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Using the Law to Save the Planet: Legal Options to Address Climate Change and Ecological Destruction

Frank Weerman, Alessandra Arcuri & Lieselot Bisschop*

Abstract

Climate change and ecological destruction are among the most pressing issues of our time. In this special issue, academics from various legal and empirical disciplines contribute to providing an answer to whether, when and how different fields of law can be used as tools to enhance sustainability and to address climate change and ecological damage. These include (international) criminal law, liability and tort law, European law and regulations, competition law, corporate law, private law and tax law. These contributions were initially presented and discussed at a seminar held at the Erasmus University Rotterdam in May 2022. This editorial introduces the subject, discusses recent international developments and legal achievements to address the current ecological crisis, and describes how the law is increasingly mobilised from the ground up, by non-government organisations and individual legal professionals. It then progresses by summarising the keynote lecture of the seminar, given by the United Nations Special Rapporteur on Toxics and Human Rights. After this, all contributions to this special issue are shortly introduced and summarised.

Keywords: climate change, sustainability, ecocide, environmental justice, human rights.

Climate change and ecological destruction are among the most pressing issues of our time. The global climate has warmed up considerably during the last century, and increasingly so in recent decades.¹ Consequences of climate change can be experienced across the globe, with melting ice caps and glaciers, rising sea levels and more extreme weather events. The dire state of the environment is also evident from the critical endangering of species and the dramatic decline in biodiversity, which some refer to as the sixth extinction.² Pollution of water, air and soil is at historically high levels and has seriously disrupted the self-regulatory capacity of the planet.³ The scale of deforestation of the past 100 years equals that of the previous 9,000 years, owing to the continued expansion of land for agriculture, following from humanity's request for food.⁴ The planet is crossing more and more boundaries, impacting the stability and safety of the complete earth system.⁵

In response to the foregoing issues, national and international government organisations, non-government organisations (NGOs), companies and citizens have been developing policies and practices to increase awareness and enable a lifestyle and economy that preserves the environment. At the international level, there have been various attempts to come to agreements aiming to decrease carbon emissions and calling unsustainable production and consumption patterns to a halt. Important landmarks are the 2012 Rio de Janeiro Summit on sustainability, the Paris Agreements of 2015, under the United Nations Framework Convention on Climate Change (UNFCCC) to mitigate climate change,⁶ and the 2015 adoption of the 2030 Agenda for Sustainable Development, with its seventeen Sustainable Development Goals (SDGs) and seventeen targets to tackle climate change and ecological damage, as well as poverty and inequality.7 These efforts have in some cases re-

- 2 R.H. Cowie, P. Bouchet & B. Fontaine, 'The Sixth Mass Extinction: Fact, Fiction or Speculation?' 97 *Biological Reviews* 640-63 (2022).
- 3 L. Persson, B.M. Carney Almroth, C.D. Collins, S. Cornell, C.A. de Wit, M.L. Diamond, ... & M.Z. Hauschild, 'Outside the Safe Operating Space of the Planetary Boundary for Novel Entities', 56(3) *Environmental Science & Technology* 1510-1521 (2002).
- 4 H. Ritchie and M. Roser, 'Forests and Deforestation'. OurWorldInData. org, 2021, https://ourworldindata.org/forests-and-deforestation (last accessed 24 April 2023).
- 5 J. Rockström, W. Steffen, K. Noone, Å. Persson, F.S. Chapin, III, E. Lambin, T.M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C.A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sörlin, P.K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R.W. Corell, V.J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen & J. Foley, 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity', 14(2) *Ecology and Society* 32 (2009).
- 6 United Framework Convention on Climate Change (UNFCCC), UN Doc FCCC/CP/2015/L.9/Rev.1 'Adoption of the Paris Agreement' (12 December 2015). https://unfccc.int/process-and-meetings/the-paris-agreement (last accessed 24 April 2023).
- 7 UN GA Resolution, A/RES/70/1, adopted by the General Assembly on 25 September 2015.

^{*} Frank Weerman is Endowed Professor Youth Criminology at the Erasmus School of Law and senior researcher at the NSCR (Netherlands Institute for the Study of Crime and Law Enforcement). Alessandra Arcuri is Professor International Economic Law at Erasmus School of Law and Erasmus Initiative Dynamics of Inclusive Prosperity, Erasmus University Rotterdam. Lieselot Bisschop is Professor Public and Private Interests, Department of Criminology and Erasmus Initiative on Dynamics of Inclusive Prosperity, Erasmus School of Law, Erasmus University Rotterdam.

¹ See the reports of the IPCC committee, e.g., IPCC, Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (2021).

sulted in meaningful actions and improvements in various countries over the world. At the same time, the SDGs framework has been criticised for being under-ambitious, entrenched in a paradigm of growthism and ill-suited to enhance sustainability.⁸ The high ambitions at the Sharm El-Sheikh climate change conference⁹ to reach agreements about further reductions in carbon emissions have also been largely neglected.

Despite the limited achievements of contemporary (international) law and policies to address the current ecological crisis, the law remains a potentially powerful instrument to enhance sustainability and to address climate change and ecological damage. Global agreements and treaties but also domestic laws can create binding obligations on companies and governments and drive much needed action. While, traditionally, environmental law has been the main focus of environmental action, today we are witnessing an increased awareness that a wide variety of legal fields can contribute to the protection of the environment and increase sustainability. Private and commercial law, for example, can be reimagined as tools to create legally binding obligations to preserve natural habitats. Tort law can be leveraged to create liabilities for environmental or ecological damage, obliging polluters to pay compensation or undertake restoration. Criminal law may help to prosecute and deter major polluters, poachers and traders in natural resources and other environmental offenders. And even tax law, which has been often shaped to serve the interest of capital, can also become a powerful instrument to counteract damaging economic activities and to enhance a sustainable lifestyle. At a more fundamental level, using the law to save the planet requires attention to issues of substantive and procedural justice,¹⁰ to establish new grounds for reinvigorated legal institutions acknowledging and protecting the rights of nature.

It is also worth noting how the law is being increasingly mobilised from the ground up. In recent years, citizens and NGOs have used the law to enforce climate action. Several initiatives for climate change litigation for not adhering to international agreements (particularly the Paris Agreement) emerged.¹¹ A remarkable example is the *Urgenda* case in the Netherlands, in which the Dutch state was ordered to reduce the emissions of greenhouse gases originating on Dutch territory to a certain level

- 8 L.J. Kotzé, 'The Sustainable Development Goals: An Existential Critique alongside Three New-Millennial Analytical Paradigms', in D. French and L.J. Kotzé (eds.), Sustainable Development Goals Law, Theory and Implementation (2018) 41-65.
- 9 https://enb.iisd.org/sharm-el-sheikh-climate-change-conference-cop27summary (last accessed 24 April 2023).
- 10 J. Gupta, D. Liverman, K. Prodani, et al. 'Earth System Justice Needed to Identify and Live within Earth System Boundaries,' *Nature Sustainability* (2023). Published online 2 March 2023. https://doi.org/10.1038/s41893-023-01064-1 (last accessed 24 April 2023).
- 11 For an overview of climate change litigation cases, please see the *Global Climate Change Litigation Database*, which has been operational since 2011 and currently contains 686 cases from over 55 countries. http://climatecasechart. com/ (last accessed 24 April 2023).

within a year, to respect its human rights obligations.¹² Many other countries also saw similar cases brought to court. Moreover, after governments were sued, climate change litigation was also used to target corporations. In a historic ruling following a collective action of six (environmental) NGOs¹³ together with 17,379 citizens, theThe Hague court held Royal Dutch Shell liable for possible future environmental hazards and ordered this company to reduce its CO2 emissions.¹⁴ These are hopeful developments bearing witness to the fact that legal professionals can use their expertise to address climate change and ecological damage.¹⁵ They can be part of NGOs (e.g. Urgenda, Client Earth, Stop Ecocide International) that have made it their mission to use the law to protect life on earth. But there are also more and more individual legal professionals, from academics to practising lawyers, who are orienting their efforts to reimagine laws to save the planet. For example, in June 2021, legal experts from across the world drafted a definition of 'ecocide',16 which they hope will be adopted by the International Criminal Court. On 21 March 2023, the European Parliament's Committee on Legal Affairs unanimously voted for 'ecocide' to be condemned under EU law, with a definition that closely resembles the one proposed by the legal experts. On 28 March 2023, the European Parliament declared its support to include ecocide-level crimes in the European Union's revised Directive on protection of the environment through criminal law.17 These developments follow a decade-long campaign, instigated by the late Polly Higgins, to demand that ecocide be recognised as a crime against humanity.

Using the law to save the planet will likely require thinking 'outside of the box' to enable courts to rule on cases about pollution and climate change based on human rights, government obligations or 'rights of nature'. At the same time, deploying different legal avenues to address climate change and ecological destruction raises questions, among others, about the underlying judicial principles and legal foundations that allow legal action to be taken by citizens, companies and governments. Another important question is whether and when the law is the most effective instrument to achieve change and what idiosyncratic limits exist.

In this special issue, academics from various legal and empirical disciplines have contributed to providing an

- 12 See www.urgenda.nl/wp-content/uploads/ENG-Dutch-Supreme-Court-Urgenda-v-Netherlands-20-12-2019.pdf (last accessed 24 April 2023).
- 13 Action Aid NL, Both ENDS, Fossielvrij, Greenpeace NL, Jongeren Milieu Actief, Waddenvereniging.
- 14 www.rechtspraak.nl/Organisatie-en-contact/Organisatie/Rechtbanken/ Rechtbank-Den-Haag/Nieuws/Paginas/Royal-Dutch-Shell-must-reduce-CO2-emissions.aspx (last accessed 24 April 2023).
- 15 R. Cox, Revolutie met Recht (2011).
- 16 "Ecocide means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or longterm damage to the environment being caused by those acts." Independent Expert Panel for the Legal Definition of Ecocide, June 2021.
- 17 www.stopecocide.earth/breaking-news-2023/european-parliamentproposes-including-ecocide-in-eu-law (last accessed 24 April 2023).

answer to whether, when and how *different fields of law* can be reimagined and mobilised as tools to enhance sustainability and address climate change and ecological damage. The contributions were initially presented and discussed at a seminar that was held at the Erasmus University Rotterdam in May 2022, in close collaboration with and financial support from the Erasmus Initiative on Dynamics of Inclusive Prosperity and the research initiative on Rebalancing Public & Private Interests of Erasmus School of Law. Together, the articles illustrate that most, if not all, fields of law can be reoriented and reimagined as legal tools to address climate change and ecological destruction.

The keynote lecture of the seminar,¹⁸ by Marcos Orellana, the United Nations Special Rapporteur on Toxics and Human Rights, offered valuable reflections on the paradigmatic shifts needed for addressing the 'triple crisis' of pollution, climate change and biodiversity loss. In this address, Marcos Orellana took a critical stand towards international environmental law because of its 'too diluted norms': these 'norms which do not oblige' are leading to the incapacity of achieving its objectives. Orellana argued that the 'state-centric' approach of international environmental law needs to be injected with a rights-based approach. Throughout his talk, he used the surpassing of the planetary boundary of chemical pollution to illustrate international environmental law 'ineffectiveness', explaining how several conventions failed to address this sufficiently. He referred to the ways in which multilateral environmental agreements utilise national action plans or equivalents thereof to determine the contributions of each member state to the global mitigation goals. These offer states flexibility to cater to national circumstances and priorities. Orellana posited that this allows for 'legalizing the gradual destruction of the planet'. The rights-based approach he proposed would then focus on, first, the right to science and, second, the right to a healthy environment. As to the former, he noted the 'gulf existing between the science on chemicals and waste and the regulatory responses'. As further illustrated in his Report, the right to science is deemed essential to bridge this gap.¹⁹ Notably, this gap is 'no accident', but the result of a 'deliberate action against science and against scientists', including delaying tactics of the industry when 'faced with the prospect of regulation'. The right to science refers both to access to and dissemination of scientific results and to the inclusion of citizens, indigenous communities and their knowledge and experiences in the scientific process. 'Scientific knowledge is essential to confront and reverse the toxic pollution of the planet, but in order for those tools to be realised, science needs to be transformed into policy'. The right to science thus alludes to the importance of a science policy interface, which can be protected from corporate capture so that there are 'no inappropriate financial relationships that would undermine the authority and confidence in science'. 'Benefits to society do not occur without the translation of knowledge into actual policy ... and that is the link that we are missing'. As to the second right, to a clean, healthy and sustainable environment, Orelana remarks that this was only recognised by the Human Rights Council in October 2022, while it has, in fact, a much longer history at regional levels and in jurisprudence of human rights courts and bodies. He illustrated the importance of this right with examples of the disproportionate burden of pollution faced by indigenous communities. Moreover, he addressed the clean-up of historic pollution and repairing harms, for which he also sees an important role for the law. He explained that this right has both substantive and procedural elements to it, which he considered paramount to address the environmental crisis we face. He ended his keynote by asking the audience of lawyers to help answer the question of how the human rights-based approach can be injected into multilateral environmental agreements to change the dramatic trajectory of the status quo.

In the first article of this special issue, Frances Medlock and Robert White present a critical and radical view on the legal possibilities in *(international) criminal law* to address large-scale ecological damage and destruction. The authors plead for an ecocentric model of law and policy in which natural resources have their own value (and rights) aside from their instrumental value for human use. Based on this, the authors discuss three ways in which climate justice can be further developed: by using the ecocentric model and 'rights of Nature' in legal discourse, by adopting a general environmental duty of care, and by explicitly establishing the offence of 'ecocide' in (international) criminal law. Various existing and new ideas are synthesised to develop these three strands, together with illustrative cases. The term 'ecocide' is suggested for a broad range of actions and processes on a large geographic scale and emphasises the harm of the acts and not the illegality of it. This definitional strategy facilitates the criminalisation of companies and governments who intentionally damaged or enabled or allowed damage to accrue to complete ecosystems.

In the next article, Francesca Leucci addresses *liability and tort law* as a tool to deter business from engaging in conduct leading to large-scale ecological damage. An important problem in achieving this is the difficulty in quantifying environmental damage in ways that induce optimal deterrence. Drawing on law and economics, this article aims to investigate and evaluate several approaches to quantifying ecological damage. The article

¹⁸ M. Orellana, 'The Unfinished Agenda of Stockholm 1972: A Rights Based Approach to International Environmental Law', keynote lecture to the Conference Using the Law to Save the Planet, held at Erasmus School of Law in May 2022, www.youtube.com/watch?v=YeFmOqjLouQ (last accessed 24 April 2023). In the following text, we use quotes and illustrations from his keynote address.

¹⁹ M. Orellana, A/HRC/48/61: Right to Science in the Context of Toxic Substances – Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes. 2021. www.ohchr.org/en/documents/thematic-reports/ ahrc4861-right-science-context-toxic-substances-report-special (last accessed 24 April 2023).

innovates the field by showing how next to traditional methods to assess environmental damages, the field of ecological economics can offer novel ways to value nature. The author compared advantages, drawbacks and practical uses of these methods. While there appears to be no one-fits-all solution, and the most meaningful method may be determined based on the specificities of the case, the recently developed ecosystem service approach to damage assessment promises to offer accurate damage estimation of large-scale accidents.

The next two articles focus on European laws and regulations. Candice Foot offers a lucid analysis on a proposal of the European Commission for a new regulatory instrument that aims to address ecological damages of economic activities, the Proposal for a Corporate Sustainability Due Diligence Directive, particularly in relation to freshwater issues. This instrument would introduce an obligation for large EU companies to make sure that they will not harm human rights and the environment. The author observes that freshwater preservation is not an explicit part of this directive, while companies can do substantial damage to this and have caused substantial water pollution in the past. In this article, the ideas behind the draft are explained, and new ways to improve freshwater protection are explored. In its current form, the draft could achieve this only to a limited extent, owing to an unfortunate reformulation of the human right to water and an acritical transposition of international environmental obligations. The article concludes with various recommendations on how freshwater issues can be more comprehensively included in the Directive.

Maria Campo Comba investigates the potential and possibilities of European competition law to enable collaboration between companies to pursue sustainability goals and combat climate change. Agreements between competitors are generally prohibited, but cooperation among market actors pursuing sustainability objectives might fall under a cartel exception. The possibilities and conditions under which this is possible has been debated heavily in recent years. This article adds to this debate in various ways, by addressing the current assessment methods of agreements between companies and by adding a broader interpretation of the European legislation. Central to the discussion is an emphasis on the objectives of agreements themselves and their contribution to sustainability. Campo Comba argues that in particular agreements pursuing sustainability objectives that were not previously mandatory for the companies involved should be exempted from prohibition. Such an exception can be a powerful facilitator of investments and measures to combat climate change that would otherwise be avoided.

Seniha Irem Akin argues that it is necessary to use *corporate law* instead of relying on stakeholder theory to ensure that companies will take sustainability and environmental interests into account. Many companies already adopt environmentally sustainable corporate

strategies as they see it as their public duty. This is often justified by referring to the stakeholder theory, a management concept that was introduced almost 40 years ago. However, Akin demonstrates that there are several problems connected to this reasoning and argues that stakeholder theory is actually not the most optimal tool to integrate environmental sustainability into corporate activity. Instead, a legal reform in the area of corporate law focusing on the key concepts of corporate interest and directors' duties may better serve the job. This would also provide a more fundamental alternative for the European proposal on Sustainability Diligence Duty. In the next article, Laura Burgers and Kinanya Pijl address two legal innovations that may fundamentally change private law to support environmental sustainability. These are the Community Land Trust model, which adds a steward function to certain property rights, and the recently developed Zoöp model, trying to add non-human interests to corporate governance structures. A Community Land Trust is a non-profit and community-led organisation that typically develops and manages homes for low- and middle-income groups of the population. A Zoöp can be any organisation in which non-humans are represented on the board by someone working for a so-called Zoönomic Foundation. The background and content of these innovations are further described as well as their actual application in the city of Amsterdam. Further, the authors evaluate the extent to which these legal innovations are supporting the well-being of humans as well as the environment on both a local and a global level. According to the authors, these innovations demonstrate that little change of the legal hardware of society is required for a meaningful change for the sustainability of the city and beyond. The next two articles explore the possibilities of *tax law* to counteract environmental damage and enhance sustainability. Ilona van der Eijnde reviews three fiscal policy measures that have been taken or that have been initiated by the European Union and various member states to tax goods and services that are detrimental to the environment: a European carbon tax on imports, the Dutch air passenger tax and the Spanish tax on plastic

packaging materials. Based on various indicators, the author reviews potential behavioural changes that could result from these measures and the existence of unintended side effects. It appears that the three measures have various shortcomings that limit their effects: they have conflicting objectives, are limited in scope and have exemptions that could lead to tax avoidance. Nor do the measures include an obligation to pass on the taxes to the consumer. Van der Eijnde provides various recommendations to increase the potential effect of these tax measures.

Arjen Schep, Anne Monsma and Robert Kastelein address the question of how *local taxes* can contribute to sustainability and pursuing climate goals. On the one hand, this can be accomplished through their primary purpose of funding government spending, for example by creating sustainable facilities, while, on the other hand, local taxes can provide financial incentives for certain behaviour or make unsustainable behaviour more expensive. Several examples are described, mainly at the level of the municipality, but also related to provinces and water boards. These include property taxes, waste collection levies, betterment levies (e.g. to stimulate sustainable heating in houses), parking taxes and sewerage levies. The authors analyse the factors within the Dutch context that are limiting and that are contributing to the effectiveness of the use of local taxes in the pursuit of climate goals. The examples provided illustrate that local taxes do offer opportunities to contribute to climate goals. However, under the current legislative restrictions in the Netherlands, local taxes appear to play a modest role within the sustainability policy of local governments, also because taxes can be evaded if neighbouring local governments have different taxes.

