BUILDING ORGANISATIONAL CAPACITY: THE ROLE OF COLLABORATIVE RESEARCH

MATTHEW MARSHALL AND GRANT PINK

TRANSNATIONAL ENVIRONMENTAL CRIME PROJECT

Transnational Environmental Crime Project

The Transnational Environmental Crime (TEC) Project based in the Department of International Relations at the Australian National University is funded by the Australian Research Council under its Linkage Project scheme (LP110100642). The Regulatory Compliance Policy and Practice Section of the Australian Federal government Department of Sustainability, Environment, Water, Population, and Communities is a Partner Organisation.

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 TEC 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

The authors of this paper have been involved in the Transnational Environmental Crime (TEC) Project for the last three years, contributing to the establishment of the inter-organisational agreement from the governmental position, developing papers as Visiting Fellows, and providing presentations on the outcomes of the research. The TEC Project was an instance of a government agency and two universities coming together in a formal partnership to undertake a range of activities, including developing a series of working papers to collate data on responses to TEC at global, regional, and national levels, with the intention of advancing both governmental and academic interests.

The government agency's involvement in the TEC Project led to a series of positive outcomes, notably in the areas of regulatory practice, cultural and organisational reform, as well as staff development, training, and skills management. These in combination act as strong indicators for the government agency to form future research partnerships with academic institutions.

An examination of the Visiting Fellows' experience of writing the working papers as part of the TEC Project may provide lessons for improvements around future collaborations in the field of environmental regulatory research. There are recognised factors that influence the effectiveness of collaboration and these could be more consciously considered to develop more effective models for further interactions across the academic and environmental regulatory fields.

About the authors

Matthew Marshall is a Senior Regulatory Advisor, Regulatory Capability and Assurance Section, in the Project's partner organisation, the Department of the Environment. Dr Marshall's experience in this role has included policy development and capacity-building activities across operational, intelligence, policy, and liaison functions.

Grant Pink is Director, Regulatory Capability and Assurance Section in the Project's partner organisation, the Department of the Environment. Mr Pink's experience in this role has involved seven years of capacity-building activities across operational, intelligence, policy, and liaison functions at the national, regional, and international level.

Building organisational capacity: The role of collaborative research

MATTHEW MARSHALL AND GRANT PINK*

INTRODUCTION

The authors of this paper have been involved in the Transnational Environmental Crime (TEC) Project for the last three years, contributing to the establishment of the inter-organisational agreement from the governmental position, developing papers as Department of the Environment (DoE) Visiting Fellows (VFs), providing presentations on the outcomes of the research, and incorporating the research findings into DoE policy and documentation. The governmental contribution is, at the time of writing, concluding. It therefore seemed appropriate to assess the experience of involvement from the position of DoE officers engaged in the academic field. It is an experience that provides lessons in addition to and sometimes in support of the findings of the research undertakings. Furthermore, a consideration of the experience of governmental involvement in the TEC Project allows for a measurement of the success of that involvement, the benefits gained for the individual VFs and the Australian Government's DoE, and whether a similar collaborative arrangement with academia might be conducted in such a way as to realise even greater benefits in the future.

DoE's involvement in the TEC Project led to a series of positive outcomes, notably in the areas of regulatory practice, cultural and organisational reform, as well as staff development, training, and skills management. These in combination act as strong indicators for DoE to form future research partnerships with academic institutions. However, the experience was not entirely smooth given that little like it had occurred previously. Certain structural, organisational, and cultural impediments presented themselves in such a way that they would need to be addressed, managed, and minimised in future inter-agency and interdisciplinary research undertaken between government and academic institutions, particularly but perhaps not only in the field of environmental regulatory activity. There are recognised factors that influence the effectiveness of collaboration and these could be more consciously considered to develop more effective models for further interactions across the academic and environmental regulatory fields.

BACKGROUND

The TEC Project was an instance of a government agency and two universities coming together in formal partnership to undertake a range of activities around three themes set out in the preliminary pages of this working paper. These activities included, but were not limited to, the development of a series of working papers to collate data on responses to TEC at various levels – global, regional, and national. This is an issue area which is gaining increased notice as a crime type (Elliott 2009; Interpol 2009; UNODC 2010; White 2011) and which is addressed by legislation notable for its complexity and implementation challenges (Situ and Emmons 2000).

Part of DoE's contribution to the Project outputs were five working papers written by three authors (see Horne 2013a, 2013b; Pink 2013a, 2013b; Marshall 2014).[1] The papers were published in the three-

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[1] The purpose of this paper, which also forms a part of the TEC Project, is to comment only on the DoE VF contributions to TEC in the form of working papers and not the project overall, including those contributions made by academics. The VF research was also presented to academic and practitioner conferences in Australia and overseas. The authors note there was a large contribution provided by the academic contributors in the form of working papers, conference presentations, and subsequent publications. More information on working papers developed for the TEC Project by the Chief Investigators and Academic VFs, as well as refereed journal articles, book chapters, and conference presentations, is available at the TEC Project website at ips.cap.anu.edu.au/ir/tec/. Marshall (2014), a companion piece to this working paper, summarises, analyses, and assesses Horne (2013a, 2013b) and Pink (2013a, 2013b). It synthesises data gathered in the course of the DoE VFs research and concludes the overall contribution made by DoE with further emphasis on future areas of consideration.

year period that marked the collaboration between DoE, the Department of International Relations, College of Asia and the Pacific, Australian National University (ANU), and the Centre for Transnational Crime Prevention, University of Wollongong, operating under the auspices of an Australian Research Council (ARC) Linkage Grant.[2]

FINDINGS

The research conducted by the DoE VFs confirmed that there is a lack of knowledge concerning the full scale of TEC as well as of the effectiveness of the measures taken to reduce it. This was of course the starting point for the project. This lack of knowledge stems in part from problems with data gathering, data collation, data analysis, and case management (Bricknell 2010; White 2011; Ayling 2012; Horne 2013a, 2013b; Wyatt 2013). But the predominant cause is possibly cultural. Agencies involved in transnational environmental regulatory activity have differing organisational cultures (Pink 2013a) that have the ability to create coordination and resource maximisation problems. Also, these agencies, as is the case with any large organisation, are comprised of subcultural groupings. These can be known to resist pursuing intelligence and data because subsequent evidence-based measures and reforms threaten those existing arrangements which happen to suit such formations. Such formations may contain self-propagating and self-justifying elements that maintain the balkanisation of policy development (Horne 2013a) and, in particular respect of environmental regulatory agencies, the division of operational activities into commodity-specific line areas, potentially leading to repetition and over-redundancy while stifling innovation or reform.

