LAW ENFORCEMENT RESPONSES TO TRANSNATIONAL ENVIRONMENTAL CRIME: CHOICES, CHALLENGES, AND CULTURE

GRANT PINK

TRANSNATIONAL ENVIRONMENTAL CRIME PROJECT

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Transnational Environmental Crime Project
Department of International Relations
School of International, Political & Strategic Studies
ANU College of Asia and the Pacific
Australian National University
Canberra ACT 0200
Australia
Tel: +61 (2) 6125 2166
Fax: +61 (2) 6125 8010
Email: tec@anu.edu.au
Web: ips.cap.anu.edu.au/ir/tec

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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.

Unless otherwise stated, publications of the Transnational Environmental Crime Project and/or the Department of International Relations are presented without endorsement as contributions to the public record and debate. Authors are responsible for their own analysis and conclusions.

Abstract

This paper considers the issue of law enforcement responses to transnational environmental crime with a particular focus on the role of environmental regulatory agencies. More specifically, it identifies and analyses the various operational and policy factors which inform and shape responses to transnational environmental crime. The aim of this paper is to furnish environmental regulatory agencies with information, options, and strategies so they can more effectively detect, deter, and disrupt this form of transnational crime. The paper outlines the different roles and functions of police agencies, customs and port authorities, and environmental regulatory agencies in terms of their efforts in the fight against transnational environmental crime. It also compares the use of administrative, civil, and criminal law enforcement responses by these response agencies.

About the author

Grant Pink is currently employed as a Director of Regulatory Capability and Assurance Section in the project's partner organisation, the Department of Sustainability, Environment, Water, Population and Communities. Mr Pink's experience in this role has involved five years of capacity-building activities across operational, intelligence, policy, and liaison functions at the national, regional, and international level.

ABBREVIATIONS

AELERT	Australasian Environmental Law Enforcement and Regulators network
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPA	customs/port authority
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities, Australia
ERA	environmental regulatory agency
ETS	emission trading scheme
INECE	International Network for Environmental Compliance and Enforcement
Interpol	International Criminal Police Organisation
LER	law enforcement response
MEA	multilateral environmental agreement
PA	police agency
TEC	transnational environmental crime
UNEP	United Nations Environment Programme
UNODC	United Nations Office on Drugs and Crime

Law enforcement responses to transnational environmental crime: Choices, challenges and culture

GRANT PINK*

INTRODUCTION

This paper considers the issue of law enforcement responses (LERs) to transnational environmental crime (TEC) with a particular focus on the role of environmental regulatory agencies. More specifically, it considers a range of operational and policy factors which inform and shape the enforcement responses. For the purposes of the discussion here, the operational context involves a range of activities and responses which include the practical application of law enforcement and regulatory powers (or authorities) by government bodies. These are activities and responses that mainstream law enforcement agencies and environmental regulatory agencies associate with formal investigations undertaken as part of assessing allegations of criminal wrongdoing and serious non-compliance respectively. Policy is defined as the 'suite of documents, plans, programs, regulatory schemes, and strategies that provide for a coordinated, coherent response to, and support for' combating transnational environmental crime (Horne 2013: 1).[1]

The aim of this paper is to furnish environmental regulatory agencies with information, options, and strategies so they can more effectively detect, deter, and disrupt this form of transnational crime. This research has particular relevance for Australia's federal environment department – the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) – by whom the author is employed because, like all public service agencies, it seeks efficiencies and effectiveness. This extends to and includes staff involved in environmental compliance and enforcement.

The paper begins by examining the operational and policy context within which environmental regulators and enforcers function. It outlines the different roles and functions of police agencies, customs and port authorities, and environmental regulatory agencies (the three core agencies) which either act in isolation or combine bilaterally and multilaterally in their efforts to combat TEC. In doing so, the paper also compares the use of administrative, civil, and criminal law enforcement responses by the three core agencies. The second section of this paper explores the literature on law, policy, compliance, and enforcement with a focus on three themes: organisational capacity, capability, and culture. The paper concludes with a number of observations and suggestions with respect to key issues and areas with operational and policy ramifications. It focuses particularly on those issues and areas that are relevant to those environmental regulatory agencies that have responsibilities for initiating, progressing, and concluding law enforcement responses directed towards combating transnational environmental crime matters.

ENVIRONMENTAL REGULATION: THE REGULATORY CONTEXT IN AUSTRALIA

DSEWPaC is the Australian federal government's premier environmental regulator. As at 30 June 2012, it consisted of 2,987 staff, most of whom are based in the Canberra. Others are geographically dispersed in locations within Australia ranging from the Northern Territory through to Tasmania in the south. The Department's responsibilities extend to Australia's external territories including Antarctica (DSEWPaC 2012a: 364–5). As an environmental regulator, DSEWPaC has responsibilities for, and undertakes compliance and enforcement activities across, some 15 pieces of national legislation that have offence or penalty provisions. This legislation in turn gives effect to a similar number of international treaties, agreements, and conventions to which the Australian government is a signatory. The breadth of DSEWPaC's compliance and enforcement responsibilities can be seen in Appendix 1

* Any views or opinions expressed in this paper are those of the author and not those of the Australian Government of Department of Sustainability, Environment, Water, Population and Communities.

1 For a more comprehensive consideration of the policy aspects associated with transnational environmental crime, see Horne (2013).

which lists the Department's legislation, the commodities and activities it regulates and, where applicable, the corresponding international obligations. These involve both terrestrial and marine environments, with the latter stretching to the 200 nautical mile exclusive economic zone.

Given the nature of its regulatory responsibilities, DSEWPaC assumes a number of leadership roles which are sub-national, national, regional, and international in nature. The illegal trade in endangered species, which is covered by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), provides an example of DSEWPaC's multilayered leadership roles with respect to this convention and commodity alone. For example:

- Nationally, it liaises with and coordinates state and territory agencies that are involved in wildlife protection and trade. It also supports other federal government agencies whose work intersects with compliance and enforcement aspects, such as the Australian Customs and Border Protection Service (or Customs) and the Australian Quarantine and Inspection Service. It also provides both levels of government with technical, scientific, and compliance and enforcement support and advice.
- Regionally, it performs the role of chair of the Oceania region of CITES which involves supporting and coordinating the input of eight countries[2] within Oceania across a number of areas including policy, science, operations, and capacity building.
- Internationally, it leads the Australian and Oceania delegations at the triennial Conference of the Parties[3] and chairs the Coalition Against Wildlife Trade which augments CITES. In this role, DSEWPaC works closely with the governments of five other countries in the Coalition.[4] Members of DSEWPaC also hold various office holder positions within a number of structures established by the International Criminal Police Organisation (Interpol) to combat transnational environmental crime.[5]

Operating environment for environmental regulatory agencies/regulators

The operating environment for environmental regulatory agencies such as DSEWPaC is a challenging one. There are many factors which make this so: most relate broadly to complexity and culture.

The challenges associated with undertaking enforcement activities in general (Pink 2008; Van der Schraaf 2008; Farmer 2007) are even more complex for environmental enforcement (Clifford and Edwards 2012; White 2008; Wijbenga *et al.* 2008). This position is confirmed by a number of international organisations. For example, the United Nations Office on Drugs and Crime (UNODC), which focuses on more traditional crime types, suggests that 'since crime has gone global, purely national responses are inadequate' (UNODC 2010: ii). This is a point echoed by and reinforced by Interpol's Environmental Crime Programme and the United Nations Environment Programme (UNEP) with respect to TEC. In March 2012, these two agencies combined to convene the inaugural International Chiefs of Environmental Compliance and Enforcement Summit in an effort to bring together and better coordinate the role of environmental regulatory agencies as they partner with police agencies and customs and port agencies. The Summit Report notes that:

> [e]nvironmental law enforcement is not always the responsibility of one national agency, but rather, is multi-disciplinary in nature due to the complexity and diversity of crime type which can encompass disciplines such

[2] The countries include Fiji, New Zealand, Papua New Guinea, Palau, Samoa, Solomon Islands and Vanuatu. For information on CITES member countries, see www.cites.org/eng/disc/parties/index.php.

[3] The Conference of the Parties is the governing body of a Convention. They advance implementation of the Convention through the decisions taken at its periodic meetings. See www.cbd.int/cop/.

[4] The countries include Canada, Chile, India, the United Kingdom and the US. For more information on the Coalition, see www.cawtglobal.org/about/.

[5] Specifically, the Wildlife Crime Working Group (see www.interpol.int/Crime-areas/Environmental-crime/Environmental-Crime-Committee/Wildlife-Crime-Working-Group) and the Environmental Crime Committee (see www.interpol.int/Crime-areas/Environmental-crime/Environmental-Crime-Committe)e.

as wildlife, pollution, fisheries, forestry, natural resources and climate change, with reaching effect into other areas of crime (Interpol 2012: 5).