Overall, the contributions to this special issue reveal different ways in which the law can be deployed or reimagined to combat climate change and environmental destruction and to stimulate sustainability and contribute to international climate goals. Possibilities can be found in multiple laws and legal arrangements and at different levels. The articles in this issue provide various examples of legal arrangements with potentially promising effects on sustainable behaviour and environmental conservation. At the same time, many of the existing arrangements appear to be limited in scope and effectiveness and face challenges in balancing environmental interests with those of trade and the economy. Together with technological innovation and changes in human attitudes and behaviour, adapting and fine-tuning legal arrangements may be pivotal in saving the planet. The contributions to this special issue show that there are many possibilities for doing that and, above all, we hope that they contribute to raising the awareness of the necessity to re-centre the law around sustainability. Hopefully, this special issue will provide inspiration and stimulate further research on the critical nexus of law, ecology and environmental justice.

Ecocide, Ecocentrism and Social Obligation

Frances Medlock & Rob White*

Abstract

The cataclysmic consequences of climate change and biodiversity loss are revealed in the climate disruptions and escalating extinction of species around the globe. The causes of global warming are directly associated with carbon emissions, the result of the fossil fuel industry and deforestation. Species extinction stems from unfettered resource extraction and the contamination and modification of Nature linked to the growth imperatives of global capitalism. These are crimes of ecocide, crimes that involve foreknowledge, government-provided legitimacy and unprecedented harms to humans, ecosystems and non-human environmental entities such as rivers, mountains, trees, birds and koalas. This article synthesises ideas about ecocentrism, rights of Nature and ecocide within a general framework of criminal law (e.g. prohibition via criminalisation) and social obligation (e.g. prescription via a general environmental duty of care). How best to bring carbon criminals and environmental vandals to justice is the crucial question of our age. As with crimes of the powerful generally, there are profound difficulties in dealing with corporate criminality and state-corporate crime. And yet climate justice demands nothing less than transformative change in circumstance. An ecology-based general duty of care provides a framework whereby social obligation is entrenched in a manner that simultaneously reinforces the criminality of ecocide.

Keywords: climate, justice, duty of care, ecocentrism, ecocide, social obligation.

1 Introduction

The cataclysmic consequences of climate change are revealed in the climate disruptions, extreme weather events, habitat loss, soil degradations and escalating extinction of species around the globe. The climate crisis is likewise affecting, often in dramatic fashion, human communities worldwide, with the most marginalised and those in the Global South especially vulnerable to its consequences. Global warming is fundamentally driven by corporate fossil fuel interests supported by or in collusion with governments. In effect, any mitigation of the crisis has so far failed to adequately address primary causes.

The crucial question of our age is how to bring these carbon criminals and environmental vandals to justice and/or, at the very least, to minimise the harms they cause. As with crimes of the powerful generally, there are profound difficulties in dealing with corporate criminality and state-corporate crime. And yet climate justice demands nothing less than a transformative change in circumstance. There is an obvious and pressing need to embed and institutionalise social and legal obligations that better protect against environmental harm and that hold climate and environmental criminals to account. From the point of view of law, the key question is how best to do this and to identify potential legal mechanisms for achieving the desired social outcomes. With a focus on climate justice, this article synthesises ideas about ecocentrism, rights of Nature and ecocide within a general framework of criminal law (e.g. prohibition via criminalisation) and social obligation (e.g. prescription via a general environmental duty of care). An ecology-based general duty of care provides a framework whereby social obligation is entrenched in a manner that simultaneously reinforces the criminality of ecocide. This article argues that a triumvirate of these principles relating to ecocentrism, ecocide and an ecological duty of care are essential not only to create the necessary criminal and social obligations for radical climate action but also to ensure that the content of those obligations reflects the principles of climate justice. The article has five sections. After this introduction, Section 2 outlines the current state of play in regard to climate change, introducing the concept of ecocide as a descriptor of the degradation and destruction of environmental well-being accompanying global warming. Ecocide has several different meanings. For instance, one usage concentrates on quantifiable measures of harm, and the term ecocide is used to emphasise the seriousness of the environmental harm. Another is premised on legal considerations, and the focus here is on the

ised on legal considerations, and the focus here is on the *criminalisation* of those who cause environmental harm.¹ The latter is considered later in the article, although the first descriptive use of the term - consisting of indicators of environmental threats, risks and damage - informs legal constructions of the proposed crime. Section 3 evaluates the concept of ecological sustainable development, arguing that as presently construed, this notion facilitates 'business as usual' rather than addressing the

^{*} Frances Medlock works at the Environmental Defenders Office (the largest environmental legal centre in the Australia-Pacific region), Melbourne, Australia. Robert White is Emeritus Distinguished Professor of Social Sciences at the University of Tasmania College of Arts Law and Education, Australia.

¹ R. White, (in press) 'Ecocide, Eco-Justice and Social Transformation', Current Issues in Criminal Justice.

fundamental underlying trends and issues that contribute to climate change and its consequences. In Section 4, we outline what we call a triumvirate of social obligation, measures that together provide a framework of accountability designed to prevent environmental harm and forestall further global heating. This section includes discussion of ecocentrism and the rights of Nature, duty of care variously conceived and applied, and ecocide as a crime. It is the combination of these initiatives that gives them potentially substantive legal weight. Section 5 provides a summary and conclusion.

2 Climate Change and Ecocide

Global temperature rise is caused by increased greenhouse gas emissions that are largely the result of the fossil fuel industry and deforestation.² Species extinction stems from unfettered resource extraction and the contamination and modification of Nature linked to the growth imperatives of global capitalism.³ These have been rhetorically referred to by scientists and journalists as crimes of ecocide, crimes that involve foreknowledge, government-provided legitimacy and unprecedented harms to humans, ecosystems and non-human environmental entities such as rivers, mountains, trees, birds and koalas.

Climate change science demonstrates that global heating is escalating rapidly and is primarily due to specific types of anthropogenic (or human) causes.⁴ The last major IPCC Reports were released in 2022.5 They confirm, along with other sources,⁶ that the world has gotten hotter and temperatures continue to rise. The effects of this are manifest in climate disruption, involving high-impact and extreme weather events. These include heat and cold waves, unusually dry conditions or unusually high precipitation amounts, heavy rainfalls and floods, above average tropical cyclone activity and intensity, severe storms, drought and wildfires.⁷ Some measure of heating is locked in already, regardless of mitigation efforts deployed now, which means these climate disruptions will continue to increase in severity, frequency and duration.

As temperatures rise, so too will risks and harms to human and their environs. This includes all life on the planet as well as non-living environmental entities such

- 3 J. van der Velden and R. White, *The Extinction Curve* (2021).
- 4 IPCC (2018), above n. 2.
- 5 IPCC (2022), above n. 2.
- 6 World Meteorological Organisation (2022), above n. 2; World Meteorological Organisation (2020), above n. 2.
- 7 World Meteorological Organisation (2020), above n. 2; IPCC (2018), above n. 2; IPCC (2022), above n. 2.

as rivers and mountains. For example, key risks identified by the IPCC in 2014 include increased damage from wildfires, heat-related human mortality and increased damage from river and coastal urban floods. They include a distributional shift and reduced fisheries catch potential at low latitudes; compounded stress on water resources; increased mass coral bleaching and mortality; reduced crop productivity and livelihood and food security; and the loss of livelihoods, settlements, infrastructure, ecosystem services and economic stability. Other risks include spread of vector-borne diseases - the global coronavirus pandemic illustrating just how quickly future risks can translate into present harms.⁸ Social inequality and environmental injustice will undoubtedly be the drivers of continuous conflicts for many years to come, as the most dispossessed and marginalised of the world's population suffer the brunt of food shortages, undrinkable water, climate-induced migration and general hardship in their day-to-day lives.⁹ Global temperature rise is generated primarily by the activities of governments and corporations that rely on or involve pumping greenhouse gases into the atmosphere. This is an established scientific fact.¹⁰ Collectively, these forces are diminishing emission controls and environmental protections, burning forests and fracking oils and in some instances encouraging violence against Indigenous peoples and local farmers.¹¹ Even with foreknowledge of consequence, greenhouse gas concentrations are continuing to reach new highs.¹²,¹³

Yet, in the midst of these increasing greenhouse gas emissions, '[g]lobal fossil fuel consumption subsidies increased by 50% over the past 3 years, reaching a peak of almost US\$430 billion in 2018'.¹⁴ We are in fact paying the perpetrators to pollute. This bears repeating: 'Even today, States subsidize the fossil fuel industry to the tune of \$5.2 trillion per year, or 6.3 per cent of global GDP. Another trillion goes to support natural resource overexploitation'.¹⁵ In 2022, the United Nations UN Secretary-General Antonio Guterres observed that one of the critical actions to jump-start the renewable energy

- 8 IPCC, 'Climate Change 2014 Synthesis Report', Summary for Policymakers 2014.
- 9 A. Brisman, N. South & R. White (eds.), Environmental Crime and Social Conflict: Contemporary and Emerging Issues (2015).
- 10 IPCC (2022), above n. 2.
- 11 R. White, Climate Change Criminology (2018); R. Kramer, Carbon Criminals, Climate Crimes (2020); J. Heydon, Sustainable Development as Environmental Harm: Rights, Regulation, and Injustice in the Canadian Oil Sands (2020).
- 12 United Nations Environment Programme (UNEP), 'United in Science: High-Level Synthesis Report of Latest Climate Science Information Convened by the Science Advisory Group of the UN Climate Action Summit 2019', (2019); World Meteorological Organisation (2020), above n. 2.
- 13 Total net anthropogenic GHG emissions have continued to rise during the period 2010-2019, as have cumulative net CO2 emissions since 1850. Average annual GHG emissions during 2010-2019 were higher than in any previous decade, but the rate of growth between 2010 and 2019 was lower than that between 2000 and 2009. IPCC (2022), above n. 2, at 4.
- 14 N. Watts et al., 'The 2019 Report of The Lancet Countdown on Health and Climate Change: Ensuring that the Health of a Child Born Today Is Not Defined by a Changing Climate', 394 The Lancet 1836, at 1836 (2019).
- 15 United Nations Human Rights Council, 'Climate Change and Poverty: Report of the Special Rapporteur on Extreme Poverty and Human Rights,' A/HRC/41/39-24 2019, at 11.

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² Intergovernmental Panel on Climate Change (IPCC), 'Special Report: Global Warming of 1.5C', Summary for Policymakers 2018; IPCC, 'Climate Change 2022: Impacts, Adaptation and Vulnerability', Summary for Policymakers 2022; World Meteorological Organisation, 'State of the Global Climate 2021', WMO-No. 1290 2022; World Meteorological Organisation, 'WMO Statement on the State of the Global Climate in 2019', WMO-No 1248 2020.

transition is to put an end to subsidies on fossil fuels, which amount to roughly \$11 million per minute.¹⁶ Governments continue to use public taxpayer monies to fund activities that directly cause climate damage. Alongside companies, nation-states are therefore the main culprits.

As the UN Human Rights Council has pointed out, despite the urgency of the problem, the response has been appalling and involved the active collaboration of governments in wrecking environmental regulatory structures as well as contributing to global warming directly.¹⁷ In countries such as Brazil, Australia and the United States, for example, there has been a broad shift in recent times in government administration away from the public interest and in favour of specific private industry and firm interests. Increased global heating is preventable, and every fraction of a degree of avoided heating matters. Climate change is not immutable. But powerful interests are making it inevitable.

2.1 Ecocide as Description of Destruction

The term ecocide is used in varying ways depending on legal and sociological context. It can relate to descriptions of ecological harm; how such harm is or might be criminalised within a given legal system; and in a way that includes principles of eco-justice.¹⁸ For example, as a descriptor of ecological harm, ecocide refers to processes whereby specific geographies (a landscape, the Earth) experience harm in that their ecological integrity is damaged. Ecocide here therefore refers to serious destruction of or damage to the environment at substantial scale. This can occur naturally or due to human actions.¹⁹ In this sense, ecocide refers to the *harm*, not the criminality or legal status of the actions that resulted in it.

Secondly, ecocide is used in a legal sense, referring to criminal harm that results from human actions. As it relates to human intervention, the *crime* of ecocide has been variously defined. The term has been applied to extensive environmental damage during war, as in the case of the use of defoliants (for example, Agent Orange) in the Vietnam War, and the blowing up of oil wells and subsequent pollution during the first Gulf War in Iraq and Kuwait by Saddam Hussein's retreating army. These actions involved intent to produce environmental destruction in pursuit of military and other goals.²⁰

While the notion of ecocide has been actively canvassed at an international level for many years, from at least

17 United Nations Human Rights Council, above n. 15.

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19 Natural processes of ecocide can be found where, for example, kangaroos denude a paddock of its grasses and shrubs to the extent that both specific environment and the kangaroo 'mob' are negatively affected. the 1960s,²¹ more recent discussions have emphasised ecocide as a crime that happens in times of peace, not just war. For example, ecocide has been defined as 'the extensive damage, destruction to or loss of ecosystems of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished'.²² Where this occurs as a result of human agency, it can be argued that such harm can be defined as a crime.

Crucially, environmental crime is typically defined on a continuum ranging from strict legal definitions to broader harm perspectives. The matter of legality does not prevent criminologists and others from critiquing certain types of ecologically harmful activities that happen to be legal, such as the clearfelling of forests or the continuing high levels of industry-related carbon emissions.²³ Critical scholarship is oriented towards *exposing* activities that cause significant damage to the environment. It is also *aspirational* in the sense of arguing for the formal criminalisation of behaviour that is particularly destructive of ecology and species. Both endeavours involve attempts to shift community thinking away from active or tacit acceptance of acts (and omissions) that are environmentally harmful to seeing these as morally wrong, as illegal and/or as criminal.²⁴ These tasks may be linked to public pressures that encourage virtuous rather than destructive behaviour on the part of governments, similar to discourses about states and human rights.²⁵ These concerns are especially pertinent in regard to global heating and associated processes of climate change contrarianism (which refers to intentional self-interested denial).

From a critical perspective, the focus is on those individuals, corporations, industries and governments that, even in the light of overwhelming scientific evidence, through acts or omissions, continue to contribute to the problem of global heating. State-corporate collusion, in particular, is viewed as intentional and systematic ecocide. Environmental harm is most often associated with exploitation of natural resources that bring profit to powerful companies (both privately owned and state owned). The science of climate change tells us that the environment cannot bear the weight of these exploitations any longer, yet sectional self-interest is preventing the application of the fire hose. Environmental collapse

- 21 M. Gray, 'The International Crime of Ecocide', 26 California Western International Law Journal 215 (1996).
- 22 P. Higgins, Earth Is Our Business: Changing the Rules of the Game (2012), at 3.
- 23 R. White and D. Heckenberg , *Green Criminology: An Introduction to the Study of Environmental Harm* (2014), at 13.
- 24 R. White, 'Ecocide and the Carbon Crimes of the Powerful', 37 University of Tasmania Law Review 95 (2018). See also, E. Gibney and T. Wyatt, 'Rebuilding the Harm Principle: Using an Evolutionary Perspective to Provide a New Foundation for Justice', 9(3) International Journal for Crime, Justice and Social Democracy (2020), 100-115, which outlines three interlocking principles of evolutionary ethics and that argues the case for a definition of harm as 'that which makes the survival of life more fragile' (111). This, too, is aspirational in scope and future endeavour.
- 25 T. Ward and P. Green, 'State Crime, Human Rights, and the Limits of Criminology', 27 Social Justice 101 (2000).

¹⁶ World Meteorological Organization, 'Four Key Climate Change Indicators Break Records in 2021', Press Release Number 18052022, 18 May 2022, at 2.

¹⁸ White, above, n. 1.

²⁰ S. Freeland, 'Addressing the Intentional Destruction of the Environment During Warfare under the Rome Statute of the International Criminal Court' [PhD Thesis, Maastricht University] (2015).

is occurring across many different fronts, and time is rapidly running out to prevent ecocide on a grand scale. Ultimately, therefore, preventing further global heating is about politics as well as policies and laws.

3 Sustainable Development Is Business as Usual

The strategies that nation-states use to deal with environmental concerns are contingent on the social and class interests associated with political power. The power of transnational corporations finds purchase in the interface between the interests and preferred activities of the corporation and the specific protections and supports proffered by the nation-state. The latter can be reliant on or intimidated by particular industries and companies. Tax revenue and job creation, as well as media support and political donations, hinge on specific state-corporate synergies. Politicians also financially benefit from knowledge they obtain and decisions they make while in office. This undermines the basic tenets of democracy and collective deliberation over how best to interpret the public or national interest.²⁶

Critics have noted that 'sustainable development' is frequently at the centre of government policy and has guided development of environmental law in ways that have clearly not protected against harm.²⁷ That is, the principles and practices associated with sustainability and development have largely failed to address these environmental harms or even create a system of social obligation that punishes (whether socially, criminally or economically) these actions. Rather, sustainable development as a concept has achieved the status of a philosophical proposition but lacks a transformative political programme.²⁸ Sustainable development, and associated principles, have historical roots in international fora such as the United Nations Conference on Environment and Development (UNCED), also known as the Rio Conference or Earth Summit, and may have been subject to 'radical' or ecocentric interpretations that lead to better environmental outcomes.²⁹ However, at the core of sustainable development is the explicit acknowledgment of the environmental rights of humans, rather than any intrinsic rights or values of Nature (or the 'environment').³⁰ In contrast to critical scholarship that aims to expose environmental damage while aspiring to criminalise behaviour that causes it, in terminology and in practice, sustainable development in most circumstances has been co-opted as an economic strategy and a tool to ensure business as usual.³¹

The taken-for-granted framework of 'sustainable development', often expressed through the language of 'ecologically sustainable development' (ESD), is itself part of the problem that needs to be addressed if we are to counter climate change and widespread environmental degradation. In practice, ESD is generally considered in terms of 'sustainable management' or 'sustainable use'.³² The goal of sustainable use or sustainable development (as distinct from ecological sustainability) reflects the anthropocentric instrumentalism that confounds the ecocentric objective. The emphasis or weighting of underlying values thus shapes the ends to which an ecosystem approach is used. Where there are competing values embedded in legislation, multiple interpretations of statutory obligation are possible.³³ Such configurations are a natural pathway to green growth and green capitalist mindsets, which do little to address the social and political causes of environmental degradation.³⁴ This instrumental view has been, broadly, ineffective at protecting Nature.

For example, the principles of ESD provide a guiding framework for many of the deliberations about natural resource use and environmental protection in countries such as Australia. Duties and obligations will vary depending on whether ESD is an object of legislation, a relevant consideration or a strategic concept applied by administrators. A significant practical issue is whether the procedural use of ESD principles is obligatory (that is, required) or advisory (simply encouraged). For example, in the Australian Environmental Protection and Biodiversity Conservation Act, Australia's overarching environmental framework, ESD is listed as a preambular principle to be considered in decision-making and to guide application of the act. Given that economic considerations must be taken into account under a separate heading, it is clear that environmental protection is not the primary intention. This has been made clear in recent years, with activists trying and failing in the courts to find legal hooks to prevent development to the benefit of the environment. The intention of the EPBC Act to 'promote' ESD principles is a legally weak framing, which does little to underpin action.³⁵

The composite principles of ESD, in addition to the way these concepts are embedded in actual legislation, prioritise an instrumental viewpoint. Key principles of ESD, such as the integration principle (integration between long- and short-term economic, environmental,

- 31 Davidson, above n. 29, at 29.
- 32 K. Bosselmann , 'Losing the Forest for the Trees: Environmental Reductionism in the Law,' 2 *Sustainability* 2424 (2010); de Lucia, above n. 27.
- de Lucia, above n. 27.
- 34 Santamarina, above n. 28.

²⁶ See e.g. Australian Democracy Network, 'Confronting State Capture', (2022) www.australiademocracy.org.au/statecapture [accessed 21 October 2022].