Networks

The research undertaken by the VFs identifies a number of approaches that tend towards effectiveness in overcoming cultural obstructions to regulating TEC. Chief of these is networked communications across and within agencies. This is supported by arguments in other bodies of research that not only often promote networked communications but suggest that individual regulatory agencies lack the resources (OECD 2005) and jurisdiction necessary to respond individually to instances of transnational crime which makes networked efforts not only an improvement measure but a necessity for any kind of effectiveness at all (Raustiala 2002; Slaughter 2004; Farmer 2007; Pink 2011; Marshall and Pink 2011; White 2011). Formal arrangements may exist between agencies, but what makes a critical difference is networked interaction between personnel at formal and informal levels, in both a sustained manner and on occasional bases as operational demand requires. Networks allow regulatory efforts to exceed organisational commodity divisions and allow for collaboration where functions accord, as well as creating an opportunity for coordination of functions over the course of the regulatory cycle (Farmer 2007; INECE 2012; Gemmell and Circelli 2013). Networks have the potential to overcome cultural distinctions and miscommunications, while still giving a speaking position to vernacular knowledge (Bartel 2013). Overall, networks are a continuous process of communication, a site of discourse where participants can continue to develop responses to organisational entropy (Gemmell and Circelli 2013) and to the adaptations transnational environmental criminals undergo to continue their illegal activities without detection or sanction (Ayling 2012).

Production

The development of the research itself, and the process and experience of the TEC Project, constitutes a form of network within the field of TEC regulation. This network comprises a collaboration between two characters of organisation, the governmental and the academic, both with their own subcultural groupings and structural divisions. It is an example of its own subject of research and as such it in some ways reflects and confirms the findings of the DoE VFs.

Because of this, an examination of the production of the DoE VFs' working papers may, as a demonstration of some of the issues identified, indicate the value of collaborative research in the field of environmental regulation as well as provide lessons for improvements when it comes to pursuing future

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[2] ARC Linkage Grants provide funding to support collaborative research projects between higher education researchers and other eligible organisations (including government departments), which are undertaken to acquire new knowledge. Research under this particular ARC scheme must include at least one Partner Organisation, with the Partner Organisation making a contribution in cash and/or in kind to the project which at least matches the total funding provided by the ARC. For more information, see www.arc.gov.au/ncgp/lp/lp_default.htm

opportunities. Future collaborations may then, in form modified by this experience, continue to confront the cultural and organisational problems involved in effectively combating environmental crime, including TEC.

METHODOLOGY

This study entails an analysis of the discourses contained in the production of the working papers submitted to the TEC Project by the employees of DoE. It particularly notes that the production framework was one of collaboration between practitioners from a governmental department and academics from schools of research at the ANU, the University of Wollongong, and other academics from what became and operated as a virtual TEC Project team.

Review

The approach taken in this working paper is to consider first the relationship that the VFs as practitioners and public servants have with their employing governmental department, which operates as an institutionalised embodiment of both power and cultural operations. Via a disclosure of interests, the authors place themselves as practitioner-academic public servants within the field of study and the governmental discourses under review. Following this, the paper presents an exploration of the system of production that created the working papers as part of the TEC Project, including some of the obstacles that presented themselves and the themes that emerged thereafter.

Analysis

Subsequent to this outline of what can be described as a history of production, an analysis is made of the functions and operations that informed both the writing of the working papers and their subsequent primary and derivative uses. This analysis assessed the strengths and weaknesses of the TEC Project collaboration from the DoE VF perspective against standards developed in the academic and public policy fields according to the principles of collaboration and network theory. This will lead to a clearer understanding of the benefits the TEC Project provided to its participant agencies as well as participant individuals. It will also provide indicators of where future arrangements may be amended to allow for a closer collaboration between government and the academy in the field of environmental regulation thereby realising greater benefit.

GOVERNMENTAL DISCOURSES

Contemporary governments produce a number of text types. Some are to be read as though spoken not by a person, but by the impersonal voice of state authority within the context of power-knowledge operations (Foucault 1977). There are texts with hybridised voices that demonstrate positional hierarchies foregrounding the individual while retaining the impersonal discourse of the state. Certain public service office holders generate texts as part of academic research in the field of political science, public policy, and international studies, or for presentation at various specialist inter-jurisdictional forums. As a general rule these public servants, both former and current, have senior managerial and/or subject matter expertise and experience and, for the most part, their texts are histories of their respective agencies, with a particular focus on the formation of a particular program run by, or a change management process applied within the agency. Apart from senior managers, some public service officers appear to have standing in academic and professional forums as practitioner-academics or, as per the neologism of the last 30 years, pracademics[3] (hereafter practitioner-academics).

Practitioner-academics

Practitioner-academics occupy an unusual place within the general field of governmental discourses. To a certain extent, they write and speak as individuals, but gain their status from their professional experience and expertise both in terms of specific academic qualifications and through practice within the governmental structure as well as predominantly using that governmental structure as their subject matter, something which only becomes possible because of their employment (Basham 2014). To some extent this is evidenced by the increase in popularity of the professional doctorates and PhD by publications being undertaken by practitioners in preference to the traditional PhD (Green and Powell 2005). However, generally speaking, they are not executive managers or politicians, or at least do not

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[3] In some institutions they are known as practitioner-scholars.

have the status of such within the types of forum in question. They do not determine the direction a part or aspect of government will take. They remain, in terms of speaking position, more distinguishable from the apparatus of which they are a component. They are also, as a result, not mouthpieces serving a promotional function. If they were, it would undermine immediately their value to the academic and professional forums to which they contribute.

Practitioner-academics instead are best categorised as subject-matter experts. It is notable that their expertise is gained from their professional experience, in some cases supported by their previous and current academic pursuits, but such expertise may lead them to different findings and conclusions than that of the power structures of which they are a part and to which they remain bound by contract, legislation, and code of conduct, as is the case in all Australian public services, and presumably other public or civil services around the world.[4] These subject-matter experts may find they disagree with the dominant discourse that a government presents, but remain limited in their opportunity to express that in public forums. At the same time, there is a tacit encouragement for these people to diverge at points from the dominant governmental discourse, otherwise they would have very limited value to the forums in question.

The positioning between public service practitioner-academics and the government they serve is problematic. It is another demonstration that a government is not necessarily a homogeneous culture. It seems more likely to be a network of discourses engaged in operations of power, including operations of foregrounding and contestation (Derrida 1978). This is indicative of any broader culture a government rules and a factor requiring consideration when thinking about the question of organisational and cultural reform.

