Legal Studies (2025), **45**, 1–21
doi:10.1017/lst.2024.42

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The Society of Legal Scholars

RESEARCH ARTICLE

Earth system disruption, legal development and the company: a UK perspective

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(Accepted 07 November 2024)

Abstract

This paper evaluates company law and regulation using Earth system science (ESS) as an analytical lens. ESS draws attention to the disconnection of companies from the Earth system and the way that law, as a process of the anthroposphere, is impacted and evolving in response to Earth system disruption. It argues that, although there has been some reform that is consistent with regulating companies to address their climate and other environmental impacts, the reactive and piecemeal approach to legislative reform so far adopted is unable to change commercial behaviour sufficiently in practice. Additionally, although the courts have been asked to adjudicate, the core principles of company law create barriers to such interventions. The paper concludes with four suggested areas of reform: to directors' duties; substantive obligations of due diligence; training, education and expertise; and accountability and enforcement. It is argued that these reforms are necessary to reduce the company's environmental and social impacts, to aid the transition to a sustainable economy and to position them to operate in a future marked by planetary instability.

Keywords: earth system science; companies; Companies Act 2006; private law

Introduction

This paper evaluates company law and regulation as a form of private law that is currently being exposed to Earth system disruption. Its core argument is that, although there has been some reform that is consistent with regulating companies to address their climate and other environmental impacts, the reactive and piecemeal approach to legislative reform so far adopted is unable to change commercial behaviour sufficiently in practice. The starting assumption of this analysis is that the law, especially those areas that concern human relationships and the legal regimes that regulate corporate activity, are impacted by and impact upon the unfolding ecological crises faced by present and future generations. There are two justifications for this assumption. The first is doctrinal in nature. Namely, that climate change, and the ecological and social impacts of human-induced Earth system disruption, will create tensions with law and legal theory, including those concerned with the regulation of companies. As environmental disruptions increase in intensity and scale there will be more instances of contestation and greater uncertainty, particularly given the worsening state of the

[†]Editors' Note: Dr Emily Webster, the author of the opening article of this issue, passed away in October 2023. This article had already advanced through our review process. Having liaised closely with Dr Webster's family and her colleagues, we resolved to publish her article posthumously. We thank Dr Leslie-Anne Duvic-Paoli and Dr Emily Barritt for their work in finalising the article for publication in these difficult circumstances, and we also appreciate the contribution of our referees and the editorial team at Cambridge University Press. We are very grateful to Emily's family for their agreement to the article being published in her memory: we extend our sincere condolences to them, and to all of Emily's many friends. May she rest in peace.

environment, the increasing frequency and severity of climate impacts, and the huge legal changes needed to mitigate and adapt to this future. Grappling with the legal irritation of climate change and Earth system disruption is therefore a necessary endeavour.[1] The second justification is normative. While climate change and environmental degradation impact company law and regulation concurrently, the way in which companies are legally structured and regulated can contribute to planetary disruption.

Conceptually separated from matters concerning the environment, albeit increasingly incorporated into bodies of environmental law,[2] private law has developed in England over the last several hundred years, 'purport[ing] to govern legal relationships or disputes between parties'.[3] Applying scientific epistemologies to private law offers an opportunity to identify the ways that legal structures have been created and maintained which facilitate damaging human activities that contribute toward perturbations of the Earth system.[4] More specifically, the evolution of scientific understanding of the way the planet functions, coupled with the emerging evidence supporting these understandings, reveal that many fields of law long held largely separate from the 'environment' will come into conflict with this reality and its consequences. Private law governs relationships and transactions between legal and natural persons but has indirectly contributed to cascading environmental crises.[5] This is because the ways in which the law regulates corporate behaviour can have a significant impact on the environment due to the manner in which companies operate. Consequently, there is an inherent tension between the ways that companies are regulated and the ways in which such regulation contributes to a situation in which planetary degradation is accelerating.

This paper focuses on company law and regulation, taking a broad understanding of corporate regulation which includes legal regimes that impact upon, or address in some way, the internal management of the company in response to the environmental harms emanating from its, or its subsidiaries', activities. Company law and regulation has been, and continues to be, impacted by Earth system disruptions. The response of legal decision-makers to the impact of this disruption, particularly in terms of climate change, has done little to address it sufficiently. Adopting an ESS lens demonstrates that company law and regulation and the company cannot be viewed as separate from the environment on which we all depend. Further, company law and regulation are not compatible with living within planetary boundaries so that the Earth continues to self-regulate in a manner that is conducive to human and non-human flourishing, as it has done for thousands of years. The paper unfolds as follows. Section 1 introduces Earth system science ('ESS') and its use as an analytical lens. Section 2 analyses the ways in which the company is regulated within the Earth system, the way it disconnects its human managers from the consequences of their decision-making and how the law has responded to Earth system disruption. Section 3 briefly considers if and how company law may better position companies for a future marked by planetary instability.

1. Earth system science and private law

ESS can be used as a fruitful analytical lens that offers an alternative perspective of the environment than is often adopted. Traditionally, environmental problems are conceived of in siloes – biodiversity, climate change, pollution etc – and the law in terms of how it addresses or could address the specific problem identified. ESS instead adopts a planetary systems view. Although such a perspective understands the

[1] E Fisher, E Scotford and E Barritt 'The legally disruptive nature of climate change' (2017) 80(2) Modern Law Review 173.

[2] See D Howarth 'Environmental law and private law' in E Lees and JE Viñuales (eds) *The Oxford Handbook of Comparative Environmental Law* (Oxford: Oxford University Press, 2019).

[3] Ibid, p 1094.

[4] LJ Kotzé and RE Kim 'Exploring the analytical, normative and transformative dimensions of earth system law' (2020) 50(6) Environmental Policy and Law 457.

[5] JE Viñuales 'Two layers of self-regulation' (2020) 11(1–2) Transnational Legal Theory 16.

need for specific responses to specific problems, they are considered in the wider context of the implications they pose for the Earth system and its stability.

ESS defines the Earth system as 'one single, complex, dissipative, dynamic entity'[6] consisting of the atmosphere, cryosphere, lithosphere, biosphere, and anthroposphere. ESS investigates the 'physical, chemical and biological processes within and among' these spheres.[7] Law and regulation, as one mechanism used to structure relationships between individuals, individuals and the state, and between states may be conceived of as processes of the anthroposphere. From this perspective, law and regulation – whether it is recognised overtly or not – is connected to and interacts with other Earth system processes and spheres. Given this connection, private law, and law and regulation that is directed to the management of companies, should not be considered as external to the Earth system. Indeed, legal, and regulatory processes are directly and indirectly impacted by Earth system disruption yet fail to be routinely considered through this lens.

The term 'Anthropocene' was coined in 2000 by Crutzen and Stoermer to describe what they considered to be a new geological epoch defined by 'the central role of mankind in geology and ecology'.[8] ESS draws attention to the consequences of designing responses that are based upon incomplete understandings of the manner in which the Earth regulates itself and, more importantly, of basing legal and regulatory design upon past experience, that is to say, the planetary conditions of the Holocene. The Holocene geological epoch is the name given to the ten to twelve million years that followed the last ice age and provided the conditions for human life to flourish.[9] The legal regimes that have emerged in a variety of different areas, including environmental law and private law, have been introduced and have developed under Holocene conditions and the assumptions that follow from this period of relative planetary stability. Such assumptions include that the environment can continue to support and absorb harmful human activities, including pollution. Yet, these assumptions are not consistent with the observations of environmental degradation and of the capacity of the natural environment to absorb and adapt to the cumulative impact of the use of chemicals, greenhouse gas (GHG) emissions and air pollution, plastic pollution and habitat destruction. ESS takes these observations further to identify the links between harm caused in one process or sphere, such as the atmosphere, to disruption to other spheres, such as the biosphere.

The Anthropocene concept has been controversial, not least for its failure to differentiate between those humans responsible for creating these conditions and those who have done little to contribute to this phenomenon but disproportionately suffer from its physical impacts.[10] For legal and policy analyses and interventions it emphasises that human interference with the Earth system is so overwhelming that its impact now exists on planetary, rather than human, timescales.[11] The Anthropocene thereby draws attention to the extent of human intervention in the Earth system. Environmentally harmful anthropogenic activities accelerated under the process of industrialisation and have left an identifiable geological imprint, leading Earth system scientists to highlight the need to 'develop a world-wide accepted strategy leading to sustainability of ecosystems against human induced stresses'.[12] Legal efforts to address environmental harms have insufficiently responded to this knowledge thus far, unable to prevent human activities from interfering with the Earth system in a way that has created significant ruptures, pushing it

[6]HJ Schellnhuber '"Earth system" analysis and the second Copernican revolution' (1999) 402 Nature 19 at 20.

