

HARNESSING THIRD PARTIES FOR TRANSNATIONAL
ENVIRONMENTAL CRIME PREVENTION

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TRANSNATIONAL ENVIRONMENTAL CRIME PROJECT

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Transnational Environmental Crime Project

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The project investigates emerging trends in transnational environmental crime and examines the conditions for successful regulatory and enforcement responses. It focuses on three themes:

- advancing our understanding of the ways in which environmental commodities that are either sourced illegally or destined for illegal markets are traded and the ways in which profits are then laundered into the legal economy;
- applying conceptual tools to advance our understanding of the organisation of TEC and the asset structures that sustain illicit chains of custody and profit laundering; and
- mapping and analysing existing transnational and intergovernmental practices in the areas of policy-making, compliance and enforcement.

The Project is led by three Chief Investigators:

- Professor Lorraine Elliott, Department of International Relations, The Australian National University
- Professor Greg Rose, Faculty of Law, University of Wollongong
- Julie Ayling, Fellow, Regulatory Institutions Network, The Australian National University

The Project team also includes a Research Assistant and a PhD student funded by an Australian Postgraduate Award (Industry) scholarship and an ANU HDR Merit Scholarship. Five Partner Organisation Visiting Fellows will join the project team, based at the ANU, for a period of three months each to bring specific policy and operational expertise to the research project.

Working Papers

The TEC Project's Working Paper series provides access to the Project's current research and findings. Circulation of the manuscripts as Working Papers does not preclude their subsequent publication as journal articles or book chapters.

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Abstract

Because transnational environmental crime (TEC) can result in the demise of an environmental resource or irreversible damage to the environment, its prevention is a critical issue. Deterrence through law enforcement can go only a limited distance towards preventing TEC. However, there is a huge potential for third parties to be active participants, alongside governmental authorities, in crafting and implementing strategies for TEC prevention. This paper explores the ways in which the capacities of third parties – non-state, non-offending actors – are now, and could be, harnessed by states for this purpose. It draws together concepts and theories from policing studies, criminology, and regulatory studies to highlight changing relationships between the state and non-state actors in relation to crime control, and applies them to TEC. A more systematic approach to TEC prevention using third parties requires dedicated strategic analysis and planning on the part of states, working individually and together.

About the author

Julie Ayling is a co-Chief Investigator on the TEC Project and a Research Fellow in the Regulatory Institutions Network at the Australian National University where she is currently based in the ARC Centre of Excellence in Policing and Security (CEPS). Her research interests include policing, criminal organisations (gangs, organised crime, and terrorist groups), and state legislative and policy responses.

Harnessing third parties for transnational environmental crime prevention

JULIE AYLING

INTRODUCTION¹

The potential for transnational environmental crime (TEC) to result in the demise of an environmental resource or irreversible damage to the local and/or global environment makes prevention of this exploitation of the world's finite natural assets a critical issue. However, law enforcement, by investigating crimes and arresting and prosecuting offenders, can only go so far in terms of TEC prevention. The rewards of the crime are in many cases so great, and the execution of the crime so uncomplicated,² that prospective offenders are not easily deterred, even if the penalties are severe. Moreover, the deterrence doctrine holds that the efficacy of law enforcement as a deterrent is largely dependent on the potential offender's perception of punishment for the crime as certain, rather than the punishment's severity (Beccaria 1764/1995; Williams and Hawkins 1986; Nagin 1998).³ This is because 'enhancing the severity of punishment will have little impact on people who do not believe they will be apprehended for their actions' (Wright 2010: 2). But punishment for environmental crime is anything but certain. One common criticism relating to the treatment of transnational environmental crime is that it has been 'woefully neglected' by states, with penalties set at far too low a level and enforcement against offenders often lax (Wright 2011: 334).⁴

Furthermore, law enforcement is an expensive business. Even where good laws have been enacted to deal effectively with offenders, the difficulty of obtaining funding for salaries, training, equipment, and deployment of law enforcement officers, not to speak of the associated infrastructure, can be a huge impediment to implementing those laws, particularly in developing countries.⁵ Other impediments to effective law enforcement include cultural settings in which corruption is rife, institutions of criminal justice that do not regard TEC as a serious issue, and practical problems such as the need to patrol vast areas.

If law enforcement alone is unable to deliver on TEC control, what else can be done?

There is a huge potential for third parties to be active participants, alongside governmental authorities, in crafting and implementing strategies to prevent TEC. The idea that *whole-of-society* responses are essential in this area is increasingly prevalent. In 2012, the United Nations Office on Drugs and Crime (UNODC) launched a new campaign, entitled Transnational Organized Crime: Let's Put Them Out of Business', which specifically includes TEC (UNODC 2013). UNODC points out that '[c]ombating a global phenomenon such as transnational organized crime requires partnerships at all levels.

¹ Many thanks to colleagues who offered assistance and useful insights on earlier drafts of this paper, especially Peter Grabosky, Russell Brewer, Peter Drahos, Grant Wardlaw, and Grant Pink.

² Many environmental products are CRAVED – Concealable, Removable, Available, Valuable, Enjoyable, and Disposable, making them an attractive prospect for criminals. See Clarke (1999) and Pires and Clarke (2012: 139) who suggest that in relation to some items (specifically in that case Mexican parrots), 'available' might be broken down into two measures, 'abundant' and 'accessible', making the mnemonic CRAAVED.

³ For a more nuanced examination of the relationship between deterrence, certainty of punishment, and perceived seriousness of crimes, see Erickson, Gibbs and Jensen (1977).

⁴ Wellsmith (2010) has argued that punishment is anyway ineffective as a deterrent; in other words, even if punishment is certain and severe, it is unlikely to result in significant reductions in offending. See also Wellsmith (2012).

⁵ This is a problem for criminal justice systems across the world. As Kleiman (2009: 3) notes in the US context, '[t]he resources of the current criminal justice system, matched against the volume of crime, simply do not allow it to punish, even modestly, all offenses or all offenders. Trying to control everything and everyone ... leads to sporadic and delayed punishments as the system overloads.

Governments, businesses, civil society, international organizations and people in all corners of the world have a part to play' (UNODC no date).