Culture

Organisational cultural reform is a key topic across internal governmental discourses and in related academic and professional forums (McMahon 2006; Kelman 2007; Sparrow 2008). The histories of agencies are presented with a view to identifying causes of problems and thus areas requiring improvement, to demonstrate where improvement has occurred, and to give indicators as to the direction of future improvements. This emphasis on reform allows for some resolution to the tensions existing between public service practitioner-academics and the governments that employ them. A practitioner-academic may critique a government with a view to institutional reform and do so within the bounds of appropriate conduct. Simultaneously, it satisfies the urge of the subject-matter expert to put that expertise to some use.

It is in this context that the DoE contributions to the TEC Project, including this paper, can be viewed. The working papers constitute practitioner-academic contributions to the field of transnational environmental law enforcement that serve as an analysis and at times critique of governmental action, which is the manifestation of dominant governmental discourses. While involvement of the writers of these working papers in the TEC Project has been approved by DoE, what they write has not. This complicates the dynamic between agency and public servant, while lending further strength to the discursive positioning of the working papers themselves (Schön 1983; de Vault 1996).

DISCLOSURE OF INTERESTS

The issues identified as generally impacting on the texts of practitioner-academics manifest specific instances in relation to this working paper. This paper has been developed in the context of operations of governmental discourses by two DoE staff members, a policy officer-academic and a practitioner/policy-academic, working in a collaborative assemblage. The distinctions between them points to a practitioner difference between policy and operational public servants in environmental regulation.

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[4]   For example, all the DoE VFs involved in the TEC Project were bound by the Australian Public Service Code of Conduct, the *Public Service Act 1999*, and the *Public Governance, Performance and Accountability Act 2013*, in addition to other government-wide, department-specific and sometimes role-specific guidelines, instructions, and standard operating procedures. Notably, the *Public Service Act,* among other requirements, establishes at section 13(11) that 'An APS employee must at all times behave in a way that upholds: (a) the APS Values and APS Employment Principles; and (b) the integrity and good reputation of the employee's Agency and the APS'. This is an obligation that holds inside and outside the workplace, all day, every day.

Practitioners

On the professional public service side, both authors are employees of what is currently the Australian Government's DoE. This paper has been written in their roles as DoE VFs to the ANU attached to the TEC Project. Furthermore, when the DoE contribution to the TEC Project was being developed, Grant Pink was the DoE project manager involved in the collaboration from conception to conclusion, and Matthew Marshall was also involved in the initial contract as well as funding and budgetary aspects. The authors are also in a hierarchical professional relationship: one directly manages the other.

Dr Marshall is not qualified or experienced in operational environmental law enforcement or any other kind of law enforcement although he holds a Bachelor of Laws and is establishing a body of experience in policy development and capacity building in environmental regulatory practice. In terms of practitioner roles, he has some experience in what is termed monitoring and audit activity, but that was limited in scope and related to a regulated matter other than TEC. At the time of writing his sole-authored papers, Mr Pink was in a directorial role in a section that was responsible for developing and providing policy, strategy, and regulatory capability. Additionally, he spent more than a decade in mainstream law enforcement roles and since then has accumulated 15 years experience in the field of environmental regulation. In respect to the latter, this has involved playing a lead role in establishing the first dedicated environmental investigation sections in both federal and state government agencies, which provided him with a high level of operational experience.

Academics

In terms of the academic, Dr Marshall holds a doctorate in communications (by research) and spent nearly a decade at a university tutoring, lecturing, and studying cultural studies, professional writing, and communications. Mr Pink is currently undertaking a doctorate in environmental regulation (by publication), having earned a Masters in Environmental Compliance (by research) and has published a number of book chapters with several more in press, has presented at both academic and practitioner conferences, and is an Adjunct Research Fellow at another Australian university. The authors previously collaborated in a paper for the ninth International Network of Environmental Compliance and Enforcement Conference (Marshall and Pink 2011). Future collaborations are intended.

Discursive placement

The authors have multiple speaking positions. Overall, the authors are complicit and participant in the processes and contents of the VFs' contribution to the TEC Project. We are what we study. We operate to various degrees of effectiveness inside of, as, and as part of a series of assemblages of communicative parts, a rhizomatic network of discursive relationships (Deleuze and Guattari 1987). The network is likely to have an effect on the content of this working paper, but the paper may in turn modify the operation of the network, perhaps more so now that there is explicit acknowledgment of the network's existence and our place in it (Merton 1972; Mercer 2007).

DEVELOPMENT OF THE PAPERS

On 11 May 2011, DoE (then known as the Department of Sustainability, Environment, Water, Population, and Communities) formally became the Industry Partner organisation of the TEC Project run out of the Department of International Relations, College of Asia and the Pacific, ANU. DoE's contribution entailed a financial payment to the TEC Project, over three years, and in-kind support from DoE VFs, chosen on agreement between the two organisations.[5] Each VF was to develop a substantial working paper of approximately 10,000 words and there were to be five DoE VFs. It was anticipated that the five working papers would amount to approximately 50,000 words.

A review of various DoE emails, meeting minutes, and correspondence to practitioners, managers, and executive reveals that the intent of the project was for the VFs to take sabbaticals from their regular workload and conduct their courses of research at the university for a period of three months each. Operational commodity specialists were to comprise the majority of VFs. A policy generalist was to act as the last VF. The specialists were to conduct research on the topics of hazardous waste, ozone depleting substances, timber trafficking, and wildlife smuggling. The policy generalist was to collate all the

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[5]   These contributions were in accordance with the requirements and expectations of the ARC Linkage scheme.

research, then review and analyse it so as to find general benefits for DoE, while commenting on the effectiveness of the visiting fellowship. Over the course of the operational period of the project, DoE VFs would make their findings available to DoE, which include them in ongoing policy development.

Administrative issues

Impediments to the development of the VFs' papers arose at a number of points. Even prior to May 2011 and the initiation of the collaborative agreement between DoE and the academic partners, DoE's standard funding arrangements and systems proved incompatible with the type of partnership proposed. In particular, the Departmental templates were designed to accommodate more familiar disbursements of funds such as grants, contracts for services, or consultancies. In short, the DoE funding mechanism was best suited to hiring outside experts to conduct research and provide reports and other documentation. The situation where DoE officers were embedded in the research was unusual and novel, which meant that it required a more nuanced and individual approach.