[7]P Bertrand and L Legendre *Earth, Our Living Planet. The Earth System and Its Co-Evolution With Organisms* (Springer, 2021) p 2; DR Johnson et al 'What is earth system science?' [1997] IEEE 688 at 688; N Shikazono, *Introduction to Earth and Planetary System Science. New View of Earth, Planets and Humans* (Springer, 2012) pp 2–3.

[8]PJ Crutzen and EF Stoermer 'The "anthropocene"' (2000) 41 Global Change News Letter 17 at 17; P Crutzen 'The "anthropocene"' in E Ehlers and T Krafft (eds) *Earth System Science in the Anthropocene* (Springer, 2006); W Steffen et al 'The anthropocene: are humans now overwhelming the great forces of nature?' (2007) 36(8) Ambio 614 at 614.

[9]Crutzen and Stoermer, above n 8, at 17.

[10]Eg see K Yusoff *A Billion Black Anthropocenes or None* (University of Minnesota Press, 2018).

[11]Crutzen and Stoermer, above n 8, at 17.

[12]Ibid, at 18; W Steffen et al 'The trajectory of the anthropocene: the great acceleration' (2018) 2(1) *The Anthropocene Review* 81 at 82.

into a trajectory that is far less conducive to life and human societies.[13] Although the Anthropocene contextualises the law and offers broad insights into its effectiveness to date, ESS also offers more precise boundaries within which human activity must be constrained.

The existence of thresholds beyond which irreversible changes will occur is an important component of ESS that, again, differs from dominant understandings of environmental harm from activities not considered to be high risk. Environmental law and regulation presently do not overtly recognise the cumulative impact of small contributions to pollution and environmental destruction except in cases of very serious harms such as chemical bioaccumulation. Yet, seemingly innocuous activities may contribute cumulatively to exceeding Earth system limits and thresholds, causing disruption that may not be reversible in human timeframes. The extent of human-induced pressure placed upon Earth systems has been identified by ESS research that has classified nine planetary boundaries and their thresholds.[14] More recently, research has found that six of the boundaries' thresholds have been exceeded, pushing the affected systems into states of very high risk of 'large-scale abrupt or irreversible environmental changes'.[15] Viewing legal regimes that regulate human behaviour through an ESS lens implies that alongside the regulation of high risk and highly damaging activities, other forms of human behaviour should also be addressed to prevent or minimise the disruption of Earth system processes.[16] The next section seeks to justify these claims by analysing the extent to which company law and regulation, and the wider context in which companies operate, aligns – and fails to align – with the key findings of ESS.

2. Company law and regulation in a time of Earth system disruption

For-profit companies play a central role within capitalism as a mode of reproducing and distributing capital to perpetuate growth and private wealth.[17] Whyte has argued that contemporary capitalism undermines attempts to protect the environment by subordinating it to wealth creation. Consequently, while capitalism remains intact, with the company as its central mechanism, environmentally responsible corporate behaviour is unachievable.[18] Moore draws attention to the fact that the term 'limits' in monopoly capitalism 'was practically, institutionally and ideologically defined as a problem of resource management and scarcity'[19] rather than based upon the ecological limits or planetary thresholds of the Earth system. Capitalism is predicated upon extractivism, exploitation and the transformation of the natural environment into economic value on the one hand, and ever-increasing consumption, built-in product obsolescence and the creation of waste and pollution as a consequence, on the other. This suggests that capitalism as it stands poses significant barriers to stabilising the Earth system.[20] Efforts to transition the global economy to one that is 'sustainable' and 'green' implicitly accept that there must be a change in the way that wealth is created, but fails to challenge the underlying ideology which has shaped the global economy.

The role of for-profit companies within global capitalism, and the influence that this ideology wields upon the design and functioning of the company, suggests that significant legal interventions must be made to reconceptualise the relationship between the company and the environment, and to minimise

[13] W Steffen et al 'Trajectories of the earth system in the anthropocene' (2018) 115(33) *PNAS* 8252 at 8254.

[14] W Steffen et al 'Planetary boundaries: guiding human development on a changing planet' (2015) 347(6223) *Science* 736.

[15] Stockholm Resilience Centre 'Planetary boundaries', https://www.stockholmresilience.org/research/planetary-boundaries.html (last accessed 15 January 2025).

[16] Eg see F Biermann 'Planetary boundaries and earth system governance: exploring the links' (2012) 81 *Ecological Economics* 4; LJ Kotzé and D French (eds) *Research Handbook on Law, Governance and Planetary Boundaries* (Edward Elgar, 2021).

[17] D Whyte Ecocide. *Kill the Corporation Before It Kills Us* (Manchester University Press, 2020) p 4.

[18] Ibid, p 21.

[19] JW Moore 'Waste in the limits to capital: how capitalism lays waste to the web of life, and why it can't stop' (2022) 2(1) Emancipations: A Journal of Critical Social Analysis 1 at 2.

[20] JW Moore *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (Verso, 2015); Whyte, above n 17; J Hickel 'What does degrowth mean? A few points of clarification' (2021) 18(7) Globalizations 1105.

the impact of commercial activity upon the Earth system. The emergence of sprawling global values chains that outsource production to other jurisdictions has created immense economic value, but concurrently increased environmental degradation and pollution, exporting these 'externalities' from the jurisdiction where the end product is consumed.[21] At present, as will be discussed below, the reforms of company law and regulation, triggered by human-induced Earth systems disruption, particularly in response to climate change, do little to effectively challenge environmentally harmful behaviour due, in part, to the dominance of established paradigms concerning companies and their economic role.

An example in the UK context concerns the codification of enlightened shareholder value (ESV) in 2006. The emergence of ESV demonstrates an evolution in terms of the expectations placed upon the company in the UK to take into account not only economic factors but environmental and social ones too.[22] However, in practice, it has done little to counter the dominant Anglo-American conception of shareholder primacy, an influential view of the company's purpose to maximise shareholder wealth, posited in the 1970s. Shareholder primacy subsumes every other decision to this overriding factor, namely that the company should be run for the (economic) benefit of its members.[23] Within ESV, shareholder value is still the objective of the company,[24] however, the principle attempts to move away from short-termism and require the directors to consider the company's wider stakeholders.[25] According to Whyte, shareholder primacy defines where power lies in the company; constraining or influencing the behaviour of the directors and limiting their discretion in practice.[26] Thus, profit maximisation in the short, medium and long term is the focus of such companies, while environmental harm is considered a negative externality of the company because it is not – and often cannot adequately be – transformed into a financial cost unless external mechanisms and obligations are designed with that specific purpose in mind.[27] The norm of shareholder primacy can therefore act as barrier to voluntary and statutory interventions that attempt to encourage environmentally responsible behaviour, despite the space that exists 'within corporate law and corporate governance systems to steer businesses in more sustainable directions', thereby reducing pressures on Earth systems.[28] Presently, much corporate activity is predicated upon the conversion of natural resources into capital and of releasing the pollutants associated with production into the environment rather than preventing their release. In most cases the former does not create an economic cost for the company while the latter incurs significant costs. Ultimately, while the environment is an external concern of the company, the company's design, function and the role of the human within it all contribute towards an entity that is conditioned to continue acting in an environmentally destructive manner when it is in its interests to do so.

(a) Company law and regulation disconnects companies and their managers from the Earth system

Despite ESS positioning humans and our activities as part of the anthroposphere, and thus a component of intricate planetary systems, the law creates structures that disconnect the company and its managers

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[21] J Salminen and M Rajavuuori 'Private international law, global value chains and the externalities of transnational production: towards alignment?' (2021) 12(2) Transnational Legal Theory 230 at 230–231.

[22] Companies Act 2006, s 172(1).

[23] MC Jensen 'Value maximization, stakeholder theory, and the corporate objective function' (2001) 14(3) *Journal of Applied Corporate Finance* 8; A Keay *The Enlightened Shareholder Value Principle and Corporate Governance* (Routledge, 2013); M Friedman 'The social responsibility of business is to increase its profits' *The New York Times Magazine* (13 September 1970); L Benjamin *Companies and Climate Change: Theory and Law in the United Kingdom* (Cambridge: Cambridge University Press, 2021) ch 2.

[24] Companies Act 2006, s 172(1).

[25] Ibid; A Keay 'Tackling issue of the corporate objective: an analysis of the United Kingdom's enlightened shareholder value approach' (2007) 29(4) Sydney Law Review 577 at 589–590.

[26] Whyte, above n 17, pp 55–56.

[27] AC Pigou *The Economics of Welfare* (Macmillan and Co, 3rd edn, 1929); Whyte, above n 17.

[28] B Sjåfjell 'Time to get real: a general corporate law duty to act sustainably' Nordic & European Company Law Working Paper 22–06, at 2.

from these processes. Consequently, the law embeds within human society both this disconnection and the ideologies that place companies outside of the ecological realities in which they operate.

