The Slow Track to Preventing Rural Environmental Disasters: The Changing Character of Environmental Law and Governance

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Abstract

There are at least two tracks to a societal response to crime and justice issues in the context of rural environmental disasters. There is the fast-track of reaction to disaster as it occurs, and the ancillary issues of preparedness ahead of time and post-disaster recovery. This track is obviously important, dealing as it does with matters that are immediate and often life-threatening. The second is a slower, proactive and preventative track of long-term strategy – of re-imagining our relationship with the natural world, of changing human behaviours that cause environmental harm, and of reforming environmental law and governance to mitigate against disasters with an anthropogenic cause. This track is also important, but less obviously so – it lacks the drama of an extant disaster and is characterised by slower processes of reflexivity, the tedium of bureaucracy, institutional arrangements, and statutory interpretation, and the humdrum of everyday human behaviours that facilitate or diminish environmental integrity. In both tracks, innovation in the face of uncertainty and complexity will be imperative. This paper addresses the second track by exploring two novel governance approaches to environmental protection – namely, environmental duties of care and rights of nature. Both approaches show tremendous promise, but both must overcome the implementation challenges that plague conventional forms of law and governance to prevent or mitigate environmental disasters. Failure to overcome these challenges will mean these novel developments are more rhetorical than meaningful bridges to a better relationship between humans and the natural world.

Keywords: legal innovation; rural environmental; general environmental duty of care; rights of nature

Introduction

Despite enacting many environmental laws and developing many sophisticated approaches to environmental governance, key environmental parameters are not improving but getting worse (Cresswell et al., 2021). Environmental laws and other governance mechanisms are not managing the human behaviours – actions and omissions – that need to be managed to avert environmental degradation. They are not stopping undesirable behaviours, and neither are they forcing or encouraging desirable ones to the extent needed to secure the integrity of the environment. Clear warnings from the natural sciences forecast an increase in some types of catastrophic rural disasters, which are ultimately caused by human activities that disrupt the earth's prodigious and interconnected natural systems – such as the global climate and biodiversity (Abram et al., 2021; BoM & CSIRO, 2024; Richardson et al., 2023; Rockström et al., 2023; van Oldenborgh et al, 2021). Thus, at a broad scale, managing disaster is inextricably linked to managing the human behaviours implicated in these disruptions.

Environmental law theorists, practitioners, and law-makers have responded to the failure of conventional legal instruments with a range of alternatives. This paper concentrates on just two of them – namely, statute-based general environmental duties of care, and granting of legal personhood to natural objects – as an entry point to explore the promise and challenges of implementing novel legal mechanisms. Given the urgency of addressing environmental issues and the transaction costs of implementing any innovation, novel legal instruments that purport to materially improve environmental protection must live up to this promise, not merely as well as, but better than conventional governance measures. If they ultimately work no better than conventional environmental laws, then such innovations will be not much more than a rhetorical flourish. This paper does not seek to reject governance innovations – neither the two innovations canvassed here nor innovations generally. But we should expect that innovations will sometimes fail, or work less effectively than anticipated, or generate unintended consequences. Ideally then, legal innovations should be exposed to an evaluative framework for adaptive management and continuous improvement.

As the title of this paper indicates, I describe the disasters relevant to this paper as 'environmental' rather than 'natural', though it is not a clear-cut distinction with some overlap. I use environmental disaster as a short-hand for situations in which environmental hazards are important to the consequences, such as droughts, bushfires, cyclones, storms, and floods. I explicitly avoid calling them 'natural' disasters in deference to the evidence from the natural sciences that links these events to anthropogenic causes, especially greenhouse gas emissions and biodiversity degradation. Of course, there have always been droughts, bushfires, cyclones, storms, and floods, even before modern humans existed, so in that sense, sometimes they could be described accurately as 'natural', or in insurance terminology 'acts of God'. The same could be said for hazards that are similarly independent of human activities, such as earthquakes and volcanic eruptions, but these are not the subject of this paper.

A disaster is a disaster not only because of its causes, but because of its consequences. It is beyond the scope and purpose of this paper to fully explore the social causes of disaster, except to note that social factors can make the consequences better or worse. As Wisner et al (2003) point out, factors such as class, gender, ethnicity, disability, and immigration status can increase the vulnerability of people, which exacerbates the experience of natural or environmental hazards and their consequences:

> The crucial point about understanding why disasters happen is that it is not only natural events that cause them. They are also the product of social, political and economic environments (as distinct from the natural environment), because of the way these structure the lives of different groups of people. (Wisner et al., 2003: 4)

Some social factors that increase vulnerability are obvious:

> people live in adverse economic situations that oblige them to inhabit regions and places that are affected by natural hazards, be they the flood plains of rivers, the slopes of volcanoes or earthquake zone. (Wisner et al., 2003: 5)

Others are more cryptic, such as:

> the manner in which assets, income and access to other resources, such as knowledge and information, are distributed between different social groups, and various forms of discrimination that occur in the allocation of welfare and social protection (including relief and resources for recovery). (Wisner et al., 2003: 5)

Disasters are complex and '[t]he relative contribution of geophysical and biological processes on the one hand, and social, economic and political processes on the other, varies from disaster to disaster.' (Wisner et al., 2003: 7)

Nonetheless, this paper is underpinned by the premise that certain kinds of environmental hazards contribute to the overall consequences of disasters, in combination with a range of social factors. Moreover, well-functioning ecosystems are sometimes able to moderate the worst effects of hazardous events. Anthropogenic activities are both exacerbating the hazards and degrading the ecosystems that temper the hazards. Governing human behaviours to limit anthropogenic causes of hazards and protecting ecosystems is the purview of environmental law and environmental governance, which is the chief concern of this paper.