The scope of research did not entirely accord with DoE responsibilities. At the federal level in Australia, timber trafficking falls under the remit of what is now the Department of Agriculture. Furthermore at the time of the agreement, the *Illegal Logging Prohibition Act 2012* had not been passed into law, so there was no direct head of legislation covering the matter. At the time, government policy accorded with a January 2010 Regulatory Impact Statement determination that Australia should adopt a non-regulatory response to illegal logging as the imposts it generated would outweigh the effectiveness of regulation (Bricknell 2010).

Departmental and governmental changes

The department that originally signed on to the TEC Project as a contributing partner organisation was very different to the department at the end of the process, and not just in name. Between the official start of the active research phase of the agreement in July 2011 and its end in July 2014, DoE had offered voluntary redundancies to around 200 staff. It had absorbed the functions, responsibilities, and staff of the Department of Climate Change under machinery of government procedures. It had conducted a Strategic Review which led to a major restructure, effective from 1 July 2014 with further changes scheduled for 1 July 2015. A further 500 staff cuts were to be required over the next two years to account for a drop in the departmental budget of 25 per cent. A number of departmental tasks are expected to be devolved to the states and territories. There was a new government of the day, which had spent 7 years in opposition. The scope and scale of DoE was attuned towards *deregulation*, *one-stop-shop*, *cutting green tape*, and *small government* agendas.

Based on the information above, it might seem that the department of July 2014 would be much less likely to sign up to the TEC Project than the department of 2011. However, the shifts in DoE's form, structure, and resources, actually lends itself to promoting the notion of increased collaboration, cooperation, and combining of resources between DoE and other entities: academic, governmental, and non-governmental. The departmental changes in the last three years are a fact of public service life. Governments, departments, and agendas shift frequently enough that they can impact on the effective continuation of multi-year arrangements across budget and political cycles. This fact – a product of national economies, government changes, political platforms, and managerial styles – requires flexibility in such multi-year arrangements. Anecdotally, formality and flexibility do not always sit well with each other. This indicates that formal arrangements need to promote and in turn be consciously and deliberately supported by informal relationships (O'Flynn 2011).

Participation

After the inter-organisational agreement was finalized, there were difficulties internal to DoE in finding suitable VFs. The result was that there were four rather than five VFs who participated in the project. Despite the commodity focus informed by DoE's participation in the development workshops and ultimate scope of the research proposal, only one VF was a commodity specialist, in the field of ozone depleting gases. As it transpired, for a variety of reasons the commodity specialist was unable to complete the fellowship. As there was no redundancy and no further capacity from line areas with commodity specialisations, the contribution to the TEC Project, despite the intent, was in total provided by non-commodity specialists.

Sabbaticals

Another difficulty related to the sabbaticals as the only VF to undertake the full, continuous, and dedicated three-month placement at ANU, as was intended, was Dylan Horne. Mr Pink had a graduated, truncated, and irregular placement. Dr Marshall had no sabbatical period at the ANU, as it was deemed unnecessary given the nature, timing, and scope of his research, and impractical due to organisational factors. Personal issues, organisational needs, and workloads contributed to this state of affairs. No single cause accounts for the fact that the ideal was not achieved. Instead, what can perhaps be observed is that the proposed sabbatical system was optimistic and unlikely to survive the full three-year course. More importantly for this discussion is the fact that there was not, for the most part, an integrated process for the VFs, as would be the case in their usual cultural setting. This compounded a particular individualist effect evident in the TEC Project, which is, perhaps not surprisingly, symptomatic of more general academic practices, especially when compared directly against the very corporatist culture of the public service. In the public service culture, staff members as a matter of course form into teams or sections, which collectively contribute to higher order branch, division, and departmental outcomes. Work conducted in the course of government is neither authored (in the sense of attribution) nor really in any other way owned by the writer.

Specialists

The first two DoE VFs, Mr Pink and Dr Horne, compensated for the shortfall in numbers of VFs by providing two working papers each, and Dr Marshall contributed one sole-authored paper. Therefore, excluding this paper, the five working papers amounted to a contribution which exceeded 50,000 words. Mr Pink and Dr Marshall are policy officers, and Dr Horne is an operational officer. All three evince a specialisation, although not in relation to one of the specific products listed above. They are, instead, specialists in regulatory practice and capacity building.

Dr Marshall's and Mr Pink's qualifications and experience are described above. Dr Horne holds a doctorate and a Bachelor of Environmental Science (Geography). At the time of writing his sole-authored papers, he was engaged in DoE as a senior compliance officer and supervisor of compliance officers and had developed departmental policy in relation to the compliance and enforcement of the *Environment Protection and Biodiversity Conservation Act 1999*, which is the premier piece of national environmental legislation. Of the three, Dr Marshall has the least experience in the area of environmental regulatory activity, although he is developing a body of experience in regulatory policy development. Mr Pink is the most experienced, qualified, and senior of the three contributing VFs in terms of operations, management, and policy.

The commonalities across the authors also deserves some consideration. The environmental regulatory specialisation has been remarked on and is evident in the qualifications and experience of the VFs. As already indicated, such a specialisation can be policy-focused or operational. Furthermore, in the particular case of Mr Pink and Dr Horne, there are phases of operational activity. Dr Horne is a senior compliance officer and Mr Pink was a principal environmental investigator. Both are a type of authorised officer, although it is perhaps useful here to define an investigator as opposed to a compliance officer within the context of departmental regulatory activity wherein the terms define specific types of officer authorised under legislation. Investigators independently exercise enforcement and police-like powers and engage in searches and seizures under warrant. Compliance officers can support investigators, but also engage in independent detection activities without the use of coercive powers and can initiate less serious responses to suspected breaches of environmental law. Alternately they can refer matters that they consider warrant action by investigators. The two types of authorised officer work closely together at the responsive end of the regulatory spectrum of activities.[6]

The DoE commodity specialists that were envisioned as making the largest departmental contribution to the TEC Project tend to perform roles that precede compliance and enforcement activities and typically

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6   The types of distinctions existing between operational and policy officers, as well as between officers along the spectrum of regulation, are considered fully in departmental policy and other documentation, most notably the Regulatory Compliance Manual, the departmental Compliance and Enforcement Policy and Authorised Officer Procedural Guideline. It is worth noting that both Dr Marshall and Mr Pink were involved in developing the Regulatory Compliance Manual and Mr Pink oversaw the development of the Compliance and Enforcement Policy and Authorised Officer Procedural Guideline.

include education and outreach, engagement, licensing, as well as monitoring and audit. This series of duties is only in relation to their particular commodity and/or piece of legislation. Some commodity specialists are also tasked with conducting varying levels of compliance activity. Commodity specialists are organised into line areas defined by their specialisation. The commodity specialist line areas expressed their preferences in the scoping of the departmental contribution to the TEC Project, which is one of the reasons why the VFs' topics were established along commodity lines. However, as already noted, only one person from a commodity specialist line area was able to be released for a VF placement and when that was disrupted there was no scope for a replacement. While the expectation had been that a commodity focus would encourage commodity specific line area participation in the project, this was not proven to be the case. More importantly, the emphasis on commodity specialisation can obscure the observation that there are a variety of ways to draw the specialist-generalist divide. A distinction based on the subject matter regulated may not best reflect levels of knowledge, understanding, skill, engagement and contribution.