This paper explores the ways in which the capacities of third parties – non-state non-offending actors - are now, and could be, harnessed by states for the prevention of TEC. The paper's contribution lies in drawing together concepts and theories from policing studies, criminology, and regulatory studies to highlight the changing relationships between the state and non-state actors in relation to crime control, and applying them to TEC. The paper builds on but goes further than some of the recent scholarship on TEC that has focused on the usefulness of a situational crime prevention approach as an alternative to traditional law enforcement methodologies. Situational crime prevention concentrates on the crime event rather than the offender, exploring how the situation or environment surrounding that event can be manipulated to close down opportunities for offenders as the crime progresses (Clarke 1980). Studies of specific markets have described the crime 'scripts', or essential steps in the trade of the particular environmental commodities and applied situational crime prevention techniques; for example, Graycar's and Felson's (2010: 81–92) study of the illicit trade in timber and Wellsmith's (2010) analysis relating to the illicit trade in wildlife. Schneider's (2012) recent book proposes a market reduction approach to the trade in endangered species, building on the foundation of situational crime prevention. She details different crime scripts for various species (mammals, marine, plants, and avian) and suggests various applications of situational techniques, including ways of increasing the effort and the risks of engaging in these crimes. In this context, third parties are regarded primarily as useful sources of information that would enable law enforcement agencies or task forces to properly frame and understand the TEC problems they face and so better target their responses. Others have explored a more proactive role for locals in preserving natural assets such as wildlife (for an example, see Pires and Moreto 2011). However, ways in which governments can systematically catalyse the broad potential for third parties to contribute their own capacities in the pursuit of preventive outcomes have not been the focus of academic literature relating to TEC.⁶

OUTLINE

This paper consists of a further five parts. The first addresses the changing role of the state and non-state actors in crime control over the last few decades. Governing 'at a distance' has led to a new emphasis on sharing responsibility for security. The paper argues that, in order to get the best out of this sharing, coordination is needed, and national governments are in the best position to undertake this role. The second part considers the identity and roles of third parties who can and do play a part in the prevention of TEC. Their possible roles, drawing on routine activities theory, could be as 'handlers' of potential offenders, 'guardians' of likely victims, and 'place managers' or supervisors of crime settings. Going beyond the crime itself, third parties can also have roles that influence the social contexts or remote causes of crime. An example is given of the third parties that could have an impact on the illicit wildlife trade. The third part draws on regulatory theory to explore mechanisms that might be used to ensure that the positions, expertise, and skills of third parties are employed for the purpose of prevention. Examples are drawn from various areas of TEC, again with a particular focus on wildlife trafficking. In the fourth part, some of the risks and difficulties associated with enlisting third parties as crime control partners or facilitating their crime control ventures are discussed. The article concludes with some thoughts about future directions for state action.

PLURAL POLICING, THIRD PARTIES, AND THE NEED FOR COORDINATION

One significant feature of the 'new regulatory state' that has developed over the last few decades as neo-liberalism has taken hold is an emphasis on 'decentred, at-a-distance forms of state regulation' (Braithwaite 2000: 222). The implication for law enforcement is that police no longer have, nor do they claim, a monopoly on policing.⁷ Policing has become *multilateralised* or *pluralised* (Bayley and Shearing 2001). This means that there is now an array of policing providers encompassing all sectors

⁶ The role of third parties and how they can be harnessed for crime control has been considered in relation to other areas of illegal activity, such as the trafficking of illicit synthetic drugs. See for example, Chemey, O'Reilly and Grabosky (2006).

⁷ It has been noted by various authors that the public police never had a complete monopoly on policing. See, for example, Zedner (2006), and Ayling, Grabosky and Shearing (2009). Be that as it may, there is a considerable body of literature that traces the burgeoning of policing providers over the last two decades, beginning with the seminal work of Bayley and Shearing (1996).

of society. The function of policing may be delivered not only by institutions *of* government, but also *through* government by private providers, *above* government by transnational policing providers, *beyond* government by commercial markets, and *below* government by citizens themselves (Loader 2000). This burgeoning of policing providers has occurred hand-in-hand with the ‘responsibilisation’ of non-state actors for their own security (Garland 1996; O’Malley and Palmer 1996).

The state does not necessarily have a hand in the provision of these policing services, even as a patron. The numbers of private security companies and the breadth of their business, for example, have grown enormously over the last few decades. In Western countries, paid security providers easily outnumber public police (Sarre and Prenzler 2009). The first officer one often sees upon entering many police force headquarters is a private security guard (Ayling, Grabosky and Shearing 2009: 5). Other private entities – businesses, community groups, and individual citizens – also contribute to law enforcement and the maintenance of public order both in partnership with police and independently (Ayling 2007).

The potential for non-state actors, at whatever distance they reside from the state’s centre, to have a role in TEC prevention is therefore broad indeed. The advantages of using third parties for TEC control are beginning to be recognised. In recent widely reported remarks, the US Secretary of State Hillary Clinton, drawing attention to the rise in trafficking in endangered animal species, called for global partnerships ‘as robust and far-reaching as the criminal networks we seek to dismantle’. She explained these partnerships in the following words:

Therefore, we need governments, civil society, businesses, scientists, and activists to come together to educate people about the harms of wildlife trafficking. We need law enforcement personnel to prevent poachers from preying on wildlife. We need trade experts to track the movement of goods and help enforce existing trade laws. We need finance experts to study and help undermine the black markets that deal in wildlife. And most importantly, perhaps, we need to reach individuals, to convince them to make the right choices about the goods they purchase (Clinton 2012).

The important message here is that the state cannot effectively act alone. The statement could also be taken to suggest, through reiteration of the words ‘we need’, that the state is positioned in a central and crucial position in relation to these other actors. This view has merit. TEC prevention will have a better chance of ensuring that participants’ contributions are actively constructive towards the desired goal of prevention if there is some coordination of activities to that end, rather than just a bunch of random strategies employed by whoever has an idea (good or otherwise). National governments, acting alone and together, are a logical place for any coordinating function to be situated. Indeed, the call for a networked response to networked threats is already being taken seriously in relation to TEC (Arquilla and Ronfeldt 2001; Slaughter 2004). Networks of law enforcement agencies, both within states and between states, are becoming more common.⁸ In fact, inter-agency approaches are fast becoming a regular feature of the broader response to transnational organised crime (see, for example, INTERPOL 2011). However, these networked responses are generally based on enforcement through top-down initiatives rather than prevention that makes use of the capacities of the myriad of social actors.

Of course states may not always be willing or capable of coordinating crime prevention activities – indeed, weak or failing states may not be capable of tackling crime problems at all – in which case civil society and transnational institutions often do step into the breach and compensate for the state’s inadequacy in innovative ways (Dupont, Grabosky and Shearing 2003). For example, activist groups often partner with each other and with international organisations to collaborate on responses to TEC without any involvement by states. However, where governments do have the requisite willingness and capacity, their participation in a coordination role is likely to promote greater and more sustained national environmental and economic health. It is to this situation that this paper is addressed.

⁸ At the national and regional level, the Australasian Environmental Law Enforcement and Regulators neTwork (AELERT) provides a good example. Internationally, INTERPOL’s National Environmental Security Task Force (NEST) initiative has recently been launched. Such taskforces bring together police, customs, environmental agencies, other specialised agencies, prosecutors, non-governmental organisations (NGOs), and intergovernmental agencies into national, multi-agency cooperatives to control TEC.

THE IDENTITY OF ROLES AND THIRD PARTIES

To harness the potential of third parties in relation to TEC prevention, it is important to understand the essential steps – or crime *scripts* – that comprise the commission of the various crimes that constitute TEC (Cornish 1994). Crime scripts vary from crime to crime and commodity to commodity. Understanding how a particular crime progresses ‘can help reveal those points where measures might plausibly be applied to optimize the preventive pay-off’. It is at these ‘pinch-points for intervention’ that opportunities to disrupt or derail the crime will present themselves – a *situational* approach because it concentrates on manipulation of the crime event and not on the offenders (Bullock, Clarke and Tilley 2010: 2). Generally situational crime prevention emphasises what traditional law enforcement agencies can do to manage the situation by increasing the efforts and risks of the crime and decreasing the rewards associated with it. But often it is third parties, not police or other law enforcement agencies, who will be on hand at these pinch-points to influence the course of the crime.