One example is the limited liability corporate form. In English law, companies are conceived of as legal entities, with rights and causes of action vested in themselves.[29] The incorporation of the company is justified in terms of the protection of investors should the company accrue debts or other financial liabilities, meaning that the investors lose on liquidation only the money that they have invested, and the company cannot be liable for the personal debts of its members.[30] Additionally, limited liability companies have been justified in terms of the promotion of entrepreneurship and enabling socially beneficial risk-taking behaviour, allocating risk on the basis of economic efficiency.[31]

The limited liability corporate form can contribute to Earth system stewardship. In order to steer the planet toward a 'stabilised Earth', active human stewardship of the biosphere is required,[32] meaning that significant socio-political-economic transformations must occur. Companies and private investment make an important contribution to the transition to a sustainable economy and society, such as through the development of green energy sources and products, developing sustainable steel and concrete, technologies and processes that reduce pollution and waste, and products that are designed with a circular economy in mind. By helping to facilitate these types of activities, which require innovation and risk-taking on the part of investors, limited liability can be an incredibly useful and beneficial legal form in many circumstances. In contrast, for those companies engaged directly or indirectly in environmentally harmful activities the limited liability corporate form may create barriers to efforts to change their behaviour. Therefore, the separate legal personality of the company, or the existence of the corporate veil, contributes towards disconnecting the company from the environment in two ways. First, the legal structures created by the Companies Act 2006 disconnect investors and executives from the environmental and human harm caused by the company, given that they are 'physically distanced and legally protected from the consequences of corporate activities'.[33] Secondly, within corporate groups, where environmental harms can be much more significant at the global scale, yet the parent company is shielded from liability for the harm caused by their subsidiary.[34]

(i) The legal structures of company law that disconnect human managers from the Earth system

Generally, a company's negative externalities are regulated through environmental law rather than being a problem of company law per se. However, the effectiveness of environmental law to address harm caused by commercial activities can be undermined by the separate legal personhood of the company. The separate legal personality of the company ensures that the managers and investors are generally protected from personal claims. Therefore, the company incurs liability for those impacted by the environmental harm caused by its activities and is the entity prosecuted for breaches of environmental laws.[35] According to Lord Halsbury LC in *Salomon v Salomon Ltd*, it would be 'impossible to dispute that once the company is legally incorporated it must be treated like any other independent person with its rights and liabilities appropriate to itself… the motives of those who took part in the promotion of the company are absolutely irrelevant in discussing what those rights and

[29] *Salomon v Salomon Ltd* [1897] AC 22.

[30] H Hansmann et al 'Law and the rise of the firm' (2006) 119(5) Harvard Law Review 1333.

[31] J Freedman 'Limited liability: large company theory and small firms' (2000) 63(3) *Modern Law Review* 317 at 317; B Choudhury and M Petrin *Corporate Duties to the Public* (Cambridge: Cambridge University Press, 2019) p 108.

[32] Steffen et al, above n 13, at 8257.

[33] Whyte, above n 17, pp 58–59.

[34] For instance, a Dutch court found that Shell plc (formerly Royal Dutch Shell plc) was responsible for a greater volume of greenhouse gas emissions in 2015 than the whole of the Netherlands: *Milieudefensie et al v Royal Dutch Shell plc* [2021] The Hague District Court C/09/571932 / HA ZA 19-379 [553].

[35] Whyte, above n 17, p 46.

liabilities are'.[36] Therefore, there are very few consequences for the managers and directors of a company to counterbalance the incentives of continuing activity that causes harm, including the personal benefits that flow from doing so.[37]

The effectiveness of environmental law may be reduced when the company is the defendant – either in civil or criminal proceedings – rather than the managers who are de facto responsible for the breach. For environmental law and regulation to be effective, all implicated legal regimes must be aligned to prevent barriers to environmental protection, or gaps that managers may exploit to continue the harmful behaviours. Water pollution in the UK is a valuable example of a misalignment between different legal rules. The decisions of the boards of directors and other managers of water companies to engage in or fail to adequately monitor activity that results in unlawful waste discharges into water bodies, or to risk a fine rather than invest in infrastructure to prevent such unlawful discharges occurring, are enabled by the way in which companies operate. The law helps to structure and enable such behaviour.

In two recent cases concerning Southern Water Ltd and Dairy Crest Ltd,[38] the failure of the upper management in the companies to address shortcomings in the middle management were identified by the court. In the criminal case of *Environment Agency v Southern Water Ltd*, Johnson J stated that although:

> [t]he board did not have direct operational responsibility for any of the sites… there was an intentional breach of, or flagrant disregard for, the law by the Defendant's board of directors, and/or a deliberate failure by the board of directors to put in place and enforce such systems as could reasonably be expected in all the circumstances to avoid the commission of the offences.[39]

In both cases the environmental harms have been long-standing and egregious, and often sectoral in scope rather than confined to individual companies, implying that these unlawful activities were not accidental in nature but borne of a deliberate choice to operate the company in that manner.[40] Southern Water alone had '168 convictions and cautions, including numerous offences of discharging untreated sewage'.[41] So permissive has been the behaviour of company directors in the water and sewage sector, that an Environment Agency report called for the criminal prosecution of wrongdoing directors and for powers to be awarded to the Agency to disqualify individuals from holding directorships in the future.[42]

The problem of unlawful waste discharges into water bodies demonstrates that even in a highly regulated sphere it is difficult to change the behaviour of those responsible for running the company if it is not in their interests to do so. One argument is that public environmental law should address this behaviour by more readily imposing personal liability upon directors and managers and using such powers. However, such an undertaking would require the design of a complex sea of legislative interventions and reform, given the wide breadth of activities that are implicated in Earth system disruption. Addressing the ways in which company law and regulation and the orthodoxy concerning the purpose of the company incentivises environmentally harmful behaviour, or creates barriers to

[36] *Salomon v Salomon Ltd*, above n 29, para 30 per Lord Halsbury.

[37] 'Water and sewerage companies in England: environmental performance report 2021' https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2021/water-and-sewerage-companies-in-england-environmental-performance-report-2021 (last accessed 15 January 2025).

[38] 'Dairy Crest given record fine for Davidstow environmental offences' https://www.gov.uk/government/news/dairy-crest-given-record-fine-for-davidstow-environmental-offences (last accessed 15 January 2025).

[39] *Environment Agency v Southern Water Ltd* Sentencing remarks, para 31, see https://www.judiciary.uk/wp-content/uploads/2022/07/Southern-Water-Sentencing-Remarks.pdf (last accessed 15 January 2025).

[40] D Carrington and S Barnes 'Revealed: how UK water companies are polluting Britain's rivers and beaches' *The Observer* (3 August 2013) https://www.theguardian.com/environment/2013/aug/03/water-companies-polluting-rivers-beaches (last accessed 15 January 2025); T Adams 'Swimming in sewage: how can we stop UK water firms dumping human waste in our rivers and seas?' *The Observer* (14 November 2021) https://www.theguardian.com/environment/2021/nov/14/swimming-in-sewage-how-can-we-stop-uk-water-firms-dumping-human-waste-in-our-rivers-and-seas (last accessed 15 January 2025).

[41] *Environment Agency v Southern Water Ltd* Sentencing remarks, para 9, above n 39.

[42] 'Water and sewerage companies in England: environmental performance report 2021', above n 37.

efforts to change the way that a specific company carries out its activities, could be a more effective and practical intervention. As Sjåfjell argues, company law could make 'a key contribution to the regulatory jigsaw puzzle of sustainability' because of its role in structuring the way decision-making is undertaken and shaped within companies.[43] One of the central mechanisms by which directors' behaviour may be influenced is through the duties that they owe to their company and its stakeholders. However, at present directors' duties contribute to the disconnection of directors from their place within the Earth system rather than incentivising environmentally sustainable behaviour.

ESV is codified in UK law by section 172(1) of the Companies Act 2006, which states that directors have a fiduciary duty to 'act in the way he considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole', a subjective judgement for the director.[44] The consequence of the subjective approach is that, without clear evidence, it is very difficult to demonstrate that directors have breached the duty of good faith.[45] In addition, the directors must 'have regard', inter alia, to the long-term consequences of decisions, and 'the impact of the company's operations on the community and the environment',[46] requiring a balancing act such that a company's environmental impact will be balanced against the interests of the company and its shareholders and its employees, its long-term success or the impact on the community.[47] However, as Benjamin notes, 'ESV only appears to be "enlightened" when the interests of the environment coincide with the profit motivations of shareholders'.[48]

Since the introduction of section 172(1) there have been successive reforms attempting to strengthen the consideration of the section 172(1)(a)–(f) factors within decision-making processes. Such reforms have been triggered by the growing scientific understanding of the impacts of climate change, international, supranational and domestic efforts to respond to the problem,[49] and the recognition that section 172(1) has not been effective at changing corporate behaviour regarding environmental impacts. Thus, there have been incremental steps, first attempting to secure compliance with directors' section 172 (1) duties, and secondly, to respond to climate change and global environmental problems. Perturbations to the Earth system have created irritations that have led to the reform of company law and regulation. Yet, the response has been consistent with a path-dependent approach, and thus has been guided by the logic of the Holocene era and assumptions drawn from this period regarding how the natural environment functions and responds to human activity,[50] focusing on non-financial information disclosure to nudge behaviour in a more environmentally sustainable direction.[51]

(ii) Legislative and regulatory reforms to promote sustainable business

Over the last decade there has been some piecemeal reform of company law and efforts to use existing legal mechanisms to encourage directors to take the environment and environmental problems into

[43]Sjåfjell, above n 28, at 2.