²⁷ V. de Lucia, 'Competing Narratives and Complex Genealogies: The Ecosystem Approach in International Environmental Law', 27 Journal of Environmental Law 91 (2015).

²⁸ B. Santamarina, 'The Sterilization of Eco-Criticism: From Sustainable Development to Green Capitalism,' 14 Artículos 13, at 19 (2015); T. Wanner, 'The New "Passive Revolution" of the Green Economy and Growth Discourse: Maintaining the "Sustainable Development" of Neoliberal Capitalism,' 20 New Political Economy 21 (2015).

²⁹ J. Davidson, 'Sustainable Development: Business as Usual or New Way of Living?' 22(1) Environmental Ethics 25 (2000).

³⁰ White (2018), above n. 11.

³⁵ https://attwoodmarshall.com.au/minister-for-the-environment-does-nothave-a-duty-of-care-to-protect-young-people-from-climatechange/?fbclid=lwAR3Ju_p5whgximYUbd27Nr1Vt7_et0p2c0eLQVO8d QhV7BzX9TyDK9QfYqM (last visited 2 June 2022).

social and equitable considerations) have the effect of watering down environmental protection. That is, where economic or development principles are considered within ESD analysis, the importance of environment is diluted. Unless it 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.³⁶ With little analysis of what 'development' looks like in this context (i.e. divorced from an international obligations to raise people out of poverty and instead focused on growth and profit maximalisation), and based on legislative wording that waters down ecological considerations, sustainable development becomes a tool that simply facilitates exploitation of natural resources and generates even deeper social inequalities.³⁷

ESD may be deployed primarily in a methodological sense - that is, as a tool to achieve sustainable development - rather than for the purposes of preservation. Nature, in this view, is conceptualised primarily as a resource and service provider and ESD and ecosystem approaches merely as tools for its further exploitation.³⁸ For example, carbon offsets have emerged as a new strategy to manage carbon emissions and promote sustainable development.³⁹ Internationally, this has implications for 'carbon colonialism' as Northern countries and companies profit from Southern resources. Overall, these processes simply provide excuses for business as usual, with the tokenistic acknowledgment of sustainability principles and an emphasis on development out-

comes.⁴⁰ Wanner writes: Sustainable development emerged as a passive revolution to maintain capitalist hegemony and economic growth in the light of environmentalist critiques about disastrous social and environmental consequences of industrial modern capitalism and calls for 'limits to

growth'. In this way, by diverting the counter-hegemonic challenge of environmentalism, the sustainable development discourse has been part of the sustainable development of capitalism.⁴¹

The current model of ESD is predicated on an anthropocentric view of humans and natural resources. What is needed is an ecocentric model of law and policy development. That is, not simply natural resource management in the context of capitalist growth but an understanding of the inherent values that exist aside from human use. The concept of ESD has, so far, failed to do this. The rest of this article puts forward three intersect-

- 39 A.G. Bumpus and D.M. Liverman, 'Carbon Colonialism? Offsets, Greenhouse Gas Reductions, and Sustainable Development', in R. Peet, P. Robbins & M. Watts (eds.), *Global Political Ecology* (2011) 203.
- 40 See e.g., L. Lohmann, Carbon Trading: A Critical Conversation on Climate Change, Privatisation and Power (2006).
- 41 Wanner, above n. 28, at 27.

ing modes of legal reasoning that could provide new ways of moving forward.

4 The Triumvirate of Obligation

A key underlying concept of this article is 'obligation', which means different things to different people, and which is highly context-bound. For example, it refers to a moral obligation to Nature (as suggested by environmental activists); it is embedded as part of Indigenous cosmology (that is, obligation stems from holistic relationships with Nature), and it refers to legal obligations to act/not act in certain ways, as specified in legislation and case law.⁴² Our concern herein lies mainly with how obligation, as manifest in various legal initiatives, can be mobilised to leverage political debates and institutional practices in favour of climate justice and ecological responsibility.

Climate laws provide an important focus for legal interventions pertaining to global warming. For example, as noted by the IPCC:

Climate laws enable mitigation action by signalling the direction of travel, setting targets, mainstreaming mitigation into sector policies, enhancing regulatory certainty, creating law-backed agencies, creating focal points for social mobilisation, and attracting international finance. By 2020, "direct" climate laws primarily focussed on GHG reductions were present in 56 countries covering 53% of global emissions. More than 690 laws, including "indirect" laws, however, may also have an effect on mitigation. Among direct laws, "framework" laws set an overarching legal basis for mitigation either by pursuing a target and implementation approach, or by seeking to mainstream climate objectives through sectoral plans and integrative institutions.⁴³

Climate litigation is also growing and likewise can affect the outcome and ambitions of climate governance.⁴⁴ Protection of the environment may be based on either one or a combination of conceptions of the rights of Nature (both as subject with rights or object worthy of protection) and duties to Nature (its intrinsic worth. which therefore imposes a moral obligation and duty of care).⁴⁵ Criminalisation is related to these violations of rights and obligations as well as gross destruction of environments. Environmental protection laws, while not necessarily reflecting movement towards legal status per se,

³⁶ Bosselmann, above n. 32; G. Dwyer and M. Taylor, 'Moving from Consideration to Application: The Uptake of Principles of Ecologically Sustainable Development in Environment Decision-Making in New South Wales', 30 Environmental Planning and Law Journal 185 (2013).

³⁷ Santamarina, above n. 28, at 22.

³⁸ de Lucia, above n. 27.

⁴² For example, see M. Graham, 'Some Thought about the Philosophical Underpinnings of Aboriginal Worldviews', 3 *World Views Environmental Culture Religion* 105 (1999).

⁴³ IPCC (2022), above n. 2, at 109.

⁴⁴ Ibid.; M. Burger et al., The Status of Climate Change Litigation: A Global Review (2017); L. Merner , B. Franta & P. Frumhoff , 'Identifying Gaps in Climate-Litigation-Relevant Research: An Assessment from Interviews with Legal Scholars and Practitioners', The Climate Science Network (2022), https://www.cssn.org/ [accessed 21 October 2022].

⁴⁵ D. Fisher, 'Jurisprudential Challenges to the Protection of the Natural Environment', in M. Maloney and P. Burdon (eds.), *Wild Law: In Practice* (2010).

nonetheless signal the value of Nature (although how value is construed depends on whether it is viewed as being for human benefit or for Nature's benefit). A 'rights of Nature' approach, for instance, places emphasis on the status and legal standing of the non-human. An 'ecocide' approach, however, is concerned primarily with preventing harms to the environment.⁴⁶

In this section we examine law-making and judicial decision-making from the point of view of obligation. Specifically, we argue for a threefold approach to climate justice - one that incorporates ecocentrism and the rights of Nature in legal discourse and deliberation, the entrenchment of a general environmental duty of care on the part of citizens and the state, and the establishment of the crime of ecocide in law.

Other legal paradigms may likewise come to similar conclusions without necessarily sharing in the 'rights of Nature' perspective.⁴⁷ Ultimately, these various legal initiatives converge in attempting to provide a legal basis for enhanced protection of the environment in its own right.

4.1 Ecocentrism , Rights of Nature and Ecological Sustainability

Ecocentrism refers to the view that the environment ought to be valued for its own sake apart from any instrumental or utilitarian value to humans.⁴⁸ A fundamental aspect of ecocentrism is that it views entities such as animals, plants and rivers as potential rights-holders and/or objects warranting a duty of care on the part of humans because non-human entities' interests are seen as philosophically significant - that is, deserving greater respect and formal recognition by humans than has hitherto been the case.⁴⁹

Earth Jurisprudence is a philosophical expression of ecocentrism within legal studies that places moral weight on the worth of non-human environmental entities.⁵⁰ One way to implement Earth Jurisprudence is through 'wild law', which refers to an approach to human governance that seeks to prioritise the long-term preservation of all Earth's subjects by regulating human behaviour.⁵¹ Advocates for 'wild law' highlight how laws might be changed, reformed or bolstered to better recognise non-human interests.⁵² Support of the extension of legal rights to natural objects is expressed, for example, in arguments that all things have the right to 'be' and to 'do' in ways that reflect their core or defining trait

- 46 Gray, above n. 21; Higgins (2012), above n. 22; P. Higgins, *Eradicating Ecocide: Laws and Governance to Prevent the Destruction of Our Planet* (2010).
- 47 B. Donnelly and P. Bishop, 'Natural Law and Ecocentrism', 19 Journal of Environmental Law 89 (2007).
- 48 T. Berry, The Great Work: Our Way into the Future (1999).
- 49 D. Schlosberg, Defining Environmental Justice (2007).
- 50 J. Koons, 'What Is Earth Jurisprudence?: Key Principles to Transform Law for the Health of the Planet', 18 *Penn State Environmental Law Review* 47 (2009).
- 51 C. Williams, 'Wild Law in Australia: Practice and Possibilities', 30 Environmental Planning and Law Journal 259 (2013).
- 52 P. Burdon, 'Wild Law: The Philosophy of Earth Jurisprudence', 35 Alternative Law Journal 62 (2010); Higgins (2010), above n. 46; M. Maloney and P. Burdon (eds.), Wild Law: In Practice (2014).

or characteristic, including abiotic or non-living entities, such as the right of a river to flow.⁵³

The constitution of Ecuador is often cited as an example of this type of legal initiative. Adopted in 2008, it has provisions that explicitly refer to the 'rights of Nature'. The intrinsic rights of Nature have also been acknowledged in specific laws recently passed in New Zealand. These pertain to Te Urewer (land) and Te Awa Tupua (water).⁵⁴ The laws acknowledge this land and this river as having their own mana (its own authority) and mauri (its own life force). In a similar vein to developments in Ecuador, the landscape/river is personified - it is its own person and cannot be owned - and this is established through legislation that acknowledges their status as a legal 'person'. This means that Nature (in its various manifestations) is recognised as a subject within law. In the case of the Te Urewera Act 2014, the land is to be preserved in its natural state, introduced plants and animals exterminated (that is, invasive species eradicated), and the Tuhoe people and the Crown are to work together in a stewardship role. Similarly, the Te Awa Tupua Act 2016 grants legal recognition to the Whanganui River and, while neutralising ownership issues pertaining to the Whanganui Iwi (who sought recognition of their authority over the river), provides for a co-management regime involving the Whanganui Iwi and the Crown. Nature as subject does not, however, preclude Nature as an object also being a beneficiary of law, as demonstrated in the UN Convention of Natural Heritage.55

The notion of stewardship (or custodianship) is central to the granting of personhood rights to non-human entities. This raises the question of who the legitimate proxies and spokespeople are or should be for entities that cannot otherwise articulate their claims to intrinsic value, legal status and social protection. One might agree, for example, with the sentiment that we need to 'hear' what the voiceless have to say, whether this refers to trees, soils, bees or orchids. This, in turn, should involve active listening, by humans, to the non-verbal communication from Nature, the signals emanating from the natural world and its inhabitants that denote things such as the impacts of climate change (e.g. oceans warming, insect eggs hatching earlier).⁵⁶ But to translate this into suitable deliberative processes and practical outcomes is complicated.

One way to approach this issue of stewardship (and, related to this, adjudication that weighs up rights, interests, harms and justice) is to initially describe those who speak for Nature as advocates and those who speak about Nature as experts. There is an overlap between those two groups, and the composition of each is diverse. Abstractly, when we talk about speaking *for* Nature, there is a need to explain why certain groups are or

- 53 C. Cullinan, Wild Law: A Manifesto for Earth Justice (2004).
- 54 See Te Urewera Act 2014 and Te Awa Tupua Act 2016.
- 55 Fisher, above n. 45.

⁵⁶ Schlosberg, above n. 49; F. Besthorn, 'Speaking Earth: Environmental Restoration and Restorative Justice', in K. Wormer and Walker (eds.), *Restorative Justice Today: Practical Applications* (2012) 233.

should be privileged over others when institutionalising who speaks for what, when and why (e.g. Indigenous elder, scientist, government official, environmental activist). Here we can point to concrete examples of how this might be achieved, for instance, where Indigenous rights and standing are embedded in legislation; this then provides a legal platform for the recognition of their relationship with the land, which also thereby opens the door to official acknowledgment of their voice.⁵⁷

In regard to speaking *about* Nature, it likewise needs to be acknowledged that there are different knowledges of Nature. For example, a river is defined quite differently by an ecologist and by a geomorphologist and by an Indigenous person. They each have a very different construct of what the river means, utilising different analytical, scientific and spiritual lenses. In a similar vein, there are hunters and foresters who know the woods and who want to protect what they do in the woods, and fishers who want to protect the oceans and the fish, even though in each case, to others, they may be seen as part of the problem. Expertise and the right to speak are not only varied but subject to ongoing political contestation. Moving forward, a blend of expertise and ideas from many different quarters (including scientists, traditional users of land, environmental activists and laypeople, among others) should ideally be part of the continuing dialogue around stewardship, custodianship and protection of Nature generally.

There are then complexities and conundrums associated with ecocentrism - both conceptually and in relation to its translation into practical contexts. Not the least of these difficulties is the fact that Nature, itself, is dynamic and ever changing. How 'harm' is conceived depends very much on the yardstick by which worth is determined. To assess the severity of harm requires criteria linked to value, scale and measure.⁵⁸ Value is measured through quantitative assessments (the extent and type of harm) and moral or qualitative assessments (whether to include some types of activities as harm).⁵⁹ Assessment of 'worth' is partly dependent on the scale at which evaluation occurs. Is the focus on individual species or entire ecosystems? Should value also be applied to individual organisms, and, if so, should this apply to every, and all, plant and animal? Ecosystems incorporate the biotic (plants, animals) and the abiotic (water, soil) that have value in their own right as self-maintaining and self-perpetuating systems. How does one determine the relative value of individual organism, particular species and overarching biotic communities relative to each other? Interconnection and overlapping interests are as important to consider as discrete needs, rights and concepts of justice. Determining the nature of the harm refers to efforts to put a value - monetary, ecological, aesthetic, cultural - on the harm. This involves attempts to make the harm visible and assess the type and magni-

58 R. White, Environmental Harm: An Eco-justice Perspective (2013).

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tude of the harm (e.g. as minor, major or catastrophic, and in relation to what or whom). The key questions here are who is doing the valuing and what tools are utilised to assign value.⁶⁰

A major challenge, therefore, is how to measure ecocentrism – to have suitable ecological metrics – if and when it is manifest within the criminal justice institutional sphere. With respect to this, in theoretical terms we can identify five key indicators of ecocentrism:

- The extent to which the intrinsic value or worth of the non-human environmental entity is taken into consideration
- The use of ecological perspectives to estimate the degree of harm to non-human environmental entities
- The kinds of expertise mobilised within and demonstrated by a court to capture adequately the nature and complexities of environmental harm
- The gravity of the offence against the non-human entity as reflected in the penalties given, and
- The measures taken to ensure the maintenance, restoration or preservation of ecological integrity.⁶¹

An example of how ecological metrics are utilised in practice is provided by the New South Wales Land and Environment Court (NSWLEC) - one of the oldest specialist environment courts in the world. As part of its proceedings, the court carries out assessments of environmental harm, as well as sentencing offenders for criminal offences pertaining to environmental laws. The Court needs to be cognisant of the elements constitutive of 'ecologically sustainable development' as outlined in the *Protection of the Environment Administration Act 1991 (NSW)*. The PEA Act provides that ESD can be achieved through the implementation of particular principles and programmes (such as the precautionary principle, intergenerational equity, conservation of biological diversity and ecological integrity).

At the heart of this evaluation of circumstance is *ecology*, involving a holistic understanding of the natural world. For judicial officers this requires a modicum of specialist expertise on environmental matters and an appreciation of the importance of ecological integrity. For instance, in assessing harm arising from offences associated with the National Parks and Wildlife Act 1974 (NSW) the Court uses indicia such as direct damage (e.g. changes in a landscape or particular biotic community), the status of species damaged or destroyed (e.g. endangered and vulnerable species), the re-establishment time before damage is redressed (and whether the damage can be redressed at all) and so on,⁶² Fundamentally, this process requires the elevation of the intrinsic worth of Nature (and its various component parts) to the level

60 Ibid.

⁵⁷ R. White, 'Indigenous Communities, Environmental Protection and Restorative Justice', 18 Australian Indigenous Law Review 43 (2015).

⁵⁹ Ibid.

⁶¹ R. White, 'Ecocentrism and Criminal Justice', 22 Theoretical Criminology 342, at 349 (2018).

⁶² R. White, 'Ecocentrism and Criminal Proceedings for Offences against Environmental Laws', in E. Fisher and B. Preston (eds.), An Environment Court in Action: Function, Doctrine and Process (2022), 213-232.

of first principles.⁶³ This assessment process and application of ecological metrics also extends to direct and potential harms stemming from climate change.

For example, ecological and economic concerns were apparent in *Gloucester Resources Limited v Minister for Planning [2019] NSWLEC 7*. In this instance, a mining company, Gloucester Resources Limited, proposed an open cut coal mine to produce 21 tonnes of coal over a period of 16 years. In assessing this mining development, the NSWLEC drew on a wide range of social, economic and ecological criteria. Significantly, in *Gloucester Resources Limited*, there were several climate-related issues that needed to be tackled. In Australia, a litigant typically needs to convince a court that the proponent is responsible for the ultimate burning of coal, even if it is burned by a third party, and that this will result in increased greenhouse gas emissions, which in turn contribute to climate change.

Judge Preston of the NSWLEC took a broad view of these matters, ruling that:

The project's cumulative greenhouse gas emissions will contribute to the global total of GHG concentrations in the atmosphere. The global total of GHG concentrations will affect the climate system and cause climate change impacts. The project's cumulative GHG emissions are therefore likely to contribute to the future changes to the climate system and the impacts of climate change.⁶⁴

The Court also resisted the 'market substitution' argument, the notion that if the proponent does not mine and sell coal, someone else will. Among other reasons, this was rejected in light of increasing global momentum to tackle climate change and therefore reject future coalmine proposals.

Overall, the NSWLEC concluded that:

In short, an open cut coal mine in this part of the Gloucester valley would be in the wrong place at the wrong time. Wrong place because an open cut coal mine in this scenic and cultural landscape, proximate to many people's homes and farms, will cause significant planning, amenity, visual and social impacts. Wrong time because the GHG emissions of the coal mine and its coal product will increase global total concentrations of GHGs at a time when what is now urgently needed, in order to meet generally agreed climate targets, is a rapid and deep decrease in GHG emissions. These dire consequences should be avoided. The Project should be refused.⁶⁵

This was the first time that contributions to climate change were cited as a substantial reason for stopping the mine development from proceeding. As indicated previously, the Court also undertook systematic assess-

65 *Ibid.*, at 699.

ments pertaining to ecological and social considerations. The importance of this is that it provides a concrete example of how courts can use ecological metrics of harm in their decision-making. Ecocentric theory can be translated concretely into institutional practice.

4.2 Duty of Care

Protection of the environment may stem from a variety of practical imperatives and philosophical considerations. It may be motivated by anthropocentric concerns insofar as good environments are associated with healthy conditions for the flourishing of human interests, including, for example, aesthetic and recreational values. It may be linked to a 'rights of Nature' emphasis on the intrinsic value of species, ecosystems and the abiotic components of Nature. The impetus might be simply a concern to care for that which is vulnerable to human degradation and exploitation for the benefit of both natural object and human subject. Conventional treatments of environmental protection, for example, focus on the rights of humans and that basically define the 'environment' in human-centred or anthropocentric terms. For example, the Council of Europe's Manual on Human Rights and the Environment, which reflects legislation and case law across the European Union, is concerned with the impact of environmental changes on human individuals, rather than human impacts on the environment per se.66 In other words, the central concern is with human interests and human rights. These emphases are also reflected in recent commentary on the application of human rights law to provision of a decent or healthy environment (including considerations pertaining to climate change), as well as explicit interest by the Office of the United Nations High Commissioner for Human Rights in human rights obligations relating to the environment.67

Anthropocentrism privileges humans and human interests over and above those of the non-human.⁶⁸ Like the concept of ecocentrism, it too, involves a range of philosophies and practices - from disregard for the environment to stewardship models of environmental care. Nonetheless, the defining characteristic of anthropocentrism is that humans are ends-in-themselves, while other entities are only means to attain the goals of humans. This is the case even when ecologically benign measures or 'ecosystem approaches' to natural resource management are adopted insofar as these methods are employed primarily for human-centred purposes.⁶⁹ From an anthropocentric perspective, harm to the environment is thus only of consequence when it is meas-

⁶³ White (2018), above n. 61.