This paper departs from a strict engagement with *criminality* in the context of rural disasters and focuses more widely on unlawfulness and legal liability for harm-causing human behaviours. I justify this departure by noting that in almost every discussion of harm and damage caused by human behaviours, issues of causality and response can be considered across multiple scales. For example, 'law-and-order' debates in rural Australia around youth crime (Cook & Fitzgerald, 2024) can be deliberated at an immediate scale – the proximal harms and losses caused by criminal behaviour, such as personal injury, sexual assault, theft or damage to public and private property. Additionally, it can be investigated at more

strategic scales – for example, by enquiring into the socio-economic conditions beyond the control of young people that influence their behaviours, including various forms of intergenerational disadvantage. Each enquiry is valid, but results in different perspectives on causes and appropriate responses.

This analogy applies also to disasters in rural communities. Deliberation at the most proximate scale must react to the reality of loss and suffering amid disaster. This is the fast-track of reaction to disaster as it occurs, and is obviously important, dealing as it does with matters that are immediate and often life-threatening. Sometimes criminal conduct is implicated, such as arson (Bryant, 2008). From the immediate scale of concern, it seems a natural progression to move onto post-disaster recovery of victims of disaster, and then more broadly again to the needs of communities if they are to prepare ahead of time for future disasters.

The broadest scale of deliberation concerns itself with ultimate causes, including anthropogenic disruption of the grand systems of nature and 'planetary boundaries' – which otherwise temper the climate, and moderate disasters (Richardson et al., 2023; Rockström et al., 2023). Societal responses at this scale of causation tend to be slower and focus on long-term strategies that span generational timeframes.[1] This scale is also important in a discussion on how we respond to rural disasters, but perhaps less obviously so. It lacks the drama of an extant disaster and is characterised by the tedium of bureaucracy and institutional arrangements, and slow-moving, future-oriented processes of law- and policy-making. It also implicates a more complex range of behaviours and actors from protracted international negotiations between nation states, to the humdrum of everyday human behaviours that cumulatively enhance or diminish environmental integrity. And it requires an ambitious but difficult agenda – of re-imagining our relationship with the natural world, changing human behaviours that cause environmental harm, and reforming environmental law and governance to mitigate against disasters with an anthropogenic cause.

I also justify this departure by observing that this special issue includes many excellent works on the immediate scale of rural disaster, and the aim of this paper is to round out the discussion by concentrating on the broader scale. At this scale the central question is how to govern the human behaviours that *ultimately* contribute to rural disasters – i.e. those behaviours that change earth systems in ways that, according to warnings from the natural sciences, contribute to increased patterns of disaster. While this has a global dimension – greenhouse gas emissions from anywhere in the world circulate in a global atmosphere and may contribute to climate-induced disasters – it also has a local dimension, insofar as the many human behaviours we need to regulate are 'local' – they occur in a discrete place or locality, which is subject to locally applicable law.

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[1] E.g. the 2016 Paris Agreement established targets for limiting global greenhouse gas emissions out to 2050 – more than 30 years into the future - which is reflected in national planning instruments such as Australia's Net Zero Plan (*Climate Change Act 2022* (Cth), s 10).

This paper will focus on the local dimension as it applies in rural geographies, with an emphasis on the Australian experience. 'Rural' is broadly defined in this paper to mean areas outside of major urban and metropolitan centres, and to some extent overlaps more granular categories of regional, rural and remote, which are regularly used terms in Australian policy and demographic studies (Australian Department of Health, 2019).

Disasters affect residents of Australian rural areas to a greater degree than metropolitan residents:

> Rural and regional communities are disproportionately affected by the impacts of climate change, because it both presents additional problems and exacerbates existing vulnerabilities and risks, including increased climatic variability and extreme events such as droughts, floods, heat waves, and bushfires. (Burke, 2021: 657)

The psychological impacts of extreme weather events on farmers and other rural people are also well-known:

> The impact of drought alone, and the consequent enormous financial stress on farming families, has been found to lead to anxiety, depression, family breakdown, grief and anger. (Vines, 2011)

Though most Australian First Nations peoples live in urban areas, in regional, rural and remote localities, Aboriginal and Torres Strait Islander peoples comprise a larger proportion of the population than in metropolitan areas (ABS, 2022). The effects of colonial history, dispossession, and racism affect First Nations peoples everywhere in Australia, but rurality brings added disadvantages. These include isolation, more limited services and infrastructure, and rural poverty, which cumulatively limit the capacity of communities to respond to disaster (Hocke & O'Brien, 2023; Rosenhek & Atkinson, 2024). Nonetheless, it must be acknowledged that Australian First Nations peoples have endured and thrived for millennia in the face of profound climate changes and natural disasters and 'have much to teach about survivance in a rapidly changing world' (Watego et al., 2021, p. 9).

Disasters disproportionately affect not only humans but also non-human residents in rural settings. The rural environment tends to contain larger and more intact areas of habitat with significant conservation values – including national parks and other forms of protected areas – than metropolitan centres (see National Reserve System map at DCCEEW, 2023). In their report for WWF on the 2019-20 Australian bushfire season, van Eeden et al (2020) estimate that 3 billion native vertebrates were killed or affected by more than 15,000 fires over an area of up to 19 million hectares, mostly lying outside of metropolitan centres. A large proportion of Australian rural land is used for grazing livestock (ABS, 2018) and it is estimated between 56,000 and 69,000 livestock perished in the same bushfire season (Cowled et al., 2022). Arguably, resources for averting or managing ecological disasters will always be made more available in the large metropolitan centres, in which case rural flora and fauna – like rural people – are more vulnerable to ecological disasters.