[44]*Madoff Securities International Ltd (In Liquidation) v Raven* (2013) EWHC 3147 (Comm); *Regentcrest plc (In Liquidation) v Cohen* [2000] 5 WLUK 788; *In Re Smith & Fawcett Ltd* [1942] Ch 304 (CA). For the development prior to the introduction of s 172(1) see Benjamin, above n 23, ch 3.

[45]R McCorquodale and S Neely 'Directors duties and human rights impacts: a comparative approach' (2022) 22(2) *Journal of Corporate Law Studies* 605.

[46]Companies Act 2006, s 172(1)(a) and (d).

[47]A Keay 'Having regard for stakeholders in practising enlightened shareholder value' (2019) 19(1) Oxford University Commonwealth Law Journal 118 at 132.

[48]L Benjamin 'The duty of due consideration in the anthropocene: climate risk and English directorial duties' (2017) 11(2) Carbon and Climate Law Review 90 at 95.

[49]United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107; Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) FCCC/CP/2015/10/Add 1; European Commission '2030 Climate & Energy Framework' (European Commission, 2018) https://www.consilium.europa.eu/en/policies/climate-change/2030-climate-and-energy-framework/ (last accessed 12 March 2025); Climate Change Act 2008.

[50]LJ Kotzé 'Earth system law for the anthropocene: rethinking environmental law alongside the earth system metaphor' (2020) 11(1–2) Transnational Legal Theory 75.

[51]F Möslein and K Engsig Sørensen 'Nudging for corporate long-termism and sustainability? Regulatory instruments from a comparative and functional perspective' (2018) 24(2) Columbia Journal of European Law 391.

account in their decision-making in a variety of ways. These mechanisms, such as information disclosure, derivative actions, and the tort of negligence, are limited to the extent that they operate within established legal frameworks that often create or expose existing barriers to efforts to address environmentally harmful activities. Such reforms and legal interventions do not address the way in which underlying legal structures allow and, in some instances, encourage (such as through directors' section 172(1) duty to company members) environmentally harmful activities.

The central mechanism adopted in the UK, by successive reform of the Companies Act 2006, to encourage directors, managers and investors to change their behaviour is via the obligation to identify and disclose non-financial information. Despite ESV becoming a statutory obligation in 2006, there have been several amendments made in response to the inadequate consideration by directors of the section 172(1)(a)–(f) factors. In 2013 the obligation for directors to produce an annual strategic report was introduced. The strategic report must contain '(a) a fair review of the company's business, and (b) a description of the principal risks and uncertainties facing the company'.[52] The review of the company must include 'information relating to environmental matters',[53] which for a parent company includes information relating to the whole group, irrespective of where the subsidiaries are based in the world.[54] Quoted companies are placed under a greater and much more detailed obligation to identify and disclose. A general, but potentially important requirement for those companies, particularly for environmentally damaging sectors, is for the report to include a description of the company's business model and strategy.[55] In terms of the environment this includes 'environmental matters (including the impact of the company's business on the environment)'.[56]

The strategic report has done very little to ensure that directors comply with their section 172 (1) duties. Keay argues that its purpose is to communicate with the company's shareholders rather than 'engaging with stakeholders'.[57] This is supported by guidance issued by the Financial Reporting Council, which states that 'only information that is material to shareholders should be included in the strategic report'.[58] Consequently, a series of further reforms have been made in a piecemeal manner which has created greater complexity on the one hand, but guidance on the expectations placed on boards when 'having regard' to the section 172(1) factors, on the other.

In 2016, a non-financial statement was introduced into the strategic report for certain large companies, which was further amended in 2022 to include 'sustainability' within its scope.[59] These reforms were triggered by the risk to financial stability of climate change, requiring the companies falling within the scope of the provisions to include their 'climate-related financial disclosures' (CRD) as well as disclosures on environmental matters and impacts of the company.[60] For the latter issue greater guidance is given, requiring not only a description of the business model, but also the policies and any due diligence undertaken in response to, inter alia, environmental matters, their outcomes and a description of the:

> principal risks… arising in connection with the company's operations and, where relevant and proportionate – (i) a description of its business relationships, products and services which are like to cause adverse impacts in those areas of risk, and (ii) a description of how it manages the principal risks.[61]

[52]Companies Act 2006, s 414C(2)(a)–(b). It should be noted that there is a small business exemption, meaning that the majority of UK private businesses are not required to produce the report.

[53]Ibid, s 414C(4)(b).

[54]Ibid, s 414A(3).

[55]Ibid, s 414C(8)(a)–(b).

[56]Ibid, s 414C(7)(b)(i).

[57]Keay, above n 47, at 124.

[58]Financial Reporting Council 'Guidance on the strategic report' (2018); McCorquodale and Neely, above n 45.

[59]Companies Act 2006, s 414CA.

[60]Ibid, s 414CB(A1) and (1)(a).

[61]Ibid, s 414CB(2).

However, the enforcement mechanisms, despite targeting directors personally, focus on the procedural requirements to produce a report rather than its content.[62] Although directors who produce a misleading report or are reckless as to its truth could be personally liable for any losses incurred, how this would be identified or proven remains an open question.[63]

In 2018, a further provision was introduced for large undertakings, requiring the addition of a section 172(1) statement located within the strategic report, that explains 'how the directors have had regard to the matters set out in section 172(1)(a) to (f) when performing their duty under section 172'.[64] Concurrently, provision 5 of the Corporate Governance Code 2018 states that '[t]he board should understand the views of the company's other key stakeholders and describe in the annual report how their interests and the matters set out in section 172 of the Companies Act 2006 have been considered in board discussions and decision-making'.[65] The introduction of obligations that require directors to state how they have undertaken this balancing exercise implies a lack of faith that directors do routinely consider stakeholders, as required by their section 172(1) duties.

Alongside the inclusion of CRD obligations in the Companies Act 2006, certain regulators have also introduced CRD regimes to implement and facilitate the Government's policy for economy-wide Task Force on Climate-related Financial Disclosures (TCFD)-aligned disclosures by 2025.[66] For instance, the Financial Conduct Authority (FCA) introduced CRD for premium-listed companies in 2020 via changes to the Listing Rules.[67] LR9.8.6(8) states that a listed company incorporate in the UK must, inter alia, make CRD that are consistent with the TCFD Recommendations in the annual financial report or explain why it has not.[68] The Listing Rules are clear that 'the FCA would normally expect a listed company to be able to make [CRDs] consistent with the TCFD Recommendations and Recommended Disclosure, except where it faces transitional challenges in obtaining relevant data or embedding relevant modelling or analytical capabilities'.[69] On 1 January 2022, these requirements were extended to issuers of standard listed shares or equity shares represented by certificates.[70]

The FCA demonstrates the dual purpose of CRD, moving from a focus on global financial stability and attempts to address this internationally via the TCFD, to 'promote transparency on climate change and wider sustainability matters along the value chain… [because] better corporate disclosures will inform market pricing and support business, risk and capital allocation decisions' and consequently aid the green transition.[71] The FCA also encourages listed companies headquartered or operating in a country that has a net zero target, 'to assess the extent to which it has considered that commitment in developing and disclosing its transition plan' or explain why it has not.[72]

Although the strategic report and non-financial and sustainability statement must include 'environmental matters' within their scope, in 2021 the then Chancellor of the Exchequer announced that new Sustainability Disclosure Requirements (SDR) would be developed in an 'integrated framework for decision-useful disclosures on sustainability across the economy'.[73] The Government's plans included

[62]Ibid, s 414D(3).

[63]McCorquodale and Neely, above n 45, at 631.

[64]Companies Act 2006, s 414CZA.

[65]The UK Corporate Governance Code 2018.

[66]'A roadmap towards mandatory climate-related disclosures' (HM Treasury, 2020) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933783/FINAL_TCFD_ROADMAP.pdf (last accessed 15 January 2025).

[67]FCA Handbook LR9.8.

[68]The Listing Rules offer guidance on how to undertake such disclosures: ibid, LR9.8.6B–9.8.6F.

[69]Ibid, LR9.8.6E.

[70]'FCA's new rules on climate-related disclosures to help investors, clients and consumers' *FCA* (16 December 2021) https://www.fca.org.uk/news/news-stories/new-rules-climate-related-disclosures-help-investors-clients-consumers (last accessed 15 January 2025).

[71]FCA Policy statement 'Enhancing climate-related disclosures by standard listed companies' (2021) PS21/23 paras 1.3, 1.4.