The cultural challenges relate to issues associated with the tension between the expectation and the reality of the role and function of public service agencies/departments. This tension occurs principally for those agencies/departments that have been established to assist the general public and that function with a customer service approach. In some agencies this can extend to and take on more of a 'client' focus which can introduce additional challenges to agencies that are also involved in regulation and enforcement (Alford and Speed 2006: 325). This is especially so in circumstances where regulators are attempting to achieve high levels of 'voluntary compliance' or 'contingent compliance' with the latter from time to time requiring the use of coercive powers. The challenge for regulating those who are either considered to be/or are treated as 'clients' is how to effectively combine punishment with persuasion (John Braithwaite, cited in Alford and Speed 2006: 325). This viewpoint is shared by Bricknell (2010: 114) who states that 'agencies who only recently adopted the mantle of regulator are still negotiating the regulatory culture', which gives an insight into the reticence when these agencies move from a regulatory culture to an enforcement culture.

ENVIRONMENTAL ENFORCEMENT: THE GLOBAL OPERATING ENVIRONMENT

The three core agencies and transnational environmental crime

In global terms, most enforcement action taken in terms of transnational environment crime is initiated by three core agencies (hereafter 'the three core agencies'). Although known by various titles around the world, for the purpose of this paper they will be referred to as being environmental regulatory agencies (ERAs), customs/port authorities (CPAs) or police agencies (PAs). As Diagram 1 shows, these agencies relate with one another either bilaterally or trilaterally as they partner to combat transnational environmental crime.

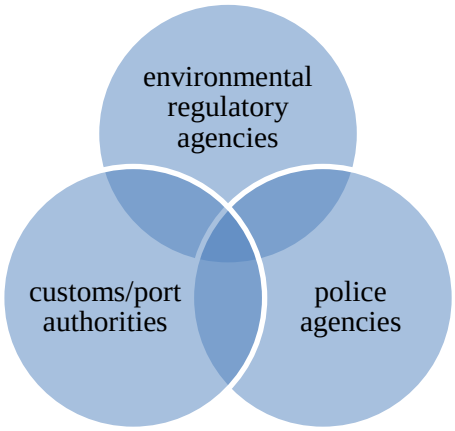


Diagram 1 The core agencies involved in combating transnational environmental crime

Each joint investigation or enforcement activity will usually have a designated lead agency (see Table 1), with lead and support agencies, where necessary, being further supported by other agencies through a variety of multilateral arrangements.[6]

The three core agencies also link to other international organisations in an effort to further coordinate their efforts in terms of environmental crime and transnational environmental crime (see Appendix 2). These organisational arrangements and support bodies, discussed in greater detail later in the paper, tend to be based upon discipline, commodity, and crime type.

6 In the case of TEC agencies such as Quarantine, Tax and Immigration are often involved due to the interrelationship with disease risk (associated with animal and plant products), money laundering and proceeds of crime, and the involvement of illegal people smuggling routes and organisations respectively.

Crime type	Typical activity and example	Lead and *assisting agencies*
Traditional	• *Theft* of emission trading scheme (ETS) permits, vouchers, and credits • *Fraudulent activities* associated with the above	Police *Customs, Environmental, Tax*
Environmental	• *Damage/Harm* to the environment caused by a failure to 'offset' the impacts through the ETS permits, vouchers, and credits • *Non-compliance* with an ETS permit, voucher, or credits	Environmental[7] *Police*
Cross-over	• *Corruption*, bribing of government and non-government officials who influence issuance/trade of ETS permits, vouchers, and credits • *Money laundering* of the funds and assets derived from the dishonesty	Police, Customs *Environmental, Tax*

Source: Pink and Lehane (2012: 114, Table 7.1).

Table 1 Crime types, typical activities, and the lead and assisting agencies

These three core agencies – or what Clifford and Edwards (2012) call 'control agents' – bring very different approaches to combating TEC. Situ and Emmons (2000: 140) suggest therefore that 'the single most important requirement for effective environmental law enforcement is co-operation between regulatory agencies and traditional law enforcement officials'. However, as Sparrow (2008: 53–4) notes, 'battles' can and often do occur between agencies especially in the face of 'overlapping jurisdictions, [or] where two or more agencies share responsibility for control of certain harms, but have sharply differing views on how best to proceed'. These differences can be amplified given the nature of TEC and organisational variations between the three core agencies. Thus Clifford and Edwards (2012: 366) suggest that '[f]or environmental crime enforcement to improve, control agents at all levels of government must agree to put aside traditional [differences and] animosities and embrace the challenge of joint research and practice'. Those organisational variations reflect the relative position of the three core agencies on the regulatory and enforcement spectrum which, in turn, can shape their preference for, if not predilection to, particular types of LERs.

Diagram 2 shows ERAs (which tend to be the more traditional 'customer service focused' public service agencies) at one end of that spectrum with PAs (as mainstream law enforcement agencies) at the other end. CPAs (which are somewhat of a hybrid between typical public service agencies and mainstream law enforcement agencies) span and fluctuate between the two extremes with their precise position dependent upon which of these other two agencies they happen to be partnering with on an aspect of TEC.[8] Researchers at the Australian Institute of Criminology have recently highlighted the fact that:

> there remain a number of significant challenges that will need to be addressed by regulatory and law enforcement agencies if longer term gains are to be made. In particular, there is currently no nationally structured approach or framework for addressing environmental crime in Australia, which makes it almost impossible to determine (among other things) the precise responsibilities and activities of each agency and

[7] In some countries (e.g., Israel and the Netherlands), environmental enforcement is undertaken by the police. See White (2008: 198–9); Tomkins (2009: 515–17).

[8] In most countries, CPAs are considered to be and operate as mainstream law enforcement agencies, irrespective of whether or not they are a public service agency.

where any overlaps in function may lie, as well as understanding if agency activities are coordinated and [are] actually effective (Willis and Bricknell 2012: 6).

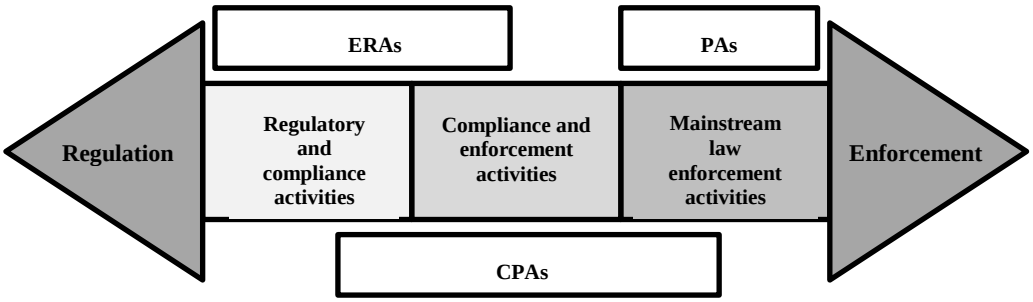


Diagram 2 The regulatory and enforcement spectrum

The three main types of law enforcement responses applied to TEC

Despite the different legislative arrangements and nomenclature used throughout the world, there are three broad categories of law enforcement responses, each of which is informed by different legal principles – administrative, civil, and criminal. These are different in nature, have different legal meanings, and are not (generally speaking) all available to each of the three core agencies. In light of the confusion that often surrounds the selection of, application of and justification for use of these forms of LER, each will now be considered briefly in turn.

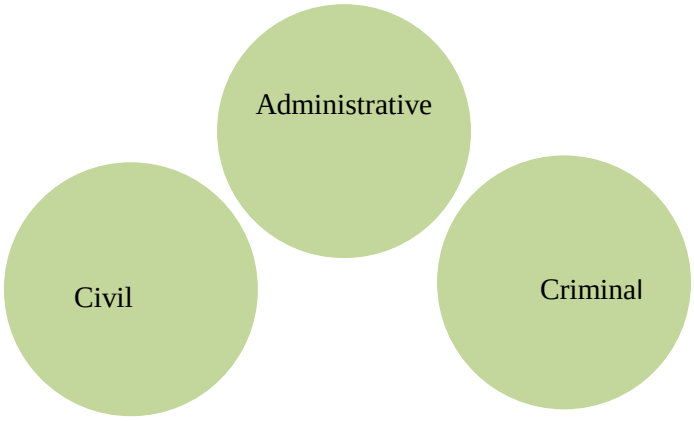


Diagram 3 The three main types of law enforcement responses

Administrative (also known as an administrative sanction or response[9])

- commonly used for minor or technical breaches, or breaches that are able to be attended to by the regulator exercising its statutory authority without referral to a court (whether in a civil or criminal capacity) (Freiberg 2010: 34; Lynott and Cullinane 2010).
- can take the form of warnings, cautions, or varying, suspending or revoking an environmental authorisation (licence/permit) (DSEWPaC 2012a; Freiberg 2010).
- perceived advantages include that the use of administrative responses is within the mandate and control of the regulator (save administrative appeals or similar) (EPA Ireland 2009b). They can resolve matters quickly and keep relatively low-level and uncontested matters from 'clogging' the courts.