The main argument of this paper is a caution against wishful thinking. The difficulties facing effective implementation of legal reforms aimed at environmental protection cannot be underestimated, and as Godden (2021) notes:

> It is … a lengthy, complex endeavour to conceptualise new approaches to environmental protection and management, and to reorganise institutional arrangements, methods, measurements, and practice to that end. (Godden, 2021: 31)

There are good theoretical reasons why we might adopt the innovations that promise to advance environmental protection and there are practical reasons why they may not operate as effectively as we would hope. Using the lens of general environmental duties of care and legal personhood for nature, this paper explores two areas of risk for practical implementation of novel forms of environmental protection:

1. Insufficient understanding of the context from which the innovations emerged and an overly optimistic expectation that they should work effectively in a new context.

2. Assuming legal innovations are immune to the practical problems that lead to less-than-optimal implementation of conventional law – e.g. lack of resources, political economy issues.

General Environmental Duties of Care

The concept of a statute-based general environmental duty of care is not new, though Edwards et al (2020, p. 474) note it is part of a 'new wave of environmental regulatory reform' that de-emphasises 'prescriptive, harm-based regulation in favour of preventative outcome-oriented regulation'. Similarly, Maxwell (2020, p. 358) notes duty-based schemes align with the paradigm of 'new environmental governance', which characterises regulatory approaches that are (quoting Holley et al, 2012) 'open-textured, … deliberative, flexible, integrative, multilevel, adaptive'. This paper uses 'conventional' legislation to denote the prescriptive and proscriptive style of regulation, which contrasts with the approach used in general environmental duties of care.

This paper argues that to ensure statutory environmental duties of care are successfully implemented, it will be important to understand the context from which their antecedents arose. Such an analysis aims to reveal insights into potential challenges for transposing the concept into the environmental protection context. It is important to articulate the nature of the transposition. It emerged from the common law concept of duty of care, an element of the law of negligence (tort law) – a private law arena – applied in civil litigation between private interests. It was then re-fashioned into a statutory environmental protection mechanism – a public law context – in criminal prosecutions aiming to protect the public interest. Thus, the transposition crosses several functional domains of law and legal procedure – common law to statute; private law to public law; civil to criminal proceedings; private interests to the public interest.

The concept of general environmental duties of care was recommended in a 1997 report by the Federal Government's Industry Commission, a precursor to the Productivity Commission (Martin & Taylor, 2018). General environmental duties of care have been incorporated into over a dozen statutes at the State level in Australia, as well as in overseas jurisdictions (Edwards et al, 2020; Parker, 2021). Notable Australian iterations include the general environmental duty (GED) in Victoria's *Environment Protection Act 2017*, worded as follows:

> A person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable. (*Environmental Protection Act 2017* 25(1))
>
> The Act goes on to create civil and criminal offences for breach of the duty.

A variation on the theme is the general biosecurity obligation (GBO) in Queensland's *Biosecurity Act 2014*, 23 (emphasis as per original):

> (1) This section applies to a person who deals with biosecurity matter or a carrier, or carries out an activity, if the person knows or ought reasonably to know that the biosecurity matter, carrier or activity poses or is likely to pose a biosecurity risk.
>
> (2) The person has an obligation (a ***general biosecurity obligation***) to take all reasonable and practical measures to prevent or minimise the biosecurity risk.
>
> (3) Also, the person has an obligation (also a ***general biosecurity obligation***)—
>
> (a) to prevent or minimise adverse effects … and
> (b) to minimise the likelihood of causing a biosecurity event, or to limit the consequences of a biosecurity event caused … and
> (c) not to do or omit to do something if the person knows or ought reasonably to know that doing or omitting to do the thing may exacerbate the adverse effects, or potential adverse effects ...

As with the Victorian legislation, the Queensland legislation goes on to create civil and criminal offences for breach.

Private rural landholders, such as farmers, are arguably a key focus of the general environmental duty and general biosecurity obligation given the nature of their operations and more extensive role in managing natural resources compared with the general population (Greiner, 2014; Martin & Taylor, 2018; Shepheard & Martin, 2009).

The purported advantages of environmental duties of care include their efficiency for governments, regulators and prosecutors to administer and enforce (Greiner, 2014). Regulatory risk is shifted from the regulator to the duty holder: it is the duty holder 'who must identify, assess and ultimately bear full responsibility for environmental risks' (Maxwell, 2020, p 358). The efficiency of administering regulation is not a trivial issue, since

the transaction costs of regulation – including of monitoring and prosecution of breaches of the law – is a costly endeavour, especially in rural and remote areas of Australia where there are vast areas and numerous primary producers for regulators to monitor. Importantly, an environmental duty of care may (as in the Victorian example) go beyond the common law notion of negligence insofar as a person can be in breach of their environmental duty even where the harm caused is negligible or where there is no harm at all (Maxwell, 2020). The duty applies to the *risk* of environmental damage, not to the actuality of it. This is a major shift in regulatory responsibility. The aim is to foster a proactive regulatory culture of harm prevention, rather than a reactive approach of addressing harm once it has occurred (Freiberg, 2019).