In the case of organised crime in the illegal wildlife trade, for example, a generalised five-step script has been identified from (1) poacher through (2) local courier, (3) national facilitator, (4) national exporter, to (5) receiver in the consumer country (Milliken and Shaw 2012). Of course, this script will vary depending on the product involved and the state of the market. A step may be missing or may meld with another. The advent of internet technology could be having the effect of ‘cutting out the middle man’ in illicit transnational transactions relating to wildlife. In the next section, I identify possible third parties who could intervene at points along this generalised crime script. But first we need to consider what kind of roles such third parties could play.

The theory of situational crime prevention rests on opportunity theories: specifically, rational choice theory, routine activity theory, and crime pattern theory.⁹ Routine activity theory is particularly useful for our purposes here because it reveals how third parties can play a role in crime prevention (Cohen and Felson 1979). The theory posits that a crime is likely when an offender and a target come together at the same place, at the same time, and *there is no one nearby to control the offender, protect the target, or regulate conduct at that place* (Eck 2003: 88, my emphasis). With respect to particular transnational environmental crimes, third parties clearly have enormous potential to be controllers of crime – ‘handlers’ (supervisors or other influences over potential offender), ‘guardians’ (protectors of victims) and ‘place managers’ (regulators of settings where TEC takes place). Their interventions at the pinch-points within transnational environmental crime scripts to prevent crimes and protect victims (who in the case of transnational environmental crime are not necessarily human) may be pro-active but they can sometimes be passive. Capable guardianship, for instance, might require nothing more than being there.

Table 1 lists potential third parties in relation to the illicit trade in wildlife. No doubt this list is not comprehensive, and more parties could be added. A similar list could be created for any form of TEC, and overlaps would be observable. For instance, transport, warehousing and financial parties are likely to crop up in the lists of third party actors for any transactional environmental crime. In this table, third parties have been divided into ‘guardians’, ‘handlers’, and ‘managers’, although some third parties appear in more than one category. For example, private game reserve owners and managers are wildlife ‘guardians’ – many organise patrols to protect the animals on their reserves, and some have taken measures to make their animals less valuable to poachers, such as by dehorning rhinos or injecting their horns with an indelible dye. But reserve managers are also ‘place managers’ in that they can act to reduce opportunities for poaching, for example, by fencing their properties. Logging and mining companies may be ‘handlers’ in situations where their employees are tempted to engage in poaching (for example, for sustenance) by providing the workers with regular supplies of protein or the salary to purchase this themselves (Warchol and Johnson 2009). Such extractive industries may also be place ‘managers’, for instance, by ensuring that the access roads they build are not accessible to, and are not used by, poachers (WWF 2012).

A situational crime prevention approach has limits however. Scholars have pointed out that the situational crime prevention framework has little to say about the root causes of crime, such as economic deprivation or social disengagement, or long-term motivations, such as tradition or culture. Von Lampe (2011) notes that before the situational approach will be useful in responding to organised crime, it needs

⁹ Wellsmith (2010) provides a detailed explanation of each of these theories, so I will not do so here.

to shift its focus from volume crime and crime settings to incorporate societal contexts, such as the availability of resources to offenders and the transparency of state institutions.

This does not mean, however, that third parties have no role in relation to these issues that are more remote from the crime event. For example, the education of consumers of wildlife and wildlife products about the impact of consumption on the animals and what it means for the future of the species and for biodiversity generally is an important demand-reduction (and thus preventive) intervention against the illicit wildlife trade. Non-state actors are often better equipped and more eager to deliver educational programs than states, and often have more legitimacy with their target audiences. Similarly, poverty reduction may be achieved by the state through welfare payments but it may equally be addressed by businesses through the provision of employment. For instance, by employing locals at a decent wage, private wildlife reserves and logging companies can reduce the economic incentives for them to engage in poaching or logging, and in some cases give them a stake in the preservation of the surrounding natural resources. Non-state actors can also play a role in catalysing the state to put in place anti-corruption measures, including monitoring and auditing institutions and reporting and transparency requirements, that indirectly will have an impact on the successful conduct of TEC.

Table 1 Third parties in relation to the illicit wildlife trade

	Private businesses	Other commercial entities	Workers' groups, professional bodies	Community groups	Activist groups	Individuals
Guardian (wildlife)	Game reserve and wildlife farm owners and managers Marketing/advertising firms	Forensic laboratories	Chinese medicine bodies	Communal conservancies	Environmental NGOs	Conservationists, researchers, academics, volunteers
Handler (offender)	Travel agents Tour companies Logging and mining companies Tanneries Taxidermists Airlines Shipping lines Trucking companies Shipping agents, freight forwarders, couriers Storage companies, warehouseers ISPs Online trading companies, e.g., eBay	Banks and other financial institutions, alternative remittance providers, e.g., Western Union Insurance companies Post Offices Telecommunications companies Stock exchanges	Transport unions, agricultural workers' unions, and so on	Farmers' organisations Traders' organisations Food co-ops	Environmental and social NGOs	
Manager (place)	Game reserve and wildlife farm owners and managers Logging and mining companies			Communal conservancies	Environmental NGOs	

MECHANISMS FOR HARNESSING THIRD PARTIES

How then can the state effectively harness the capacities of non-state actors to prevent crime? The coordinating role that the state can play in relation to third parties is not limited to regulation as traditionally understood, that is, rule-making or law-making. Regulation is a much broader concept, encompassing any purposeful intervention, be it legal, political, economic, social, or psychological, to influence the flow of events (Parker and Braithwaite 2003). The application of the criminal justice system is only one of many examples of regulation in this broader sense of the term. Ayres and Braithwaite (1992) propose that the way regulation occurs should be responsive to the particular situation of non-compliance and adaptable to any changes in that situation. In other words, the degree of coerciveness applied by a regulator should depend on the extent of the regulatee's compliance. Thus

responsive regulation is constituted by a repertoire of strategies applied in a way that is context-sensitive.¹⁰

Grabosky and his colleagues have analysed the mechanisms that states use to facilitate the coproduction of security generally (Grabosky 1995b; Cherney, O’Reilly and Grabosky 2006). This has been represented succinctly in diagrammatic form by Brewer (2012; see Figure 1 below). These mechanisms range along a continuum of coerciveness. In other words, they cover the gamut of responsive regulation, so that a mechanism can be chosen according to not only the particular situation but also the degree of third party willingness to be involved in crime prevention.

By invoking such mechanisms, the state can ‘responsibilise’ third parties and encourage or command them to be vigilant in their roles as guardians, handlers, and/or place managers. The following paragraphs explore these mechanisms further as they apply to TEC, with a particular focus on the illegal wildlife trade.