[72]FCA Handbook LR9.8.6F.

[73]'Greening finance: a roadmap to sustainable investing' (HM Government, 2021) p 11.

Table 1. Development of mandatory non-financial disclosure obligations

Date	Legislation/regulation	Nature of reform
2006	Companies Act 2006, Pt 10, Ch 2	Placed common law directors' duties on a statutory footing
2013	Companies Act 2006, s 414	Obligation to produce an annual strategic report
2016	Companies Act 2006, s 414CA	Obligation to produce a non-financial statement
2018	Companies Act 2006, s 414CZA	Obligation to produce a s 172(1) statement
2020	Listing Rules	CRD obligation for premium listed companies
2022	Companies Act 2006, ss 414CA–414CB	Non-financial statement includes 'sustainability' Obligation to produce CRD
2022	Listing Rules	CRD for issuers of standard listed shares or equity shares represented by certificate
–	–	Sustainability disclosures; net zero transition plans; green taxonomy; The Taskforce on Nature-related Financial Disclosures Framework

incorporating the obligation to produce net zero transition plans into SDR.[74] By 2023, the Government had announced its intention to base legal obligations on the sustainability standards under development by the International Sustainability Standards Board (ISSB).[75] Additionally, the 'government will explore how best the final [Taskforce for Nature-Related Disclosures] framework… should be incorporated into UK policy and legislative architecture, in line with Target 15 of the Global Biodiversity Framework'.[76] Table 1 demonstrates that the reforms of the Companies Act 2006 and mechanisms such as the Listing Rules have responded to Earth system disruption, the changing nature and understanding of environmental harm and the need to address the impact of corporate activities on a wide range of Earth systems.

Although there has been an expansion from climate change-related disclosures to the inclusion of other environmental concerns within these obligations, the limited effectiveness of information disclosure to change environmentally harmful behaviour is well rehearsed in the literature.[77] However, the UK Government views information disclosure as a means to direct investment and grow the economy as companies respond to the risks to the global economy from '[c]limate change, biodiversity loss and environmental degradation'.[78] While implicitly recognising that the economy is significantly impacted by Earth system disruption and responses to it, the manner by which the law is being used attempts to direct finance away from highly damaging activities rather than directly addressing the behaviour of such companies. Additionally, it does not question the role of companies as economic value-creating entities, the alignment of capitalism with the Earth system or the centrality of economic growth as the core metric to determine domestic success.

Information disclosure fails to translate as successfully from financial activities to the environmental impact of the company for a variety of reasons, not least that it is often more profitable to engage in harmful activities in the short to medium term. More generally, there is a disjunction between the time available in which to change behaviour, the extent of change that must occur to avoid further Earth

[74]Ibid, p 16.

[75]Department for Business, Energy & Industrial Strategy 'Mobilising green investment. 2023 green finance strategy' (HM Government, 2023) p 9.

[76]Ibid, p 45.

[77]K Morrow 'Informational requirements and environmental protection' in Lees and Viñuales, above n 2; L Catá Backer 'Transparency between norm, technique and property in international law and governance: the example of corporate disclosure regimes and environmental impacts' (2013) 22(1) Minnesota Journal of International Law 1; E Webster 'Information disclosure and the transition to a low-carbon economy: climate-related risk in the UK and France' (2020) 32 Journal of Environmental Law 279.

[78]'Mobilising green investment. 2023 green finance strategy', above n 75, p 7.

system disruptions, and a risk that such disclosures will fail to assess a company's activities and undertake risk assessments in the context of the Earth system in the short, medium or long term. Furthermore, the frequency and scope of reforms that have been made over the last decade (as seen in Table 1) has significantly increased complexity and uncertainty in a manner that is likely to weaken the impact of these types of disclosure to either secure financial stability or adequately respond to Earth system disruptions.

(iii) Investor action: the removal of directors

Although company law offers investors the power to remove directors, at present these powers are likely to be rarely used to promote more environmentally favourable activities. Shareholders may remove directors who they do not deem to be adequately considering the environmental impact of the company, with only an ordinary resolution.[79] However, in many companies it may be difficult to garner the required support to reach the 51% threshold to do so, particularly in those with large, dispersed, shareholdings. Voting may also be used as a way of signalling investors' dissatisfaction with the decisions of the Board. For instance in April 2023, five UK pension funds announced that they would vote against the reappointment of BP's chair, Helge Lund, in response to the company's weakening of its GHG reduction targets and extension of fossil fuel production.[80] However, directors may also be removed by a simple majority of shareholders should their management of the company result in lower returns on investments, thereby disincentivising environmentally beneficial decisions in companies whose profits are derived from highly damaging activities such as fossil fuel production.

(iv) Application to the courts: derivative actions, the tort of negligence and the environmental impact of the company

Alongside legislative reform, the courts have been asked to intervene in specific instances of corporate environmental harms through the use of company law derivative actions and the common law tort of negligence. Should a minority investor be concerned that the director or directors have breached their duties to the company, they may bring a derivative claim on its behalf.[81] Directors' duties within the Companies Act 2006 are owed to the company itself, meaning that there are no duties toward the environment despite the impact that the company or group may have in practice.[82] Accordingly, any remedies awarded are for the benefit of the company, again deterring shareholder action. In addition, presently there is no jurisprudence concerning directors breaching their duties in terms of the environmental impact of their company nor fleshing out the content of the duties in the context of the Earth system and its perturbations.[83]

There are limited options for those outside of the company, such as NGOs, to change its activities. In an attempt to use an established mechanism of corporate law as a way to change the behaviour of GHG-intensive companies, the NGO ClientEarth initiated a statutory derivative claim against Shell plc. ClientEarth was a minority shareholder in the company and argued that the 'Board's failure to adopt and implement a climate strategy that truly aligns with the Paris Agreement is a breach of their duties under the UK Companies Act', relying on section 172(1) and section 174, the duty to exercise reasonable care, skill and diligence, an objective test.[84] ClientEarth argue that section 174 may be breached by a

[79]Companies Act 2006, s 168(1).

[80]C Flood and T Wilson 'Pension schemes to target BP's Lund over backtrack on climate pledges' *Financial Times* (19 April 2023) https://www.ft.com/content/02fa7231-78c3-47d7-973c-8e9b936b91ee (last accessed 15 January 2025).

[81]Companies Act 2006, s 260.

[82]Ibid, s 170.

[83]This case is the only one to consider s 172(1)(d) and was unsuccesful for the applicant: *R (People and Planet) v HM Treasury* [2009] EWHC 3020 (Admin).

[84]*Madoff Securities International Ltd (In Liquidation) v Raven*, above n 44, para 207; *ClientEarth v Shell plc and Others* [2023] EWHC 1897 (Ch), at [14]. *D'Jan of London Ltd, Copp v D'Jan* [1993] BCC 646.

failure to take into account the systemic risks to the company posed by climate change.[85] Such actions are anchored in the duty to promote the success of the company and 'any remedy sought is therefore to make good the loss sustained by the company'.[86] The court rejected ClientEarth's arguments and declined to grant permission to proceed to a full hearing, stating that a prima facie case had not been made out.[87] At issue is the directors' management of climate risks, yet 'the law respects the autonomy of the decision making of the Directors on commercial issues and their judgments as to how best to achieve results which are in the best interests of their members as a whole'.[88]

In its submissions, ClientEarth argued that in the context of climate change there were 'six necessary incidents of the statutory duties', including 'a duty to make judgments regarding climate change that are based upon a reasonable consensus of scientific opinion'.[89] For their part, Shell claimed that these incidental duties 'cut across the basic principle of company law that it is for the directors themselves to determine the weight to be attached to the non-exhaustive list of factors referred to in s.172', with which the judge agreed.[90] Trower J considered the risks to the company from climate change and Earth system disruption to be part of commercial decision-making and thus management of the company,[91] although the impact of the company on the environment and community are part of the section 172(1) balance of competing factors which the directors must consider.[92] Both, however, are ultimately left to the discretion of the directors; the court will not 'assume to act as a kind of supervisory board over decisions within the powers of management honestly arrived at'.[93]

ClientEarth v Board of Directors of Shell plc demonstrates that there will be a high bar for the minority shareholder wishing to bring a derivate claim attempting to change the way a company is managed in terms of its environmental impact. Shareholder activism through the medium of derivative actions will be deemed to be unacceptable, meaning that those such as ClientEarth with very small shareholdings (ClientEarth owned only 27 shares in Shell plc) and an environmental agenda would face significant challenges attempting to demonstrate that they were acting in good faith for the benefit of the members.[94] Yet, there is likely to be a point in time in which both the interests of NGOs seeking to challenge environmentally harmful activities such as fossil fuel extraction, and the interests of the companies themselves, do in fact align. How a court may intervene in this type of situation remains to be seen.