Another theoretical advantage is that the general duties focus on broad outcomes rather than the means of achieving the outcome. This is said to be allow businesses freedom to find the most efficient and effective ways of complying with the duty, rather than applying the blanket approach of detailed prescriptions and proscriptions to all businesses (Greiner, 2014; Maxwell, 2020, p 360).

Despite being a feature of statute law and land management for about 30 years or more, there are surprisingly few comprehensive empirical reviews on their implementation and effectiveness. In their 2020 review, Edwards et al. identify from the literature a number of challenges for implementing general duties of care, which they broadly categorise around the capabilities of the duty holder and capabilities of the regulator. In relation to duty holders, Edwards et al. (2020) found that duty holders may not adequately understand what is expected of them or may have varying capabilities to comply with the duty, and variable workplace cultures that facilitate or inhibit compliance. Small and medium enterprises (SMEs) may especially struggle in this regard, which is relevant to rural enterprises such as family farms, many of which are SMEs.

In relation to regulators, Edwards et al (2020) found that regulators may not be adequately equipped or resourced to scrutinise compliance. Given the level of abstraction and inherent vagueness of the general duty of care, inspectors may be idiosyncratic and inconsistent in their enforcement. Regulators may struggle with the paradigmatic shift from reactive, post-harm enforcement to proactive prevention of harm, resulting in regulators returning to a 'default' reactive approach. Supporting tools – such as 'guidance, incentives, inspections, remedial notices, enlistment of third parties as intermediaries, pecuniary fines, prosecutions, and the naming and shaming of non-compliance' – can have unexpected consequences. Regulators' guidelines may have the unintended effect of operating as prescriptions, which could narrow the scope of the general duties.

For non-lawyers, it is worthwhile explaining the distinction between statute law and common law in the so-called common law legal systems. 'Common law' refers to that part of the law made by judges when deciding cases, as distinct from laws made by the legislature – Parliament – in the form of statutes. In modern common law jurisdictions, common law forms a much smaller part of the law than statute and must give way to statute in the event of an inconsistency. Nonetheless, where there is no inconsistency, common law remains as

'real' law and is historically important. The common law ancestor of statute-based general duties of care is the duty of care in negligence or tort law, which grew out of the famous 1932 Scottish law case *Donoghue v Stevenson* – a case about a rotting snail found in a bottle of ginger beer. The case wound its way through the UK legal system before being heard on appeal before the House of Lords (the highest court of appeal in the UK legal system at that time). The case established in law the broad principles of negligence, as outlined in Lord Atkin's now famous 'neighbour' statement:

> You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour. Who, then, in law, is my neighbour? The answer seems to be – persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called in question. (*Donoghue v Stevenson*, 1932: 580)

Since that time, that classic formulation has proven remarkably robust and adaptable. Thousands of cases have been brought before courts in the jurisdictions of the common law tradition – including the UK, USA, Australia and other common law systems – using the *Donoghue v Stevenson* duty of care principles. Thus, a sophisticated and detailed duty of care jurisprudence has emerged through the action of willing plaintiffs. That jurisprudential development continued largely regardless of political parties and changes of government, albeit with occasional statutory interventions. It persisted whether the economy was going well and whether governments constrained or expanded their budgets for public law enforcement.

Maxwell (2020, p 353) summarises some of the challenges of transposing a common law duty into the environmental protection arena. The first is the strongly anthropocentric nature of common law duties, which are directed towards harms to human plaintiffs. The second is the difficulty of proving causation: '[t]his is because environmental harms are often dispersed, cumulative and gradual'.

Few commentaries on the evolution of the duty of care from torts to public law reflect on the role of the plaintiff and the consequences for the development of jurisprudence. In classical negligence actions, there is a willing plaintiff, who is motivated by a clear and tangible personal loss (or, if it is not the actual victim of damage who acts as plaintiff, then it is an insurance company equally motivated by pecuniary loss). The history of negligence actions suggests there is no shortage of willing plaintiffs with a strong sense of personal grievance, who are prepared to take the risk and sue for their loss, which thereby facilitates the formation of jurisprudence with more and more precision with respect to rules, principles and applications. It is partly this measure of plaintiff self-interest that fostered the success of classic negligence as a legal innovation. The thousands of cases that required adjudication in court have moulded the boundaries of negligence, such that those boundaries are relatively clear, and relatively well-known to informed citizens and corporations.

General statutory environmental duties of care do not yet have the benefit of that litigative boundary shaping, and perhaps never will. For breaches of the general environmental duty of care that activate criminal law processes, there is only one plaintiff – the government. The litigation/prosecution is not instigated by a private interest with a willing and motivated private litigant. Instead, it requires the government to litigate on behalf of the public interest, which is arguably vulnerable to budgetary constraints and classic political economy problems – the free-rider problem, the problems of collective action, and the power of concentrated and specific private interests over diffuse public ones (Olsen, 1965). The interests of future generations – as contemplated by the intergenerational equity principle – are particularly diffuse. Tongue in cheek, unborn generations are woeful at protecting and advocating for their own interests, and nowhere near as diligent as the living.