9 Some scholars refer to administrative responses as being part of 'regulatory enforcement' (Clifford and Edwards 2012: 110).

- perceived disadvantages: they can be seen as a 'soft option' when applied without full consideration of other options, especially when the alleged wrongdoer is a repeat offender and/or the breach is one that is worthy of an escalated response.
- perceived efficacy: their use is considered appropriate and timely for the majority of minor and technical breaches of environmental law and is an especially useful tool when regulators have frequent and ongoing contact with a regulated entity (Ayres and Braithwaite 1992; Black 2002).
- common or frequent criticism associated with use relates to overuse of this response when coupled with a repeated failure or lack of willingness by regulators to escalate their responses to include civil or criminal options.
- usage by the three core agencies: as a general rule this is extensively used by ERAs, frequently used by CPAs and used infrequently in limited situations by PAs (see Table 2).[10]

Civil (also known as a civil penalty or remedy)

- commonly used for instances where the regulator is keen to have the court impose some form of monetary or other order (not permitted/accessible through either the administrative or criminal responses).
- can take the form of enforceable undertakings and remediation determinations (DSEWPaC 2012a; Freiberg 2010; Macrory 2006, 2010).
- perceived advantages: action initiated is required to satisfy the civil burden of proof ('balance of probabilities') which is lower than the criminal burden (White 2009; Freiberg 2010). This option is also considered to be more flexible (Macrory 2006) and enables greater use of innovative (non-prosecutorial) 'outcomes' (Baird 2011) than is the case for criminal responses, but at the same time has more 'teeth' than administrative responses (Macrory 2010).
- perceived disadvantages: even though this approach, generally speaking, is achieved within a shorter timeframe than can be the case when pursuing and finalising a criminal action, they can also be as lengthy if not longer. This form of litigation can also be substantially more expensive compared with the litigation costs of a criminal prosecution[11] which is usually undertaken by a government prosecuting authority.[12] It is however underpinned by fewer legal safeguards and processes than is the case in the criminal response (Freiberg 2010).
- perceived efficacy: use is appropriate for those breaches which are not minor or technical in nature nor are they (EPA Ireland 2009b; Macrory 2006, 2010).
- common or frequent criticism associated with use occurs when seen as a 'soft' or 'easy' option taken by regulators who are not prepared to escalate their non-compliance responses (Lipman 2010) and 'test their arm' in a criminal prosecution.
- usage by the three core agencies: as a general rule, this is frequently (and increasingly) used by ERAs, occasionally used by CPAs, and is not available to PAs (see Table 2).[13]

Criminal (also known as a criminal prosecution or action)

[10] Minor breaches of; traffic laws, operating licensed (liquor) premises, and residential noise complaints are possible examples where this response may be used.

[11] This depends on a range of factors such as whether or not the agency initiating the action has access to in-house legal staff, whether such staff are able to attend court and practice case work, and whether external legal counsel has to be used, which then incurs commercial rates (typically charged in six minute increments) and can amount to tens if not hundreds of thousands of dollars.

[12] Such as the Office of the Director of Public Prosecutions in Australia.

[13] The mandates of international and national police organisations such as Interpol and the Australian Federal Police expressly preclude them from initiating civil actions.

- commonly used for more serious breaches of legislation and where there is a clear public expectation and interest in the breach or activity being seen and treated as criminal (Clifford and Edwards 2012: 174; Stuart Bell and Donald McGillivray cited in White 2011a: 135; Situ and Emmons 2000: 21).
- takes the form of criminal prosecutions.
- perceived advantages: criminal LERs are authoritative and provide legal precedent; they are also underpinned by a number of legal safeguards and processes (DSEWPaC 2012a; Freiberg 2010; Macrory 2006, 2010).
- perceived disadvantages: this approach can involve lengthy and costly litigation (DSEWPaC 2012a; Freiberg 2010; OEE 2009). Any action is predicated upon satisfying the criminal burden of proof ('beyond a reasonable doubt'). This burden of proof requires proving intent (sometimes referred to as *mens rea*) (Clifford and Edwards 2012: 107–8) which can result in an 'all or nothing' outcome for regulators (DSEWPaC 2012a).
- perceived efficacy: some practitioners (especially those in mainstream law enforcement agencies) and academic commentators consider criminal sanctions to be central to underpinning the effectiveness of legal and regulatory regimes. Further, they consider that the use of criminal sanction (or the likelihood of its use) as a response actually assists with achieving the other two responses (administrative and civil) more easily (Ayres and Braithwaite 1992).
- common or frequent criticism associated with use relates to it being 'too harsh' a response as it treats environmental crime the same as real crime which conflicts with 'prevailing attitudes and perceptions within the criminal justice system … [and the fact that] environmental crime frequently embodies a certain ambiguity' (White 2011a: 134–5).
- usage by the three core agencies: as a general rule criminal LERs are used infrequently by ERAs (depending on jurisdiction), frequently used by CPAs, and almost exclusively by PAs (see Table 2).[14]

As Brickey notes, '[a]lthough criminal penalties for environmental crimes exist in the statutes, the more severe criminal penalties are rarely used, and the majority of environmental violations are addressed through regulatory [administrative] or civil remedies' (cited in Clifford and Edwards 2012: 111).

Agency type	Administrative LER	Civil LER	Criminal LER
ERAs	Used extensively	Used frequently	Used infrequently
CPAs	Used frequently	Used occasionally	Used frequently
PAs	Used infrequently (in limited circumstances)	Not available	Used extensively (predominantly)

Table 2 The core agencies: use of the three main types of law enforcement responses

KEY DEFINITIONS AND CONCEPTS

The discussion thus far has explored law enforcement responses in a primarily national context. A number of key definitions and concepts are particularly relevant to and influence the enforcement approaches of the three core agencies generally as well as in terms of TEC. Therefore, before moving

[14] Their predominant responses result in some form of court action which typically attracts custodial or non-custodial sentences, and fines and convictions being recorded against individuals.

to discuss the nuances of LERs in a TEC context, it is useful to outline some key definitions, concepts, and terminology. If misapplied or if their context (agency and cultural) is not fully appreciated or entirely understood, these terms can further complicate and exacerbate the existing differences between agencies in terms of their ability to use LER (whether individually or in concert with co-regulators) in the field of TEC.

The following definitions are important in terms of their potential operational and policy impacts for each of the three core agencies. Simply put, these definitions (based upon their interpretation and application) influence the ability of agencies not only to be actively involved in combating TEC but also to determine the relative priority and importance afforded to TEC.

Crime

According to the *Oxford Dictionary of Law Enforcement,* crime is seen or considered as 'an act (or sometimes a failure to act) that is deemed by statute or by the common law to be a public role and is therefore punishable by the State in criminal proceedings' (Gooch and Williams 2007: 94).

Traditional (or real) crime

Traditional (or real) crime is investigated and dealt with by the police or mainstream law enforcement agencies and it includes offences against the person (such as robbery, assault, and murder) and offences against property (such as property damage, arson, and theft). Traditional crimes are more readily associated with having real and readily identifiable victims (Willis and Bricknell 2012; Moore 2012: 184; Epstein 1998: 145). Such crimes are dealt with through the criminal justice system via a criminal prosecution or action.

Environmental crime

Clifford and Edwards (2012: 111) query 'whether all environmental violations should be considered environmental crimes or where the environmental crimes are restricted to activities for which criminal remedies are sought is an open question'. The definition of 'environmental crime', like traditional crime, is influenced by a range of concepts and factors introduced by society, organisations, or entities which reflect their particular viewpoint or frame of reference. For example, White and Habibis (2005: 10) argue that 'environmental crime is socially constructed, both through definitional processes, and by the ways in which environmental law enforcement is carried out in practice'.

Some other definitions being applied to environmental crime include, 'environmental crime is a breach of the national or international environmental law treaty that exists to ensure the conservation and sustainability of the world environment, biodiversity natural resources' (Interpol 2011: 5);

> environmental harms that are deemed to be illegal according to law. These include acts or omissions related to illegal taking a flora and fauna, pollution offences and transportation of banned substances such as radioactive materials (Heckenberg 2009: 12);
>
> [a]n environmental crime is an unauthorized act or omission that violates the law and is therefore subject to criminal prosecution and criminal sanctions (Situ and Emmons 2000: 3).[15]

Transnational environmental crime

There is no settled or accepted definition for TEC. Elliott (2009: 59) suggests that, 'transnational environment crime involves the trading and smuggling of plants, animals, resources and pollutants in violation of prohibition or regulation regimes established by multilateral environmental agreements and/or in contravention of domestic law'.