The singular problem that derivative actions in response to the company's environmental impact run into is that directors' duties are owed to the company and that they are offered a very wide discretion to make commercial decisions. On the one hand, the subjectivity inherent in these duties is reasonable when considering the divergent forms, activities and purposes of companies in the UK. However, such duties are not an ideal mechanism to encourage directors to change the way they conceive of and run their company vis-à-vis the environment and Earth system. On the other, the statutory interventions that have been made over the last decade have slowly shaped directors' responsibilities, but also led to great uncertainties regarding their scope, which may benefit from further judicial consideration and a body of jurisprudence regarding section 172(1).[95] Indeed, wider criticisms of section 172(1) concern the way that

[85]'ClientEarth starts legal action against Shell's Board over mismanagement of climate risk' https://www.clientearth.org/latest/press-office/press/clientearth-starts-legal-action-against-shell-s-board-over-mismanagement-of-climate-risk/ (last accessed 15 January 2025); Benjamin, above n 48, at 94.

[86]McCorquodale and Neely, above n 45, at 612.

[87]*ClientEarth v Shell plc and Others*, above n 84, para 5.

[88]Ibid, para 47.

[89]Ibid, para 16.

[90]Ibid, paras 18–19.

[91]Ibid, para 25.

[92]Ibid.

[93]*Howard Smith Ltd v Ampol Ltd* [1974] AC 821, at 832E/F; *ClientEarth v Shell plc and Others*, above n 84, para 25.

[94]*ClientEarth v Shell plc and Others*, above n 84, paras 64–65.

[95]A Keay 'Assessing and rethinking the statutory scheme for derivative actions under the Companies Act 2006' (2016) 16(1) Journal of Corporate Law Studies 39 at 46.

it is drafted, a failure to define key elements such as 'success',[96] and the lack of cases interpreting the provision or addressing it in any detail, which has led to uncertainty regarding what it does in practice.[97] However, there is also a danger that the court would be unwilling to interpret section 172(1), and the duty to 'have regard' in an expansive way, but rather take a more restrictive approach. Indeed, the section 172 (1) factors would be interpreted in terms of the directors' 'overarching requirement… to promote the success of the company as a whole, and that will be the final determining issue'.[98] Such a conclusion would be problematic given that it would re-harden legal structures in an area currently in a state of flux due to the perturbations of the Earth system. Ultimately, at present the courts are unable (or unwilling) to break with traditional notions of company law and its purpose, or interpret the law in an Earth systems context, meaning that any evolution in this sphere must (and ought to) come from Parliament.

The unwillingness of the courts to undermine the statutory regime and core principles of company law is not an issue found when the common law tort of negligence has been drawn upon in the context of multinational corporate groups. As previously mentioned, the purpose of the incorporation of a company is to protect investors or owners – in the case of multinationals, the parent company – from liability for the debts of the subsidiary in the case of its insolvency.[99] Thus, corporate groups, which often cross jurisdictional boundaries,[100] can be structured in a way that, among other things, limits the risks and liabilities associated with uncertain ventures.[101] Such group structures have offered multinational companies the opportunity to extract revenue from highly environmentally and socially damaging activities while not being held responsible for the harm caused, which remains the concern of the subsidiary and jurisdiction in which it is located. As Witting notes:

> If [parents] so choose, they can avoid assessing the risks that subsidiaries undertake and avoid encouraging them to take precautions protective of third parties. Indeed, should subsidiaries encounter difficulties, parents can refuse financial support and walk away.[102]

Limited liability within groups also 'incentivises subsidiaries to underspend on precautions to avoid accidents and can lead to overspending on hazardous activities',[103] thereby increasing the risk of environmental damage from commercial activities. Therefore, arguments for limited liability within corporate groups, particularly where harm has materialised because of negligent activity, are much less persuasive than where shareholders are natural persons.[104] Yet, there is little reference to, or direct regulation of, corporate groups within UK company law.[105]

The tort of negligence has been used in an attempt to prevent a parent of a group evading liability for harm caused by its activities despite its ultimate control over the operations of its subsidiaries,[106] such that in practice the group operates as a 'single commercial entity'.[107] Consequently, the tort of negligence could be said to have a regulatory effect on multinational companies in certain circumstances,[108]

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[96]McCorquodale and Neely, above n 45, at 615.

[97]Keay, above n 47, at 119.

[98]Ibid, at 135.

[99]C Witting 'The corporate group: system, design and responsibility' (2021) 80(3) *Cambridge Law Journal* 581 at 582; H Hansmann and R Squire 'External and internal asset partitioning: corporations and their subsidiaries' in JN Gordon and W-G Ringe (eds) *The Oxford Handbook of Corporate Law and Governance* (Oxford University Press, 2016) p 251.

[100]Choudhury and Petrin, above n 31, p 96.

[101]See *Adams v Cape Industries plc* [1990] Ch 433; Witting, above n 99, at 585.

[102]Witting, above n 99, at 585.

[103]Choudhury and Petrin, above n 31, p 111.

[104]Ibid, p 111; C van Dam 'Breakthrough in parent company liability. Three shell defeats, the end of an era and new paradigms' (2021) 5 European Company and Financial Law Review 714 at 737–738.

[105]Choudhury and Petrin, above n 31, pp 96–97.

[106]Witting, above n 99, at 591, 581; *Chandler v Cape plc* [2012] EWCA Civ 525.

[107]*Vedanta Resources plc and Another v Lungowe and Others* [2019] UKSC 20 at [51].

[108]DA Kysar 'The public life of private law: tort law as a risk regulation mechanism' (2018) 9(1) European Journal of Risk Regulation 48.

'develops lead firm liability for the inadequate governance of its subsidiaries, [and] pushes private law towards reconceptualising fragmented production as centrally governed entities'.[109] What is interesting about this development is that the courts' unwillingness to interfere with company law is not reflected in its use of tort law. Indeed, the courts insist that the use of negligence to hold parent companies liable for the harm caused by their subsidiaries leaves intact the principle of the corporate veil.[110] Thus, in certain limited instances, the courts will intervene to overcome the barriers to accountability erected by company law but do so in a way that attempts to reconcile tort and company law.

Salminen and Rajavuori draw attention to the turn to tort law to address the inadequate governance of groups and value chains across a number of jurisdictions and its contribution to the emerging transnational standards of liability for multinationals.[111] The potential for tort law to change behaviour emerges from the articulation of the duty of care a parent company may be under for the activities of its subsidiaries.[112] Such a duty could deter unwanted behaviour and ameliorate the unwelcome consequences of limited liability by holding parent companies accountable for the conduct of the group.[113] However, parental liability in the English courts would be founded upon existing duties such as *Donoghue v Stevenson*,[114] assumption of responsibility[115] or exercising control over third parties,[116] rather than as a novel duty of care,[117] meaning that claimants must make out each element of the specific duty relied on.

In *Vedanta Resources plc*, it was confirmed that a UK-incorporated parent company could owe a common law duty of care to those harmed by the subsidiary within the general principles of negligence. Lord Briggs JSC held that such a duty was not established by virtue of vicarious liability nor simply by virtue of its control over the subsidiary,[118] but 'the extent to which, and the way in which, the parent availed itself of the opportunity to take over, intervene in, control, supervise or advise the management of the relevant operations (including land use) of the subsidiary'.[119] The judgment, according to Witting, 'signifies greater judicial recognition of indirect control methods as a basis of parent company liability'.[120] In his judgment, Lord Briggs JSC laid out some of the circumstances in which a duty may be established, which included the existence of systemic errors in 'Group guidelines about minimising the environmental impact of inherently dangerous activities' which on implementation cause harm to third parties.[121] Another situation that may give rise to a duty concerns when the parent 'takes active steps, by training, supervision and enforcement'[122] to ensure that the subsidiary implements the group-wide policies. Finally, he drew attention to where the parent omits to supervise and control a subsidiary but has held itself out as doing so.[123]

Vedanta Resources plc offers some judicial development in terms of the negligent activities of corporate groups, although as the claim did not proceed to a full hearing in the event there is no further case law concerning parental duties of care.[124] Further development is required, particularly in terms of the courts recognising 'their own forward-looking role in imposing both responsibility and proper

[109]Salminen and Rajavuori, above n 21, at 234.

[110]*Vedanta Resources*, above n 107; *HRH Emere Godwin Bebe Okpabi and Others v Royal Dutch Shell plc* [2021] UKSC 3; *Chandler v Cape plc*, above n 106.

[111]Salminen and Rajavuori, above n 21.

[112]van Dam, above n 104, at 742–743.

[113]C Riley and O Akanmidu 'Explaining and evaluating transnational tortious actions against parent companies: lessons from Shell and Nigeria' (2022) 30(2) African Journal of International and Comparative Law 229 at 247.

[114]*Donoghue v Stevenson* [1932] AC 562.

[115]*Hedley Byrne & Co Ltd v Heller & Partners Ltd* [1964] AC 465.

[116]*Home Office v Dorset Yacht Co Ltd* [1970] UKHL 2.

[117]Based upon a *Caparo v Dickman Ltd* [1990] 2 AC 605 analysis.