Figure 1 Mechanisms used to facilitate community coproduction

Mechanism	Description	
Conscription	Mandating/commanding external institutions through such mechanisms as legislation to carry out prescribed functions to limit the opportunities for crime	<p>Most coercive</p> <p>Least coercive</p>
Required private interface	Requiring that targets of regulation interface with another <i>private</i> actor who is well placed to detect, prevent, and disclose illegality on the part of their clients	
Required record keeping and disclosure	Requiring the keeping and disclosure of records to prescribed authorities, with the aim being to enhance self-awareness and vigilance on the part of managers	
Co-optation of external interests	Actively seeking the cooperation of external institutions in furtherance of crime control. The formality of these arrangements can vary from detailed contractual specification, to informal requests persuading external institutions to take crime control actions	
Conferring entitlements	Using new or pre-existing entitlements to persuade third parties to take crime control actions	
Incentives	Offering incentives as a means of inducing institutions or individuals to comply with policies/processes/procedures aimed at discouraging crime	
Education/capacity-building	Providing training and educational programs in order to raise awareness amongst external parties regarding agency responsibility and the capacity to prevent criminal activity	

Source: Brewer (2012: 54).

Conscription

States can conscript third parties to carry out certain actions or to acquire and report certain information. Obligations are generally imposed by legislation or other forms of rule-making, with penalties for non-compliance. The mandatory reporting of child abuse by doctors and teachers, the requirement that airlines check the validity of travellers’ documentation before they are allowed to board, and obligations on proprietors of licensed premises not to serve inebriated customers are all examples of conscription in the cause of preventing crime.

What kind of actions by third parties can the state mandate in the interests of preventing TEC? Mandatory reporting of suspicious patterns of transactions, targeted at companies legally dealing in wildlife or other environmental products and services, might be one effective third party conscription mechanism. Had banks been required to report suspicious patterns of financial transactions, rather than just individual above-threshold transactions, the long-term trading relationship between a Laos-based company, Xaysavang Export-Import Company, and a South African company, Steyl Game CC, that became apparent during last year’s Chumlong Lemtongthai case in South Africa, may well have been exposed (Rademeyer 2012: chapter 9). Lemtongthai was recently sentenced to 40 years’ imprisonment for a range of offences relating to rhino horn smuggling out of South Africa that occurred over a number of years (Smillie 2012). Investigations of the trading relationship between these companies could have led to earlier revelations of illegality, with the result that fewer animals might have been illegally poached and traded.

¹⁰ There is no need to go further here into the complexities of responsive regulation and the concomitant well-known enforcement pyramid.

In relation to rhinos and elephants, another possible conscriptive measure would be for governments to require privately held stockpiles of rhino horn and ivory to be surrendered to central government, either for destruction or for registration and secure keeping (Humane Society International 2011). Although this would be most unwelcome to private stockpile owners, it would make it more difficult to divert horn and ivory into the illegal market through theft and corruption.

Required private interface

This mechanism involves imposing obligations on targets of regulation (potential offenders) to ‘use the machinery of private institutions’ (Grabosky 1995b: 530). In this way third parties become ‘gatekeepers’, facilitating the targets’ compliance with regulatory obligations. So, for instance, governments can require that private businesses be audited by, or take out insurance with, formally accredited professionals (the third parties in this case).

Requirements that rhino horn taken in legal hunts be treated by taxidermists before export (bringing the reporting obligations on taxidermists referred to in the next section into play), or that the hunters engage commercial shipping agents and/or customs brokers in the export of any trophies, means that these professionals are necessarily engaged in processes that may give them access to information indicating the misuse of legal hunting avenues for illicit purposes, and is likely to have a deterrent effect on potential wrongdoers.

Required record keeping and disclosure

Cherney and his colleagues note that ‘record keeping and disclosure have an important regulatory function by subjecting records to possible public scrutiny and enhancing vigilance on the part of third parties’ (Cherney, O’Reilly and Grabosky 2006: 376). Record keeping is a common state strategy to ensure that it has access to information, but it also means that third parties keeping those records may be able to better spot patterns that indicate that there is something suspicious going on and either report this to authorities or intervene to close down those criminal opportunities themselves. This may particularly be the case where those records relate to transactions or processes that might be used by organised criminals attempting to launder money or other items through legal channels.

The law relating to taxidermists in South Africa provides an example. Taxidermists are required to report to provincial conservation authorities when they receive a rhino horn (for instance, to be made into a trophy). They are also required to keep a register of details such as the date of receipt of the horns, their weight, their micro-chip numbers, and the numbers of the hunting permit, transport permit and professional hunting register related to those horns. If requested they must make this register available for inspection by the relevant authority.

Making ISPs and online auction houses (such as eBay) responsible for keeping records detailing attempts to trade rhino horn and other endangered species products through their sites would similarly impart a surveillance role to these non-state actors which could help close down a trafficking opportunity for criminal actors.

Co-optation of external interests

Partnerships between authorities and private interests are common in many areas of crime prevention. Take, for example, the area of juvenile delinquency where police often work with private organisations (church groups, community groups, welfare bodies, and so on) to divert young people away from a life of crime and give them alternatives for entertainment and gainful employment.

One example of the co-optation of organised interests is conservancies, found in many African countries. Conservancies are grassroots organisations dedicated to protecting and preserving the environment of a designated area. In South Africa each conservancy must be registered with the provincial government agency responsible for maintaining wildlife conservation areas and biodiversity. There are hundreds of conservancies across South Africa. Conservancy members play an active role in making inventories of fauna and flora in the conservancy area and taking actions to protect them, for example, intervening in planning processes to provide objective information about distribution and quantities of various species, thus ensuring that developments do not destroy important habitats. Conservancies often receive funding for specific projects (such as the removal of invasive species) from both public and private sources. Authorities also provide advice to conservancies as to best environmental

practices. Conferring public recognition on the community's 'voice' and publicly assisting in the conservancies' good works can have a significant impact upon the degree to which communities ascribe value to the biodiversity of their area, particularly where the community itself can make money from that biodiversity, such as through tourism activities. This gives the community a stake in the preservation of wildlife and flora and a reason to take actions that can deter or disrupt their criminal exploitation, such as poaching. Even a relatively passive role such as monitoring and reporting on the area's natural endowments may have an impact on the extent of criminal activities that take place with respect to an area's biodiversity.

Governments also leverage the capacities of third parties to realise outcomes they might not be able to achieve alone. Project Scale, a recently launched initiative of INTERPOL (2013) to fight illegal fishing, is partly funded by the Pew Charitable Trusts (no date), an independent non-profit organisation established by the family of the founder of the Sun Oil company that has a broad research and public policy agenda including many environmental initiatives.

Conferring entitlements

Governments can create rights and confer them upon third parties along with the right to enforce them. Grabosky cites patent and trademark laws as examples (Grabosky 1995b: 534). Governments can also encourage third parties to enforce entitlements they already hold. Cherney and his colleagues describe how police in the United States encourage housing associations and residents to use civil laws such as municipal regulations and health and safety codes against property owners who allow, or at least fail to prevent, the production of methamphetamines on their properties (Cherney, O'Reilly and Grabosky 2006: 376). Mazerolle and Ransley (2005) cite many similar instances of what they call 'third party policing.'