Elliott (2009: 59) adds that TEC, for example, can include:

> illegal logging and timber smuggling, illegal trade in endangered and threatened species, the black market in ozone-depleting substances (and, potentially, other prohibited or regulated chemicals), the transboundary dumping of toxic and hazardous waste, and what is known in the environmental lexicon as IUU (illegal, unreported and unregulated) fishing.

[15] It should be noted that the work of Situ and Emmon is particularly focused on the criminal justice system.

She also draws attention to a much simpler definition provided by a former Interpol Secretary General who suggested that:

> a border must be crossed (in the case of TEC this could mean the perpetrators, the products, or the orders that direct such transactions) and the activity must be recognized as a criminal offense in at least two countries as a result of international or national law (Elliott 2009: 59).

Organised crime

Article 2 of the United Nations Convention against Transnational Organised Crime contains the following definitions:

> (a) 'Organised criminal group' shall mean a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences established in accordance with this convention, in order to obtain, directly or indirectly, a financial or other material benefit;
>
> (b) 'Serious crime' shall mean conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty;
>
> (c) 'Structured group' shall mean a group that is not randomly formed for the immediate commission of an offence and that does not need to have formally defined roles for its members, continuity of its membership or a developed structure.

Serious and organised crime

Under the *Australian Crime Commission Act 2002*, serious and organised crime is defined as:

> an offence that involves two or more offenders, substantial planning and organisation and the use of sophisticated methods and techniques; which is committed in conjunction with other serious offences punishable by imprisonment for a period of three years or more.

This definition covers a broad range of serious offences which are further detailed within the legislation. Examples include theft, fraud, tax evasion, money laundering, illegal drug dealings, extortion, bribery or corruption of an official, perverting the course of justice, and cybercrime. Most of these offences are now recognised as being either cross-over crimes[16] or predicate crimes associated with TEC (Interpol 2012: 5; UNODC 2008).

Transnational organised crime

Under the 2000 United Nations Convention against Transnational Organised Crime, transnational organised crime is defined as, 'any serious transnational offence undertaken by three or more people with the aim of material gain' (UNODC 2010: 1). The preceding discussion highlights that not all environmental crime is transnational environmental crime and that not all TEC is transnational organised crime. As mentioned previously, the ways in which various forms of crime are defined will influence what agencies are involved or become involved in combating TEC. As an example, environmental crime and transnational environment crime *per se* are not priority crime types or areas for either Interpol or the Australian Federal Police.[17] Rather it is the type of offenders (including organised crime elements) and the *modus operandi* of the offending, coupled with methods used to traffic goods and generate unexplained wealth that result in police agencies, intelligence agencies, tax agencies, and immigration agencies around the world becoming increasingly involved in law enforcement responses to TEC. In the main, this relates to their interest in cross-over crimes and/or activities that are aligned with their operational and policy priorities. Environmental law enforcement shares some similarities with mainstream law enforcement. But there are also significant differences which will impact upon the selection of law enforcement responses to environmental crime and TEC more specifically.

16 Cross-over crimes include corruption, fraud, tax evasion, money laundering, and murder. See Interpol (no date: 3).

17 Interpol's six key priorities are drugs and criminal organisations, financial and high-tech crime, fugitives, public safety and terrorism, trafficking in human beings, and corruption; see www.interpol.int. The Australian Federal Police similarly list and group a number of their challenges around issues such as 'counter terrorism, human trafficking and sexual servitude, cyber-crime, peace operations, protection and other transnational crimes'. See www.afp.gov.au/about-the-afp.aspx.

Compliance, enforcement and regulatory activities

Compliance, enforcement, and regulatory activities tend to be informed by a number of factors including jurisdiction, mandate, organisational structures, and agency capability and makeup. However for the purposes of this paper, they are described thus:

Compliance activities are those that involve the regulatory authority checking (i.e., ensuring compliance/conformance with a state issued licence/approval) by undertaking site inspections and conducting monitoring and auditing visits of facilities, to ensure that the entities are in compliance (that is not breaching any laws) with the particular regulatory regime.

Enforcement activities are considered by some to be a subset of compliance activities, in that they are measures that are often used to bring (more forcibly) a regulated entity back into compliance (i.e., conformance with the law). They can include the execution of search warrants and the use of coercive powers to acquire information for investigative purposes. These are seen and often described by practitioners as 'sharp end' enforcement activities.

Regulatory activities are broader in scope than compliance and enforcement activities and typically involve government authorities regulating certain activities by means other than pure law (law and regulations). These activities might relate to regulated entities needing to also adhere to standards and codes of practice for example.

Diagram 4 shows a sub-set of the regulatory and enforcement spectrum explored in Diagram 2. As noted, the use of the three types of LERs by the three core agencies varies greatly. This is primarily influenced by their roles and functions, which are in turn informed by their respective mandates as they relate to detecting and disrupting TEC. Diagram 4 shows the four main types of activities typically performed by ERAs.

Source: DSEWPaC (2012b).

Diagram 4 The compliance and enforcement spectrum

LAW ENFORCEMENT RESPONSES AND THE INFLUENCE OF LITERATURE

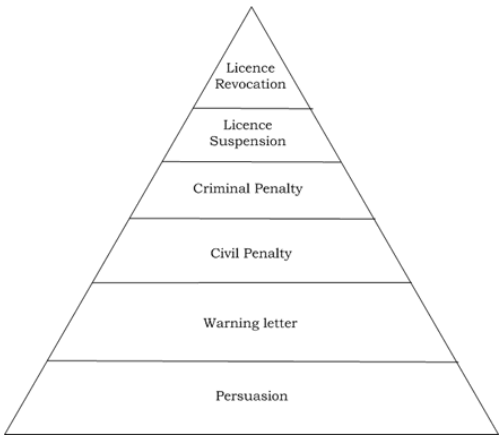
This section examines how mainstream law enforcement agencies (such as police and customs), enforcement agencies (such as tax and child protection agencies), and other agencies (such as environmental regulatory agencies) have approached the task of responding to alleged breaches of legislation over which they have responsibility. It ranges across law, policy, and compliance and enforcement operations, organisational capacity, capability, and culture.

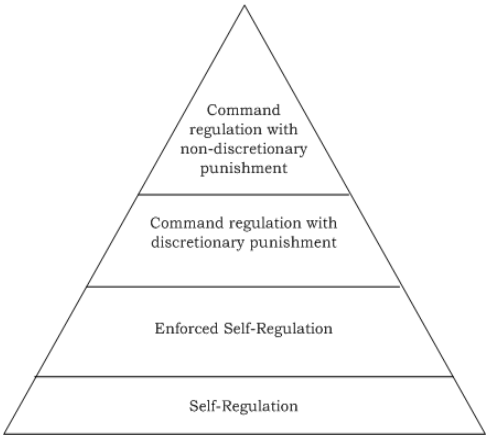
It provides an insight into the various and often competing factors that combine 'all the sources of authority with which the regulator acts', sometimes referred to as the regulator's 'authorising environment' (Fels 2003: 5–6). The 'authorising environment' enables and determines the nature of the exercise of regulatory power, influencing and shaping the operational and policy responses to TEC by ERAs. The ideas that have most influenced the operational and policy responses of environmental regulatory and enforcement agencies (in terms of both environmental crime and transnational environmental crime), have been clustered into five categories each of which is considered in turn. Those categories are responsive regulation, problem solving, sanctions, enforcement tools, and risk management practices. The discussion now moves to consider the writings in terms of the *influence* that they have had on how governmental regulators approach their roles and responsibilities, the *demonstrable effects* measured in terms of regulatory outcomes, and the *impact* that these writings have had upon the law enforcement responses of governmental regulators.

Responsive regulation

Responsive regulation relates to engagement and responses and the resultant relationships of and for interaction between the regulator and the regulated. Ayres and Braithwaite (1992: 5) consider that, '[f]or the responsive regulator, there are no optimal or best regulatory solutions, just solutions that respond better than others to the plural configurations of support and opposition that exist at any particular moment in history'. Their work drew upon and expanded earlier work by Scholz (1984a, 1984b) and Sigler and Murphy (1988) who introduced 'tit-for-tat' theory and 'interactive corporate compliance' techniques, both of which had responsive elements to them. The illustrative enforcement pyramid developed by Ayres and Braithwaite has had a significant and enduring influence on the enforcement approaches and associated strategies of governmental regulators (see Diagram 5).

The enforcement pyramid is complemented by the enforcement strategies pyramid which contains a range of corresponding enforcement strategies. These strategies loosely align with the steps in the enforcement pyramid and reflect the preferred approach and parameters of an agencies response (see Diagram 6).





Note: The proportion of space in each layer represents the proportion of enforcement activity at that level

Source: Ayres and Braithwaite 1992: 35, Figure 2.1, 35, Figure 2.3.