Commonalities

As will be discussed, overall the issues impacting on the VFs and DoE's contribution to the TEC Project replicate or closely parallel many of the issues identified within the working papers as affecting the regulation of TEC. These issues are ones of organisational culture, modes of communication, systems of practice, and divisions between conception and implementation.

SILOS AND STOVEPIPES

In public administration literature and parlance, a certain result of particular organisational structures is referred to as a silo or stovepipe.[7] Neither term is intended as one of approval (McMahon 2006). In the context of environmental agencies, the stovepipe or silo is considered the potential result of establishing line areas that have a subject matter or commodity focus, rather than a functional focus.[8] This means that line areas are tasked with administering all matters relating to, for example, mining, logging, wildlife trade, greenhouse gases, fuel quality, hazardous waste, e-waste product stewardship, coal seam gas, or water. Administering such matters includes engaging in policy and programmatic work as well as, potentially, the full range of regulatory activity.

Silo culture

The silo or stovepipe describes the situation where the members of such line areas are encouraged through these structural formations and attached cultural pressures to develop a collective sense of disinterest with anything outside their particular commodity. Line-area practices can become entrenched and intractable. Improvements are often not sought, as change is frequently discouraged and sometimes actively resisted (Hood 1996; Management Advisory Committee 2004). This is confirmed by a particular form of bias wherein the commodity in which the line area specialises constitutes an exceptional circumstance. The nature of the commodity is such that any amendment to practices, any standardisation of approaches, any communication, collaboration, or cooperation across line areas simply does not accord with the unique requirements of the commodity in question. Furthermore, the theory suggests that should a circumstance arise where there is demonstrable benefit in a project originating outside the line area and possibly engaging more than one line area, a mindset within the silo can form that not only are the commodity's demands unique, they are also of a nature that there is no time in the schedule to do any work beyond what is already being done. According to considerations of silos and their manifestations, there is the possibility that this can occur even if additional work or activities would include an assessment of the value of the already undertaken regulatory activity.

The concept of the silo or the stovepipe describes a particular mentality that is manifest in line-area approaches and practices (McMahon 2006). Metaphorically, the terms refer to a combination of operations across organisational cultures and structures that are engaged to maintain rather than expand or otherwise modify power. As such the silo or stovepipe has a conservative function, which contains

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[7] American literature uses the term stovepipe; Australians are more familiar with the silo.

[8] In the US environmental context, commodities are called media.

unconscious, self-perpetuating elements. Members reinforce the distinctiveness of the line area to protect power because the culture and structure of the line area encourages them to believe everything external is a threat to that power (McMahon 2006; Kelly 2012).

It can be imagined that, as part of the self-perpetuating operations of the stovepipe or silo, as members are promoted within an organisation, and in turn employ replacements susceptible to the mentality in question, the entire organisation can potentially come to impose structures and cultures that encourage the silo or stovepipe as a matter of course. It is worth noting that, in terms of culture and power operations, such a possible organisation could be described as simultaneously dominant and resistant in that the organisation's dominant culture would be one of disunited sub-cultures, all mutually resistant. This would constitute a very extreme example of organisational dysfunction. And while it can be imagined, this paper makes no suggestion that it occurs in any particular organisation, or indeed any organisation at all. Rather, it exists as a goal to be avoided in the same way that, while an ideal culture and organisation can be imagined, it is unlikely that ideal will ever be reached. Striving towards it under the circumstances and taking account of limitations is probably the best that can be achieved.

Research topics

In hindsight it is perhaps unfortunate that the TEC Project in its initial conception propagated the divide of commodity specialisations. And, although there is not the evidence to suggest that in this case theory accords with reality, it is notable that only one commodity specialist was made available by DoE, the reason being the majority of targeted commodity specialist line areas felt unable and declined to participate in the project.

THE ACADEMIC AUTHOR

The TEC Project describes an overarching categorisation of papers that are developed in isolation from each other and certainly from each other's process of production. The authors of each working paper had very little to do with one another in the course of conducting their research or notating the results. This circumstance is by no means unique to the TEC Project. There is a recognisable type of academic publication that includes a collection of articles by unconnected authors on aspects of a common topic. What brings such a publication together is usually the opening and closing chapters plus the editorial decisions of a small team of organisers and facilitators. The chapter authors do not engage with one another except in the limited case where co-authors develop a single chapter, usually in a pair or trio. The TEC Project more or less replicated this production process, although working papers lack the sort of academic standing that attaches to more substantial publications, such as books or collections of peer-reviewed articles, which is a result of the power operations of judgement and valorisation that occur in discursive academic fields. As evidenced by many of the TEC Project working papers, it is worth noting that the working paper format purposively feeds into the further systems of review and valorisation since they comprise an opportunity to test ideas that are then confirmed in subsequent publications such as journal articles or book chapters, which meet higher academic standards for peer review. There are a number of working papers which have been and are going through just this process.

Academic practice

It can be argued that the preference for conducting research in an individual state arises from normative discourses in some academic fields that perhaps demonstrate intellectual elitism, but more usefully for this discussion valorise the sole author as a site of individuation and transdiscursive placement within power and knowledge operations and assemblages (Foucault 1980).

The emphasis on the sole author that exists in certain academic discourses played out in the TEC Project in such a way that while the partnering organisations collaborated, the individual participants involved did not collaborate as co-authors on the working papers. Furthermore, such joint effort would have been difficult because of the differences in normative values across institutions. As stated previously, government publications do not have individual authors but present the impersonal discursive position of the state. Public servants are not in the habit of writing as individuals. Instead they perform a function similar to that of ghost-writer for an institutional apparatus of power, which confirms that its statements contain a diffused, non-human voice by processes of review and approval in a hierarchy of supervision and management. This working paper has gone through levels of approval and moderation, within DoE, different from the much more at arm's length blind peer-review process.

