7 2021). This is a positive step forward as it not only links organized crime with environmental degradation, but also how organized crime is linked to human 'livelihoods and well-being.' With the clock ticking on the environment, it is vitally important that the conversation regarding the impact of environmental crime on human populations steps up a gear. It is hoped that this special section shows the importance of the issue and brings it to the forefront of the discourse on the challenges facing us as a species.

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COMPETING INTERESTS

The authors have no competing interests to declare.

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⁴ Regarding regulation and other policy scenarios, the complexities cannot be overstated. A cogent discussion on this issue can be found in (De Greef & Haysom 2022) in which the authors explore the pros and cons of different policy avenues open to decision makers.

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