⁶⁴ Gloucester Resources Limited v. Minister for Planning, [2019] NSWLEC 7, at 525.

⁶⁶ Council of Europe, Manual on Human Rights and Environment (2012).

⁶⁷ A. Boyle, 'Human Rights and the Environment: Where Next?' 23 *European Journal of International* 613 (2012); Office of the United Nations High Commissioner for Human Rights, 'Special Rapporteur on Human Rights and the Environment', (2018).

⁶⁸ de Lucia, above n. 27.

⁶⁹ Ibid.

ured by reference to human values and interests (e.g. aesthetic, cultural, economic).⁷⁰

Thus, while privileging the human over the non-human, anthropocentrism nonetheless can express a moral concern for Nature. This can involve an ethic of responsibility to Nature as well as responsibility for Nature, albeit framed in terms of human interests.⁷¹ Protecting the environment for human benefit, for example, is evident in international agreements, such as the UNCED, which explicitly acknowledges the environmental rights of humans, not intrinsic environmental rights as such (Principle 1, for example, states that '[h] uman beings are at the centre of concerns for sustainable development'). Nonetheless, regimes of environmental protection increasingly incorporate elements of both anthropocentrism and ecocentrism.⁷²

Regardless of underlying eco-philosophy, recent legal developments speak to the importance of a duty of care to the environment. In Australia, for example, amendments to the Victoria Environmental Protection Act [2018] introduced a 'general environmental duty'.⁷³ This sets out responsibilities and obligations as this pertains to citizens and residents of the State of Victoria. It is linked to specific types of activities and potential harm: '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'.⁷⁴ There is an offence for aggravated breach of the general environment

tal duty. Moreover, this provision is expressly future-focused in that the environmental general duty of care is a form of preventative or precautionary regulation or risk management in that a regulator need not wait until harm has occurred before taking action. It does not require a demonstration of harm but rather a demonstration that 'reasonably practicable' measures have been taken to prevent or minimise harm.⁷⁵

The matter of duty of care is not only pertinent to 'environments' or to a general individual obligation but also central to notions such as intergenerational equity. In this instance, the obligations are specific to nation-states (and to their citizens and residents) and are linked to protections of basic human rights, for which states are held accountable. Public trust and public interest law have been used selectively worldwide to establish future generations as victims of environmental crime.⁷⁶ Intergenerational equity, usually linked to con-

- 70 A. Lin, 'The Unifying Role of Harm in Environmental Law', 3 Wisconsin Law Review 898 (2006).
- 71 Donnelly and Bishop, above n. 47; Fisher, above n. 45.
- 72 Fisher, above n. 45.
- 73 Victoria Consolidated Acts, Environment Protection Act 2017 part 3.2. General Environmental Duty (proclaimed 1 July 2018).
- 74 Ibid., s 25(1).
- 75 A. Freiberg, 'General Duties as Regulatory Tools in Environmental Protection: Principles, Practice, Problems', 36 Environmental and Planning Law Journal 40 (2019).
- 76 B. Preston, 'The Use of Restorative Justice for Environmental Crime', 35 Criminal Law Journal 136 (2011); M. Mehta, In the Public Interest: Landmark Judgement & Orders of the Supreme Court of India on Environment & Human Rights, Vols 1 - 3 (2009).

sideration of the prospects of children and young people, has three core ideas. These are summarised by Weiss:

The basic concept is that all generations are partners caring for and using the Earth. Every generation needs to pass the Earth and our natural and cultural resources on in at least as good condition as we received them. This leads to three principles of intergenerational equity: options, quality and access. The first, comparable options, means conserving the diversity of the natural resource base so that the future generations can use it to satisfy their own values. The second principle, comparable quality, means ensuring the quality of the environment on balance is comparable between generations. The third one, comparable access, means non-discriminatory access among generations to the Earth and its resources.⁷⁷

These constitutive elements of intergenerational equity - conservation of options, conservation of quality and conservation of access - are seen to form the foundation for legal protections of environments, essentially for human benefit, now and into the future. Intergenerational equity is acknowledged in a number of international instruments, such as the UN Framework Convention on Climate Change and the United Nations Economic Commission for Europe's Aarhus Convention. Interest in the concept stems from the Stockholm Declaration on the Human Environment, which in turn led directly to the creation of the UN Environment Programme.⁷⁸ It is of continuing interest today. As members of this present generation, we hold the Earth in trust for future generations, while at the same time we are beneficiaries of its resources. Equity must flow to present generations from past generations, while, simultaneously, present generations must ensure that equity flows to future generations. Moreover, the dynamics of Nature (both human and non-human) demand attention to the vagaries of change that naturally occur over time.

Weiss makes the point that intergenerational planetary rights may be regarded as group rights, as distinct from individual rights, in the sense that generations hold these rights as groups in relation to other generations – past, present and future.⁷⁹ That is, these are 'generation-al rights' that must be conceived in the temporal context of generations, rather than rights of identifiable individuals (although there are identifiable interests of individuals that the group rights protect). These generational rights can be evaluated by applying objective criteria and indices to the planet from one generation to the next.

⁷⁷ E. Weiss, 'Climate Change, Intergenerational Equity, and International Law', 9 Vermont Journal of International Law 615 (2008), at 624. For a perspective on harm from the point of view of evolutionary needs and ethics that is not centred on anthropocentric considerations, see Gibney and Wyatt, above, n. 24.

⁷⁸ E. Weiss, 'Intergenerational Equity: A Legal Framework for Global Environmental Change', in E. Weiss (ed.), *Environmental Change and Internation*al Law (1992) 385.

Ecocide as an outcome of the failure to address global warming is not just a theoretical debate about abstract propositions. The casualties of climate change are disproportionately found among the most vulnerable population groups. Intergenerational equity refers to 'vertical equity', which cuts across generations over time, and to 'horizontal equity', in which equality of rights extends across population groups as well as time.⁸⁰ There is a close connection between intragenerational and intergenerational rights (under the rubric of 'conservation of access'). The health and well-being of the next generation is entirely contingent on how children of the present generation are cherished and nurtured. Climate change challenges the planet's capacity to do this.

When it comes to matters specific to the rights of children in regard to intergenerational equity, there are occasionally instances when children's interests (both as vulnerable and as the future generation) have come to the fore. For example, in Minors Oposa v. Secretary of State for the Department of Environment and Natural Resources, the issue of intergenerational equity was considered by the Philippines Supreme Court. Two issues, in particular, had to be decided: whether future generations should have standing and how to respond to the claimants, who in this case were a group of children, and who sought an order to the government to discontinue existing and future timber licence agreements: 'The claimants alleged that deforestation was causing environmental damage which affected not only young but also future generations and they sought to establish standing for both present and future generations.'81 The Supreme Court held that standing be granted to the claimants and that they had adequately asserted a right to a balanced and healthful ecology.

How intergenerational obligations are constructed is subject to various legal contestations. For example, in a recent case in Australia, the Minister for the Environment, Susan Ley, successfully appealed the Sharmadecision, which had imposed a new duty of care to protect Australia's young people from the harmful impacts of climate change.⁸² This case was filed by eight teenagers in a class action in the Australian Federal Court, seeking an injunction against ministerial approval of a coalmine expansion, on the basis that the expansion endangered the applicants' future by exposure to climatic hazards. In the original case, the judge held that in deciding whether to approve the development, the minister owed a duty of care to Australia's young people not to cause them physical harm in the form of personal injury arising from climate change.

However, the Appellate Court's decision was not based on whether the minister ought to have a duty of care to future generations. Rather, it was based on the notion

- 80 R. White, 'Imagining the Unthinkable: Climate Change, Ecocide and Children', in J. Frauley (ed.), C. Wright Mills and the Criminological Imagination (2015), 219-240.
- 81 K. Schneeberger, 'Intergenerational Equity: Implementing the Principle in Mainstream Decision-making', 23 Environmental Law & Management 20, at 26 (2011).
- 82 Minister for the Environment v. Sharma (No 2), [2022] FCAFC 65.

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that the duty could not be implied under the *Environment Protection and Biodiversity Conservation (EPBC) Act.* As one commentator pointed out:

While appealing the decision might seem like a callous and ludicrous move from the Minister for Environment, the trial, together with the appeal judgment, exposes a vital truth - our environment law framework is not designed to protect the environment. Instead, it serves to legitimise development, and in doing so, it ultimately fails to protect our environment and humanity.⁸³

In His Honour's judgment, for example, Chief Justice Allsop noted:

The [EPBC] Act is not concerned generally with the protection of the environment nor with any response to global warming and climate change.⁸⁴

There has been no attempt by the Commonwealth Parliament to translate international agreements concerning climate change, particularly the Kyoto Protocol ... or the Paris Agreement into Commonwealth law.85 This legal interpretation dovetails with our earlier discussion of 'ecological sustainable development' as currently construed by governments and businesses in Australia. For instance, permit systems are designed precisely to allow pollution to occur, setting thresholds and limits as to what is acceptable. They do not function to stop or prevent the pollution. Environmental harm is generally constructed through the lens of malem prohibitum (regulatory infringement) rather than malem in se (intrinsically harmful). The green light for 'business as usual' continues, and this recent High Court case only serves to confirm this tendency. It also confirms the central importance of politics in determining the parameters of legal intervention and highlights the bastardy of the social forces behind continued global warming.

A final comment on duty of care acknowledges that it is not only citizens and states that are being held to account under potential and emerging legal regimes. The same concept is also being applied to company directors. Specifically, there is growing interest in the idea of using company and securities law to highlight disclosure requirements regarding foreseeable climate risk and viewing climate obligations as linked to director duties and liabilities.⁸⁶ This is also manifest in the insurance industry and ongoing interest in and debates over whether and to what extent companies can be held accountable for the economic consequences of climate change. Thus, disputes over obligation and duty of care

- 85 Minister for the Environment v. Sharma, [2022] FCAFC 35, at 5, 101.
- 86 F. Haines and C. Parker, 'Moving towards Ecological Regulation: The Role of Criminalisation', in C. Holley and C. Shearing (eds.), *Criminology and the Anthropocene* (2017), 86-108.

⁸³ https://attwoodmarshall.com.au/minister-for-the-environment-does-nothave-a-duty-of-care-to-protect-young-people-from-climatechange/?fbclid=lwAR3Ju_p5whgximYUbd27Nr1Vt7_et0p2c0eLQVO8d QhV7BzX9TyDK9QfYqM (last visited 2 June 2022).

⁸⁴ www.judgments.fedcourt.gov.au/judgments/Judgments/fca/ full/2022/2022fcafc0035/_nocache.

range across a variety of substantive areas of law, economics and politics.

Of recent concern, however, is the pushback by governments against environmental, social and governance investment policies that involve companies excluding energy companies in their investment decisions (presumably because of perceived social and environmental obligations, responsibilities and consequences). The Texas Comptroller of Public Accounts, for example, has published a 'blacklist' of companies judged to have 'boycotted energy firms'. As a result of being included on the blacklist, Texas governmental bodies such as the hundreds of billions dollar teachers' retirement system are prohibited from investing in these firms and must divest from any holdings in them that they currently own. This is a clear case of divestment in favour of the status quo, one that is in direct opposition to the goals of climate and social justice.87

4.3 Ecocide

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Global heating is mainly due to the continued collusion of key political leaders with the fossil fuel industries and other degraders of the environment. Collectively, they are actively 'doing bad'. As such, their actions can be analysed through the lens of criminal law, albeit from a critical perspective.

Conceptually, crime involves several elements. It involves *actus rea* that refers to acts and/or omissions. In this instance, global heating is generated by the activities of governments, corporations and individuals that rely on or involve numping greenhouse gases into the

rely on or involve pumping greenhouse gases into the atmosphere. It is also fostered by the failure of governments to regulate carbon emissions, for example, letting the dirty industries continue to do what they do best which is to continue to profit from irresponsible and destructive behaviours. Crime involves serious harm. Climate disruption is serious in itself and must therefore be considered serious enough to warrant criminal laws and criminal prosecutions for those contributing most to the problem.

Crime also involves *mens rea* or the guilty mind. Among other things, this involves foreknowledge. In this regard, there has been public knowledge and governmental agreement on the negative impacts of climate change since the United Nations Rio Summit in 1992, while corporate entities like ExxonMobil have known of the effects of carbon pollution from at least as early as 1977. Thus, the problem and its consequences have been known for decades.

These observations mean that we can frame climate change to include discussion of perpetrators and of-fenders, victims and survivors and to speak of threats, risks, prevention and precaution. It also means that those perpetrating the harms need to be held to account. Who this ought to include is rightfully a core concern of contemporary critiques.⁸⁸ The carbon criminals are

87 A. Lester, 'US States Target ESG Investment as US SIF Hits Back at "Political" Attacks', Environmental Finance (2022), 25 August.

88 Kramer, above n. 11; White (2018), above n. 11.

those who pretend that climate change is not happening or who believe that climate policy should not take precedence over immediate economic gain. Many are contrarians - eschewing scientific evidence in favour of bias and ill-informed opinion.⁸⁹ Nothing will convince them otherwise because their specific sectoral interests override universal human and ecological interests.

The carbon criminals also include those who continue to facilitate carbon emissions: governments that foster deforestation and massive oil, gas and coal projects, and the corporations that influence their decision-making, construing energy policy as fundamentally about fossil fuels not alternative sources. These are the purveyors of future costs that are already hurting us in the here and now.

Additionally, the carbon criminals are those who fail to prevent and stop the activities and policies that are killing the planet and life as we know it. Delayed action is in effect a green light to even greater climate disruption happening at an even greater pace. Time is of vital concern here. Global temperature rise is accelerating, and in-built biophysical feedback loops (such as melting ice sheets) mean that it is likely to happen even faster than it already is today as time goes by. Moreover, each delay now means that deeper cuts to carbon emissions are needed.⁹⁰

Discussions of ecocide from a legal standpoint describe an attempt to criminalise human activities that destroy and diminish the well-being and health of ecosystems and the species within these, including humans. Climate change and the gross exploitation of natural resources are undermining existing ecosystems and habitats. This is the essence of ecocide on a planetary scale. In 2021, the UK-based campaign 'Stop Ecocide International' (through the Stop Ecocide Foundation, 2021) commissioned an independent expert panel to put together a legal definition of ecocide relevant to the Rome Statute of the International Criminal Court (building on the earlier work of Polly Higgins⁹¹). This proposed definition describes ecocide as follows:

- 1. For the purpose of this Statute, "ecocide" means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.
- 2. For the purpose of paragraph 1:
 - a. "Wanton" means with reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated;
 - b. "Severe" means damage which involves very serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life or natural, cultural or economic resources;

A. Brisman, 'The Cultural Silence of Climate Change Contrarianism', in R.
White (ed.), Climate Change from a Criminological Perspective (2012) 41-70.

⁹⁰ UNEP, above n. 12.

⁹¹ Higgins (2010), above n. 46; Higgins (2012), above n. 22.

- c. "Widespread" means damage which extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings;
- d. "Long-term" means damage which is irreversible or which cannot be redressed through natural recovery within a reasonable period of time;
- e. "Environment" means the earth, its biosphere, cryosphere, lithosphere, hydrosphere and at-mosphere, as well as outer space.⁹²

Previously, there had been a major attempt to include ecocide among the crimes associated with the establishment of the International Criminal Court (ICC), although the final document refers only to war and damage to the natural environment.⁹³ Recent efforts have been directed at making 'ecocide' the fifth International Crime Against Peace.

Debate continues over what precisely ecocide as a crime should entail. For instance, the expert panel definition is oriented towards the ICC and, accordingly, it reflects a human rights emphasis. Others argue for a more expansive definition, one that incorporates an ecocentric perspective that views the environment as having value for its own sake. Ecocide, from this viewpoint, should be framed as a crime not only against humans but against non-human environmental entities.94 Ideally, then, cases should be able to be brought to court on behalf of entities such as rivers, mountains, trees and birds, if they are affected by ecocide-related acts and omissions. The matter of 'intent' is also contentious.95 Strict liability may be applied to more severe risks and harms, given the seriousness of the harm, in which case mens rea (the mental element) is less important than actus reus (the act itself) (although subjective factors are nonetheless taken into consideration as part of the sentencing deliberations). Proving intent in cases where ecocide occurs can be extremely difficult (for instance, corporations are motivated by profit-making; damage to the environment may be a collateral effect unrelated to intent). If widespread destruction and damage does occur, this should trigger prosecution and conviction regardless of the mental element. Even with strict liability, questions of intent and foreknowledge still play a significant role in sentencing insofar as they relate to aggravating (for example, intentional disregard of licensing provisions)

- 93 P. Higgins, D. Short & N. South, 'Protecting the Planet: A Proposal for a Law of Ecocide', 59 Crime Law and Social Change 251 (2013).
- 94 R. White, Theorising Green Criminology: Selected Essays (2022), White, above, n. 1.

95 O. Hasler, 'Green Criminology and an International Law Against Ecocide: Using Strict Liability and Superior Responsibility to Prevent State and Corporate Denial of Environmental Harms', in J. Gacek and R. Jochelson (eds.), Green Criminology and the Law (2022) 387. and mitigating factors (for example, attempts to repair the harm).

The urgency and impetus for making ecocide a crime has been heightened by the woefully inadequate responses by governments, individually and collectively, to global warming and to threats to biodiversity. Climate change is rapidly and radically altering the very basis of world ecology; meanwhile, one million species are considered to be at threat of extinction.[%] Ecocide has become a global phenomenon rather than being limited to specific zones and geographical territories.

Yet very little action has been taken by states or corporations to rein in the worst contributors to the problem. Importantly, states continue to enable corporate criminals through regulatory and policy failure, as well as by continuing to provide tax incentives and ministerial approval. A comprehensive crime of ecocide must be broad enough to incorporate state-sanctioned criminality, as well as acts that are already subject to civil sanction (such as a licence breach). Carbon emissions are not decreasing, and habitat is being destroyed as pollution continues to contaminate land, air and water, affecting all that live on the planet. Underpinning this systemic destruction and degradation are specific corporate and elite interests. And these are inseparable from the dominant global mode of production - capitalism - the driver of which is an inherent growth imperative.⁹⁷

A key defining feature of ecocide perpetrated by the powerful is that such crimes involve actions (or omissions and failures to act) that are socially harmful and carried out by elites and/or those who wield significant political and social authority in the particular sectors or domains of their influence. Such harms are inseparable from those who has power, how they exercise this power, and who ultimately benefits from the actions of the powerful. These social interests not only perpetuate great harms but also obscure and mask the Nature of harm production. They are also best placed to resist the criminalisation process generally.⁹⁸ Under these social arrangements, ecocide is inevitable.

Ecocide describes an attempt to criminalise human activities that destroy and diminish the well-being and health of ecosystems and species within these, including humans. Climate change and the gross exploitation of natural resources are leading to our general demise hence increasing the need for just such a crime.

- 96 H. Portner et al., 'IPBES-IPCC Co-sponsored Workshop Report on Biodiversity and Climate Change', (2021), IPBES and IPCC. DOI: 10.5281/zenodo.4782538.
- 97 Kramer, above n. 11; Van der Velden and White, above n. 3; D. Whyte, *Ecocide: Kill the Corporation before It Kills Us* (2021).