Exploring the granting of entitlements in the field of TEC could be worthwhile. For example, loosening litigation standing requirements for class actions may be one measure governments could take. Or perhaps communities or individuals could be given rights to hold accountable, for a failure to meet a duty of care or specified standards, those in whose hands directly lie the guardianship of TEC victims or the management of potential crime settings (that is, other third parties). Many environmental statutes in the US already allow for private enforcement of their provisions. Citizen suits are allowed, for example, against violators of the *Endangered Species Act* (16 U.S.C. §1531 et seq., 1973), including against the government if it fails to fulfil its non-discretionary statutory duties to act to list species as endangered or threatened.¹¹ Similarly, in Australia, s.475 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) grants standing to 'interested persons' to apply for injunctions to prevent contraventions of the Act. An interested person may be an individual (Australian citizen or ordinarily resident) or incorporated organisation whose interests are affected by the contravening conduct or who has displayed a recent interest (within the two preceding years) in the environment through protection, conservation, or research activities.¹²

According to Burbank, Farhang and Kritzer (2011), private enforcement regimes have the following advantages: they can multiply the resources devoted to prosecuting enforcement actions; shift the costs of regulation from the government to the private sector; take advantage of private information to detect violations; encourage legal and policy innovation; emit a clear and consistent signal that violations will be prosecuted; limit the need for direct intervention by the state in the economy and society; and facilitate participatory and democratic governance. On the other hand, the authors note, private enforcement regimes have plenty of potential problems too, including empowering non-expert judges to make policy; producing inconsistent and contradictory doctrine from courts; weakening the state's capacity to articulate a coherent regulatory scheme; usurping governmental prosecutorial discretion; discouraging voluntary compliance; weakening oversight of policy implementation by the legislative and executive branches; and

¹¹ 16 U.S.C. §1540 (g). Relevant non-discretionary government duties are provided for in 16 U.S.C. §1533.

¹² An oft-cited application of this provision is the *Flying Fox* case, *Booth v Bosworth* [2001] FCA 1453. The applicant for the injunction in question was employed by the Worldwide Fund for Nature Australia and also did voluntary work for the North Queensland Conservation Council and the Magnetic Island Nature Care Association. She had also cared for orphaned flying foxes. Her standing was accepted by the court with little debate.

reducing democratic legitimacy and accountability. Clearly any scheme for private enforcement of laws relating to the obligations of third parties to take measures to thwart TEC would need to be well designed and take possible risks into account.

Incentives

The use of incentives is potentially a more potent tool for inducing efforts towards crime prevention than any of the above. Grabosky (1995a: 262) suggests that one reason is that they may be perceived as more legitimate than coercive measures. Incentives may be direct, such as the use of rewards for the provision of information to authorities and of bounties for the private capture of poachers. Alternatively, incentives may be indirect, for example, tax deductions, administrative privileges, and prizes.

Pires and Moreto (2011: 112) describe a program in Mongolia designed to incentivise local communities to protect snow leopards. In return for training and equipment provided by authorities to local communities to help them increase their income through the production of handmade woollen goods, the community agreed to adhere to rules of conduct regarding the protection of snow leopards and their prey. Profits from selling the goods produced were returned to the community with an added 10 per cent going into a conservation fund.

Education and capacity-building/facilitation

Third parties will not always have the wherewithal to pursue or promote crime prevention aims and strategies. The final category in Table 1 above concerns education and capacity-building for third parties to enable them to better use their capacities in furtherance of crime prevention. Perhaps 'facilitation' might be a better label for this type of intervention as, quite apart from formal training and capacity-building programs provided by the state for non-state actors, there are a number of non-formal means by which the state can enhance and enable the actions of third parties who are inclined to contribute to crime prevention.

Some examples from the wildlife field of possible facilitation by the state include:

- Making informing ('snitching' or 'dobbing') easier by providing, or giving support to, a dedicated wildlife 'hotline' for anonymous reporting of criminal or suspicious behaviour;¹³
- Providing civil air space for drones owned or operated by private interests to patrol poaching hotspots (including national parks);¹⁴
- Providing media time and/or funding for NGO education campaigns relating to biodiversity conservation and wildlife crime;
- Providing infrastructure and funding for conservancies and other similar community initiatives;
- Ensuring, through tax policy, the financial viability of NGOs and community groups seeking to protect wildlife;
- Providing such groups with relevant information, just as the South African Department of Environmental Affairs now does in relation to rhino poaching and arrest statistics;

¹³ In South Africa, poaching activities can be reported through the general Crimestop number provided by the government. Third parties often provide hotlines too. For example, Ezemvelo KZN Wildlife (a statutory entity which reports to the relevant Minister through its Board) provides several contact numbers for the reporting of different kinds of poaching. Similarly, the Kenya Wildlife Conservation Forum, part of the East African Wild Life Society, an NGO, has recently established a hotline for reporting wildlife crimes, in response to the upsurge in elephant and rhino poaching. See East African Wild Life Society (2013).

¹⁴ Since December 2012, Kruger National Park in South Africa has been using a Seeker II unmanned aerial vehicle, or drone, loaned to the SANParks by its South African manufacturer, to patrol for poachers, particularly of rhinos. The Ol Pejeta Conservancy in Kenya used an internet campaign to raise money for its own drone and currently has the parts on order. See Kariuki (2013).

- Facilitating constructive engagement between private and public actors who can help each other further crime prevention goals (by, for example, introducing third parties to one another and providing virtual and physical forums in which they can meet and negotiate);
- More controversially, creating a regulated market space in which businesses can trade. For example, a market could be created in horn culled from living rhinos or taken from private rhino horn stockpiles, with the aim of reducing poaching and illegal trafficking by meeting demand and removing the incentives for consumers to buy on the black market. Currently a debate about this controversial issue is underway in South Africa. Current proposals are for a highly regulated market run by the state with product provided both by the state and private individuals (Carnie 2012). Another scenario would be for the state to leave the market to be run by the private sector, yet still shaping the market through mechanisms such as price regulation, tariffs and taxation, labelling laws, corporate reporting obligations, audit requirements, certification schemes, or other requirements.

There are many instances where third parties have sufficient competence to initiate crime prevention and conservation strategies, alone or in partnership with other third party. For instance, WWF's Global Forest and Trade Network is working with a chemical trading company, PT Adimitra Lestari, that owns palm oil concessions in East Kalimantan to implement a forest management strategy which in part aims to prevent the annihilation of elephants, who make themselves unpopular by eating from the palm trees as a result of the disappearance of their usual food sources. At the other end of the supply chain, many large retail companies use their considerable powers as buyers to impose conditions on their suppliers relating to environmental protection (for instance, only purchasing products made with Forest Stewardship Council or Programme for the Endorsement of Forest Certification certified timber, or coffee and chocolate from Fairtrade sources) (see Forest Stewardship Council International Center no date; Programme for the Endorsement of Forest Certification 2012; Fairtrade International no date).¹⁵ Such private contracting regimes are often preferable to the alternative of little or no environmental regulation.

This paper should not be regarded as suggesting that such initiatives are unimportant or undesirable. Measures like these generally can be very helpful to crime prevention and conservation efforts. Grabosky notes that *abdication* is a legitimate and often used state strategy (Grabosky 1995b: 536–7). Where private companies are involved, however, some if not most of these initiatives are likely to be undertaken with commercial interests uppermost in mind. Measures that have as their primary goal to present the company as a good corporate citizen or as 'green-friendly', or to promote internal efficiencies, may not always 'hit the mark' when it comes to TEC prevention. In such cases governments might need to find ways to facilitate or even 'tweak' the strategies undertaken by private parties in order to ensure that they produce the desired crime prevention outcomes.