Diagram 5 The enforcement pyramid **Diagram 6 The enforcement strategies pyramid**

Ayres and Braithwaite argue that '[r]egulators will do best by indicating a willingness to escalate intervention up those pyramids or to deregulate down the pyramids in response to the industry's performance in securing regulatory objectives'. Furthermore, they:

> argued that the greater the heights of tough enforcement to which the agency can escalate (at the apex of its enforcement pyramid), the more effective the agency will be at securing compliance and less likely that it will have to resort to tough enforcement. Regulatory agencies will be able to speak more softly when they are perceived as carrying big sticks (Ayres and Braithwaite 1992: 6).

Ayres and Braithwaite (1992: 21) suggest that Scholz's 'tit-for-tat' theory conceived of regulation as being like a game 'wherein the motivation of the firm [or non-complying entity] is to minimise regulatory costs and the motivation of the regulator is to maximize compliance outcomes'. 'Tit-for-tat' essentially involves a regulator responding in kind. For example, when a regulated entity is engaging and cooperating with the regulator it is more likely that the latter will actively assist the former in terms of its education and outreach services and technical advice to assist that entity to return to a situation of compliance. Conversely, if the regulated entity disengages with or takes an adversarial approach to the regulator it is most likely that the regulator will revert (and resort) to exercising the more forceful and coercive suite of powers (such as licence revocation or executing search and seizure warrants) at its disposal to bring the regulated entity forcefully back into compliance. As such, it follows that by using 'tit-for-tat' strategies, a regulator could refrain 'from a deterrent response as long as the firm is cooperating; when the firm yields to temptation to exploit the co-operative posture of the regulator and cheats on compliance, then the regulator shifts from a co-operative to a deterrent response' (Ayres and Braithwaite 1992: 21).

Ayres and Braithwaite (1992: 35) also note that sanctions are typically:

> conceived only as deterrents, usually monetary deterrents ... [they also] stressed the importance of reputational deterrents … [and] argue further that the importance of adverse publicity directed at wrongdoing ... [concluding] that the law must be designed to incapacitate irrational actors as well is to deter rational ones; hence, other types of sanctions, designed with incapacitation rather than deterrents in mind, are needed.

Box 1 Responsive regulation: An overview for regulators

Influence

Responsive regulation has had a significant and enduring influence on governmental regulators (particularly in Australia) for the last 20 years (Mascini and Van Wijk 2009).

Demonstrable effect

This is reflected in the ubiquitousness of compliance and enforcement pyramids in the compliance and enforcement plans and strategies developed by ERAs both in Australia and around the world (OGTR 2007; VIC EPA 2011; CER 2012; Scottish Government 2006; UNEP 2006; EPA Ireland 2009a).

Impact upon approaches to LERs

Compliance and enforcement pyramids have been interpreted and applied by some ERAs in such a way that sanctions are rigidly applied in ascending order, with ERAs being most comfortable in escalating their responses, in circumstances, where they are dealing with entities that have been subjected to sanctions towards the base of the pyramid. As a result, the sanctions at the apex of the pyramid (in some instances referred to as 'incapacitation') are only considered appropriate for the most egregious offending and even then is very much seen as the option of 'last resort' (Robinson 2003).[18]

Problem solving

Sparrow has highlighted operating and cultural differences between mainstream law enforcement agencies, government agencies with regulatory functions, and those government agencies without regulatory functions. He explained that:

> [s]ome government agencies exist primarily to deliver obligations at one time or another, rather than services, to citizens. These agencies are often thought of as "enforcement and regulatory" agencies – a label that focuses attention on the necessarily coercive aspects of their work. An alternative formulation of their function – "procuring compliance"– reminds us that government acts on behalf of citizens, not against them, even when its agencies take actions which are coercive or adversarial (1994: ix).

Sparrow later outlines an approach based upon the problem-oriented-policing methods designed by Herman Goldstein that were used to transform policing in the late 1970s and early 1980s (Sparrow 1994, 2000). In explaining the intent behind this approach, Braga (2002: 1) suggests that Goldstein was in effect 'argu[ing] that police departments were much too focused on how they were organized to do their work rather than on the crime problems they needed to solve'. Sparrow (2000: 9) also suggests that regulators 'should pick important problems and fix them'. He highlights the importance of 'problem-solving approaches' because '[r]egulators face no shortage of strategies, methods, programs, and ideas. Rather they face a lack of the structure for managing them all (Sparrow 2000: 43).

Sparrow's later work continues with the theme of problem solving from the perspective of unraveling complex and cross-cutting problems including environmental regulation. It focuses on operational responses and outlines the challenges law enforcement and regulatory agencies face when developing 'intervention strategies' to stop a variety of crime types. It details the multilayered thinking involved in developing, deciding upon and executing (tactical, operational, and strategic) law enforcement responses.[19] Choosing the 'right response' is made more difficult when it requires interaction with one or more different agencies (irrespective of whether operational or policy in nature). Sparrow observes that the most obvious clashes occur in two situations which involve issues associated with organisational

[18] For a detailed analysis and explanation of how this phenomenon of the option of 'last resort' manifests itself in an environment protection agency, consider Robinson 2003.

[19] In this context, 'tactical' means one case or suspect, 'operational' might relate to one gang or crime syndicate in a geographic area such as a suburb, whilst 'strategic' would relate to taking a whole of jurisdiction zero tolerance approach to a particular crime type.

culture and complexities and challenges concerning jurisdiction. First, in terms of organisational culture, he suggests that a situation of:

> organisational mergers, where constituent pieces arrived with differing traditions and self-images. [That] [p]erhaps one of the merged departments comes as a traditional regulator, heavily reliant on enforcement. Another comes with a tradition of providing technical consulting to industry, and with staff who view themselves as service-providers and advisers. Two such groups may well have trouble appreciating each other; they represent different theories of operation (2008: 53).

The second situation arises due to 'overlapping jurisdictions, where two or more agencies share responsibility for control of certain harms, but have sharply differing views on how best to proceed' (Sparrow 2008: 53–4).

Box 2 Problem solving: An overview for regulators

Influence
This field of research has led to the increasing introduction of problem-solving in environmental enforcement.

Demonstrable effect
One way in which the take up and integration of problem-solving approaches can be seen is in the increased level of intra and interagency 'joint investigation teams' and 'taskforces' (Goldstein 1990; Sparrow 2008: 85).

Impact upon approaches to LERs
Historically, operational responses were predominantly reactive (focusing more on the symptoms than the cause) and typically relied upon those elements that were more 'command and control' in nature (focusing on punishment as opposed to remediation/repatriation). Non-operational aspects (such as projects undertaken and strategies developed) have also been expanded beyond the reactive to become proactive, preventative, and in some cases strategic.

Agencies engaged in environmental law enforcement responses are now taking a more holistic approach to problem solving because there is a recognition that ' the effectiveness of environmental law enforcement very much depends upon how environmental problems are conceptualised' (White 2009: 484).

Sanctions

There is a correlation between this section on sanctions and the next on tools. Both emphasise the importance of sufficient and robust regulatory sanctions and tools to enable effective law enforcement responses. This is supported by Sparrow (2000: 2) when he argues that 'the nature and quality of regulatory practice hinges on which laws regulators choose to enforce, and when; on how they focus their efforts and structure their uses of discretion; [and] on the choice of methods for procuring compliance'. The issue of choice emerges because, as Freiberg (2010: 215) suggests, 'the line between criminal, civil and administrative … is unclear and has become blurred over time'. He goes on to state '[t]he continuum is no longer easily divided into criminal, civil and administrative categories'.

Horne (2013) also considers that the influence of the policy setting and context should not be overlooked. He suggests that appropriate penalties are an important aspect of multifaceted policy responses, in what is an overall suite of complimentary policy instruments, which collectively aim to address one big problem.

The works of Hampton (2005), Macrory (2006, 2010), and Farmer (2007) consider sanctions generally and specifically in the environmental context, influencing the approaches taken by governmental regulators. The catalyst for Hampton's work was a request from the UK Treasury, motivated by budgetary concerns, to find alternatives to an already overstretched criminal justice system. Hampton (2005: 3) described the aim of the review as being to 'identify ways in which the administrative burden of regulation on businesses can be reduced, while maintaining or improving regulatory outcomes'.

The review made a number of key recommendations, many of which related to incorporating risk management processes into regulatory activities (outlined in the next section). In relation to sanctions Hampton (2005: 6) noted that:

> [b]usinesses and regulators have an interest in proper sanctions against illegal activity in order to prevent businesses operating outside the law from gaining a competitive advantage. At present, regulatory penalties do

> not take the economic value of a breach into consideration and it is quite often in a business's interest to pay the fine rather than comply.

This reinforces the notion that sanctions can be seen and considered by some regulated entities as a cost of doing business (Macrory 2006). This is a point of frustration frequently raised by regulators (see Pink forthcoming). Equally, it highlights concerns about the lack of 'a level playing field' for regulated entities. Hampton (2005: 26) considered this to be exacerbated by the fact that:

> [p]enalty regimes are also slow and comparatively weak ... because penalties are low absolutely, but more worryingly because penalties imposed often do not reflect the commercial advantage a business has gained from non-compliance.