⁹² Stop Ecocide Foundation, 'Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text', (2021) June 2021. https://static1.squarespace.com/static/5ca2608ab914493c64ef1f6d/t/ 60d7479cf8e7e5461534dd07/1624721314430/SE+Foundation+Com mentary+and+core+text+revised+%281%29.pdf.

⁹⁸ D. Rothe and D. Kauzlarich, Crimes of the Powerful: An Introduction (2016); S. Tombs and D. Whyte, The Corporate Criminal: Why Corporations Must Be Abolished (2015).



5 Conclusion

Social obligation as a legal phenomenon may be found in statements of general obligation (e.g. environmental duty of care), but the status of this partly depends on whether the sanction includes criminal provisions -denoting that failure to carry out this obligation is regarded as socially and institutionally serious. It may also be found in express commitments not to do harm, as in, for example, proposed ecocide laws that impose penalties for doing the wrong thing. It may also surface in the form of 'rights of Nature' discourse, for example when personhood (and equivalent protections) is granted to the Earth or a particular river or mountain as a legal person. Violation of the integrity of these legal persons therefore constitutes a breach of law and thereby prevents fulfilment of the social obligation to treat the

'other' with full legal respect. At a practical level, the concept of social obligation also requires some sense of threshold. That is, there must be a metric by which to measure when someone has not fulfilled their legal obligations - i.e. to carry out their duty of care or to not engage in ecocidal activities. This requires a grounded sense of how to determine the nature and quantum of harm, as well as a moral compass. This is certainly feasible, as demonstrated in concrete examples of how ecocentrism is currently being translated into institutional-level practice (for example, the deliberations and assessments by specialist environment courts). A core consideration is how to further embed or institutionalise social obligations to Nature such that environmental harm is minimised. As part of this, it is important that administrative and civil measures interact with criminal law remedies to ensure compliance and to foster the prevention and repair of environmental harm. All these considerations are vital to combatting climate change and enhancing climate justice.

Law reformers argue that the law itself must be radically altered and that fundamental social transformation is required to reset the ecological clock. The push to introduce ecocide as a crime parallels other legal developments such as climate litigation and the use of public interest law to establish future generations as victims of environmental crime, the victims including humans as well as non-human environmental entities such as rivers, for which surrogate victims or stewards (such as NGOs or Indigenous communities) provide representation.⁹⁹ Threats to Nature's rights can be conceptualised as, in essence, a crime of ecocide and thus punishable by law. These developments are adding to the complexity of the law and challenging many long-standing assumptions about the Nature-human relationship.

If we imagine the harms of climate change at the fulcrum of legal initiative and future prospects (see Figure 1), then a triumvirate of responses becomes not only evident but also essential.

New ways of thinking - incorporating concerns with ecocentrism, duty of care and ecocide - are important because these concepts can shape the content and substance of obligations, rather than just provide an avenue for recourse. For instance, they provide a platform for holding a government not just to its own legislated targets but, in order to avoid committing ecocide, to the need for stronger targets. Acknowledging ecocentric worldviews within policymaking and legal determinations will lead to better laws and better implementation of our current laws. Enacting and implementing reforms underpinned by these ideas and practices require persistent legal activism that substantially challenges the status quo. Such calls for legal reform are simultaneously aspirational as well as designed to shape the wider political agenda.

On their own, climate laws and legal reforms are not enough to fundamentally change the dire circumstances

99 Mehta, above n. 76; White (2022), above n. 94.

in which we find ourselves, given the strength and range of elite forces ranged against us. Yet rights of Nature laws reinforce the intrinsic value of Mother Earth and particular rivers and mountains, as well as the centrality of stewardship. They also highlight Indigenous claims to custodianship of land and water. Similarly, climate laws do help to set targets and make governments accountable within narrow terms of reference (e.g. carbon emission policies); climate litigation does help to put pressure on governments and companies to change their policies and activities in ways that positively impact on global warming (e.g. industrial processes, deforestation and intergenerational equity); and ecocide laws alert us to the gravity and scope of the harms even if they do not provide immediate workable remedies (e.g. see the history of the ICC). Laws, courts and government policies are fundamentally and inherently political in terms of content and composition. Accordingly, our focus needs to be on the power and interests that perpetuate the global calamities now besetting our planet.

Countries are made up of citizens and residents who have differential access to the levers of power and who command uneven access to and mobilisation of resources. It is governments of nation-states that bear responsibility for climate change policy, but they do so in the context of the interpenetration of corporate and state power. Critical discussion of responsibility, accountability and prosecution must privilege these factors and relationships. Most importantly, there is a need to understand the close structural relationship between states and incorporated entities (that include both private and state corporations) as a fundamental feature of global capitalism. To tackle climate change through law reform is, therefore, inevitably a struggle against elite privilege and structural power. With stakes this high, however, this too is an unavoidable feature of the class dynamics determinate of climate change and attempts to mitigate its causes and adapt to its consequences.

Valuing Environmental Damages: Fundamental Issues and Methods

Francesca Leucci*

Abstract

Ecological destruction is one of the greatest challenges of our times. When it is human-based and directly caused by risky activities, liability can play a role in addition to all other regulatory and market-based tools. From a legal perspective, liability primarily aims for victim compensation, whereas, from an economic perspective, its main goal is deterrence. This can be achieved by inducing potential polluters to invest in care (ex ante) in order to minimise expected losses (ex post). Yet, several issues might undermine the possibility to achieve either compensation or deterrence. The aim of this article is to examine how different methods of damage assessment in litigation can enhance or undermine the goal of environmental liability from an economic perspective. More precisely, the overarching research question is whether the available methods of damage assessment are likely to pursue deterrence in an efficient manner. The article is thus structured in the following way. First, the theory of tort law and economics is reviewed to explain how damages should be theoretically assessed to achieve deterrence. Secondly, drawing on the scholarship of environmental economics, advantages, drawbacks and practical use of traditional methods of environmental damage assessment are illustrated. Lastly, conclusions will be drawn based on the comparison of these methodologies in view of providing judges with a cost-effective and 'on average' accurate valuation technique, taking also into account the recent ecosystem service approach to damage assessment.

Keywords: environmental damage compensation, valuation, efficiency, deterrence, ecosystem services.

1 Introduction

Recent widespread damage of oil spills in Europe suggests that the current legal and economic framework does not provide a mechanism for preventing oil spill damages.¹ It hardly needs explanation that environmental accidents lead to huge costs for the society and, thus, they require adequate measures to prevent and compensate them. If we look at the existing tools to tackle the environmental harm from the perspective of an environmental economist, we can see a general distinction between command-and-control regulations and market-based instruments. They all play a role to control environmental pollution when, due to high transaction costs, private parties cannot bargain and address market failures.² However, the two classes of instruments largely differ. Command-and-control tools (conventional approach)³ consist of regulations to force firms and individuals to uptake a share of pollution-control burden irrespective of the costs.4 They include uniform standards (technology and perform-based standards).⁵ On the other hand, market-based instruments aim to induce firms and individuals to undertake pollution control in a more cost-effective way⁶ through price signals, such as tradable permits and pollution charges.⁷ Private liability laws belong to this last category since they can provide potential polluters with strong incentives (implicit pric-

- 2 W. Pfenningstorf, 'Environment, Damages, and Compensation', 4(2) Law & Social Inquiry 347 (1979). When market decisions affect third parties (those who are not involved in that specific market transaction) by causing negative externalities, a market failure occurs. Pollution is a typical example of market failure. Actors causing negative externalities should take into account the full social costs of their production, otherwise they keep engaging in activities leading to pollution levels that would be higher than what is socially optimum. Externalities might be internalised through private negotiation or (oftener) government intervention. Indeed, pollution is considered to be the 'fundamental theoretical argument for government intervention'. See R.N. Stavins, 'Environmental Protection and Economic Well-Being: How Does (and How Should) Government Balance These Two Important Values?', in J.A. Riggs (ed.), How Do Business, Government and Media Balance Economic Growth and a Healthy Environment? (2003), at 1.
- 3 On the reasons why regulatory instruments became so frequently adopted to control environmental pollution, see N. Keohane, R. Revesz & R.N. Stavins, 'The Choice of Regulatory Instruments in Environmental Policy', 22 Harvard Environmental Law Review 313 (1998).
- 4 Stavins (2003), above n. 2, at 4.
- 5 Design standards require the use of technologies, while performance standards determine the maximum amount of pollution that firms or individuals are allowed to emit (*ibid.*, at 4).
- 6 At least in theory, market-based tools to control pollution are more cost-effective because they induce behavioural changes while minimising the social costs to pursue the predetermined levels of pollution. For an in-depth view of costs of regulation versus liability, see S. Shavell, 'Liability for Harm versus Regulation of Safety', 13(2) The Journal of Legal Studies 357 (1984).
- 7 For an extensive review of environmental market-based instruments, see R. Stavins, 'Experience with Market-based Policy Instruments', in K. Mäler and J. Vincent (eds.), The Handbook of Environmental Economics (2003), at 355.

^{*} Francesca Leucci is a PhD candidate at the Department of Economics at the Bologna University, Italy, at the Erasmus School of Law at the Erasmus University Rotterdam, the Netherlands, and at the Institute of Law and Economics at the Hamburg University, Germany (European Doctorate in Law and Economics).

R.T. Carson and S.M. Walsh, 'Preventing Damage from Major Oil Spills: Lessons from the Exxon Valdez', 32(3-4) Oceanis: Serie de Documents Oceanograthiques 351374 (2006).

es)⁸ to consider the consequences of their actions⁹ and, thus, to efficiently prevent accidents.¹⁰ According to the theory of tort law and economics, the primary goal of liability laws is therefore to induce polluters to adopt optimal levels of care and activity so that the total social costs of accidents are minimised.¹¹ In other words, the first aim of liability laws is the optimal deterrence of environmental accidents and not only victim compensation.¹² Scholars of law and economics have been writing

- 8 T.S. Ulen, 'Rational Choice Theory in Law and Economics', in B. Boudewijn and G. De Geest (eds.), *Encyclopedia of Law and Economics. Volume I. The History and Methodology of Law and Economics* (2000), at 790ss.
- In law and economics, it is traditionally assumed that human beings take 'rational' decisions, meaning that people choose the options that best meet their preferences given certain expectations that they create based on the optimal amount of information that they gathered. In this way, human beings are assumed to maximise their expected utility. This predominant approach to human behaviours is called 'rational choice theory' and it is predominant in law and economics, although heavily debated because of several limitations. See H. Schäfer and C. Ott, The Economic Analysis of Civil Law (2004). A relatively more recent approach, the so-called 'behavioural law and economics', assumes instead that people do not act always rationally due to psychological biases, such as the 'endowment effect' for which people are willing to pay less for acquiring something (a right or a good) than what they are willing to accept for giving it up. Based on this and more psychological findings, this approach tends to support a more regulatory approach rather than believing in private market transactions. See, ex multis, C. Jolls, C.R. Sunstein & R. Thaler, 'A Behavioral Approach to Law and Economics', 50 Stanford Law Review 1471 (1998).
- According to Schäfer and Ott, efficiency means that in a society it is pos-10 sible to achieve the highest level of utility given the resources which are initially available and their allocation. See Schäfer and Ott, above n. 9. When deciding which among many policy options is socially preferable, there may be different approaches. For instance, the 'Pareto efficiency' is that state of efficiency where it is not possible to make one more person better off without making at least one other person worse off. However, Pareto-efficient situations suffer from well-known limitations; for instance there can be many Pareto-efficient situations at the same time. An alternative to Pareto efficiency is Kaldor-Hicks efficiency, for which a social state is efficient if it is no longer possible to increase the total welfare of a society. The most common criterion to choose which law is more efficient in the economic analysis of law is Kaldor-Hicks and the primary goal of the law is considered to be the maximisation of the total social welfare (S. Shavell, Foundations of Economic Analysis of Law (2004), at 2; Schäfer and Ott. above n. 9. at 47). As to the measurement of social welfare, there might be various views. Basically, it is possible to measure it in terms of money, utility or wealth. See R.A. Posner, 'Wealth Maximization Revisited', 2 Notre Dame Journal of Law, Ethics and Public Policy 85 (1985). Money is a more objective standard, but it suffers from decreasing marginal utility. On the other hand, utility makes impossible to make interpersonal comparisons. Unfortunately, there is no general consensus on the best way to measure welfare. Yet, it is very common to use money as a measure for 'maximising social welfare', given that subjective preferences can be also converted in monetary terms. See: H. Kerkmeester, 'Methodology: General', in B. Boudewijn and G. De Geest (eds.), Encyclopedia of Law and Economics. Volume I. The History and Methodology of Law and Economics (2000), at 386ss.
- 11 According to Calabresi, the primary function of tort law is to reduce the sum of accident costs and costs to avoid accidents (minimisation of social costs). This reduction goal then applies to three categories of costs. The first category (primary costs) concerns the costs of accidents themselves and the costs to avoid accidents; the second category includes the costs of inefficient distributions of costs within the society and the costs to spread the risk of accidents (distribution). Tertiary costs lastly refer to the cost of administering the treatment of accidents (costs of litigation, for instance). *See* G. Calabresi, *The Costs of Accidents: A Legal and Economic Analysis* (1970), at 26-27.
- 12 To understand why deterrence is likely to minimise the costs of accidents and thus maximise social welfare, legal rules need to be regarded as creating implicit prices for alternative behaviours. More specifically, tort damages (or a criminal fine) represent a price for infringing the law. Given that

for years on how liability laws should be designed to induce optimal deterrence. In this article, one of the possible causes of inefficiency is addressed, i.e. the mismatch between (expected) liability and (expected) harm. Although the meaning of these terms is readily summarised in the next paragraph, it is sufficient to underline this crucial fact: if the liability falls short of the harm, the incentives to minimise the total costs of accidents are expected to be inadequate. The problem is that environmental accidents pose serious issues of uncertainty about the level of losses and these issues become clear especially when assessing damages in litigation. This is due to a number of reasons that will be illustrated in depth in this article. Although environmental economists developed methods to quantify the harm to nature, they all present pros and cons in terms of accuracy¹³ and costs. Possible inaccuracies are likely to undermine the possibility to achieve optimal deterrence of environmental accidents through liability, hence leading to more pollution. The aim of this article is therefore to determine whether, from a perspective of law and economics,14 there exists a methodology of environmental damage assessment that can be regarded as sufficiently accurate but also cost-effective to induce optimal deterrence in environmental liability laws. In order to respond to this question, some basic notions of environmental tort law and economics, such as 'accident' and 'expected liability', are first introduced. Then, the theory of tort law and economics is reviewed to clarify how damages should be assessed to achieve optimal deterrence. Building on this theoretical framework, existing techniques to value natural resources in environmental economics are illustrated, with special regard to their advantages, shortcomings and use in real cases. Thereafter, they are compared in view of pursuing deterrence in an efficient way. In conclusion, despite the inexistence of a general consensus in economics for a fully accurate and cost-effective methodology of environmental damage assessment, it can be argued that there is possibly room for improving the deterrent effect of environmental liability laws by relying on the recent ecosystem service approach to damage assessment.

an increase in prices normally produces a decrease in demand, an increase in legal price, e.g. tort damages, should theoretically induce potential polluters to a decrease in unlawful behaviours (Ulen, above n. 8). Knowing that a certain amount of damages has to be paid as a consequence of the accident, potential polluters will be induced to adjust their levels of activity and precaution in such a way that the additional private cost (including the probability of future damages) is lower than the additional benefit. *See* A.M. Pacces and L.T. Visscher, 'Methodology of Law and Economics', in B.M.J. van Klink and S. Taekema (eds.), *Law and Method. Interdisciplinary research into Law (Series Politika, nr 4)* (2011), at 95.

- 13 A central goal in the valuation of the environment is to produce accurate value estimates (see infra). Since the 'true value' is unobservable, like in many other disciplines, criteria need to be developed as indicators of accuracy. Reliability and validity are the common criteria of accuracy in environmental economics. Reliability has to do with variance and erratic results, whereas validity refers to unbiased results.
- 14 For the sake of clarity, this article adopts the mainstream approach to the economic analysis of law, i.e. the 'rational choice theory' (see above n. 9). Alternative approaches (e.g. the behavioural one) would deserve separate examination and they are not considered here.

2 Starting from the Economic Meaning of Terms

From an economic perspective, the term 'accident' generally refers to the harmful outcome (i.e. loss of utility) of events that neither the injurer nor the victim wanted to occur, although they might have affected its likelihood and severity.15 'Accidents' occur without being intentionally induced and between parties that are not previously bound by a contractual relationship.¹⁶ Moreover, they hold a peculiar reciprocal nature, meaning that both parties (injurer and victim) are responsible for the resulting harm.17 In environmental cases, injurers (e.g. the polluting companies) unintentionally cause harmful effects that could have been reduced by adopting ex ante optimal decisions on the levels of care and activity. Other important terms to define are those of 'liability' and 'expected liability'. With 'liability' (or damages) we mean the amount of monetary compensation for which the injurer is legally liable towards the accidents' victims, whereas the 'expected liability' (or expected damages) is the loss multiplied by the probability of suffering that loss.¹⁸ According to the theory, injurers are expected to behave optimally if the liability (damages) equals (or is approximately the same as) the harm.¹⁹ If, for instance, there is more than one possible level of harm (stochastic loss) and the liability equals the actual level of harm, also the expected liability will match the expected harm²⁰ and parties' behaviours will be optimal.²¹ The next section will delve more into the economic rationale underlying this theory.

- 15 S. Shavell, Economic Analysis of Accident Law (1987), at 1.
- 16 For instance, the decision of the victim to buy a house close to a polluting factory might raise the probability of the accident.
- 17 R. Coase, 'The Problem of Social Cost', 3 The Journal of Law and Economics 1, at 13 (1960).
- 18 Shavell (1987), above n. 15, at 6.

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- 19 Shavell (2004), above n. 10, at 236. However, under the negligence rule the optimal magnitude of damages can be even higher or lower compared to the magnitude of harm, because injurers can avoid liability by taking due care (as long as the due care is set optimally). For this reason, law and economics scholars agree that only under a strict liability regime economic efficiency requires that the injurers pay for all the losses they caused. *See*: R. Cooter 1984, 'Prices and Sanctions', 84(6) *Columbia Law Review* 1523, at 1542 (1984); W.M. Landes and R.A. Posner, *The Economic Structure of Tort Law* (1987), at 64; R.A. Posner, *Economic Analysis of Law* (1986), at 176; A.M. Polinsky, *An Introduction to Law and Economics* (1983). On the other hand, even under negligence a too low level of expected liability might induce injurers to prefer being liable rather than taking due care.
- 20 Shavell (2004), above n. 10, at 236. The underlying assumption according to the rational choice theory is that parties have an optimal amount of information about the level of harm and they know in advance if the accident may result in more possible levels of harm.
- L. Kaplow and S. Shavell, 'Economic Analysis of Law', in A.J. Auerbach and M. Feldstein (eds.), *Handbook of Public Economics Vol.* 3 (2002), at 1661.