RISKS AND DIFFICULTIES

In exploring the capacities of third parties for TEC prevention, one may ask the question: what level of government intervention is optimal? Generally it is true to say that the role of law enforcement and regulatory authorities is increasingly about being 'unobtrusively influential from a position offstage' (Grabosky 2010: 96). However this does not mean that traditional law enforcement has no role. Indeed in the TEC area, this remains the centre of a lot of the action. What it does suggest, however, is that the state needs to be fully cognizant of its pervasive ability to regulate from the sidelines – or 'steer' rather than 'row' as Osborne's and Gaebler's (1992) well-known metaphor puts it – and to make use of this ability while it continues to enforce the law directly. Less intrusive regulation can be extremely powerful. Where it is likely not to be, the state still has the capacity to command third parties to engage in certain crime-preventive activities.

¹⁵ Vandenberg (2007) dubs this type of private regulation through contract 'the new Wal-Mart effect': IKEA, for example, imposes minimum standards on its wood product suppliers and audits them regularly with the aim of ensuring that those products come from sustainably managed forests. Non-compliant suppliers are required to immediately implement corrective action. IKEA and WWF also work together on projects to increase the availability of Forest Stewardship Council certified wood and reduce illegal logging in countries such as Russia, Cambodia, and Romania. See IKEA 2011.

However, not all possible third party mobilisations will necessarily be wholly constructive. For instance, one possible form of third party mobilisation is for governments to grant property rights over a specific resource (timber, wildlife, and so on) to private parties. As a crime prevention tool, this is a blunt instrument and will need to be honed by making the grant contingent on the fulfilment of particular crime prevention and resource protection conditions. Otherwise third party actions may exploit the particular resource in question or at least do nothing to conserve it or prevent its exploitation by others. Potential third party mobilisations therefore need to be thoroughly assessed for their likelihood of furthering the aim of preventing the targeted TEC and for possible unintended undesirable consequences. Such assessments then need to be followed up with careful implementation, monitoring, and published evaluations.

There are many other reasons why harnessing the capacities of third parties for transnational environmental crime prevention will not always be plain sailing. Some of these are discussed in turn below.

Complexities

The existence of multiple jurisdictions with their own laws and policies means that organising and coordinating crime prevention efforts can be difficult. Borders can constitute a significant obstacle to effective collaboration on crime control measures, while at the same time facilitating organised crime groups who are adept at taking advantage of legal weaknesses and corruptible governments. Moreover, the existence of legal markets (such as in timber and much of the world's wildlife) simplifies the laundering of illegal product through legal channels and may complicate the job of targeting crime prevention efforts only at the illegal side of the trade.

It is clear, too, that while there are diverse and multiple non-state actors who have capacity in relation to TEC prevention, often they are not all of the same orientation. Diverse ideologies can lead to different agendas. The controversies around the legalisation of markets in rhino horn and ivory is illustrative of how different stakeholders can hold clashing views about means while still sharing a desire for identical ends (the termination of the illegal trades and the conservation of rhinos and elephants).

Corruption

One further difficulty relating to harnessing third party capacities for TEC prevention is the endemic corruption in many jurisdictions where TEC originates. Indeed one might argue that corruption is a necessary element in the crime script of many transnational environmental crimes. As a result, actors who appear to be in a good position to exercise third party roles may instead be or become 'first parties', that is, offenders. For example, in the case of the illegal rhino horn trade, a number of identified offenders have been individuals one would initially identify as third parties, for example, managers of game reserves, owners and employees of safari hunt companies, and rangers in national parks (Ayling 2013). Imposing obligations on or outsourcing crime prevention functions, by entrusting funds or duties, to such actors will be counterproductive if they are themselves involved in criminal activities. As Felbab-Brown (2013: 7) notes, '[l]ocal institutional and cultural contexts matter a great deal and can facilitate or render ineffective regulatory frameworks. The overall level of corruption and the quality of law enforcement and rule of law matter as much as the regulatory design itself.' Ways to verify the trustworthiness of third parties given responsibility for crime prevention activities and to hold them accountable for their actions are therefore necessary. These mechanisms need to be situated in authorities outside the particular jurisdiction in question.

Accountability issues

The issue of accountability is particularly important. At what stage in the transfer of a state responsibility to a private actor does accountability for the actions of the latter cease to lie with the government? If, for example, a private company or an NGO has been contracted to carry out a particular crime prevention program and does it badly, such that crime is not prevented and other parties (or the victims) suffer losses, who takes responsibility? This issue is a live one in terms of everyday domestic policing, and there is no reason to believe it is any less significant in the context of transnational policing efforts or in the arena of TEC (Ayling, Grabosky and Shearing 2009). Furthermore, 'extensive reliance on non-governmental actors renders the task of monitoring and oversight more difficult' (Grabosky 1995b: 538). Attributing blame for a regulatory shortfall may be

harder where there is a lack of transparency around the actions of a third party. Accountability mechanisms will sometimes need to be accompanied by mechanisms for monitoring or at least auditing the actions of third parties.

A lack of will and social capital

The mechanisms presented above are situated along a continuum of coerciveness for a reason. The willingness of third parties to engage in crime prevention will inevitably vary. The costs of conscription, for example, may be onerous and induce deliberate non-compliance. Furthermore, partnerships between civil society and the state are notoriously fraught with difficulty (Crawford 1997). Working together does not equal collaboration – there is more to it than that.¹⁶ Brewer (2012) has convincingly argued that the existence and depth of social capital – that is, networks of relationships and norms of trust and reciprocity – is key to whether collaborative crime control efforts will be effective.¹⁷ Growing these networks and norms is no easy task, involving the generation of mutual respect, fairness of treatment, a willingness to share costs and burdens, shared aspirations and a degree of leadership (Brewer 2012: chapter 7). But where these favourable relationships are lacking, an element of coerciveness may still enable effective use of third party capacities to further crime prevention goals. And on a positive note, many non-state actors are highly motivated to prevent TEC, so agreeing on co-productive preventive strategies might in many cases prove to be relatively straightforward. High trust relationships should be easier to create and maintain for those seeking to protect our natural resources than for those disparate illegal groups working to exploit them. Suspicion and self-interest, rather than trust and altruism, are likely to characterise criminal relationships.¹⁸

CONCLUSION

The need for a networked response to the networked threat of TEC is clear, but that response needs to go beyond law enforcement. A long history of neglect of TEC by national jurisdictions means that punishment for most TEC is still far from certain. TEC prevention through deterrence alone is therefore unlikely to be sufficient to protect the world's natural assets, particularly in cases where crises are brewing. Reducing the impact of transnational environmental crime needs a whole-of-society approach. This would require the state to take on, as it has in other areas of regulation, a much greater steering role.

There are many instances of third party action in relation to all forms of TEC, both as individual initiatives and in partnership or at the behest of governments. At present such strategies are undertaken in an ad hoc way. Furthermore, different non-state actors have different agendas and interests in the field. This paper therefore makes a case for a more systematic approach to harnessing the multitudinous capacities of third parties to play a part in policing TEC, with national governments as coordinators. Third party capacities are evident in their roles as guardians of potential victims, handlers of potential offenders and managers of crime settings, and third parties can also be influential in relation to the broader social contexts from which TEC derives. The paper considers mechanisms to harness those capacities and applies these to TEC, but also points to some of the difficulties of doing so and to the possibilities of counterproductive outcomes in certain circumstances.