It remains an open question how such writers could effectively collaborate with academic individualists. But that does not mean it is not a question worth pursuing. That the TEC Project did not create an opportunity for co-research of this particular form does not warrant criticism, but there are two points to be drawn from noting that this was the case. First, as in the instance where an attempt was made to determine the area of research according to a focus on a specific commodity, the individualism inherent in the TEC Project system may have constituted a type of silo practice in its own right, thereby inhibiting progress and improvements in research methods. Second, taking that into account, there is an opportunity to reimagine the way a more involved and productive research study could be arranged between government and academia.

Discursive operations

Such a research process might come to replicate the internal processes that occur when a practitioner-academic engages in studying the field in which he or she works, a kind of self-reflexive practice that, as perhaps already indicated, challenges the unity of the governmental pronouncement and at the same time subverts the dominance of the sole authorial voice. In a more thorough collaboration, as may prove to be the case with the practitioner-academic in the course of production, there is the possibility of establishing multiple views, more sophisticated discourses, and a wider variety of solutions to problems present in such fields as environmental regulation, especially as it relates to TEC. Such an approach requires all levels and areas of government to move past internal cultural divisions in support of collaborative research (Clifford and Edwards 2012). Moreover, it is suggested that environmental enforcement efforts demand high levels of collaboration with non-enforcement agencies (White 2008, 2011).

COLLABORATION

Collaboration is a term that can have a variety of meanings when applied in common and corporate parlance, such as when discussed within a governmental agency. It can, in fact, become a term so associated with jargon and fashion that it loses virtually all meaning (O'Flynn 2008). The types of divergence and similarity between academic and governmental texts demonstrate the value in establishing a functional definition when government agencies operate outside their particular vernacular framework (Bartel 2013) and interact with an institution of a different cultural form and discourse, such as a university.

It is perhaps reductionist but also may be worthwhile to base such a foundational definition on the core functional aspect of collaboration. Collaboration, in its simplest conception, is people working together to produce something that could not be done on one's own. Of course, in this schema it is almost impossible to think of a product of labour that does not result from some level of collaboration.

Degrees of collaboration

This question of levels enriches an open entry into a consideration of collaboration. Refining the definition occurs through matters of degree. Collaboration can be distinguished by the degree of closeness of relationship between participant members. The extent of collaboration can form a scale alongside others measuring levels of formality, and ideological accord in terms of unity of purpose, trust, and contribution (Polner 2011). Taking these factors into account allows for a division of the raw notion of collaboration into a hierarchy.

There is a linear aspect to this, a continuum of activity, which codifies perhaps too strictly the boundaries between types, and sometimes elides features of collaboration that may interact and combine in more complex arrangements than is measurable in a simple descriptive typology. This is likely to be especially so within the same level of cooperative activity where fine distinctions may have large effects. Where high levels of collaboration exist, the important distinction comes down to characteristics that reflect the wide variety of collaborative formations and the complexity of the relationship between those formations and the stages of outcome development (O'Leary and Bingham 2003; Huxham and Vangen 2005; Thomson, Perry and Miller 2008).

Furthermore, the division of cooperative activity into a linear hierarchy can potentially encourage a view of the features that make up each stage of collaboration as fixed states, hoarded into an immutable and inert set of concepts, when they are perhaps instead more usefully viewed as interacting functions and operations within a collaborative, collective assemblage.

Government collaboration

Departmental discourses frequently express a presumption in favour of collaboration (APSC 2007a; Government of Victoria 2007; UNODC 2008) and that is what subjects the notion of collaboration to a high degree of jargon (O'Flynn 2008). Once the issue of spin is put aside, collaboration is not a panacea for all ills (Huxham and Vangen 2004; NSW PSC 2014). There is a strong argument that collaboration should not be seen as a replacement for building and developing internal organisational capacity within a government agency (Honadle 1981). The question of what constitutes a necessary level and type of government capacity, including subject-matter expertise, varies according to a range of factors, the chief of which is probably the ideological approach of the government of the day. A *big government* philosophy will see a broad extent of expertise as necessary for government departments and a *small government* philosophy will consider the issue on a much more limited scale. A point worth noting is that, however it is measured, internal governmental capacity in the regulatory field has a functional minimum due to the non-derogable responsibility government has for implementing and upholding the law. Therefore, questions relating to essential and supplementary capacity are well worth considering when approaching future collaborations, especially those like the TEC Project which informed the development of evidence-based operational policy. Collaboration provides access to critical information, knowledge, and other resources. Considering the matters raised may go some way towards overcoming forms of resistance associated with concerns over significant organisational change requirements as well as questions of resources and mandate (Doyle 2011).

There is a growing argument in favour of collaborative practices within the particular field of regulation (Basham 2014), including environmental regulation (White 2008, 2011). Limited resources prove to be a defining argument in favour of collaboration, the combination of elements leading to an effectiveness multiplier (Van de Ven, Emmett and Koenig 1975). However this is not the only argument. Principles of administrative fairness and operability tend to favour consolidated, streamlined procedures and practices for regulated individuals and entities. This is an approach particularly promoted in the course of *small government* and certain other libertarian and laissez-faire agendas. Sponsoring and partner entities expect collaborative efforts to be demonstrably in accord with good governance and management principles (Polner 2011). Finally, there is the question of jurisdiction and specialisation. Governments are multi-operational institutions. Division within a government is therefore necessary, but so is coordination under certain circumstances and the application of collaborative methods achieves that. Collaboration works to build capacity in a holistic manner (Robins 2008).

Environmental regulation

One of the main arguments in the particular field of environmental regulation is that collaboration can lead to better environmental protection. There are some things governments cannot do that research institutions, policy development centres, and interest groups can. The emphasis of governmental regulatory activity tends to be operational. Through collaborative relationships, operational activities and supporting policy can be informed by regulatory and organisational theoretical developments, data collection, and trend analysis, as well as incident reporting from interest groups with a specific focus on a type of crime or threatened species or ecosystem. It is even possible that an academic subject focus in combination with a non-commodity specific, function and outcome-focused government could avoid the kind of stovepipe or silo that stymies progressive understanding and approaches. Each instance of conscious self-direction, as a manifestation of informed self-interest (de Tocqueville 2006), could work potentially to provide benefits to both partners and even mitigate against organisational shortcomings (Thomson, Perry and Miller 2008).