The common law duty of care in negligence actions relies on courts devising standards of reasonableness ostensibly in line with generalised community expectations of human behaviour, albeit mediated by individual judges and their worldviews. Again, numerous cases help demarcate the boundaries of negligence actions, develop legal norms, articulate the community expectations, and provide clarity to duty holders about the behaviours required. This opportunity seems less available in the case of general environmental duties of care. There is not likely to be a large volume of case law quickly decided in the near term on the bounds of general environmental duties of care, which might otherwise refine standards of reasonableness. In some areas of rural land management, consensus on community expectations is underdeveloped, and the boundary between a landholder's lawful use of natural resources and their obligation to protect the public interest in those resources is not clearcut (Greiner, 2014). Consequently:

> The lack of a social consensus about norms of environmental responsibility (other than for human welfare such as interests in potable water, safe food and breathable air) may make this difficult for judges, and it is hard to predict how they will respond. (Martin & Taylor 2018: 761-762)

To summarise, common law negligence has been moulded by close to a century of judges' decision-making in actual cases. To the extent that boundary-setting is vital or useful for implementing statute-based general environmental duties of care, the absence of a large volume of case law means the contours of the duties must be shaped via different mechanisms than judicial deliberation. Arguably, vagueness in the law's expectations of duty holders can work against the public interest, if it encourages non-compliance or invokes the sympathy of the courts.[2] Ambiguity in the law can be manipulated and exploited, or can be a genuine source of confusion for citizens who must comply with statutory duties. The risk of vagueness encourages efforts to 'fill in the gaps', by governments, industry and civil society organisations developing ancillary codes and standards, which may be formal and informal

[2] Historically, courts applied a 'presumption of interpretation' that penal provisions should be strictly construed, with any ambiguity interpreted in favour of the defendant/accused (*Forbes, Collector of Customs (NSW) v Traders Finance Corporation Ltd* (1971) 126 CLR 429.

(Greiner, 2014). These codes and standards need to be detailed enough to provide clarity to the regulators, regulated entities, and the courts. This is not a cost-neutral effort and arguably requires considerable resources from governments and private parties to draft, co-ordinate input, and promulgate the substance of codes and standards. If the ancillary standards and guidelines become as voluminous and complex as conventional regulatory prescriptions, then some of the shine is taken off the efficiency argument – that general environmental duties of care are more efficient and easier for government to administer – and the flexibility argument – that duties of care do not depend on detailed prescription.

Despite these difficulties, there are some instances where general statutory duties of care have worked effectively to achieve public interest objectives, most notably in workplace health and safety. Certainly, the Victorian statute-based general environmental duty is directly modelled on its workplace health and safety legislation (Parker, 2021). In the workplace health and safety arena, statutory duties of care have succeeded in tightening workplace standards and making workplaces safer. This is not to say industrial accidents have disappeared. It is always distressing to hear news of a young apprentice electrician electrocuted on the job, or a miner smothered under a rockfall (Hanger, 2014; Ker & McCubbing, 2024). But workplace injuries are thankfully rarer (Maxwell, 2020, p 353). More than that, there are established metrics by which we can evaluate performance of the workplace health and safety regime and pursue continuous improvement. It is important to note that workplace health and safety duties are nested in a broader regulatory regime, backed up by a supportive governance system, including inspection and enforcement procedures, as well as personal liability for directors' failures to implement safe systems. Thus, there is a whole constellation of instruments and institutions that collaborate and coalesce to improve workplace safety.

Whether general environmental duties of care will have the same success as the workplace health and safety regime is uncertain, and there are some theoretical reasons to suspect it will not. Breaches of workplace obligations that result in serious injuries involve a human victim who in some cases may litigate in their own right, in addition to criminal prosecutions brought be the state. This once again underlines the role of willing plaintiffs with a compelling private interest and clear-cut personal loss to avenge. Even apart from the government regulator and criminal prosecutions, the fact of private plaintiffs testing the limits and boundaries of employers' workplace health and safety obligations means jurisprudence develops and obligations are articulated with greater specificity. To a large extent, this jurisprudential development is immune to strictures in government budgets and economic downturn. It rolls on regardless, as long as there are motivated and willing plaintiffs.

Many instances of environmental degradation – especially those operating by way of slow accumulation of relatively small harms – do not have such obvious champions, again making enforcement dependent on public prosecution. Nonetheless, statutory standing provisions are helpful to expand the types of litigants who may bring an action for breach of general environmental duties (e.g. *Environment Protection Act 2017* (Vic), s 308). Again, applying the notion of willing and motivated private plaintiffs, we might expect to see this

work best in the context of environmental disasters that cause harm to human victims. Indeed, the Hazelwood mine fire which resulted in toxic air pollution in the La Trobe Valley, and the exposure of residents in the Brooklyn Greens Estate to a landfill gas link informed the drafting of the Victorian legislation (Maxwell, 2020; Parker, 2021). Again, it is uncertain how much better statute-based general duties will work compared with conventional approaches in the case of environmental damage without an obvious human victim.

It is possible that the duty of care legislation could empower private parties such as environmental non-government organisations to instigate public interest litigation to enforce statutory duties of care. They currently do in the Australian Federal and State environmental spheres where conventional environmental protection legislation expands standing (entitlement to sue), such as in the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth), s 487, and the *Environmental Planning and Assessment Act 1979* (NSW), s 9.45. Public interest litigation by private individuals and civil society groups is not a panacea to poor governmental enforcement, and commentators have long noted the law's apparent 'hostility' to public interest litigation (Kirby, 2011). The recent AU$ 9 million costs ruling by the Federal Court against the Environmental Defenders Office underscores the risks to cash-strapped public interest litigants (McDonald-Smith, 2024; *Munkara v Santos NA Barossa Pty Ltd (No 3)* [2024] FCA 9). There has been little research on whether a general environmental duty regime provides an easier pathway for environmental public interest litigation than the conventional avenues.