One of the recommendations therefore stated that '[t]he few businesses that persistently break regulations should be identified quickly, and face proportionate and meaningful sanctions' (Hampton 2005: 7).

Building on Hampton's work, Macrory (2006, 2010) focused on the effectiveness of sanctions. He made a number of observations on criminal sanctions, and considered that whilst there was a 'heavy reliance on criminal sanctions' (2006: 15) by regulators, it should be noted that:

- criminal sanctions currently are often an insufficient deterrent to the 'truly' criminal or rogue operators, since the financial sanctions imposed in some criminal cases are not considered to be a sufficient deterrent …
- regulators may not have any alternative available to them in their toolkit and so must prosecute, even where a different type of sanction may be more effective …
- Heavy reliance on criminal sanctions leads to some non-compliance not being addressed at all. Criminal sanctions are costly and time-consuming for both businesses and regulators. In many instances, although non-compliance has occurred, the cost or expense of bringing criminal proceedings deters regulators from using their limited resources to take action. This creates what has become known as a *compliance deficit*;
- Criminal convictions for regulatory non-compliance have lost their stigma ... being prosecuted is regarded as part of the business cycle ... strict liability offences committed by legitimate business, and the deliberate flouting of the law by rogues is prosecuted in the same manner with little differentiation between these two types of offender; and
- Since the focus of criminal proceedings is on the offence and the offender, the wider impact of the offence on the victim [or the environment] may not be fully explored (2006: 15–16).

Conversely, Clifford and Edwards (2012: 110–11) noted that, '[a]lthough criminal penalties for environment crimes exist in the statutes, the more severe criminal penalties are rarely used, and the majority of environmental violations are addressed through regulatory [i.e., administrative] or civil remedies'. Another factor raised by White (2008: 191) which highlights a general move away from command and control regulation and its predominant use of criminal sanction is that '[o]ne of the major stumbling blocks in using the "big stick", much less other instruments in the law enforcement tool box, has been the difficulty in establishing liability in certain types of [environmental] cases'.

Macrory's (2006: 10) work on sanctions culminated in the development of a set of 'penalty principles' and 'regulator characteristics' which are listed below:

> Six Penalties Principles
>
> A sanction should:
>
> 1. Aim to change the behaviour of the offender;
> 2. Aim to eliminate any financial gain or benefit from a non-compliance;
> 3. Be responsive and consider what is appropriate for the particular offender and regulatory issue, which can include punishment and the public stigma that should be associated with a criminal conviction;
> 4. Be proportionate to the nature of the offence and the harm caused;
> 5. Aim to restore the harm caused by regulatory non-compliance, where appropriate; and
> 6. Aim to deter future non-compliance.

Seven characteristics

Regulators should:

1. Publish an enforcement policy;
2. Measure outcomes not just outputs;
3. Justify their choice of enforcement actions year on year to stakeholders, Ministers and Parliament;
4. Follow-up enforcement actions where appropriate;
5. Enforce in a transparent manner;
6. Be transparent in the way in which they apply and determine administrative penalties; and
7. Avoid perverse incentives that might influence the choice of sanctioning response.

Farmer's (2007: 138) work, informed by the work of Hampton and Macrory, looks at sanctions from the perspective of operationalising them in such a way that the primary objective relates to protecting the environment. In terms of 'putting the sanctions into practice', Farmer outlines nine issues that should be taken into account in determining an appropriate enforcement response. These are: 'nature of the offence … financial issues [specifically financial benefits arising from the offending] … impact on the environment and on others … deterrent effect of the enforcement action … intent of the offender … previous compliance history … attitude of the offender … predictability … [and] financial issues [referring to the financial resources required by the regulator to take forward an enforcement action]' (Farmer 2007: 140).

Box 3 Sanctions: An overview for regulators

Influence

These works have considered sanctions more holistically as part of the entire regulatory regime design phase. There is now greater emphasis on how sanctions provide options for regulators to achieve 'environmental outcomes' in addition to traditional policing, regulatory, or enforcement outcomes.

Demonstrable effect

As new legislation is developed or as existing legislation is reviewed and updated, greater consideration is given to how a suite of sanctions assists in achieving environmental protection. As a result, contemporary environment protection legislation tends to include a full suite of administrative, civil, and criminal sanctions (Freiberg 2010; Macrory 2010).

Impact upon approaches to LERs

The 'penalty principles' and 'regulator characteristics' are increasingly being incorporated into the compliance and enforcement policies, compliance and enforcement strategies, and publications prepared by ERAs (VIC EPA 2011, 2012; OGTR 2007; Doyle and O'Leary 2009; EPA Ireland 2009[20]). As a result, they are routinely factored into internal and external reviews which consider the regulatory and enforcement activities and performance of ERAs.

Given the intent behind and combined result of the 'penalty principles' and 'regulator characteristics', ERAs are increasingly reporting more regularly and fully on their use of sanctions in achieving compliance (Doyle and O'Leary 2009).

Tools

The various tools available for use by regulators can be contained within singular families or can span the three broad types of law enforcement responses, namely administrative, civil, and criminal.

Freiberg (2010: 84) outlines six broad ranges of tools: economic, transactional, authorisation, structural, informational, and legal. To date it has been the latter aspect which has received the most attention from regulators. Freiberg cautions against this, urging regulators to take a more holistic approach. He notes that:

[20] EPA Ireland (2009b) provides a comprehensive cross-country analysis of the use and relative effectiveness of administrative sanctions as a response for environmental offences.

> regulators may well have relied too heavily on some tools while under-utilising others that may have been more effective or efficient. The lack of a broad framework within which regulatory decisions can be made, and regulatory tools chosen, has inhibited regulators and policymakers from being more creative in their response to social, environmental and economic harms (Freiberg 2010: v).

Freiberg (2010: vi) acknowledges that the selection and application of regulatory tools is a complex task as it:

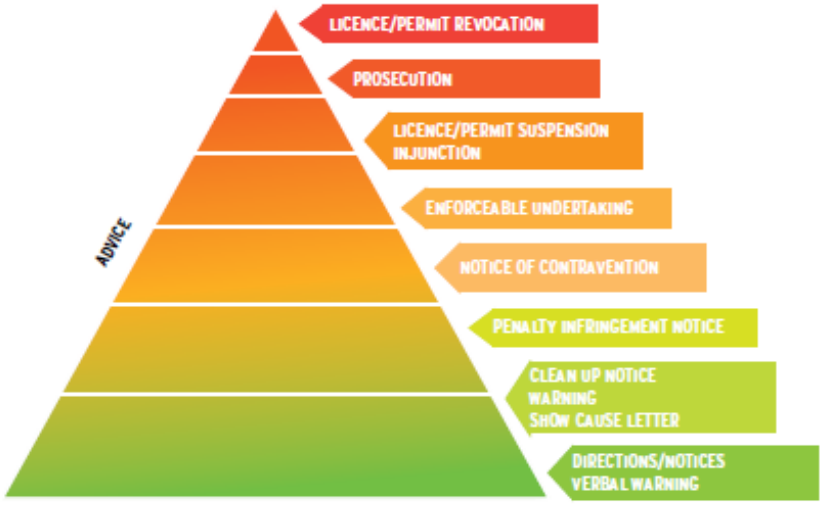
> requires a clear understanding of many elements: the range and nature of regulatory methods; the timing of the regulatory interventions; the number, nature and motivations of the people or organisations to be regulated; the resources available; the cost of each tool; the order or combination in which the regulatory tools can or should be used; their efficiency and suitability for use in the particular environment; their legal and political legitimacy; their efficacy; and their transparency and accountability.

Freiberg (2010: 205–57) provides some advice, assistance, and guidance to regulators in terms of the legal tools which span the three main types of law enforcement responses. Suggesting the application of sanctions across administrative, civil, and criminal matters requires nuanced application (see Table 3).

Administrative	Civil	Criminal
Warnings and cautions	Civil monetary penalties	Imprisonment
Improvement notices		Fines
Prohibition and cease and desist		Commercial benefits penalty order
Injunctions		Community-service order
Banning orders		Probation and supervisory orders
Disclosing information Adverse publicity		Compliance programs
Seizure and forfeiture		Compensation orders
Infringement notices		Restoration order
Administrative monetary penalties		
Enforceable undertakings		

Source: Adapted from Freiberg (2010: 86, Figure 6b).

Table 3 The tools of government



Source: VIC EPA (2011: 120).

Diagram 7 A hierarchy of enforcement tools

An illustration of how the Victorian Environmental Protection Authority in Australia is aligning sanctions with an enforcement pyramid is shown at Diagram 7.