[118]*Vedanta Resources*, above n 107, para 49.

[119]*Vedanta Resources*, above n 107, in essence assuming responsibility for the subsidiary's actions.

[120]Witting, above n 99, at 606.

[121]*Vedanta Resources*, above n 107, para 52.

[122]Ibid, para 53.

[123]Ibid, para 54.

[124]van Dam, above n 104, at 720.

standards of care upon groups… it is necessary for courts to impose responsibility through parent company duties so that responsibility means something substantive'.[125] The reassertion that a parent company may owe third parties a common law duty of care for negligent harm suffered by a subsidiary in another jurisdiction could lead to multinational parent companies refusing to intervene in the activities of their subsidiaries.[126] Yet, the obligation in the UK to produce group strategic reports and non-financial and sustainability statements under Chapter 4A of the Companies Act 2006 domestically, and internationally through the UN Guiding Principles and OECD Guidelines (which have also been relied upon in the Netherlands to develop a duty of care owed by Shell plc[127] to Dutch citizens[128]) means that they may be under an obligation to exert the control that they hold themselves out as exercising within these reports in a way that would establish a common law duty of care.[129]

However, the tort of negligence has two limitations as a form of corporate regulation in the context of ESS. The first is that it is only engaged when harm has been caused negligently, which, while helpful for incidents of pollution, is not yet useful for contribution to global GHG emissions or other cumulative harms. The second, related point, is that causation between the acts of the group and disruptions to the Earth system must be made out.[130] For a group's contribution to climate change or disruption to Earth system processes, the scientific uncertainty and lack of proximity between the activity and the harm has yet to be overcome. Efforts in Australia to frame the emission of GHGs from a coal mine as a material contribution to the risk of harm using ESS was successful at the first instance but overturned on appeal. It is likely that the English courts would take a similar view to the Full Court of the Federal Court of Australia.[131] Although great strides are being made in attribution science, within the law of negligence the courts have been wary about 'opening the floodgates' to litigation and the lack of coherence that such exceptions produce. This concern is exemplified by extra-judicial comments by Lord Hoffmann, who subsequently doubted the *Fairchild* decision, that he along with his colleagues heard in the House of Lords, due to its adoption of an exception to 'but for' causation in order to find for the claimants.[132] *Fairchild* held that employers had materially contributed to the risk of their employees contracting mesothelioma from negligent exposures to asbestos, in situations where scientific uncertainty and long time lags between the negligent exposures to the materialisation of harm meant that the exact defendant could not be identified.[133] Relying upon the tort of negligence to ameliorate the problems caused by company law may therefore be limited, given that judges are aware that any developments in the jurisprudence of this area apply far beyond the facts and defendants of the case before them.

3. Removing legal barriers and reorienting the company

The foregoing analysis has demonstrated that there are several reasons for the insufficient regulation of companies in the context of anthropocentric-induced disruption of the Earth system. The legal structures that have developed to govern companies are fragmented in nature. Regimes beyond company law are used to respond to problems in an ad hoc way as they emerge, rather than regulating companies in a way that

[125] Witting, above n 99, at 606.

[126] L Roorda 'Broken English: a critique of the Dutch Court of Appeal decision in *Four Nigerian Farmers and Milieudefensie v Shell*' (2021) 12(1) Transnational Legal Theory 1.

[127] Formerly Royal Dutch Shell plc.

[128] *Four Nigerian Farmers and Milieudefensie v Royal Dutch Shell and others* (Court of Appeal of The Hague) ECLI:NL:GHDHA:2021:132.

[129] van Dam, above n 104, at 718.

[130] That on the balance of probabilities, 'but-for' the defendants' act the harm would not have occurred: *Barnett v Chelsea & Kensington Hospital* [1969] 1 QB 428.

[131] *Sharma and Others v Minister for the Environment* [2021] FCA 560; *Minister for the Environment v Sharma* (2022) 35 FCAFC.

[132] *Fairchild v Glenhaven Funeral Services Ltd* [2002] UKHL 22.

[133] Lord Hoffmann '*Fairchild* and after' in A Burrows et al (eds) *Judge and Jurist: Essays in Memory of Lord Rodger of Earlsferry* (Oxford: Oxford University Press, 2013).

Table 2. Proposed reforms of corporate law and regulation in the UK

Directors' duties • s 172(1) revisions • Duty of environmental and social responsibility	**Education, training and expertise** • Mandatory sustainability training for directors • Representative of the environment on the board
Mandatory environmental and social due diligence obligations • Drawing on UNGPs and OECD Guidelines and Modern Slavery Act 2015 • Aligning with EU proposed corporate sustainability due diligence directive and other domestic mandatory obligations	**Accountability and enforcement** • Senior Managers Regime • New regulatory body/committee • Parental liability for activities of subsidiaries • Decisions that come into conflict with new duty reviewable by the courts

recognises and limits corporate behaviour so that companies are beneficial or benign rather than forces of disruption. Legal reforms have been path-dependent, piecemeal and limited to modes of regulation such as information disclosure that are unable to directly create behaviour changes to the extent dictated by the needs of the Earth system. This section proposes four reforms of company law and regulation that would help to address some of the barriers that are currently present: directors' duties; mandatory due diligence; education, training and expertise; and enforcement and accountability (Table 2).

Although companies are operating on a planet with changing environmental conditions, the structures and principles of company law and regulation have remained largely static. Consequently, the vagueness of directors' duties, although intended to grant directors discretion when making commercial decisions, is problematic in terms of how directors understand the way that the environment should be considered and the weight it should be given.[134] Although there is now greater acceptance in the corporate world that companies must respond to their environmental impact and the impact of Earth system disruption upon their operations, and as such is a component of a director's fiduciary duties, the perception still exists in many quarters that 'corporate fiduciary duties either prevent or disincentivize directors from focusing corporate attention and resources on combatting climate change'.[135]

Directors' duties must be reformed to respond adequately to changing planetary conditions and to address the negative consequences of capitalism. A challenge with reforming directors' duties to better reflect the need to consider the environment when making business decisions is how directors would balance shareholder value against environmental harm when a tension arises. Literature has drawn attention to the limitations of shareholder primacy when balanced against social welfare,[136] but others reconsider the model and the extent of the priority given to shareholders. For instance, Millon argues that within:

> 'traditional shareholder maximisation' there is no expectation that management must maximize current share price to the exclusion of competing objectives. These can include regard for the interests of non-shareholder constituencies under circumstances management deems appropriate, as well as long-term investments that reduce current earnings for the sake of future gains.[137]

Others have argued that there is a moral obligation implied into fiduciary duties,[138] and that the assumption that the shareholders are the sole consideration of a company's managers is based upon a

[134]Keay, above n 47, at 127.

[135]L Benjamin 'The road to Paris runs through Delaware: climate litigation and directors' duties' (2020) 2 *Utah Law Review* 313 at 320.

[136]TM Jones and W Felps 'Shareholder wealth maximization and social welfare: a utilitarian critique' (2013) 23(2) Business Ethics Quarterly 207.

[137]D Millon 'Radical shareholder primacy' (2013) 10(4) University of St Thomas Law Journal 1013 at 1014.

[138]MJ Lowenstein and J Geyer 'Shareholder primacy and the moral obligation of directors' (2021) 26(1) Fordham Journal of Corporate and Financial Law 105.

flawed premise.[139] As the law currently stands, environmental matters could be prioritised over shareholders in certain situations and still be consistent with the model of shareholder primacy. Ultimately, such a balancing exercise will be context specific, requiring consideration of the long-term consequences of taking environmentally beneficial – or ceasing environmental harmful – activities with the social and economic implications of doing so. Yet, without explicit duties, the courts would give directors a wide discretion when making such business judgements. Therefore, while the current law does not prevent directors making decisions that are beneficial to the environment, it also does not prevent directors making commercial decisions that are environmentally and socially destructive.

Revision of section 172(1) duties could take several forms. The first would be to revise the section to place the duty to act for the benefit of the members on an equal footing with the non-exhaustive list of factors in section 172(1)(a)–(f), or to remove the duty altogether. Such a reform would offer directors the reassurance that they were not breaching their duties when undertaking activities that benefit the environment but reduce profits and dividend payments. However, it would not prevent their removal by dissatisfied members and replacement with those who would focus on the bottom line. Therefore, it is unlikely that such a reform would make a significant impact in practice.

A second potential reform would be to leave section 172(1) intact but to introduce a new duty for directors that reflects the key position of companies within the global economy and their contribution to environmental and social improvement or harm. This duty would be novel, given that it would not be owed to the company but would introduce an environmental and social obligation that reflects the world in which these entities exist. The benefit of such a duty is twofold. The first is that it would fall under the review of an appropriate existing or new regulator or committee as non-financial disclosure information is monitored and enforced. Secondly, the duty would, as with the other duties, hold directors personally liable for their breaches. However, such a duty may, at times, come into conflict with the duty to the members and company, retaining the discretion offered to directors when making business decisions.