TEC Project outcomes: DoE contributions

The point of this paper is not to categorise the TEC Project and give it a collaborative rating or ranking. However, on a cursory examination, against any number of such systems (New Zealand Government 2008; O'Flynn 2008; Polner 2011; NSW PSC 2014), the TEC Project achieved a high level of collaboration leading not only to the development of the working papers, but to a number of other direct outcomes.

The findings of the DoE VFs were incorporated into DoE's future planning and operational and policy responses through the *Regulatory Capability Development Programme*, a five-year major internal project to improve department-wide regulatory capability. The research and analyses, particularly the cross-

country analyses, were incorporated into background briefing material, delegation packs, and presentations at various formal governmental meetings associated with multilateral environmental agreements. Taking the most recent examples, these meetings included the CoP16 (Conference of the Parties) for the Convention on International Trade in Endangered Species (CITES) in March 2013 in Bangkok, and the 22nd session of the United Nations Commission on Crime Prevention and Criminal Justice (UNCCPCJ) in April 2013 in Vienna,. The research findings also formed the basis of keynote presentations at formal intergovernmental meetings such as the UNCCPCJ meeting mentioned above and the Environmental Crime and the World conference in November 2013 in Tilburg.

Moreover, experience suggests the quality of collaboration improved over time as the relationships grew more familiar. Anecdotally, high levels of formalism can actually impede an effective collaborative process. This stands against the literature in which there is frequently a correlation between formality and degree of cooperation. The shift in the nature of the interactions to those with a decreased attendant formality, in turn enabled the creation of additional relationships within an expanding network of interactions. A relevant example of this was the increased interaction between DoE VFs, the TEC Project's academic Chief Investigators, and what came to operate as a kind of virtual TEC Project team.[9] This team contributed remotely to the project and then replicated its gatherings in different forums overseas.

These progressions and offshoots embody the kind of rhizomatic assemblage mentioned earlier in reference to the authors' placement within the environmental regulatory discourse as practitioner-academics. This schema of the assemblage acknowledges that a network of collaboration does not necessarily limit itself to a fixed, linear, or strictly hierarchical form. It manifests as a much more complex, nuanced and mutable collection of activities linked across a variety of planes and degrees of connection. In this context, a further consideration of the functions and operations within the project collaborative assemblage seems worth pursuing, especially in relation to determining possible future inclinations.

Functional characteristics

In looking at functional characteristics and ways to effect better collaborative efforts, the question becomes one of what functions are to be assessed. The TEC Project experientially provides indicators, but the process of collaborative production should be more consciously measured against a set of criteria beyond the simply instinctive. Equally, it is suggested that it is important to maintain the primacy of the functions in such an assessment rather than looking to the products of the collaboration. It is the qualitative conditions of the assemblage that allow for the production of cultural outputs of discursive value. An emphasis on the results of the production process can only provide limited insight into that process, as is being recognised within governmental terminology where the focus of governance shifts from an output orientation to a risk-based outcome orientation (ANAO 2006; APSC 2007b).

Given the above, the New South Wales Public Service Commission's report (NSW PSC 2014) is evidence of this. Additionally it contains a set of collaboration characteristics which can be assessed as functional and discursive operations. The authors acknowledge that choosing these demonstrates more than a degree of bias for governmental publications over the academic, but the authors too must retain their outcome orientation (de Tocqueville 2006; Thomson, Perry and Miller 2008) and their commitment to finding ways to improve departmental operations and practices.

ASSESSING THE TEC PROJECT

There are a large number of complexities associated with collaboration in scholarly and practitioner pursuits (O'Flynn 2008) especially when the focus is on the more intensive forms of collaborations, such as alliances and partnerships (NSW PSC 2014). The TEC Project presented as a mutually beneficial opportunity for both public sector and academic participants to advance TEC research.

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[9] Members of this virtual team included Dr Tanya Wyatt of the University of Northumbria and Dr Bill Schaedla, formerly head of TRAFFIC Southeast Asia. An example of the parallel running of events includes the Economic and Social Research Council Green Criminology Research Seminar Series conducted across the UK.

The New South Wales Public Service Commission's report provides the following indicators of effective collaboration:

- Commonality of mission or purpose

- Compatible authority and control mechanisms

- Formality of the relationship

- Trust between collaborators

- Investment in the collaboration

- Risk, benefit and resource sharing (NSW PSC 2014: 20)

Commonality

In relation to the discussion so far, the TEC Project had a high level of commonality in terms of stated outputs and an unspoken but sympathetic understanding in favour of parallel benefit. These benefits related to DoE, the academics, and the professional development and academic standing of the individuals involved.

Control mechanisms

The control mechanisms between the partner organisations were, as stated, highly incompatible. This was countered with a high level of formality to allow for the explicit and managed establishment of the relationship. Whether this facilitated or stymied the progress of the collaborative assemblage, given the experiential data on one hand and the body of theory on the other, is a question that must remain open.

Formality

This paper has previously discussed the intersection between formal operations and effectiveness of collaboration. The issue of formality has a strong nexus with the issue of trust or trust operations. It is worth noting that the early stage of the project was marked by high levels of formal interaction, further inhibited by the operation bureaucratic control mechanisms, and comparatively low levels of trust, in comparison with the later stages of the project in which trust was formed on a personal level in line with increasing familiarity, exchange, and interaction between the participants. As the trust increased between participants over the course of the TEC Project, the formality diminished and there were an increasing number of benefits realised, including an expansion in the trust operations beyond the initial group of key contributors and organisers that engaged project supporters, sponsors and higher level managers as well as external institutions, stakeholders, and the virtual TEC Project team.

Trust

In terms of being the interplay between individuals and organisations as well as between expectation regarding one party and the manner in which and extent to which that expectation was met, trust remains perhaps the most complicated set of interactions within the TEC Project and possibly the most crucial. However, the building and maintenance of trust entails a high number of intangible factors.

As the history above might indicate, throughout the course of the TEC Project, especially in relation to the bureaucratic obstacles present earlier in the process, there were points where trust was tested, in the sense that the interpersonal operations had to adapt to the bureaucratic imposts, delays, and challenges. Such challenges include the contractual difficulties at the beginning of the project as well as the ongoing internal issues associated with identification and release of DoE VFs. The testing of trust operations was perhaps compounded by, and may have strongly contributed to, operations of differentiation across both sides of the departmental and academic divide. The sense of difference did not lead to the development of a silo-like situation, or the foregrounding of the silo's academic doppelganger, the sole author function. In fact, by the conclusion of the project there was strong evidence of effective trust operations that will transcend the TEC Project. However, the distinctions between the two very different cultures – the academic and the public service – can threaten such an outcome. This, in combination with the sense of building and expanding relationships across participants and the experiential value of informal interpersonal collaboration, indicates that a future collaborative model might involve more than similarity of topics, but co-authors – one academic and one departmental – undertaking a co-research sub-project together.