3 The Economic Relevance of Accuracy in Environmental Damage Assessment

Incentives to minimise accidents' costs are theoretically optimal only where the expected liability equals or is approximately the same as the expected harm.²² The economic rationale for the match between expected liability and expected harm is that polluters tend to invest in care up to the point where the marginal cost of risk reduction (or precaution) equals the marginal benefit (avoided loss or expected liability). The logical consequence is that if the liability is lower than the harm (not all social costs are internalised), potential polluters will underinvest in care, which turns out into underdeterrence and higher likelihood of accidents. Conversely, if the liability exceeds the loss resulting from the accident, potential polluters will invest in care more than what is socially desirable, which means for instance a too low level of activity.²³ As a consequence, deviations between the level of (expected) liability and the level of (expected) harm will distort the incentives to minimise the total social costs of accidents.²⁴ It thus makes sense to understand why deviations would occur and how much accuracy is socially desirable. Possible causes of divergence²⁵ include information asymmetries between parties about the magnitude of harm, courts' errors, low levels of polluters' assets and difficult-to-estimate components of harm, such as non-pecuniary losses. Non-pecuniary losses are components of losses which have no economic price or value on financial markets (i.e. health damages).²⁶ Nevertheless, they are regarded as compensable with money in tort law,²⁷ hence raising either fundamental (why compensate non-pecuniary losses) or more practical questions (how to value non-pecuniary losses) that have been largely debated in law and economics. Set aside the 'why' that has been already examined (deterrence purposes)²⁸ and the 'how'²⁹ that will be the object of the next section, it is now important to understand how much accuracy is socially worthwhile,

- 22 This is specifically true under strict liability (*see* above, n. 19) and for unilateral accidents, i.e. when it is assumed that only the injurers' behaviours (and not the victims' ones) can influence accident risks. *See also* Kaplow and Shavell (2002), above n. 21.
- 23 For more detailed examples, see Kaplow and Shavell (2002), above n. 21.
- 24 However, negligence rules represent an exception to that, see above n. 19.
- A. Endres, Environmental Economics: Theory and Policy (2010).
- 26 S.D. Lindenbergh and P.P.M. van Kippersluis, 'Non Pecuniary Losses', in M. Faure (ed.), Tort Law and Economics, Vol. 1, Encyclopedia of Law and Economics (2009), at 215.
- 27 *Ibid.*, at 217 for references to studies that show the importance of nonpecuniary losses in awarding tort damages.
- 28 Awarding compensation for nonpecuniary losses is socially desirable to give parties the right behavioural incentives. 'All costs of accidents should be charged to those who could avoid them by taking precautions', see M. Adams, 'Warum kein Ersatz von Nichtvermogensschaden?', in C. Ott and H. Schäfer (eds.), Allokationseffizienz in der Rechtsordnung (1989), at 213.
- 29 For a review of approaches to nonpecuniary losses referred to personal injuries, *see* Lindenbergh and van Kippersluis, above n. 26, at 223ss.

considering that parties in liability lawsuits hold opposite private interests.³⁰

A first largely agreed point in tort law and economics is that there is no one optimal rule for all situations.³¹ The efficiency of damage awards necessarily relies on the specific circumstances. Arlen proposes five main criteria³² to classify and analyse these situations: harm to replaceable versus irreplaceable goods; unilateral versus bilateral risk; strict liability versus negligence; individual versus vicarious liability; lastly, further issues: information costs, uncertainty, judgement proof³³ problems. For instance, a strict liability regime requires that the injurers pay for all the losses they caused, whereas this is not true under negligence.³⁴ Suffice it to say, the full compensation of losses should not be seen as a goal in itself but as a means to achieve optimal prevention taking into account the specificities of the case at hand. Another important point emphasised by law and economic scholars is that, as a general rule, liability should not grossly and systematically deviate from accidents' social costs.³⁵ Slightly inaccurate assessments are acceptable provided that the expected liability is on average correct.

The third point is that accurate assessments of damage levels increase the administrative costs to handle related cases.³⁶ In order to save costs in litigation, abstract assessments might help and they should be preferred to the extent that they provide a good approximation of real losses and that the saved costs (benefit) outweigh the costs of small mistakes (accidents' costs that go uncaptured).³⁷ Consistently, difficult-to-estimate components of harm would be correctly replaced by average estimates if the cost of their precise estimation outweighs the benefit of their inclusion (for instance, they are too small compared to the harm).³⁸ This is also applicable to the non-use values of nature (see next section).³⁹

The fourth point is that it is important to take into account the information held by injurers when they decide

30 'The primary objective of the plaintiff is to collect as much as possible and that of the defendant is to pay as little as possible' (L. Kaplow and S. Shavell, 'Accuracy in the Assessment of Damages', 39(1) *Journal of Law and Economics* 191, at 191 (1996)). Also, consider that what will be said is applicable both to accidents resulting in trials and to settlements (*ibid.*, at 198).

31 J. Arlen, 'Tort Damages', in B. Bouckaert and G. De Geest (eds.), 2 Encyclopedia of Law & Economics (2000), at 682.

- 32 Ibid.
- 33 'Parties who cause harm to others may sometimes turn out to be judgement proof, that is unable to pay fully the amount for which they have been found legally liable.' From: S. Shavell, 'The Judgement Proof Problem', 6 International Review of Law and Economics 45 (1986).
- 34 See above n. 19.
- 35 M. Faure and L.T. Visscher, 'The Role of Experts in Assessing Damages A Law and Economics Account', 2(3) *European Journal of Risk Regulation* 376, at 378 (2011).
- 36 Ibid., at. 379.
- 37 Ibid.
- 38 L.T. Visscher, 'Tort Damages', in M.G. Faure (ed.), Tort Law and Economics, Vol. 1, Encyclopedia of Law and Economics (2009), at 160.
- 39 S. Shavell, 'Contingent Valuation of the Nonuse Value of Natural Resources', in J.A. Hausman (ed.), Contingent Valuation: A Critical Assessment (Contributions to Economic Analysis), Vol. 220 (1993), at 371.

on precautions.⁴⁰ If injurers know exactly the level of harm they will cause when taking decisions on care and activity levels, accuracy in damage assessment influences their behaviours and it makes economic sense for the court to measure harm accurately.⁴¹ Conversely, if injurers lack knowledge in advance (like in many environmental accidents), very accurate assessments in litigation would increase the administrative costs without providing injurers with better incentives (social loss).⁴² Lastly, it is also true that accuracy incentivises injurers to learn about the harm before they act, for that they can adopt a level of care in line with the expected harm.⁴³ Then, ex post accuracy in assessing damages is socially desirable if injurers can anticipate the magnitude of loss ex ante and it is socially optimal for the injurers to get that piece of information.

To conclude and going back to the original question (how much accuracy is socially worthwhile), broadly speaking, injurers should pay for all the harmful effects of their actions (including pecuniary and non-pecuniary losses) under strict liability. Rough estimates have to be preferred if they considerably lower administrative costs and they serve to assess components of loss that are not big enough to overweigh the costs to assess them.⁴⁴ Rough estimates should be also preferred if injurers lack ex ante information about the loss. These conclusions carry over to the difficult-to-estimate components of environmental losses that will be analysed in the next section.

4 The Challenge of Valuing Natural Resources in Economics

Having reviewed the fundamental scholarship of law and economics on the accuracy of damages, the next step would be to understand why issues of inaccuracy may occur when dealing with environmental damages. It might be helpful to begin from a general understanding of how values are assessed in economics. Value has been the topic of different disciplines: philosophy, anthropology, sociology, psychology and economics. Because of that, it is not surprising that value has many

- 40 Kaplow and Shavell (1996), above n. 30.
- 41 *Ibid.*, at 194 (proposition 1), but this is true 'if it is not too costly for the harm to be observed by courts'.
- 42 In the words of Faure and Visscher: 'A more accurate damage assessment ex post would therefore not necessarily result in better behavioural incentives ex ante' because polluters adapt their behaviours to the 'estimation' of the losses they expect to cause (see above n. 35, at 379).
- 43 Kaplow and Shavell (1996), above n. 30.
- 44 If the law totally excludes these elements from the magnitude of liability, a social loss might occur. Indeed, the injurer will not invest in optimal care to avoid the loss that nobody is legally entitled to claim. As a consequence, part of the magnitude of harm is likely to remain unprevented unless other tools are set down by the legal system to respond to the undeterred negative externality (regulations, criminal fines, taxes, etc.).

meanings.⁴⁵ When it comes to 'environmental' values, philosophers specifically examined the notion of intrinsic values,⁴⁶ psychologists developed methods to assess how much people believe in intrinsic values and economists tried to measure economic values that could be used to take decisions on how to manage natural resources.⁴⁷ Economics defines the environment as valuable in two senses: in terms of its direct impact on individual utility and in terms of its impact on production.⁴⁸ Utility is an economic concept used in neoclassical economics to measure the well-being of people; it refers to happiness or satisfaction of individuals when consuming products.⁴⁹ For instance, people derive utility from

- 45 T.C. Brown, 'The Concept of Value in Resource Allocation', 60 Land Economics 231, at 231 (1984). Brown classified all values into preference-related and non-preference-related (i.e. values in mathematics). Preference-related values include: intrinsic, instrumental, functional, held and assigned values; they all involve a human preference, i.e. 'the setting by an individual of one thing before or above another thing because of a notion of betterness' (*ibid.*, at 234).
- 46 In the words of Brown (above n. 45, at 234): when the valued entity is an end in itself and its value is independent of any other entity. In the words of M. Lockwood (see 'Humans Valuing Nature: Synthesising Insights from Philosophy, Psychology and Economics', 8(3) Environmental Values 381, at 384 (1999)): 'it is a widely shared intuition for which an accepted theory to support it is yet to be developed'.
- 47 For an overview of the contributions from all these disciplines on human values for natural resources, see the seminal work by Lockwood, above n. 46, at 382. He drew on Brown (above n. 45) and J. O'Neill, 'The Varieties of Intrinsic Value', 75(2) The Monist 119 (1992). In the words of Brown (above n. 45, at 231): 'Economic measures of value are species of the genus assigned value, which belongs to the family value'. There is indeed a fundamental distinction between held and assigned values that Brown describes in depth (above n. 45, at 233). Held values refer to principles and ideals that are important to people: they can be instrumental values. such as generosity or courage, and terminal values, such as happiness and freedom. There is a large body of literature, especially in psychology, on held values and how they may influence human behaviours and environmental concerns. For instance, held values have been grouped into clusters (anthropocentric, ecocentric, egoistic, socio-altruistic, etc.) and clusters give a certain orientation to human values for the environment. See for more references on held values: E. Seymour, A. Curtis, D. Pannell, C. Allan & A. Roberts, 'Understanding the Role of Assigned Values in Natural Resource Management', 17 Australasian Journal of Environmental Management 142 (2010). Yet, held values do not say anything about social preferences for specific natural resources or particular changes in environmental quality (K. Segerson, 'Valuing Environmental Goods and Services: An Economic Perspective', in P.A. Champ, K.J. Boyle & T.C. Brown (eds.), A Primer on Nonmarket Valuation (2017) 1, at 6). Conversely, assigned values express the relative importance of an object to a group or individual in a given context, by implicit or explicit comparison (Brown, above n. 45, at 232). Therefore, economic valuation techniques developed over the past four decades focused on assigned values because they enable the understanding of how people trade-off environmental values (within the rational choice theory). See M.A. Freeman, The Measurement of Environmental and Resource Values: Theory and Methods (1993). For more references and discussion about assigned values, see Segerson (in this footnote, at 9ss).
- 48 N. Hanley, 'The Economic Value of Environmental Damage', in M. Bowman and A. Boyle (eds.), Environmental Damage in International and Comparative Law (2002), at 27. Environmental values can be also measured through (monetary) impacts on production, i.e. through the impact of environmental changes on productive factors and, in turn, on profits. Yet, environmental damage assessment techniques mainly focused on the loss of individual utility and, thus, the measure of production losses is not taken into account in this article.
- 49 However, the utility theory of value is just one of the possible approaches to values, which draws on the basic idea that values are given by the interaction between individual preferences and productive abilities. Another possible approach would be to measure values through the labour needed to produce goods (this is the typical approach in classical economics).

buying certain goods and, thus, the value of goods is given by their change in utility (marginal utility). This is also applicable to environmental goods.⁵⁰ People can indeed derive utility from carrying out activities in nature, such as birdwatching or swimming. As a consequence, the level of individual utility can increase or decrease if the quality of the environment changes. If an accidental event pollutes a beach, visitors will not be able to swim and they will see their utility reduced as a consequence of the accident. This change in utility can be regarded as a measurement of the environmental value and, namely, of the 'use value' of the environment. However, even people not using natural resources might suffer a loss of utility due to the accident. This is because we value our future possibility of using that environment or we care about the fact that future generations will benefit from the same possibility. More precisely, economists refer to these as 'non-use' or 'passive-use' values of environmental goods and services.⁵¹ Drawing on this wider approach, in 1985 Boyle and Bishop laid the foundation of the concept of total economic value (TEV) of the environment.⁵² Figure 1 provides an easy-to-read taxonomy with some examples:53

- 50 For a short history of the utility theory applied to the environment in the western belief system, see S. Parks and J. Gowdy, 'What Have Economists Learned about Valuing Nature? A Review Essay', 3(C) Ecosystem Services e-01 (2013).
- 51 Some economists keep criticising passive-use values by questioning their existence as well as the need for special assessment techniques (the so-called 'contingent valuation', *see* infra). Nevertheless, environmental policies to preserve natural resources void of use values (e.g. the Amazon rain forest) reveal the relevance of non-use values.
- 52 K.J. Boyle and R.C. Bishop, 'The Total Value of Wildlife: A Case Study Involving Endangered Species', 278711 1985 Annual Meeting, August 4-7, Ames, Iowa, American Agricultural Economics Association, (1985).
- 53 Source: I.J. Bateman, A.A. Lovett & J.S. Brainard, Applied Environmental Economics. A GIS Approach to Cost-Benefit Analysis (2003), at 2.



As can be seen above, the TEV includes both 'use values' and 'non-use values' (or passive-use values) within the category of human values for the environment. Use values⁵⁴ are based on the actual, future or possible use (option value) of environmental goods, whereas non-use values⁵⁵ refer to the social preference for the mere existence (existence value)⁵⁶ or for the possible/actual use from future generations (bequest value). Intrinsic values, which are independent from human preferences, are by definition not encompassed by the TEV, although they may influence non-use values.⁵⁷

- 54 The 'use value' differs from the 'exchange value'. The former relates to the benefit of using natural resources independently from the fact that they are traded in the market. The latter (exchange value) is basically the price or the commercial value. Say and Ricardo were the first scholars who, in the beginning of the 19th century, pointed out that natural resources may have a high use value even if they have no exchange value (price). Neoclassical economists in the 20th century further emphasised use values. This distinction explains the apparent paradox of goods with a high use value and a very low exchange value (e.g. water) and goods with a low use value and a very high exchange value (e.g. diamonds). For a historical overview of economic schools of thoughts on the value of natural resources, see E. Gómez-Baggethun, R. de Groot, P.L. Lomas & C. Montes, 'The History of Ecosystem Services in Economic Theory and Practice: From Early Notions to Markets and Payment Schemes', 69(6) Ecological Economics 1209 (2010).
- The origins of this notion date back to the end of the 1960s. In 1967 John 55 Krutilla published the paper titled 'Conservation reconsidered' in the American Economic Review. His aim was to bring about a change in the field of conservation economics by shifting the traditional focus to natural areas that were not efficiently provided by the market and they thus risked being underprovided in the future (e.g. national parks). From the perspective of Krutilla, these amenities needed to be protected in spite of missing use values but in view of their future recreational value. He never talked about a total economic value but his lesson is deemed as foundational in the field of modern environmental economics. The development of non-market valuation techniques to measure passive-use values exploded in the years that followed his paper. See J.V. Krutilla, 'Conservation Reconsidered', 57(4) American Economic Review 777 (1967). In 2003 Freeman defined non-use values more broadly as all values that are not measurable by revealed preference methods; in this way difficulties in defining what is 'use' are avoided.
- 56 The existence value means that people gain utility from knowing that a natural resource exists even if the individuals expressing their values have no actual or planned use for themselves or anyone else. Therefore, they would be willing to pay for its preservation.
- 57 In this article, we do not enter into the debate on intrinsic values and how to account for them. Suffice it to say, the notion has been mainly discussed in the philosophical literature rather than in economics. Indeed, it is much unclear from the perspective of the utility theory how people would trade off intrinsic values with other values. For this reason, the TEV tradition-

Within this traditional framework, the next step is to understand how to assess the various values. Since in neoclassical economics values are linked to utility, valuation techniques aim to measure utility changes. Let us now assume that individuals enjoy the same level of utility when a reduction in the quantity of one good is compensated by an increase in the quantity of another good, that may be anything but in practice it is often money.58 The obvious consequence of this common assumption is that a measure of the trade-off between the object of valuation and something else in exchange can be regarded as the 'true value' of the good whose value needs to be assessed. With environmental changes, the problem is that it is often impossible to directly infer their value from market prices. How to measure the value of a polluted beach after an oil spill if there is no market price to look to? Environmental goods that are not bought and sold in the marketplace, such as beaches, wildlife, rivers and fresh air, are known in economics as non-market goods⁵⁹ and the tools developed to measure their value are called non-market valuation techniques. Their goal is to measure the 'true value' for a change in the quality of environmental goods and services.⁶⁰ Before introducing them, why they were developed

needs to be clarified. According to Segerson, the first techniques to value natural resources in the US appeared in the 1950s and they were used by federal agencies in benefit-cost analyses of water projects, such as

ally does not include intrinsic values, but it is possible to elicit them through stated preference methods.

- 58 This is a basic assumption in the utility theory of value and in line with the rational choice theory. See R.C. Bishop and K.J. Boyle, 'Reliability and Validity in Nonmarket Valuation', in P.A. Champ, K.J. Boyle & T.C. Brown (eds.), A Primer on Nonmarket Valuation (2017) 463, at 465.
- 59 There are a lot of goods falling in the category of environmental goods: air quality, water quality, amenities such as a good view on nature, etc. Environmental economics includes in this category everything for which people may have preferences. They differ from ordinary goods because there is no market for them and, thus, it is not easy to build a demand curve and deduce their value from the interaction between demand and supply. They belong to the larger category of public goods (goods that are non-rival, i.e. they can be simultaneously consumed by everyone, and non-excludable, i.e. nobody can be excluded from consuming them by, for instance, paying a price). See C.D. Kolstad, Environmental Economics (2000), at 289ss.
- 60 Bishop and Boyle define the 'true value' or WTP for a change in environmental quality, as 'the maximum income that a consumer would be willing to give up to have the same utility as before after the environmental change takes place'. *See* Bishop and Boyle, above n. 58, at 465.

dam constructions.⁶¹ In the years that followed economists further refined and improved those techniques, since new laws, such as the Comprehensive Environmental Response, Compensation and Liability Act (CER-CLA) of 1980⁶² and other regulations, required either to estimate compensation for damages after environmental accidents or to assess costs and benefits of environmental policies.⁶³

Having said that, we can now go back to the practical valuation of non-market goods when they are not traded. Absent prices, environmental economists developed similar concepts equally applicable to environmental goods in order to measure their demand curve: the maximum amount of income that an individual would be willing to give up in order to have more of another good and keep the same utility level as before (compensating welfare measure or willingness to pay, WTP)⁶⁴ and the (minimum) amount of additional income that an individual would need to gain in order to give up something that he already owns and keep the same utility level as before (equivalent welfare measure or willingness to accept, WTA).65 Which one to use depends on the assignment of property rights. An example can be useful. Imagine that we want to assess the value of an environmental loss caused by an accident. The ex ante WTP is the maximum amount of money that individuals would be willing to give up for introducing measures that avoid the occurrence of accidents (and related losses) and for keeping their utility as before the accidents, whereas the WTA is the minimum money that individuals would be willing to accept in order to tolerate a lower value of the environment. Whether to adopt the WTA or the WTP depends on the entitlement prior to the accident: if people had the right to enjoy a pre-loss level of utility from the environment, then it would be appropriate to measure the WTA.⁶⁶ But, how to measure the WTP (or the

- 61 K. Segerson, 'Valuing Environmental Goods and Services: An Economic Perspective', in P.A. Champ, K.J. Boyle & T.C. Brown (eds.), A Primer on Nonmarket Valuation Second Edition (2017) 1, at 4.
- 62 The CERCLA and the Oil Pollution Act (OPA) of 1990 triggered the improvement of non-market valuation techniques because they allowed accidents' victims to sue for damage compensation.
- 63 The cost-benefit analysis is a popular technique aimed at identifying, quantifying and weighing the costs and benefits of projects and policies, including the environmental impacts (costs and benefits).
- 64 In principle, the good used as term of reference could be anything. In practice, economists have generally used money to measure values.
- 65 Much attention in the economic scholarship revolved around the difference in size between the two measurements, given by the fact that the WTP is bound by income (it is influenced by the income of the valuator), that people value losses more than gains because they are more willing to pay to maintain their status quo rather than paying to improve it (prospect theory). See D. Kahneman and A. Tversky, 'Prospect Theory: An Analvsis of Decision under Risk', 47(2) Econometrica 263 (1979), Moreover, the absence (or scarcity) of good substitutes for environmental quality might bring to a higher WTA compared to the WTP, because people would ask more money to accept a higher risk of degraded environment rather than what they would be willing to pay for a reduced risk of it. For a deeper understanding of all these issues, see W.M. Hanemann, 'The Economic Theory of WTP and WTA", in J. Bateman and K.G. Willis (eds.), Valuing Environmental Preferences: Theory and Practice of the Contingent Valuation Method in the US, EU, and Developing Countries (2001), at 42.
- 66 E.S. Goodstein and S. Polasky, *Economics and the Environment* (2004), at 78. The authors explain that if people think that clean air or clean water

WTA) in practice? The next section will explain in more detail which techniques of non-market valuation have been developed to assess use and non-use values of the environment.