A more systematic approach could best be implemented with some dedicated strategic analysis and planning on the part of states, working individually and together. By focusing on particular transnational environmental crimes in specific jurisdictions, maps could be created of existing relevant third parties and the strategies currently being used to harness their capacities. Creating such maps would then readily lead to the identification of as yet unrecognised third parties capable of influencing TEC and of the appropriate regulatory strategies to harness their capacities. It is important that such maps take account of the drivers

¹⁶ O'Flynn (2008: 185–6) suggests that in fact few state/non-state working relationships can be described as truly collaborative. She cites the typology of Himmelmann, for whom collaboration is at the apex of four strategies of working together, the others (in order of degrees of linkage) being networking, coordination, and cooperation.

¹⁷ Brewer is concerned with crime on the waterfront and the relations that exist between the various actors that have an input into the operations of ports, but his conclusions about social capital are relevant to any context where the state attempts to harness the capacities of non-state actors for crime control.

¹⁸ Trust is not essential for criminal cooperation which can occur in the absence of initial trust or in the presence of outright mistrust. See von Lampe and Johansen (2003: 177–80).

of the particular crimes to which they relate, using tools like the analytic toolkit for wildlife and forest crime developed in 2012 by the International Consortium on Combating Wildlife Crime (UNODC 2012). The formation of specialist units within relevant government agencies may be warranted.

Until now this kind of applied strategic thinking has been largely confined to the task of enhancing law enforcement in relation to TEC. With little evidence that this is having much impact on TEC, now is the time for states to extend this regulatory reach by harnessing third party capacities. Then we might see the emergence of a response strong enough to halt the current expansion in both volume and distribution of transnational environmental crimes threatening national and global environmental security.

REFERENCES

- Arquilla, J. and Ronfeldt, D., 2001, *Networks and Netwars: The Future of Terror, Crime, and Militancy* (Santa Monica, CA: RAND).
- Ayling, J., 2007, 'Force Multiplier: People as a Policing Resource', *International Journal of Comparative and Applied Criminal Justice*, 31(1): 73–100.
- 2013, 'What Sustains Wildlife Crime? Rhino Horn Trading and the Resilience of Criminal Networks', *Journal of International Wildlife Law and Policy*, 16(1): 57–80.
- Grabosky, P. and Shearing, C. 2009, *Lengthening the Arm of the Law: Enhancing Police Resources in the Twenty-First Century* (Cambridge: Cambridge University Press, 2009).
- Ayres, I. and Braithwaite, J., 1992, *Responsive Regulation: Transcending the Deregulation Debate* (New York: Oxford University Press).
- Bayley, D. H. and Shearing, C., 1996, 'The Future of Policing', *Law and Society Review*, 30(3): 585–606.
- — 2001, *The New Structure of Policing: Description, Conceptualization, and Research Agenda* (Washington, DC: National Institute of Justice, US Department of Justice).
- Beccaria, C., 1764/1995, *On Crimes and Punishments, and Other Writings*, R. Bellamy (ed.), R. Davies with V. Cox and R. Bellamy (tr.) (Cambridge: Cambridge University Press).
- Braithwaite, J., 2000, 'The New Regulatory State and the Transformation of Criminology', *British Journal of Criminology*, 40(2): 222–38.
- Brewer, R., 2012, *Policing the Waterfront: The Social Structure of Collaborative Crime Control*, PhD Thesis, Australian National University, Canberra, January.
- Bullock, K., Clarke, R. V. and Tilley, N., 2010, 'Introduction', in K. Bullock, R. V. Clarke and N. Tilley (eds), *Situational Prevention of Organised Crime* (Collumpton: Willan Publishing), pp. 1–16.
- Burbank, S., Farhang, S. and Kritzer, H. M., 2011, 'Private Enforcement of Statutory and Administrative Law in the United States (and Other Common Law Countries)', Public Law and Legal Theory Research Paper Series Research Paper No. 11-08, University of Pennsylvania Law School, ssrn.com/abstract=1781047.
- Carnie, T., 2012, 'Plan to Sell Rhino Horns to China', *IOL News*, 13 July.
- Cherney, A., O'Reilly, J. and Grabosky, P., 2006, 'Networks and Meta-regulation: Strategies Aimed at Governing Illicit Synthetic Drugs', *Policing and Society*, 16(4): 370–85.
- Clarke, R. V., 1980, "'Situational" Crime Prevention: Theory and Practice', *British Journal of Criminology*, 20(2): 136–47.
- 1999, *Hot Products: Understanding, Anticipating and Reducing Demand for Stolen Goods*, Police Research Series Paper 112 (London: Policing and Reducing Crime Unit, Home Office).
- Clinton, H. R., 2012, 'Remarks at the Partnership Meeting on Wildlife Trafficking', Washington, DC, 8 November, www.state.gov/secretary/rm/2012/11/200294.htm.
- Cohen, L. and Felson, M., 1979, 'Social Change and Crime Rate Trends: A Routine Activity Approach', *American Sociological Review*, 44(4): 588–608.
- Cornish, D. B., 1994, 'The Procedural Analysis of Offending and its Relevance to Situational Prevention', in R. V. Clarke (ed.), *Crime Prevention Studies*, vol. 3 (Monsey, NY: Criminal Justice Press).
- Crawford, A., 1997, *The Local Governance of Crime: Appeals to Community and Partnerships* (Oxford: Clarendon Press).