To further avoid the possibility of silo-like situations, it seems worthwhile to approach the object of study, in this instance environmental regulation, according to functional rather than commodity distinctions. This paper has endeavoured to view the field under review in terms of collections of operations rather than as a grouping of concrete objects. The authors suggest that the benefits of such an approach would enable the development of findings that more readily inform operational activities and translate into tangible and evidence based policy. There are supporting arguments that collaboration generates momentum leading to concrete, actionable results (Robins 2008).

Investment

Partner investment in the TEC Project manifested in a number of ways including financial, in-kind, and more intangible levels of support, which are probably best viewed in light of the discussion relating to the products of trust operations. The ANU provided office space, access to library resources and other facilities, with formal recognition of VF status in accordance with its policies. The largest financial investment was by the ARC in the form of a Linkage Grant and the next largest by DoE. There is a question here in terms of return on investment, especially as government agencies are bound to high levels of financial probity when it comes to dispersing the public purse (APSC 2011).[10] The ARC has a clear set of expectations regarding its return for offering Linkage Grants, which differ from DoE's, as would be expected in such a large and diffuse organisation as a national government. It is not the point of this paper to determine whether the ARC criteria were met. The focus is rather on DoE's expectation and, from the departmental perspective, all things taken together, there was quite a high return for its contribution to the TEC Project.

There is also a question about the trade-off between investment and mandate regarding the emphasis of the research. Explicit development of expectation on the part of investors and agreement with a research institution feeds into the questions above of commonality and trust. One of the issues, among others, that presents in such a consideration is the division of topic areas or points of particular focus. Again, in hindsight, the project was not assisted by a division of topics along commodity lines. Although this division was supported by both the academic and departmental sides over the 12 months' negotiation prior to commencement of the project, the commodity split was predominantly DoE's preferred model, as it was held that this would prove the most effective model for delivery of the departmental contribution. This is a situation where the effectiveness of such a division could only be assessed at the end of participation in a collaborative arrangement like the TEC Project. That the commodity focus was perhaps not the best way to split the topic areas is a realisation that can now act as a guide for future interactions, rather than being a criticism *per se*. There was, simply put, no way of knowing that this issue would arise.

The final consideration is the current likelihood of developing another long-term, overarching, complex major project. From the governmental perspective, a staged series of sub-projects with a staggered emphasis on phases of the regulatory spectrum would be more easily envisioned. However, at the same time, the ARC Linkage Grant that allowed the collaborative aspects of the TEC Project to take place in the form it did was best suited to multi-disciplinary, multi-year, multi-agency projects. This is one of those circumstances where conflicting mechanisms will need to be consciously and deliberately considered and reconciled to achieve future benefits for all parties and measurable contributions to the field of study and practice.

Risks, benefits, and resource sharing

The discussion thus far has highlighted the risks and benefits in the project, and considered the fiscal and other contributions made by involved parties. A general assessment would indicate risks and benefits were comparable across agencies, noting that in the instance of the academy the benefits were more immediately realised. This is because the forms that the cultural products took, namely working papers, journal articles, book chapters, and conference presentations, accorded more with the tropes of academic text types. For DoE to enjoy its respective benefit, the products of the project first had to be subjected to processes of adaptation and customisation, a type of transliteration, so they could then serve as mechanisms for developing and contributing to departmental policy and operational effort.

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[10] There are comprehensive guidelines and procedures in relation to government expenditure which are designed to meet obligations contained within the *Financial Management and Accountability Act 1997*.

This is consistent with the proposition that 'value' has its own spectrum, spanning immediate value, potential value, applied value, realised value, and reframing value (Wenger, Trayner and de Laat 2011).

FUTURE COLLABORATION

The above considerations lead to a potential model for future collaboration that can build upon and exceed the benefits gained by the academy and the government, especially DoE. In such a model, a range of factors that can serve as obstacles to the effective running of the research are deliberately and explicitly considered. These factors include the compatibility and suitability of governance and administrative mechanisms, the text type of product, and the divisions of subject area within a body of research, with government agencies holding a presumption in favour of functional rather than subject matter distinctions, although there may be valid reasons for rebutting such a presumption. The exchange value of financial investment and the expected mandate investment provides may well prove to be points worthy of consideration. Equally, there is a question of access and environment. A departmental sabbatical scheme to an academic institution is but one way of realising a collaborative arrangement. Consideration could be given to the possibility of academic researchers being given access to departmental sites, although again there are going to be mechanistic and procedural difficulties that will need to be addressed.

One of the key issues within a collaborative process seems to be that of trust and how it operates to facilitate and further the research process while helping ensure the creation of research products. The inverse of trust is evident in operations of pronounced differentiation such as the silo or equivalent (Clifford and Edwards 2012). Mechanisms of distinction and inclusion, as well as for the confirmation of static, limited, and parochial cultural formations can, presumably, be overcome. However, given their detrimental effect, they are worth avoiding altogether where possible. To this end, the above collaborative considerations might be best undertaken with the goal of crossing and maybe even erasing cultural boundaries to create a properly multi-faceted and collaborative functional research assemblage involving researchers from and across differing organisational structures.

CONCLUSION

The authors of this paper are confident of future collaborations occurring in the field of environmental regulatory research. In the area of regulatory responses to environmental crime and TEC it will be important for the public service to continue to partner with academic and research institutions but more importantly to build, maintain, and expand its own expertise and capability in relation to evidence-based policy development and research. In this context, collaborations will rightly become associated with efforts to build capacity for public servants and academics.

Crossing vernacular and cultural boundaries, drawing closer connections between government and academia, foregrounds collaborative research as a mechanism that provides direct operational and policy benefit. In preparing this paper the authors have remained mindful that the reason for analysis of collaboration, generally and especially as it relates to TEC, has been so that the foundational work and research of this project can not only inform potential future additional research on this theme but also have broader utility to DoE and the public service in terms of partnering with academia and other research institutions. In this the goal has been to appreciate and elucidate the characteristics of the TEC Project so as to determine from them paths to maximising benefit for all collaborative partners, as measured against investment, contribution, and commonality, with the understanding that in collaboration, one of the most effective functional facilitators is growing trust.

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