Future research is needed to develop an appropriate evaluative approach, which should aim to tease out the extent that general environmental duties of care overcome (or not) issues that plague conventional regulations, such as political economy problems, and securing resources for enforcing and implementing the regime. Furthermore, in the case of specifically rural environmental degradation, future research could also help illuminate responses to the following questions:

1. How well do general environmental duties work in the case of historical harms not caused by the current rural landholders but which continue to have harmful impacts? What is the extent of a landholder's duty to deal with an extant harm? Is there a duty to restore?

2. How do they work where ideally landholders would actively engage in desired behaviours with some enthusiasm – e.g. for landscape-scale biodiversity conservation on farms – rather than passively refrain from a prohibited behaviour? Similarly, how do they encourage active participation in collaboration with neighbouring landholders and with public officials on environmental issues that require long-term, sustained, collective action, such as rural invasive species management? (Martin & Taylor, 2018)

It would be a shame if the promise of statute-based general environmental duties of care were not realised. Hence, it is important to gauge whether this mechanism for imposing liability is protecting the environment more effectively than conventional regulation for the

same level of public resources. To be clear, general environmental duties of care are not a failure simply because they require a greater level of public funds to implement to be effective. But it does raise the question – Would conventional law also be more effective if it too were adequately funded and resourced? This shifts the emphasis from the instrument to its implementation.

Rights of Nature in the Form of Legal Personhood

This paper focuses on one instrument – i.e. granting legal personhood to nature – amongst the suite of approaches grouped under the broad umbrella of 'rights of nature'. Alves et al (2023) describe the rights of nature approach as:

> a legal and judicial theory according to which the natural elements, and more in general the environment, have inherent rights, comparable to Human Right Theory … In general, the Rights of Nature is the idea that the whole biosphere, meant as the place in which life can happen, is endowed with natural rights. (Alves et al., 2023: 2)

General rights of nature approaches are gaining traction at State and local levels in Australia. This includes the state of Victoria's *Yarra River Protection (Wilip-gin Birrarung murron) Act 2017*, which explicitly aims 'to provide for the declaration of the Yarra River and certain public land in its vicinity for the purpose of protecting it *as one living and integrated natural entity*' (s 1; emphasis added). McEwan et al (2023) report other more localised initiatives attesting to the growing interest in Australia in rights of nature. Worldwide, Alves et al (2023) note 468 rights of nature projects across 29 countries.

Rights of nature are seen as one of the mechanisms that could strengthen the weight of ecological considerations in decision-making, given the failure of 'sustainable development' (SD), or its expanded form of 'ecologically sustainable development' (ESD) as an overarching paradigm to protect the environment and prevent environmental damage at local and global scales. SD/ESD is traditionally framed as a mechanism to better balance the 'three pillars' of public interest decision-making – namely, environmental, economic and social concerns. Since economic and social interests often override environmental concerns when decision-makers approve commercial and public sector developments, SD/ESD was promoted as a means of enhancing this hitherto neglected pillar (Carruthers, 2001).

In reality, SD/ESD was less of a balance and more of a trade-off, with the ecological aspect the easiest to trade-off, and little to distinguish SD/ESD from business-as-usual:

> Unless [environmental protection] is embedded in legislation as an environmental bottom line, it tends to be weakened in 'overall judgment approaches' that weigh the economic, the social and the environmental as if they were equal. (Medlock & White, 2022: 145)

This trade-off evades the fact that human societies are nothing without a functioning environment, which is ultimately fundamental to economic and social flourishing. Proponents

argue that rights of nature approaches more rigorously elevate the concerns of the environment (Boyd, 2017).

Like all areas of law and governance, environmental law is a product of explicit and implicit worldviews, values and norms, which 'underpin all decisions since they inspire those who govern how to think and make judgements about how the world works and how to act in particular situations' (Kooiman & Jentoft, 2009, p. 818). Kotze and Adelman (2023) argue that:

> sustainable development appears to have become the foundational 'constitutional' principle of international environmental law (analogous to Hans Kelsen's notion of a *Grundnorm*) … possibly its *raison d'etre* and, of greater concern, its core ethical orientation. (Kotze & Adelman, 2023: 233)

They argue that it is time to displace SD/ESD as the explicit normative foundation of environmental law and governance, and instead develop a new framework or *grundnorm* that better reflects the reality of the biophysical limits of the natural world on which our survival depends. The obsessive anthropocentrism of the Western values set means that law and policy serve an anthropocentric master. The failure of SD/ESD to adequately ground environmental protection in decision-making reflects the anthropocentric orientation of environmental law principles in Australia and elsewhere (Medlock & White, 2022).

This fixation with human interests is not universal, and some cultures are less focused on aligning law and governance to an acutely anthropocentric world view – they have a more refined sense of humans as part of the ecological system. It may not be entirely correct to say these worldviews are not also anthropocentric, but they tend to involve a greater range of creatures and ecosystems in the vision of the good life. In these worldviews, ensuring the flourishing of a wider array of animals, plants and ecosystems is necessary to human flourishing – the fate of other creatures is bound up in the fate of humans, and *vice versa*. Modernism separates the fates – we suppose that our fate is our only preoccupation.

Ostensibly, rights of nature place non-humans – creatures, places, ecosystems, and meta-physical concerns – at the centre of decision-making. Rights of nature could encourage or reflect a values-set that fosters an acknowledgment of nature as having its own intrinsic values and vulnerabilities that necessitates legal rights and protections. These of course still require human agency through special advocates and institutions to represent the river, rainforest, or other non-human rights-holder. Nonetheless, the rationale is that legal personhood for nature forces decision-makers to consider more than narrow human interests and broadens their purview to the fate of other creatures and whole ecosystems, and even global biophysical processes. Leaving aside the enormous challenge of transforming the whole normative base of environmental law (Godden, 2021) and the question of whether the law can really impose norms or merely follow them, proponents of rights of nature approaches argue they represent a more appropriate set of values to underpin the legal regime of environmental protection (Boyd, 2017).