Box 4 Tools: An overview for regulators

Influence

The number and range of tools available for use by agencies responding to TEC (and environmental crime) have increased and been refined over the last 20 years.

Demonstrable effect

The choice and use of tools is inexorably linked to the application and success of various sanctions. As such the nuanced application of tools highlights the importance of the 'regulatory craftsmanship' (Sparrow 2000) and 'regulatory acumen' (Du Rées 2009) that is associated with their effective use, and can be seen in terms of its layering and targeted use within an enforcement pyramid (see Diagram 7).

Impact upon approaches to LERs

Agencies engaged in LERs are using more tools (either individually or in partnership with co-regulators) to achieve their regulatory and enforcement outcomes.

Agencies have increased expectations placed upon them in terms of justifying and reporting on the use of tools, given its direct relationship with similiar requirements in terms of the use of sanctions. Macrory (2010: 15) suggests that regulators 'act transparently, as to the use of their sanctioning powers, and to provide regular reports of their use against set outcomes'. In response, agencies are providing detailed and frequent guidance and information to regulated entities and the community as a whole, including details around the circumstances when, how and why different tools might be used and what commodities or sectors might be targeted for increased enforcement action (AFMA 2012; EPA Ireland 2009a; Lynott and Cullinane 2010).

Risk management

Risk management has emerged in government administration as a cross-cutting and ubiquitous (variously influencing decision-making, prioritization, and resource allocation) issue which is used both as a means of identifying and addressing risk factors. While risk management might be viewed as a subset of problem solving, its historical emergence from project management, and financial oversight and care, gives it particular standing given the culture of 'risk' within public sector agencies. Many public sector agencies now have chief financial officers and chief risk officers with responsibility for

the financial and operational aspects of organisations. Similarly, risk management is recognised as a relevant consideration and trigger in relation to regulation, compliance and enforcement activities undertaken by ERAs.

When focusing on administrative burdens and the efficiency of regulatory and enforcement inspections, Hampton repeatedly emphasises the benefits of risk management, principally through the use of risk assessments:

> though widely recognised as fundamental to effectiveness – is not implemented as thoroughly and comprehensively as it should be. Risk assessment should be comprehensive, and should be the basis for all regulators' enforcement programmes. Proper analysis of risk directs regulators' efforts at areas where it is most needed, and should enable them to reduce the administrative burden of regulation, while maintaining or even improving regulatory outcomes (Hampton 2005: 1).

Hampton makes a number of corresponding recommendations relating to the implementation of risk management practices and usage, including that:

- comprehensive risk assessment should be the foundation of all regulators' enforcement programmes;
- there should be no inspections without a reason, and data requirements for less risky businesses should be lower than for riskier businesses;
- resources released from unnecessary inspections should be redirected towards advice to improve compliance (Hampton 2005: 1).

Hampton (2005: 28) was also of the view that:

> [u]nless risk assessment is carried through into resource allocations and regulatory practice, it is wasted effort. Risk assessment needs to be comprehensive, and inform all aspects of the regulatory lifecycle from the selection and development of appropriate regulatory and policy instruments through to the regulators work including data collection, inspection and prosecution.

In this schema, risk assessment becomes a tool for the proper allocation of resources to achieve maximal compliance results within set limitations. Sparrow (1994: xxv) noted:

> [a]gencies begin asking what is feasible, what is most important, and what presents the greatest risks. They have to define some analytic framework within which risks can be assessed and evaluated. Then they have to develop criteria for selection, and begin allocating organisational resources according to agreed priorities. Resource allocation becomes more fluid, more analytical, more intelligent.

Box 5 Risk management: An overview for regulators

Influence

Risk management is increasingly becoming a common and important component of the decision-making process in government agencies, including mainstream law enforcement agencies, and government agencies with and without regulatory functions.

Demonstrable effect

The evidence of the integration of risk management is the increased frequency with which 'risk-based approaches' and other such terminology has entered the regulatory lexicon. Across the range of activities undertaken within the regulatory spectrum, risk management is now routinely discussed amongst practitioners, managers, and academics (ANAO 2007).

Impact upon approaches to LERs

ERAs in particular who engage in law enforcement responses are taking a more holistic approach to their activities spanning the regulatory and enforcement spectrum (see Diagram 2).

The impacts or influences of these approaches can be seen in a range of projects, approaches, and strategies. Examples of how integral the risk management approaches are evident in terms of how:

- they are informing the operational risk appraisal risk assessment tool which enables the UK's national environmental regulator to focus its attention and resources on 'higher risk and poorly performing sites' (Environment Agency 2012); and
- the traditional enforcement pyramid is being modified by environmental regulators to incorporate risk considerations and factors (e.g., OGTR 2007; VIC EPA 2011).

THE ROLE OF AND RELIANCE UPON ENVIRONMENTAL ENFORCEMENT NETWORKS WHEN DEVELOPING CAPACITY

The increasing capacity-building role played by dedicated environmental enforcement networks and other enforcement networks (with environmental aspects) is referred to in the literature explored in the previous section (for example, White 2011b; Bricknell 2010; Tomkins 2009; Sparrow 2008; Farmer 2007; Blindell 2006).

Zaelke, Kaniaru and Kružíková (2005), Slaughter (2004) and Raustiala (2002) consider the role and importance of enforcement networks in greater detail and as such merit further consideration. Zaelke, Kaniaru and Kružíková (2005: 383) suggest that:

> [t]he lack of meaningful enforcement and compliance has often been seen as one of the greatest weaknesses of international law, and international environmental law in particular, but new models of cooperation present great promise for effective international action.

Raustiala (2002), working from a policy and strategic perspective, suggests that networks enhance activities associated with multilateral environmental agreements (MEAs), fill gaps where there are no MEAs, and facilitate negotiations for future MEAs. Conversely, Slaughter (2004), suggests that given that organised crime operates through 'global networks' it is appropriate that governments similarly coordinate their efforts when it comes to global enforcement efforts with such an approach having benefits for tactical and operational enforcement. Slaughter (2004: 19) suggests that '[e]nforcement networks typically spring up due to the inability of government officials in one country to enforce that country's laws'. These 'weaknesses' in enforcement systems both within and across countries was a key finding of the report of Akella and Cannon (2004).. An inability or less than optimal ability in one county is of great concern when considering an issue such as law enforcement responses to transnational environmental crime.

There has been a discernible increase in society's expectations in relation to the enforcement of environmental issues (Bricknell 2010; Wijbenga *et al.* 2008). Macrory (2010: 353) is of the view that '[p]ublic concern and governmental interest in environmental issues has reached new peaks in the last few years'. Furthermore, responding to environmental issues is further compounded by the fact that the public is less tolerant of actual or artificial border demarcation issues (whether sub-national, regional, or international) and they expect a seamless whole-of-government, regional, or even global response as is appropriate (Pink and Lehane 2012).

Research also shows that enforcement bodies and various enforcement networks are increasingly combining with one another to maximise the effectiveness of their law enforcement responses (White 2011a, 2011b; Pink and Lehane 2011; Pink 2011; Farmer 2007: 249–62; Taschereau and Bolger 2007; Gerardu and Zaelke 2005). Table 4 lists a number of entities that either operate as environmental enforcement networks or work in conjunction with and through these networks.

White (2011a: 138) also suggests that '[n]etworking provides a practicable basis for intervention in areas that are by their nature complex and multifaceted'. Several practical examples across the three types of core agency functions include Interpol and UNODC[21] (for mainstream policing and law enforcement agencies); the World Customs Organisation[22] (for customs and port authorities); and the International Network for Environmental Compliance and Enforcement (INECE)[23] and the Australasian Environmental Law Enforcement and Regulators neTwork (AELERT) (for environmental regulatory agencies).

The last two decades has seen a proliferation of environmental enforcement networks as well as an increase in the partnering between international organisations (combining to combat various cross-cutting environmental, enforcement, and economic issues). This is consistent with the view of Achim Steiner,

21 Environmental crime is considered a subject worthy of special consideration. See UNODC (2010).

22 The World Customs Organisation has developed an environment programme in terms of controlling MEAs, especially those that are trade related. See www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/ep_environmental_crime.aspx.

23 INECE brings together a range of experts from government, non-government, civil society, and academia. See INECE (no date).

executive director of UNEP, who considers that 'global problems need global partnerships ... [and that] enforcement networking is one small example of the benefit of such cooperation' (Steiner 2007: 2).