5 The Methods of Nature Valuation in Environmental Economics

As stated earlier, environmental goods and services are usually not traded in the marketplace. Indeed, it rarely happens that goods, like timber or fruits, can be bought and sold. Only in these relatively few cases, it is possible to elicit the value of the environment from prices. This type of valuation technique is thus called market-based. If instead there is no market price for natural resources, then it is necessary to resort to non-market valuation methods. The methods of non-market valuation in environmental economics are grouped into two main categories: revealed and stated preferences. Revealed preference methods indirectly imply values from observed behaviours in surrogate markets (e.g. house market) or existing markets (e.g. how many people buy the ticket to visit a park), whereas stated preference methods directly extract the maximum WTP or the minimum WTA from answers to survey questions (hypothetical market). The main difference between the two classes is not only the technique, but also the components of TEV which they can capture. Revealed preference methods only capture use values, while stated preference techniques are ideally able to capture both use and non-use values. However, each existing method captures use or non-use values limited to a specific category of goods (e.g. hedonic pricing only looks at goods with a price, such as houses). Figure 2 provides a synthesis of the relationships between TEV, methods and proxies:⁶⁷

belong to them, then the value for a reduction of environmental quality would be better expressed by the willingness to be compensated for their degradation. For this reason, survey studies should correctly measure the WTP for private goods and the WTA for common goods.

67 Source: D. Pearce, G. Atkinson & S. Mourato, *Cost-Benefit Analysis and the Environment. Recent Developments* (2006), at 88. Under this framework, production functions play a central role because there is a link between policy change, a change of the environment and some responses. For instance, a change of air quality (dose) would bring about a response in the number of sick people (output). Therefore, production functions should be taken into account to determine the TEV.

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Some observations based on the figure above are needed. Non-use values, which are highly relevant for natural resources with few or no substitutes (e.g. a unique natural place), can only be estimated through stated preference methods (questionnaires). Revealed preference methods cannot elicit non-use values for the simple reason that non-use values are not linked to behavioural changes⁶⁸ in the marketplace (e.g. a change in the demand or the supply). Whether a valuation method is likely to elicit both use and non-use values of the environment is pretty relevant from a perspective of law and economics. Let us assume that an environmental good has been damaged and it held a huge non-use value compared to the use value (e.g. a natural area used not used either for recreation or for other goals). In this case, neither prices nor revealed preferences would capture its total value. As a consequence, liability laws are expected to send to potential polluters wrong incentives of precaution (and activity), hence causing underdeterrence and pollution beyond optimal levels. A stated preference method would instead allow to obtain estimates that should be closer to the 'true value'69 of the lost environment, provided that questionnaires have been properly designed to ensure reliable and accurate answers (see Section 5.3.2). Therefore, the latter methods have to be preferred if one wishes to internalise the full cost of environmental accidents. Revealed and stated preference methods are called of primary valuation

69 See above n. 60.

and they differ from benefits transfer, which refers to the process of applying the results of other studies (primary valuation) to assess similar natural resources. Their validity has been highly debated but they can be considered valid under certain circumstances and they allow to save time and money.

In addition to use and non-use values, further issues need to be taken into account in view of minimising the total social costs of accidents, such as the reliability, the validity and the same costs of valuation. A central goal in the valuation of the environment is indeed to produce accurate value estimates. Reliability and validity are the common criteria of accuracy in environmental economics. Reliability has to do with variance and erratic results, whereas validity refers to unbiased results. These concepts will be clarified in the following subsections which briefly illustrate the advantages and shortcomings of each category of valuation techniques, followed by examples of their uses in practical cases. Within each category, the focus will be on the main methods that have been employed by judges in liability cases, rather than tackling all the existing non-market valuation techniques. For this reason, methods like choice models and averting behaviour will not be examined.

5.1 Market-Based Approaches

When environmental goods and services can be traded in markets, such as fruits and timber, it is possible to infer their values directly from market prices.

⁶⁸ In the words of Pearce and Mourato, a 'behavioural trail' (*ibid.*, at 86).



To be more precise, market-based approaches may look at either the cost side or the benefit side.⁷⁰

Cost-based valuation is based on the assumption that expenditures on producing and maintaining environmental goods or services provide net benefits and these benefits correspond to the original level of benefits. It requires the elaboration of hypothetical scenarios that respond to the question: what would be the cost to bear if the environmental good or service had to be artificially recreated? Figure 3 illustrates the cost side of market-based approaches.⁷¹

The opportunity cost approach derives from the idea that the opportunity cost of unpriced uses (e.g. forest conservation) can be inferred from the foregone income of other uses (e.g. forestry).⁷²

The replacement cost approach looks at the expenditures incurred to replace the impaired natural resources with substitutes. The underlying idea is that replace-

ment costs provide a measure of the minimum WTP to keep receiving a certain benefit (assuming that individuals have correct information about the damage).

The restoration cost approach, like the preventive expenditure method, estimates the cost of activities to maintain a certain level of enjoyment or output, including the relocation of individual activities, households and firms or adjustments to maintain an activity in the existing location.

The damage cost avoided infers the value of the environment from the costs incurred to avoid an environmental damage. Yet, not all agree that the damage cost avoided is a cost-based approach because it is based on the assumption that the cost of damage is a measure of value.⁷³

The preventive expenditure technique or mitigation cost approach looks at the costs that households are willing to pay to prevent future environmental damages and keep stable their existing level of utility. Presuma-

- 70 This is a traditional classification from IIED (International Institute for Environment and Development), 'Economic Evaluation of Tropical Forest Land Use Options: A Review of Methodology and Applications' (1994).
- 71 The table can be found in the notes prepared by A.N.A. Ghani for the lecture on 'Market-based Techniques', at 4. *See* www.blogs.ubc.ca/apfnet04/ module-5/topic-1-market-based-techniques/.
- 72 For instance, the time spent harvesting may be valued in terms of foregone rural wages (opportunity cost of labour). See E.B. Barbier, M. Acreman & D. Knowler, 'Economic Valuation of Wetlands. A Guide for Policy Makers and Planners', Ramsar Convention Bureau, at 42 (1997). Note that the information about opportunity costs can be then obtained also through stated or revealed preferences (hypothetical or surrogated markets).

73 Barbier et al., above n. 73, Appendix 3, at 11.

bly, individuals are willing to spend up to the point where the costs equal the benefits derived from a protected environment. Their WTP can be then inferred through stated preferences (contingent valuation or CV) or revealed preferences (from similar events in the past). Market-based valuation techniques from the benefit side look instead at the market value (price) or the change in income of productive factors. The underlying rationale for using prices is that if natural resources physically contribute to the production of other commodities or services traded in markets (e.g. fishing, hunting and farming), changes in ecological functions (improvement or deterioration of environmental quality, e.g. water quality) may affect the quantity or price of certain goods.⁷⁴ On the other hand, changes in income can be used to measure the value of the environment given that there is a correlation between environmental pollution, sicknesses (or premature death or increased medical expenses) and the income of workers. Conversely, increases in wages can be used to measure the benefits of pollution control.

5.1.1 Advantages

Market prices are usually considered to provide accurate information on the value of natural resources since they embed market preferences and marginal costs of production, which means data from actual markets. This may have three well-known advantages. First, data on prices, quantities and costs are easy to obtain, less resource-intensive and not expensive. Secondly, market prices reflect the actual WTP for costs and benefits that are traded, so they are considered to be sufficiently accurate to reflect the 'true value' of nature. Thirdly, these data are generally regarded as sufficiently objective and thus more reliable than other tools to elicit social preferences.

5.1.2 Limitations

The main limitation of these approaches is that they are applicable to the extent that markets exist and data on prices or costs are available. More often, choices on environmental goods and services are not observable in market transactions because they are public goods and

⁷⁴ A.M. Freeman, 'Valuing Environmental Resources under Alternative Management Regimes', 3(3) *Ecological Economics* 247 (1991). Also: A.M. Freeman, J.A. Herriges & C.L. Kling, *The Measurement of Environmental and Resource Values. Theory and Methods* (2003), at 259.

usually not traded in markets.⁷⁵ For instance, even if we value bats and we would be willing to pay for their conservation,⁷⁶ there is no market where we can express our preference for their preservation.

The second limitation is that, even if market prices are available, they might be distorted by policy interventions (e.g. subsidies or taxes),⁷⁷ monopolies,⁷⁸ seasonal variations, etc. This limitation can be overcome by adjusting prices (so-called 'efficiency shadow prices method') so that they reflect the true WTP. Yet, shadow pricing might face further criticism due to the artificial nature of data, the fact that it is based on assumptions and it might suffer from inaccuracies.⁷⁹

Last but not least, prices only refer to the preferences of those who use non-market goods and with whom there is a clear demand link (see above the distinction between value of use and value of exchange). However, there are cases when the demand is unidentifiable and this does not mean that people do not value non-market goods.⁸⁰ Simply, market-price approaches cannot capture non-use values by those who do not use environmental goods (so, there is no demand link) but would be still willing to pay for their conservation or improvement.

Further limitations specifically relate to some approaches. For instance, Barbier warned that the replacement cost method should be used with caution because it is unsure whether the benefits of the replacing resource are equal to the benefits of the original damaged re-

- 75 In economics, public goods are those commodities or services which are available for the whole society, non-excludable (there is no technology available to exclude others from using the same good) and non-rivalrous (individual consumption does not reduce the quantity available for others). The fact that we breath air does not exclude others from breathing and does not consume the quantity available for the others.
- 76 It might be interesting to know that the faith of bats has been at the forefront of a recent case before the Hawaii Supreme Court due to a contentious wind farm. According to the plaintiffs, a local community for which bats hold cultural and spiritual values, the windfarm project did not follow the standards set by the law to protect endangered species, hence causing the death of 51 bats per year. How to weigh the social benefit of a windfarm with the social cost represented by the ecological and cultural loss of 51 bats per year if they have no price? For more details, see this short commentary with useful references: www.jindalsocietyofinternationallaw. com/post/bat-fatalities-at-kahuku-windfarm-making-a-case-underinternational-environmental-law.
- 17 It is quite well known that subsidies distort market prices and they thus interfere with the conduct of economic agents. Technically, subsidies can reduce the marginal costs of recipients or raise their marginal revenues. In this way, subsidies provide the ability to produce at lower costs, so that recipients enjoy a competitive advantage and they can increase the production. As a consequence, prices might inefficiently increase. An exception is given by subsidies for Research and Development (R&D). This category of subsidies addresses a typical market failure, since the provision of knowledge created by programs of R&D is publicly available. For this reason, the private revenues would not equal the costs and its provision would be lower than efficient. See R. Diamond, 'Privatization and the Definition of Subsidy', 11 Journal of International Economic Law 649 (2008).
- 78 Monopolies without government interventions lead to higher prices and a consumer welfare lower than efficient levels (more welfare for the monopolistic producer).
- 79 A. Smith, 'Shadow Price Calculations in Distorted Economies', 89(3) The Scandinavian Journal of Economics 287, at 302 (1987).
- 80 N.E. Flores, 'Conceptual Framework for Nonmarket Valuation', in P.A. Champ, K.J. Boyle & T.C. Brown (eds.), A Primer on Nonmarket Valuation Second Edition (2017), at 44.

source if data on the original ecological functions are not available.⁸¹ Moreover, Daily pointed out that direct relationships between resources and economic outputs are often difficult to estimate.⁸² Additional issues of inaccuracy are given by the fact that restoration costs might exceed the benefits of the original resources if data on the baseline are missing and/or restoring previous conditions might be difficult. Likewise, it is unlikely that relocated environmental commodities can provide the same benefits of the lost ones in the original location.⁸³

5.1.3 Practical Application

Nowadays the restoration cost approach is the most widespread method to quantify environmental damages in liability lawsuits. Its use became compulsory in the EU after the entry into force of the European Directive on Liability (ELD)⁸⁴ and it is one of the allowed – but most used – methods under US law.85 Particularly, it has been applied in the largest oil spill in the US, the Deepwater Horizon (DWH) case. The accident happened in the northern Gulf of Mexico (64 km from mainland Louisiana) in April 2010 with the explosion and subsequent fall of the British Petroleum's (BP) drilling platform (DWH), which ultimately led to the release of 200 million gallons of oil for a period of 87 days, affecting 1,300 miles of shoreline and coastal wetlands, an incredible number of birds, sea turtles, marine mammals, fishes, etc. Hundreds of claims and litigations were filed against BP. In October 2010, five Gulf States filed civil claims for natural resource damages and civil liability. In January 2015, a federal court established that BP was legally responsible for the discharge of 3.19 million barrels into the Gulf for failure to perform safety tests. In April 2016, BP agreed to pay \$ 20.8 billion in settlements, much less than the estimated costs of clean-up (\$ 61.1 billion).⁸⁶ Regarding more specifically natural resource damages, it took several years to find an agreement between BP and the States.⁸⁷ In the end, BP incurred almost \$ 9 bil-

- 81 Barbier et al., above n. 73, Appendix 3, at 10.
- 82 G.C. Daily, 'Ecosystem Services: Benefits Supplied to Human Societies by Natural Ecosystems', 2 *Issues in Ecology* 1 (1997).
- 83 Barbier et al., above n. 73, Appendix 3, at 10.
- 84 Directive 2004/35/CE of the European Parliament and the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143/56. The Directive entered into force on 30 April 2004.
- 85 The legislative history of 'natural resource damage assessment' (NRDA) in the United States dates back to the Trans-Adriatic Pipeline Authorization Act of 1973. This act, for the first time, empowered national authorities to sue compensation for damage caused by oil spills. The so-called Superfund legislation (the *Comprehensive Environmental Response, Compensation and Liability Act*, CERCLA of 1980) extended this possibility to the case of environmental damage caused by the release of hazardous substances (in addition to the discharge of oil). Later, the US Department of Interior adopted some guidelines to implement the law. All methods of damage assessment are allowed (market-based, revealed and stated preferences), provided that they are feasible and reliable for a particular incident, cost-effective, performed at a reasonable cost and they avoid double counting.
- 86 NOAA 2019. This amount is based on the assessment of the liable party (BP).
- 87 D. Gilbert and S. Kent, 'BP to Pay Out \$18.7 Billion to Settle Spill', Wall Street Journal A1 (2015).

lion environmental costs (based on the restoration cost approach) and \$ 39 billion litigation costs for environmental claims.⁸⁸ Assessing the costs of post-spill restoration was defined as 'a monumental task' because the values of all affected environmental services and goods had to be estimated, the different economic methods of economic valuation 'reconciled' and, also, the costs of clean-up started to get bigger and bigger as time went by.⁸⁹ Alternative estimates were proposed but not applied, such as \$ 145 billion⁹⁰ and \$ 2 trillion based on annual sales of coast businesses.⁹¹ Concerning the restoration cost approach, it raised criticism among ecologists in connection with the principle of ecological equivalence, especially when applied to wetlands (as in the DWH).⁹² This principle refers to the capacity of restored environments to reproduce the ecological structures provided by the natural resources in the pre-accident state. The main point of criticism was that little attention was paid to site location within the surrounding landscape, natural patterns of plant communities, wetland hydrological regimes and long-term ecological functions.93 In other words, long-term economic benefits resulting from restored natural resources had to be better considered rather than just the actual costs of restoration for equivalent ecological functions. Ecologists further stressed that relying on post-crisis restoration assessments means to make the success of restoration depending on the money available from government and corporations94 with the risk that long-term restoration goals are replaced by short-term goals of elected politicians or appointed corporate directors.95

5.2 Revealed Preference Methods

When prices of environmental goods and services are not available, but there are markets closely related to them, revealed preference methods can be applied. These techniques are based on the observation of preferences shown, i.e. 'revealed', in actual market transactions which have a correlation with the natural resource

- 89 B.P. Wallace, T. Brosnan, D. McLamb, T. Rowles, E. Ruder, B. Schroeder, L. Schwacke, B. Stacy, L. Sullivan, R. Takeshita & D. Wehner, 'Overview Effects of the Deepwater Horizon Oil Spill on Protected Marine Species', 33 *Endangered Species Research* 1 (2017).
- 90 See Lee et al., above n. 89
- 91 Dun and Bradstreet Bureau of Labor Statistics, '2010 Deepwater Horizon, Oil Spill Preliminary Business Impact Analysis for Coastal Areas in the Gulf States' (2010).
- 92 E.B. Barbier, 'Coastal Wetland Restoration and the "Deepwater Horizon" Oil Spill', 64(6) *Vanderbilt Law Review* 1819 (2019).
- 93 Ibid.
- 94 Also, note that the national fund (Oil Spill Liability Trust Fund) can cover only up to \$1 billion per accident, of which no more than \$500 million can compensate natural resource damages (1/60th than the needed amount in the DWH accident).
- 95 Overreliance on restoration may turn into excessive postcrisis approaches and less effort in pre-accident prevention and conservation. See more on this view in R.L. Wallace, S. Gilbert & J.E. Reynolds, 'Improving the Integration of Restoration and Conservation in Marine and Coastal Ecosystems: Lessons from the *Deepwater Horizon* Disaster', 69(11) *BioScience* 920, at 923ss (2019).

to value. Two main methods are used to elicit revealed preferences: travel cost models (TCMs) and hedonic pricing (HP).