Somewhat ironically, although legal personhood for nature may be less *anthropocentric* than conventional modes of environmental protection, it nonetheless *anthropomorphises* natural settings. The river or the rainforest becomes a 'person' in a legal sense, if not also in a poetic and meta-physical sense. Not all anthropocentric legal mechanisms are antagonistic to improving environmental integrity. There is much interest in the prospects for human rights-based actions – a thoroughly human-centric approach – to drive environmental protection at faster pace and wider scale (Preston & Silbert, 2021).

The discussion around replacing the law's underpinning anthropocentric values with eco-centric ones underscores the tension between, on the one hand, law as an influencer, if not changer, of human norms, morals and motivations, and on the other, law as a mere mirror of social norms. Again, there is a need to avoid wishful thinking in this regard, as there is much scope for disappointment. Law-making is a political process, subject to many of the same compromises and trade-offs that plague decision-making in the SD/ESD framework. There are limitations to the capacity of law of itself to change society's underlying moral and ethical sensibilities. It is not unimportant, but neither is it all important, and in many cases, elected law-makers follow society's changing moral and ethical sensibilities, rather than lead the change.

Granting legal personhood to nature is a very concrete legal innovation, as opposed to some of the more philosophical and conceptual dimensions of rights of nature. Legal personhood sits relatively comfortably in the broad domain of property law, and yet simultaneously is a radical foil to the focus on individual liberties in traditional private property rights, the exercise of which 'is invariably connected to, and often in tension with, many elements of environmental law and policy' (Grinlinton, 2023, p. 203). Nature as a legal person is both precedented and unprecedented for legal systems derived from the English common law tradition, such as Australia. Precedented in the sense that we already recognise legal personhood of non-humans in the form or corporations, but unprecedented in applying legal personhood to a feature of the biophysical landscape.

Granting legal personhood to nature has not yet been formally incorporated into Australian law, though it is famously a feature of New Zealand law, which is close to Australia in terms of geography, and its legal and political institutions. In 2014, the New Zealand Parliament legislated to grant a rainforest – *Te Urewera* – legal personhood under the *Te Urewera Act 2014* (NZ). It followed this in 2017, by granting the Whanganui River (*Te Awa Tupua)* legal personality in the *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017* (NZ). Both of these examples – *Te Urewera* and *Te Awa Tupua* – are located in rural and regional settings.

Kment and Bader (2022, p. 203) note of the circumstances that led to Whanganui River/ *Te Awa Tupua* developments that 'very few people … are aware that this innovative legislation did not stem from environmental activism or the rights of nature movement.' They go on to explain legal personhood for the river was a compromise position in a dispute between the New Zealand Government and Māori iwi about purported breaches of the Treaty of Waitangi. The Government was reluctant to give the relevant Māori iwi formal legal title

under New Zealand law to the land in question, fearing it would open the way to a new round of property law disputes. Instead, it proposed to grant legal title over the site to the river itself.

Much rights of nature scholarship and promotion seeks to strongly align rights of nature approaches with Indigenous peoples' environmental laws, norms and strategies. Legal personhood, in which a natural phenomenon symbolically holds legal title of its environs and takes control of its own welfare may represent a more sympathetic translation of First Peoples' notions of the relationship between humans and the natural world into the law of the dominant culture. That New Zealand is experimenting with legal personhood well ahead of Australia may reflect a greater willingness or imperative on the part of the New Zealand government to negotiate nature-focused outcomes with Māori than occurs between the Australian Federal or State governments and Australia's First Peoples. Nonetheless, the circumstances described by Kment and Bader (2022) could variously be interpreted as a novel solution to a property law dispute, a groundbreaking innovation in land and water management, or a means for government to sidestep long-running land ownership issues with First Peoples in post-colonial settler societies. Certainly, Australian Indigenous scholar Virginia Marshall (2020) has strongly criticised the potential for legal personhood to push aside Aboriginal and Torres Strait Islander claims to land:

> the removal of Indigenous peoples from holding property rights, for example, to a river, a mountain or land is antithetical to the Indigenous rule of law and their cultural obligations … [T]he rights of nature movement on one hand acknowledges the 'wisdom' of Aboriginal peoples of Australia but seeks to establish the rights of nature ideology as an environmental norm – creating a new tool of colonisation which would decouple Indigenous ontological relationships and laws and the inherent obligations to manage and care for the environment. (Marshall, 2020: 234)

This suggests that legal personhood is not a 'one size fits all' solution and its cultural appropriateness cannot be taken for granted. Even where rights of nature exist in the form of legal persons, they will almost invariably rub shoulders with private interests and other types of public interests – for example, private landholdings and farms, Crown land, publicly owned national parks, and municipalities. In the New Zealand cases, rights of nature were granted to important sites – places – that were the subject of a land ownership dispute. In the case of the Whanganui River/ *Te Awa Tupua*, legal personhood was not bestowed on the entire riverine ecosystem. Personhood accrued to part of the riverscape – it had to respect existing neighbouring tenures.

As with general environmental duties of care, legal personhood for biophysical and cultural objects as a slow track response to averting, mitigating and managing rural disasters faces several practical implementation challenges. These include setting the appropriate scale for personhood and ensuring personhood adds value over and above what could be achieved by properly applying conventional legal modes of environmental protection. These are briefly explored below.