Abbreviation	Full name	Level/Est.
AELERT	Australasian Environmental Law Enforcement Regulators neTwork	Regional (2004)
CEC	Commission for Environmental Cooperation	Regional (1994)
CLAG	Combined Law Agency Group	National (1999)
ENDWARE	European Network of Drinking Water Regulators	Regional (2005)
HEEPA	Heads of European Environment Protection Agencies	Regional (2003)
IACP	International Association of Chiefs of Police	Global (1989)
IMPEL	Implementation and Enforcement of Environmental Law	Regional (1992)
INECE	International Network for Environmental Compliance and Enforcement	Global (1990)
Interpol ECC	Interpol Environmental Crimes Committee	Global (1992)
NEEP	Northeast Environmental Enforcement Project	Regional (1980)
NRIG	Natural Resources Investigations Group	Sub-national (2001)
TEEN	The Environmental Enforcement Network	National (2004)
WEG	Wildlife Enforcement Group	National (1993)
WSP	Western States Project	Regional (1986)

Source: Adapted from Pink (2011: 799, Table 1).

Table 4 Environmental enforcement networks

CONCLUSION

Barbara Young, chief executive of the Environment Agency in the UK, suggests that '[m]odern regulation aims to find the right balance – a proportionate, risk based response, that will drive environmental improvements, reward good performance, but still provide the ultimate reassurance that tough action will be taken on those who fail to meet acceptable standards' (Environment Agency 2003: 1). The challenges associated with determining and applying appropriate, effective, and efficient law enforcement responses are many and varied, and span a range of legal fields. As Sparrow (2000: 17) points out, '[r]egulators, [are] under unprecedented pressure, face a range of demands, [which are] often contradictory in nature'. Similarly, Gemmell and Scott (forthcoming) note that '[i]t is also often the regulator's challenge to deal with inconsistencies and misalignments between instruments'.

A review of the literature relating to environmental regulation, compliance, and enforcement generally, and the transnational environmental crime specifically, recognises the challenges and competing interests informing that literature and its ongoing development and accumulation. It needs also to be noted that the body of literature developed to address this intersection between fields remains fundamentally practical, rather than purely theoretical in its scope and aims.

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APPENDIX 1

Departmental legislation, commodities and activities, and international obligations (adapted from DSEWPaC 2011: 426–8).

Departmental legislation, commodities and activities, and international obligations		
Legislation	**Typical commodities/activities**	**International obligation**
Aboriginal and Torres Strait Islander Heritage Protection Act 1984	The preservation and protection from injury or desecration of areas and objects in Australia and in Australian waters, being areas and objects that are of particular significance to Aboriginal and Torres Strait Islander people in accordance with their tradition	None
Antarctic Marine Living Resources Act 1980 ***Antarctic Treaty (Environment Protection) Act 1980*** ***Australian Antarctic Territory Act 1954*** ***Heard Island and McDonald Islands Act 1953***	Activities in Australia's Antarctic Territories	Protocol on Environmental Protection to the Antarctic Treaty (1991) (Madrid Protocol) Convention on the Conservation of Antarctic Marine Living Resources (1982)
Environment Protection and Biodiversity Conservation Act 1999	Activities in Commonwealth National Parks, Commonwealth Marine Reserves or affecting the environment on Commonwealth land or in Commonwealth waters Actions having a significant impact on listed protected species, ecological communities, marine species, migratory species, wetlands of international significance, World Heritage Areas, National or Commonwealth Heritage Nuclear actions	The Convention on Biological Diversity (1992) The Convention on the Conservation of Migratory Species of Wild Animals (1979) (Bonn Convention) The Japan–Australia Migratory Bird Agreement (1974) (JAMBA) The China–Australia Migratory Bird Agreement (1986) (CAMBA) Convention on International Trade in Endangered Species of Wild Fauna and Flora (1975) (CITES) The Convention on Wetlands of International Importance Especially as Waterfowl Habitat Ramsar (1971) (Ramsar Convention) Convention Concerning the Protection of the World Cultural and Natural Heritage (1975) (World Heritage Convention) International Convention for the Regulation of Whaling (1986) (International Whaling Convention)
Environment Protection (Sea Dumping) Act 1981	Disposal at sea	Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 (1996) (London Protocol)
Fuel Quality Standards Act 2000	Motor fuel contamination	None
Hazardous Waste (Regulation of Exports and Imports) Act 1989	The export or import of hazardous waste, including electronic waste	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1992) (Basel Convention) Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and

		Management of Hazardous Wastes within the South Pacific Region (2001) (Waigani Convention)
Historic Shipwrecks Act 1976	Activities affecting historic shipwrecks including relics previously obtained from wrecks	Agreement between the Netherlands and Australia concerning old Dutch shipwrecks (1972)
Ozone Protection and Synthetic Greenhouse Gas Management Act 1989	The importation, handling and disposal of ozone-depleting gases and equipment/appliances containing them	Vienna Convention for the Protection of the Ozone Layer (1988) Montreal Protocol on Substances that Deplete the Ozone Layer (1989)
Product Stewardship Act 2011	Encouraging reuse, recycling, recovery, treatment or disposal of products in that class, or waste from such products, in a safe, scientific and environmentally sound way; and requiring purchasers to make product return payments in relation to products in that class	None
Sea Installations Act 1987	Structures in Commonwealth waters	None
Water Act 2007	Management of the water resources of the Murray-Darling Basin, and other matters of national interest on water and water information	None
Water Efficiency Labelling and Standards Act 2005	The sale and installation of water-using appliances and plumbing fittings	None

APPENDIX 2

Agencies, international institutions and their intersecting interests in transnational environmental crime

Core agency type	International organisation/consortium	Membership and *interest and link to combating TEC*
Environmental regulatory agencies	**International Consortium Combatting Wildlife Crime (ICCWC)**[1]	**Five inter-governmental organisations; CITES, INTERPOL, UNODC, World Bank, and World Customs Organisation (WCO)** *"These organizations form a unique pool of thematically relevant technical and programming expertise, presenting the opportunity for a novel approach to the multi-facetted challenges posed by wildlife crime".*[3]
	International Network for Environmental Compliance and Enforcement (INECE)[2]	**Some 4,000 individual members from more than 150 countries**[4] *"The INECE mission is to contribute to a healthy and clean environment, sustainable use of natural resources and the protection of ecosystem integrity through effective compliance and enforcement of environmental laws using regulatory and non-regulatory approaches".*[5]
	Multilateral environment agreement (MEA) secretariats	**There are around a dozen major MEA secretariats**[6] which cover the themes and commodities of particular interest to this research.[7] *MEA Secretariats coordinate the work and efforts of their member countries (competent authorities) and progress the formal decision making processes through official meetings which are referred to as the Conference of the Parties (CoP).*
Customs/Port Authorities	**World Customs Organisation**	**176 member countries** *"Bolstering efforts to combat fraudulent and criminal activities by improving enforcement methods and practices … preparing analyses of smuggling trends and modus operandi, and facilitating field and border enforcement operations."* 8

1 This consortium is particularly interesting as its membership and interest groups overlap with Customs and Port Authorities and Police Agencies more than any other consortium.

2 INECE, like ICCWC is interesting in that its membership and interest groups are much more diverse and inclusive than as is the case when considering the WCO and INTERPOL in terms of customs and policing matters respectively.

3 For more information on the role and function of ICCWC generally, see www.cites.org/eng/prog/iccwc.php. For its early achievements more specifically, see M. Yeater, 'Corruption and Illegal Wildlife Trafficking', in *Corruption, Environment and the United Nations Convention Against Corruption, Workshop Marrakesh, Morocco, 24–28 October 2011, Workshop Proceedings* (Italy: UNODC, 2012), pp. 17–22.

4 Membership is individual based. These individuals are drawn from international organisations, governmental agencies, non-governmental organisations and other areas such as academia.

5 For more information on the role and function of INECE, see inece.org/about/who-we-are/.

6 John Scanlon, Secretary General, CITES, Speech – Bangkok, Thailand 13 February 2012. Noting that the Environmental Treaties and Resources Indicators (ENTRI) website lists in excess of 100 such agreements commencing since 1989 alone; see sedac.ciesin.columbia.edu/entri/treatyTexts.jsp.

7 See Appendix 1 of this paper and G. Rose, 'Interlinkages between Multi-Lateral Environmental Agreements: International Compliance Cooperation', in *Compliance and Enforcement in Environmental Law: Towards More Effective Implementation* (Northampton: Edward Elgar, 2011).

8 For more on the role and function of WCO see www.wcoomd.org/files/1.%20Public%20files/PDFandDocuments/About%20Us/DEPL%20OMD%20UK%20A4.pdf.

Police agencies	**International Criminal Policing Organisation (ICPO or Interpol)**	**190 member countries** *'Preventing and fighting crime through enhanced international police cooperation … enabl[ing] police around the world to work together to … meet the growing challenges of fighting crime in the 21st century*.[9]
	European Law Enforcement Agency (EUROPOL)	**27 member countries** *'Its aim is to improve the effectiveness and co–operation between the competent authorities of the Member States in preventing and combating all forms of serious international organized crime and terrorism'*.[10]

9 For more on the role and function of Interpol, see www.interpol.int/About-INTERPOL/Overview.

10 For more information on role and function of EURPOL, see www.europol.europa.eu/faq#n77.