- Dupont, B., Grabosky, P. and Shearing, C., 2003, 'The Governance of Security in Weak and Failing States', *Criminal Justice*, 3(4): 331–49.
- East African Wild Life Society, 2013, 'Wildlife Crime Hotline Goes Live', www.eawildlife.org/the-news/eawlsnews/184-wildlife-crime-hotline-goes-live.
- Eck, J., 2003, 'Police Problems: The Complexity of Problem Theory, Research and Evaluation', *Crime Prevention Studies*, 15: 79–113.
- Erickson, M. L., Gibbs, J. P. and Jensen, G. F., 1977, 'The Deterrence Doctrine and the Perceived Certainty of Legal Punishments', *American Sociological Review*, 42(2): 305–17.
- Fairtrade International, no date, www.fairtrade.net/.
- Felbab-Brown, V., 2013, *Indonesia Field Report III – The Orangutan's Road: Illegal Logging and Mining in Indonesia*, Foreign Policy Trip Reports No. 36 (Brookings, 7 February), www.brookings.edu/research/reports/2013/02/07-indonesia-illegal-logging-mining-felbabbrown.
- Forest Stewardship Council International Center, no date, ic.fsc.org.
- Garland, D., 1996, 'The Limits of the Sovereign State: Strategies of Crime Control in Contemporary Society', *British Journal of Criminology*, 36(4): 445–71.
- Grabosky, P., 1995a, 'Regulation by Reward: On the Use of Incentives as Regulatory Instruments', *Law and Policy*, 17(3): 257–82.
- 1995b, 'Using Non-Governmental Resources to Foster Regulatory Compliance', *Governance: An International Journal of Policy and Administration*, 8(4): 527–50.
- 2010, 'On the Interface of Criminal Justice and Regulation', in H. Quirk, T. Seddon & G. Smith (eds), *Regulation and Criminal Justice: Innovations in Policy and Research* (Cambridge: Cambridge University Press), pp. 72–100.
- Graycar, A. and Felson, M., 2010, 'Situational Prevention of Organised Timber Theft and Related Corruption', in K. Bullock, R. V. Clarke and N. Tilley (eds), *Situational Prevention of Organised Crimes* (Collumpton: Willan Publishing), pp. 81–92.
- Humane Society International, 2011, 'Rhinoceros Horn Stockpiles – A Serious Threat to Rhinos', www.hsi.org/assets/pdfs/rhino_horn_stockpiles_report.pdf.
- IKEA, 2011, 'IKEA Cares About the Forest', January, www.ikea.com/ms/img/newsroom/wlw/FACTSforestryFINAL20jan.pdf.
- INTERPOL, 2011, 'ASEANAPOL Partnership with INTERPOL Boosts Regional Security, INTERPOL Chief Tells Laos Meeting', Media Release, 31 May, www.interpol.int/News-and-media/News-media-releases/2011/PR047.
- 2013, 'Projects', www.interpol.int/en/Crime-areas/Environmental-crime/Projects/Project-Scale.
- Kariuki, J., 2013, 'Ol Pejeta Deploys Drone Against Rhino Poachers', *Business Daily*, 23 January.
- Kleiman, M. A. R., 2009, *When Brute Force Fails: How To Have Less Crime and Less Punishment* (Princeton: Princeton University Press).
- Loader, I., 2000, 'Plural Policing and Democratic Governance,' *Social and Legal Studies*, 9(3): 323–45.
- Mazerolle, L. and Ransley, J., 2005, *Third Party Policing* (Cambridge: Cambridge University Press, 2005).
- Milliken, T. and Shaw, J., 2012, *The South Africa-Viet Nam Rhino Horn Trade Nexus: A Deadly Combination of Institutional Lapses, Corrupt Wildlife Industry Professionals and Asian Crime Syndicates* (Johannesburg: TRAFFIC).
- Nagin, D. S., 1998, 'Criminal Deterrence Research at the Outset of the Twenty-First Century', in M. Tonry (ed.), *Crime and Justice: A Review of Research* (Chicago: University of Chicago Press).
- O'Flynn, J., 2008, 'Elusive Appeal or Aspirational Ideal? The Rhetoric and Reality of the "Collaborative Turn" in Public Policy', in J. O'Flynn and J. Wanna (eds), *Collaborative Governance: A New Era of Public Policy in Australia?* (Canberra: ANU E Press), pp. 181–95.
- O'Malley, P. and Palmer, D., 1996, 'Post-Keynesian Policing', *Economy and Society*, 25(2): 137–55.
- Osborne, D. and Gaebler, T., 1992, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (Reading, MA: Addison-Wesley Publishing).
- Parker, C. and Braithwaite, J., 2003, 'Regulation', in P. Cane and M. Tushnet (eds), *The Oxford Handbook of Legal Studies* (Oxford: Oxford University Press), pp. 119–45.

- Pew Charitable Trusts, no date, 'Our Work', www.pewtrusts.org/our_work.aspx.
- Pires, S. F. and Clarke, R. V., 2012, 'Are Parrots CRAVED? An Analysis of Parrot Poaching in Mexico', *Journal of Research in Crime and Delinquency*, 49(1): 122–46.
- and Moreto, W. D., 2011, 'Preventing Wildlife Crime: Solutions That Can Overcome the "Tragedy of the Commons"', *European Journal on Criminal Policy and Research*, 17(2): 101–23.
- Programme for the Endorsement of Forest Certification, 2012, www.pefc.org/.
- Rademeyer, J., 2012, *Killing for Profit: Exposing the Illegal Rhino Horn Trade* (Cape Town: Zebra Press).
- Sarre, R. and Prenzler, T., 2009, *The Law of Private Security in Australia*, 2nd edn (Pymont: Thomson Reuters).
- Schneider, J., 2012, *Sold into Extinction: The Global Trade in Endangered Species* (Santa Barbara, CA: Praeger).
- Slaughter, A.-M., 2004, 'Disaggregated Sovereignty: Towards the Public Accountability of Global Government Networks', *Government and Opposition*, 39(2): 159–90.
- Smillie, S., 2012, 'Joy as Rhino Smuggler Gets 40 Years', *IOL News*, 10 November.
- UNODC (United Nations Office on Drugs and Crime) no date, 'Transnational Organized Crime – The Globalized Illegal Economy', Facts, www.unodc.org/documents/toc/factsheets/TOC12_fs_general_EN_HIRES.pdf.
- 2012, *Wildlife and Forest Crime Analytic Toolkit* (New York: United Nations), www.cites.org/eng/resources/pub/Wildlife_Crime_Analytic_Toolkit.pdf.
- 2013, 'Transnational Organized Crime: Let's Put Them Out of Business', www.unodc.org/toc/.
- Vandenbergh, M. P., 2007, 'The New Wal-Mart Effect: The Role of Private Contracting in Global Governance', *UCLA Law Review*, 54(4): 913–70.
- von Lampe, K., 2011, 'The Application of the Framework of Situational Crime Prevention to "Organized Crime"', *Criminology and Criminal Justice*, 11(2): 145–63.
- and Johansen, P. O., 2004, 'Organized Crime and Trust: On the Conceptualization and Empirical Relevance of Trust in the Context of Criminal Networks', *Global Crime*, 6(2): 159–84.
- Warchol, G. and Johnson, B., 2009, 'Wildlife Crime in the Game Reserves of South Africa: A Research Note', *International Journal of Comparative and Applied Criminal Justice*, 33(1): 143–54.
- Wellsmith, M., 2010, 'The Applicability of Crime Prevention to Problems of Environmental Harm: A Consideration of Illicit Trade in Endangered Species', in R. White (ed.), *Global Environmental Harm: Criminological Perspectives* (Collumpton: Willan Publishing), pp. 132–49.
- 2012, 'Preventing Wildlife Crime', *Criminal Justice Matters*, 90(1): 18–19.
- Williams, K. and Hawkins, R., 1986, 'Perceptual Research on General Deterrence: A Critical Review', *Law and Society Review*, 20(4): 545–72.
- Wright, G., 2011, 'Conceptualising and Combating Transnational Environmental Crime', *Trends in Organized Crime*, 14(4): 332–46.
- Wright, V., 2010, 'Deterrence in Criminal Justice: Evaluating Certainty vs. Severity of Punishment' (Washington, DC: The Sentencing Project, November), www.sentencingproject.org/doc/Deterrence%20Briefing%20.pdf.
- WWF, 2012, *Fighting Illicit Wildlife Trafficking: A Consultation With Governments* (WWF/Dalberg, December).
- Zedner, L., 2006, 'Policing Before and After the Police: The Historical Antecedents of Contemporary Crime Control', *British Journal of Criminology*, 46(1): 78–96.