1. *Finding the most effective scale for legal personhood*

   Hypothetically, if we were to allocate rights to nature in the form of legal personhood for the first time in Australia, what would it look like? Would legal personhood be granted to specific organisms, such as koalas, or Wollemi pines? Or ecosystems such as grassy box woodlands? Or iconic sites – the Great Barrier Reef or Kakadu? Or to the atmosphere? This leads to questions of administrative efficiency and resourcing. Does each subject of the legal personhood need its own advocate and institutional support structures – such as a board or trust – to champion its interests? Budget and efficiency arguments may tend to favour general over specific personhoods, because it results in fewer discrete administrative bodies in the form of boards and trusts.

   However, confining the geographic and conceptual boundaries of the thing given personhood is not necessarily a detriment. The localised bounding of the 'person' provides focus for human energies and enables a place-based concentration of effort by local champions. That is probably important for implementation, as conceivably a more general legal personhood to the whole of nature – the whole environment – would perpetuate the political economy problem that besets enactment and enforcement of conventional environmental law – i.e. a vague, amorphous, diffuse interest that is vulnerable to the mobilising power of specific, concentrated, interests.

2. *Ensuring the value-add of legal personhood*

   If we continue the thought experiment above by nominating, say, a state-managed national park for legal personhood, it will be important to evaluate the differences – both those predicated *ex ante* and those demonstrated *ex poste* by purposeful empirical investigation – between managing the site as a national park from managing it as its own legal person. There should be some clarity around the purpose of altering the legal structure from national park to legal person. If the purpose is to overcome specific shortcomings of the site's status as a national park, to what extent will those shortcomings replicate themselves when the site is converted to a legal person?

   The aim here is to identify whether it is the status *per se* of national park that is the main problem, or whether it is practical implementation issues, such as funding for conservation management, relationships with neighbours, and resources for enforcing legal protection for the site. If legal personhood is no better at overcoming these issues, then we should not be surprised if legal personhood fails to deliver as hoped.

It is not clear how legal personhood for natural objects will or should progress as a method of environmental protection. The New Zealand experience is one of a few *ad hoc* developments that arose opportunistically in the context of land rights disputes. There is no clear trend whether legal personhood will advance in that country to become a mainstream feature of environmental law encompassing many natural elements on a wide scale, or remain a legal quirk limited to a few special sites founded in unique circumstances. We can expect that in the short term, legal personhood must operate as but one legal device in an overall

governance mosaic comprising both conventional and innovative governance elements. In this pluralistic legal milieu, it may be useful for future scholarship to consider how legal personhood for natural objects might be integrated into a more strategic framework for nature conservation and environmental protection. In what context does it operate best to deliver environmental benefits over-and-above conventional modes of law and governance? It need not be an all-or-nothing approach, and such research could canvass the circumstances that enhance the synergy between eco-centric modes of governance with more conventional anthropocentric ones – such as human rights-based actions – in the service of environmental protection.

Conclusion

This paper starts with an acknowledgement of the connection between rural disasters and human-induced disruption of the earth systems that otherwise moderate disasters. These disruptions include anthropogenic climate change and human destruction of biodiversity. Therefore, there is also a connection between disaster management and legal regimes that aim to regulate those human behaviours – individual, corporate and collective – that disrupt these fundamental earth systems. The paper also begins by acknowledging the failure of environmental laws and governance to rein in those behaviours to the extent necessary to secure the continued functioning of those earth systems in our favour. This imperative drives the search for alternative legal mechanisms that can more effectively govern environmentally harmful behaviours.

In this regard, legal instruments such as statute-based general environmental duties of care and legal personhood for natural objects are promising innovations. However, despite their theoretical appeal, whether they will materially improve environmental protection is not self-evident and must be continuously evaluated and if necessary, continuously improved.

In the case of statute-based general environmental duties of care, implementation should be informed by a deep understanding of the context from which this innovation emerged – it has roots in pre-existing legal notions, which themselves are embedded in complex governance systems. Care needs to be taken when transposing a good idea from a particular legal context into a new context. Legal personhood for natural features could represent a practical and observable initiative of the law to move from an anthropocentric foundation to a more eco-centric footing. Ideally, this should result in actual material gains in environmental protection over-and-above the protection achieved by conventional law and governance, given the urgency of the issues and the transaction costs of moving to a radically different environmental protection regime.

A future research agenda for general environmental duties of care and legal personhood could include investigation of:

- The extent to which they overcome the practical barriers faced by conventional legal approaches, such as insufficient resourcing for implementation, and political economy problems.

- The efficacy of general duties in difficult governance scenarios requiring active engagement of landholders in desirable land management activities (rather than passive avoidance of undesirable behaviours), as well as in long-term, sustained, collective action.

- The most effective scale for legal personhood – broad and encompassing, or localised and site specific.

- The conditions necessary to better align legal personhood with Indigenous Peoples' aspirations for land and water management.

- The possible synergies of carefully combining governance innovations in integrative frameworks with conventional modes of environmental governance.

Undeniably, environmental law has not delivered environmental protection as was hoped. However, if the underlying barriers, trade-offs, and social tensions implicated in the failure of conventional environmental laws, such as they are, remain substantially in place, then they will be troublesome for the innovations as well. It would be disappointing if, 20 or 30 years down the track – possibly the most urgent 20 to 30 years for humanity – we look back on these innovations and conclude they stumbled for much the same reasons as conventional environmental laws stumbled.

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