A final reform could combine both: removing or subordinating the explicit duty to the members and introducing a new duty of environmental and social responsibility. This type of revision to directors' duties would allow the environmental and social impact of the company to be reviewed, would offer clear direction of the duties of directors should the economic benefit to the company be at the cost of the environment or humans, and would bypass the problem of shareholders removing a director by holding all to the same standard. Although such reforms would alter a core principle of company law, it could contribute to the transition of the global economy and help to respond to the triple threat of climate change, biodiversity loss and pollution. Consequently, it would position companies in such a way that they contribute to the green transition and are situated to be ready to operate in a different economic, social, political and physical environment.

A further reform of directors' duties that would strengthen the above proposals and offer important information to directors is mandatory environmental and social due diligence. Introducing explicit enhanced due diligence obligations for environmental risks, consistent with the UNGPs and OECD Guidelines, within the section 174 duty or as an additional provision, would offer a concrete intervention that signals to directors the requirement to undertake environmental risk management consistently and thoroughly. Such mandatory obligations are increasingly being adopted in several jurisdictions, including the EU.[140] The UK has already intervened to impose due diligence obligations on companies with regard to modern slavery,[141] in a piece of legislation that has subsequently influenced other jurisdictions, yet in terms of environmental and human rights due diligence, lags behind other jurisdictions.[142]

[139]GM Hayden and MT Bodie 'The corporation reborn: from shareholder primacy to shared governance' (2020) 61(7) Boston College Environmental Affairs Law Review 2419.

[140]Proposal for a Directive on Corporate Sustainability Due Diligence 2022 (COM/2022/71 final).

[141]Modern Slavery Act 2015.

[142]eg French duty of vilgilance law: Law No 2017-399 of March 27, 2017 on the Duty of Care of Parent Companies and Ordering Companies.

Enhanced due diligence is arguably necessary for the long-term success of many companies who are undertaking activity under the conditions of the anthropocene,[143] such that these obligations would not only help to bring corporate activity in line with stabilising the Earth system but would also ensure that companies can navigate this reality more successfully in the future. As McCorquodale and Neely argue in the context of human rights, introducing human rights and environmental due diligence into existing obligations 'could serve effectively to incentivise directors to respond proactively to manage the company's potential liability under the law… and monitoring more proactively how companies identify and manage their human rights and environmental impacts'.[144] Both mandatory due diligence and redefined directors' duties are particularly important for highly polluting and environmentally damaging companies and sectors.

The reform of directors' duties and imposition of mandatory due diligence alone would be unlikely to reorient the relationship between companies and the Earth system sufficiently. Directors and regulators must perceive the link between corporations and the Earth system and understand the contribution to, and impact upon, companies and these systems. Education and training are therefore key measures by which the obligations discussed above may be monitored, complied with, and contribute toward beneficial behaviours by directors and other senior managers within a company. Mandatory training for directors is already a reality some jurisdictions. For example, companies listed on the Singapore Stock Exchange (SGX) are required to demonstrate that their directors have completed at least one sustainability training course provided by organisations such as the University of Cambridge Institute for Sustainability Leadership in order to comply with 'the enhanced SGX sustainability reporting rules that mandated sustainability training for all board directors of equity issuers listed on SGX'.[145] Similar requirements could be introduced for listed companies and companies required to produce CRD under the provisions of the Companies Act 2006, section 414. Requiring directors to be educated and trained about the environmental and social relationships that exist and the impacts that the company can have on the Earth system and vice versa, would be an important step.

Educating directors regarding sustainability in terms of the impact of the company on the environment could also be supplemented by a requirement to represent those stakeholders on the board. A director or non-executive director with the expertise and obligation to represent those interests would mean that there was a board member or members with the requisite information, knowledge and expertise to understand the extent to which the company, its subsidiaries and supply chains contribute to environmental harms, and who must intervene in board-level discussions. Such an approach is already taken voluntarily by some companies to ensure that the environment or nature is represented in business strategy decisions.[146] However, while the duty to promote the success of the company remains intact and in its privileged position, any director would be bound to act in accordance with it.[147]

Regulating directors and other managers undertaking such roles may be challenging. It is here that an existing mechanism, the Senior Managers Regime (SMR), could be drawn upon in a new context. The SRM is addressed to those who perform senior management functions (SMFs) within a financial services firm, requiring permission to be granted by the FCA or Prudential Regulatory Authority before starting their roles.[148] Every person with an SMF must have a statement of responsibilities that states 'what they

[143] Benjamin, above n 48.

[144] McCorquodale and Neely, above n 45, at 634. See also RE Dunlap and AM McCright 'Challenging climate change' in RE Dunlap and RJ Brulle (eds) *Climate Change and Society: Sociological Perspectives* (Oxford: Oxford University Press, 2015) p 30.

[145] 'SGX RegCo announces start of sustainability training for company directors' https://www.sgxgroup.com/media-centre/20220317-sgx-regco-announces-start-sustainability-training-company-directors (last accessed 15 January 2025).

[146] I Kaminski 'Eco beauty company "appoints Nature" to its board of directors' *The Guardian* (22 September 2022) https://www.theguardian.com/environment/2022/sep/22/eco-beauty-company-faith-in-nature-board-directors (last accessed 15 January 2025).

[147] Ibid.

[148] 'Senior managers regime' *FCA* (27 March 2023) https://www.fca.org.uk/firms/senior-managers-and-certification-regime/senior-managers-regime (last accessed 15 January 2025).

are responsible and accountable for'.[149] 'Every SMF holder will have a Duty of Responsibility under the Financial Services and Markets Act 2000 (FSMA). This means that if a firm breaches one of our requirements, the SMF responsible for that area could be held accountable if they did not take reasonable steps to prevent or stop the breach.'[150] Adopting a similar approach to those responsible for sustainability, environmental and social impacts within a large company, but at senior levels, would be a significant way to monitor and hold to account those who are both representing these stakeholders but also responsible for minimising the company's negative impact upon them.

The four proposed modes of reform would go some way to address the legal structures of company law and regulation that at best create barriers to efforts to change corporate behaviour and at worst incentivise environmentally harmful activities. Such reforms could follow the trajectory of the Modern Slavery Act 2015, introducing a comprehensive approach to the environmental and social responsibilities of companies, forming a regulator or oversight committee with powers that include the disqualification of directors, as the Environment Agency has requested, and powers to prosecute. Introducing substantive obligations, including due diligence and a duty to the environment and society would help to reorient the company away from a laser focus, in many instances, on short- and medium-term economic value creation at the expense of the environment and planetary stability. Finally, improving accountability is essential to change behaviour in a meaningful sense, both in terms of making parent companies responsible for their subsidiaries (whether it is the parent or the subsidiary that is located in the UK) and by empowering the courts to review directors' decision-making in instances of conflict with the environmental duty.

Conclusion

There is a paradox at the heart of the UK's approach to companies and what is often referred to as the triple crisis of climate change, biodiversity loss and pollution. On the one hand, the UK recognises that there must be a huge socio-economic transition to a sustainable society and economy so that human activity does not continue to create ever worsening Earth system disruptions. On the other hand, efforts to change the behaviour of companies to facilitate this transition are path dependant, cautious and attempt to keep intact the core principles and ideologies of company law that erect barriers to sufficient action.

This paper has identified the legal structures that create such barriers, the action that has been taken to reform the law and the limited interventions made by the courts in response to the environmental risk to and impact of the company. Companies and private finance are at the forefront of the UK's response to climate change in particular, and the corporate form can be incredibly beneficial in terms of promoting innovation, investment in green sectors and in changing the way in which society operates in terms of its sustainability. However, the legal structures of company law also offer the space and incentive to continue in a business-as-usual manner, particularly for those companies that profit from environmentally harmful activities.

This paper does not propose the abolition of the corporate form. Instead, it proposes a set of reforms along four axes: the introduction of substantive obligations including (1) an obligation of environmental and human rights due diligence; (2) a duty of environmental and social responsibility alongside the removal or subordination of shareholder primacy; (3) mandatory sustainability training and the use of expertise on the board by a representative director or non-executive direction; and (4) the introduction of an accountability and enforcement mechanism. The planet has entered an era that is defined by high risk of disruption to numerous planetary systems of a nature not experienced by modern humans. More importantly, it is a situation which has been caused primarily by our own activities and the ways in which

[149] Ibid.
[150] Ibid.

we have structured our societies, with the law being one mechanism used to do so. Changing the way that companies are regulated to reconnect them both figuratively and practically with the Earth system is beneficial not only in terms of positioning these entities to exist in an unstable world but to contribute toward preventing further instability and adapting to a future that is far less predictable than the one that we currently experience.

Cite this article: E Webster 'Earth system disruption, legal development and the company: a UK perspective.' (2025) *Legal Studies* **45**, 1–21. https://doi.org/10.1017/lst.2024.42