TCMs are used to value recreational uses of natural resources, such as fishing, rock climbing, boating, swimming and hunting.⁹⁶ The underlying insight is that the cost of the trip to reach a site corresponds to the individual's price for recreation (lower bound). Therefore, individuals reveal their WTP for recreation through the number of trips they do and the site they choose to visit. Changes in the demand function for recreation can indeed provide a measure of changes in preferences for the quality or quantity of environmental goods and services. The use of TCM has been largely motivated by the need to conduct benefit-cost analyses of environmental regulations or for damage compensation after accidents.⁹⁷

HP is used to estimate the implicit prices of characteristics over heterogeneous or differentiated products (distinct varieties of one product).⁹⁸ Imagine that a product is sold in one market but characteristics vary in such a

- 96 The earliest travel cost models date back to the 1950s and they followed the method proposed by Hotelling. They measure visitation rates for geographic zones defined around single recreation sites. See H. Hotelling, 'An Economic Study of the Monetary Valuation of Recreation in the National Parks, Washington', U.S. Department of the Interior (1949).
- 97 'Economists have been concerned with measuring the economic value of recreational uses of the environment for more than 50 years' (G.R. Parsons, 'Travel Cost Models', in P.A. Champ, K.J. Boyle & T.C. Brown, A Primer on Nonmarket Valuation Second Edition (2017), at 187ss). Most research in the 1960s aimed at valuing per-trip values in order to support conservation versus development of large water resource projects (at least in the United States). In the late 1970s and in the 1980s, the interest moved to valuing quality changes at recreation sites induced by policies willing to improve the quality of the environment. In the 1980s much research was conducted on beach uses and recreational fishing in Alaska. See N.E. Bockstael, W.M. Hanemann & I.E. Strand, 'Measuring the Benefits of Water Quality Improvements Using Recreation Demand Models', Report presented to the U.S. Environmental Protection Agency. College Park: University of Maryland (1984); N.E. Bockstael, M.W. Hanemann & C.L. Kling, 'Estimating the Value of Water Quality Improvements in a Recreational Demand Framework'. 23 Water Resources Research 951 (1987): R.T. Carson, W.M. Hanemann & T.C. Wegge, 'Southcentral Alaska Sport Fishing Study', Report prepared by Jones and Stokes Associates for the Alaska Department of Fish and Game, Anchorage, AK (1987); R.T. Carson, W.M. Hanemann & T.C. Wegge, 'A Nested Logit Model of Recreational Fishing Demand in Alaska', 24 Marine Resource Economics 101 (2009). Economists started to look at many more recreational activities (fishing, swimming, boating, climbing, hiking, hunting, skiing, etc.). During the past two decades, models have been further improved and refined. The latest models (Kuhn-Tucker) try to integrate seasonal and site choices into a unified utility framework
- L.O. Taylor, 'Hedonics', in P.A. Champ, K.J. Boyle & T.C. Brown (eds.), A Prim-98 er on Nonmarket Valuation Second Edition (2017), at 235. Although popularised by Griliches in the 1960s, the coining of the term 'hedonic' dates back to a 1939 article by Andrew Court. Court was an economist working for the Automobile Manufacturers' Association in Detroit from 1930 to 1940. Examining automobile prices indices, he noticed that passenger cars serve so many different uses that one single most important characteristic cannot be identified. Therefore, prices cannot be compared by applying a simple regression method. He proposed instead to employ single composite measures. In his work, hedonic specifically refers to an index of 'usefulness' that combines the relative importance of various characteristics (braking capacity, horsepower, etc.). Hedonic indexes can be then compared. For a description of Court's work. see A.C. Goodman. 'Andrew Court and the Invention of Hedonic Price Analysis', 44 Journal of Urban Economics 291 (1997). In his words: 'Hedonic price comparisons are those which recognize the potential contribution of any commodity, a motor car

⁸⁸ Y.G. Lee, X. Garza-Gomez & R.M. Lee, 'Ultimate Costs of the Disaster: Seven Years after the Deepwater Horizon Oil Spill', 29 Journal of Corporate Accounting & Finance 69, at 72 (2018).

way that there are distinct product varieties. It is possible to indirectly observe the monetary trade-off which individuals are willing to make by observing the difference in price between two product varieties which vary only by one characteristic (e.g. two identical houses, but one has an additional room).⁹⁹ For this reason, HP is an indirect valuation method that infers values from observable market transactions. In the environmental domain, it is commonly applied to the housing market. Let us take an example. If there are two identical houses in front of two different lakes (one with improved water clarity), the price differential determined by the increasing demand for the house in front of the lake with better water is the implicit price consumers are willing to pay for that environmental amenity (water clarity). Implicit or hedonic prices allow therefore to elicit the WTP for that specific environment.

5.2.1 Advantages

The first advantage of revealed preference methods is that there is broad agreement among researchers on the steps that need to be followed to achieve minimal accuracy in estimating true values. The TCM is considered to be a high-ranking tool among revealed preference techniques and there is widespread confidence on its validity,¹⁰⁰ whereas HP is one of the most popular methods thanks to the minimal data requirements and its easy empirical implementations.¹⁰¹ Scholars emphasise the existence of a clear procedure that starts from the search of a surrogate market close to the environmental goods and services to be valued. The procedure follows with the choice of the appropriate method (TCM or HP). Then, the needed data are collected according to the relative procedures¹⁰² in order to build the demand function.¹⁰³ Subsequently, the value of a marginal change in the quality or quantity of environmental good is deducted from the demand function. Lastly, values are aggregated and discounted. For the HP, information on sales prices is always readily available, with considerable savings of time and costs. Moreover, data acquisition costs have been decreased, hence making both stages of HP cheaper.104

in this instance, to the welfare and happiness of its purchasers and the community' (*ibid.*, at 292, footnote 2).

- 99 The utility theoretic framework needed to build the demand function for characteristics of heterogeneous products has been developed by Rosen in a seminal paper. See: R. Rosen, 'Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition', 82 Journal of Political Economy 34 (1974).
- 100 Bishop and Boyle (2017), above n. 58, at 489.
- 101 Taylor, above n. 99, at 285.
- 102 In TCM, recreation surveys are designed, sent around and analysed according to a precise step-wise guide (Parsons, above n. 98, at 203). In HP, there are two subsequent steps: collection of marginal price information and then estimation of the demand function by combining information on prices and data on household characteristics (Taylor, above n. 99, at 237).
- 103 A typical set of questions in TCM surveys is: 1) trip count and location; 2) last trip: 3) stated-preference question; 4) respondent and household characteristics.
- 104 Taylor, above n. 99, at 285.

5.2.2 Limitations

There are various limitations to revealed preference methods. Studies on TCM have been much concerned with accuracy issues, starting from the 1960s.¹⁰⁵ Yet, such research has never been explicitly revolving around the topics of reliability and validity.¹⁰⁶ Apparently, Bishop and Boyle made a first attempt in this regard and their conclusions shall be applicable to all revealed preference methods.¹⁰⁷ Regarding reliability, it seems that: 'using recreation-participation data with long periods of recall could tend to increase the variance of reported participation and hence reduce the reliability of the travel cost method, all else being equal'.¹⁰⁸ In other words, the time of recall (i.e. the time to reconstruct the behaviour on which respondents to surveys are supposed to report) might make the method less reliable with long recall periods. Therefore, for reliable data it is essential to ensure short recall periods. As to the validity side, there are still a number of partially unresolved issues that have been not directly addressed. Parsons identifies a list of 'soft spots' that need to be improved in TC modelling, such as the current way of measuring time, overnight trip modelling, multipurpose trips, integration of site choices with trip frequency, the inclusion of more welfare-revealing choices, the error introduced by the recall bias and, finally, more integration with stated preferences studies.¹⁰⁹ Another important aspect is that most of the research on TCM ignores dynamics in decision-making (intertemporal substitutions) that would allow people to substitute sites over time or to base current decisions on expectations about future trips. Most models consider instead individual trip choices day by day over a season independently of decisions on future trips. Consideration of interdependencies between different trip choices would indeed require more complex ways of gathering data, more surveys and, in general, higher costs.¹¹⁰ Furthermore, trip costs are considered to be given but they can be also the result of subjective choices.¹¹¹ Another issue is the 'recall bias', occurring when people report visiting sites more frequently than they actually do. The validity of the TCM might be considerably reduced by all these issues. In order to offset possible biases and ensure validity, it is important to carefully follow all the well-established steps of the method and to clarify all the assumptions in advance. It has been also warned in the literature that travel cost studies may give higher values than stated

- 105 Bishop and Boyle (2017), above n. 58, at 487.
- 106 As already said above at footnote n. 13, reliability and validity are criteria to assess the accuracy. Reliability has to do with variance and erratic results, whereas validity refers to unbiased results.
- 107 Bishop and Boyle (2017), above n. 58, at 487.
- 108 Ibid., at 488.
- 109 Parsons, above n. 98, at 225.
- 110 For instance, people should receive reminders to respond to several seasonal surveys.
- 111 For instance, current models use the behaviour of those with higher travel costs in order to predict the behaviour of those with lower costs in case the price of visits increases. Yet, people might choose to live closer to a recreational site and this approach would underestimate their preferences. *See* Bishop and Boyle (2017), above n. 58, at 489.

preferences studies, hence raising the need for more research on convergent results.¹¹² In addition to the limitations related to accuracy, revealed preferences require the existence of surrogated markets and, if data are not already available, the process of gathering good-quality data might take time and costs. Lastly, it needs to be considered that revealed preferences cannot capture non-use values and, thus, the total value of natural resources with high non-use would not be accurate (even on average).

5.2.3 Practical Application

Revealed preference methods have been used to estimate the environmental damage to recreational site users - where pollution affects fishing, visiting natural areas, etc. For instance, the damage caused by hazardous waste can be assessed by looking at the decline in real estate prices and multiplying it for the number of houses affected.¹¹³ Hanley reports that the HP has been frequently employed in the US to estimate the economic costs of waste disposal sites or in the UK to estimate the economic costs of noise pollution.¹¹⁴ A very important example of application of these methods to the environmental damage assessment is represented by the California v. BP America (American Trader)115 oil spill in 1990.¹¹⁶ After the oil tanker spilled 416,598 gallons of crude oil near the coast of Huntington Beach in California, several beaches and local fisheries were closed for more than two weeks. The State of California decided to go to trial against the owner of the tanker (Attransco) for lost recreational use of six different activities¹¹⁷ under the California Water Code. Additionally, the state appointed a group of economists to quantify the value of lost recreational use (number of lost beach visits multiplied by the value of a lost beach day) due to the beach closure. The court case lasted ten weeks in 1997 and the defendant (BP) hired another team of economists to challenge the damage estimate.¹¹⁸ The main issues of disagreement between the two teams of experts concerned the possible substitution of polluted beaches with more distant sites and the value of each lost trip. Indeed, assuming that no substitution would occur, the claimant's experts estimated 454,280 lost trips during the beach closure, whereas the defendant's experts con-

- 112 See Bishop and Boyle (2017), above n. 58, at 491.
- 113 Goodstein and Polasky, above n. 66, at 88. The authors provide an example of application of the hedonic method taken from R. Mendelsohn, D. Hellerstein, M. Huguenin, R. Unsworth & R. Brazee, 'Measuring hazard-ous waste damages with panel models', 22(3) Journal of Environmental Economics and Management 259 (1992).
- 114 Hanley, above n. 48, at 33.
- 115 Case n. 64 63 39 (Cal. Super. Ct. 8 December 1997).
- 116 D.J. Chapman and W.M. Hanemann, 'Environmental Damages in Court: The "American Trader" case', in A. Heyes (ed.), *The Law and Economics of the Environment* (2000), at 319.
- 117 Beach use, surfing, private boating, charter boat fishing, whale watching, excursions to islands off the coasts (*ibid.*). Lack of ready data about the value of other recreational activities (e.g. biking, wildlife viewing) brought to the exclusion of these activities from the State's claim.
- 118 R.W. Dunford, 'The American Trader Oil Spill: An Alternative View of Recreation Use Damages', 19(1) Association of Environmental and Resource Economists Newsletter 12 (1999).

tested the lack of substitution. As to the value-perbeach-day, the claimant's experts proposed to employ the results (\$ 13.19, after being adjusted for inflation) from a travel cost study of beaches in Florida (benefit transfer approach) to save time and money,¹¹⁹ whereas the defendant's team of experts proposed \$ 2.17-3.38, which was the final estimate of a CV study of some Californian coasts. At trial the claimant's economists presented predictions for up to \$ 15/trip and a final estimate of \$ 14.5 million versus \$ 607,200 proposed from the other party's experts. In the end, the court awarded the claimant \$ 12,753,071 in lost recreational values, \$ 5,311,624.50 in civil liability and \$4.37 million in costs. The case shows how many issues of disagreement may be raised when practically implementing non-market valuation methods (especially with data collection and analysis).120 Even when claims for environmental damages include recreational values, judges might prefer to employ a benefits transfer approach instead of primary valuation studies to keep the costs down in litigation.¹²¹

5.3 Stated Preference Methods

Stated preference approaches are based on surveys that try to elicit social preferences about policies that may change the provision of natural resources. Three types of techniques fall in this category. The most popular methodology is CV, where people are asked how much money (maximum) they would be willing to spend in order to increase the provision of environmental goods or services or, alternatively, how much money (minimum) they would need to receive in order to be willing to accept their loss. The second popular method is choice modelling (CM), which tries to model the decision process of individuals in the face of two or more alternatives about the goods or services to value.¹²² Lastly, group valuation combines stated preference techniques with deliberative processes from political sciences in order to capture components of values others than those elicited through surveys.123

5.3.1 Advantages

Stated preference methods of valuation ideally allow to directly elicit preferences about the values of natural resources and to obtain the best theoretical measures of WTP or WTA. Moreover, these are the only techniques to

- 119 F.W. Bell and V.R. Leeworthy, 'Recreational Demand by Tourists for Saltwater Beach Fays', 18(3) *Journal of Environmental Economics and Management* 189 (1990).
- 120 In the words of Chapman and Hanemann: 'Measurements rely on models and involve judgements about matters of model specification and estimation, that are inevitably open to disputes' (Chapman and Hanemann, above n. 117, at 366).
- 121 Chapman and Hanemann, above n. 117, at 321.
- 122 The main difference between contingent valuation (CV) and choice modelling (CM) is that in a CV respondents have only one option and they are asked whether they would agree on paying for it or they would rather stick to the *status quo*, whereas in a CM study respondents are given several choices.
- 123 Spash refers to value pluralism, incommensurability, non-human values and social justice. C.L. Spash, 'How Much is That Ecosystem in the Window? The One with the Bio-diverse Trail', 17 *Environmental Values* 259 (2008).

estimate non-use values (option and existence values) and estimate the TEV. Furthermore, a CM study allows to derive marginal values for changes of specific attributes of environmental resources induced by different policies (options). Each option in the survey consists indeed of a different balance of impacts on the environment, such that choosing one option rather than the other reveals preferences about a specific change of attributes. Differently from the other techniques, group valuation has the potential of overcoming limitations of traditional monetary valuation methods.124 Lastly, Adamowicz pointed out how stated preference approaches turn out to be more useful than other methods because they provide information regarding perceptions, attitudes and previous knowledge.125 All these additional pieces of information may help us to understand better preferences for the assessment. For instance, stated preferences may show the relative importance given by respondents to different environmental services¹²⁶ as well as conflicts among stakeholders about alternative policy options.127

5.3.2 Limitations

Stated preferences valuation methods raise several concerns in terms of accuracy (reliability and validity) which challenge the truth of the estimated WTP/WTA. First of all, answers to survey questions depend on the way questions are designed and four main causes of errors might lead to biased answers: hypothetical bias (poorly thought out answers to questions that present events as mere possibilities), free riding (the belief that others will take on the responsibility of paying for public goods), strategic bias (the assumption that the stated answer will lead to adopt a specific environmental policy), embedding bias (error given by, for instance, the order of questions).128 Secondly, scholars stress the discrepancy between WTP and WTA.¹²⁹ It has been proved that the WTA is higher than the WTP for identical resources.¹³⁰ Various causes may explain this divergence: questionnaire designs, strategic behaviours and psychological effects, such as 'loss aversion' and the 'endowment effect'.131 Another issue that may affect the validi-

- 124 R. de Groot, M. Stuip, M. Finlayson & N. Davidson, 'Valuing Wetlands: Guidance for Valuing the Benefits Derived from Wetland Ecosystem Services', International Water Management Institute (2006).
- 125 W.L. Adamowicz, 'What's It Worth? An Examination of Historical Trends and Future Directions in Environmental Valuation', 48 Australian Journal of Agricultural and Resource Economics 419 (2004).
- 126 B. Martín-López, C. Montes & J. Benayas, 'The Non-economic Motives Behind the Willingness to Pay for Biodiversity Conservation', 139 Biological Conservation 67 (2007).
- 127 P. Nunes, S. Silvestri, M. Pellizzato & V. Boatto, 'Regulation of the Fishing Activities in the Lagoon of Venice, Italy: Results from a Socio-economic Study', 80(1) Estuarine, Coastal and Shelf Science 173 (2008).
- 128 Barbier et al., above n. 73.
- 129 M. Hanemann, 'Willingness to Pay and Willingness to Accept: How Much Can They Differ?', 81(3) *American Economic Review* 635 (1991).
- 130 V. Arild and D. Bromley, 'Choices without Prices without Apologies', 26(2) Journal of Environmental Economics and Management 129 (1994). See above section 5.
- 131 K. Willis and G. Garrod, 'Valuing Landscape: A Contingent Valuation Approach', 37 Journal of Environmental Management 1 (1993).

ty of the estimates is the 'embedding bias',¹³² or the fact that people tend to express the same WTP for an environmental change in a small area and in a bigger area because they are truly insensitive to the scope of the survey.¹³³ In any case, stating preferences about the environment is as challenging as valuing public goods for which preferences are not well defined and responses tend to lack sufficient accuracy.¹³⁴ Admittedly, upfront information in questionnaires¹³⁵ and valuation workshops held in advance¹³⁶ may help respondents to reflect on their preferences and overcome their cognitive constraints during surveys. Likewise, deliberative monetary valuation methods seem to further reduce biases and non-response rates, while raising the level of engagement of respondents.¹³⁷ Moreover, it is now possible to develop well-designed surveys to reduce the risk of error, although they might be highly expensive.¹³⁸ The last fundamental limitation concerns the contro-

versy still existing around the incommensurability of non-use values.¹³⁹ More specifically, the issue is whether non-use values (e.g. bequest values) can be put under the framework of the TEV together with recreational values and other economic values. The issue is still largely debated in the literature.

5.3.3 Practical Application

The Exxon Valdez disaster (more than 10 million US gallons of crude oil spilled) is the most famous example of application of a stated preference method for environmental damage compensation.¹⁴⁰ The accident occurred in 1989 in Alaska. It affected 1,500 miles of beaches that were closed to fishing, boating and surfing for one year, 250,000 seabirds died and entire livelihoods were destroyed. It triggered much debate around the methods of damage assessment in US courts (twenty-four-year

- 132 'The embedding effect is the name given to the tendency of willingness-to-pay responses to be highly similar across different surveys, even where theory suggests (and sometimes requires) that the responses be very different'. See P.A. Diamond and J.A. Hausman, 'Contingent Valuation: Is Some Number Better than No Number?', 8(4) Journal of Economic Perspectives 45, at 46 (1994).
- 133 D. Kahneman and J. Knetsch, 'Valuing Public Goods: The Purchase of Moral Satisfaction', 22 Journal of Environmental Economics and Management 57 (1992); H. Svedsäter, 'Contingent Valuation of Global Environmental Resources: Test of Perfect and Regular Embedding', 21 Journal of Economic Psychology 605 (2000).
- 134 H. Svedsäter, 'Economic Valuation of the Environment: How Citizens Make Sense of Contingent Valuation Questions', 79(1) *Land Economics* 122 (2003).
- 135 C. Tisdell and C. Wilson, 'Economics of Wildlife Tourism', in K. Higginbottom (ed.), Wildlife Tourism, Impacts, Management and Planning (2004) 145.
- 136 M. Christie, N. Hanley, J. Warren & K. Murphy, 'Valuing the Diversity of Biodiversity', 58(2) *Ecological Economics* 304 (2006).
- 137 R. de Groot et al., above n. 125.
- 138 Goodstein and Polasky, above n. 66, at 85.
- 139 R. Carson, N.E. Flores & N. Meade, 'Contingent Valuation: Controversies and Evidence', 19 Environmental and Resource Economics 173 (2001).
- 140 R.T. Carson, R.C. Mitchell, M. Hanemann, R.J. Kopp, S. Presser & P.A. Ruud, 'Contingent Valuation and Lost Passive Use: Damage from the Exxon Valdez Oil Spill', 25 *Environmental and Resource Economics* 257 (2003). The CV was used to assess the environmental damage caused by a huge oil spill (around 11 million US gallons of crude oil spilled) nearby the coast of Alaska, affecting 1,500 miles of coastline, causing the death of 250,000 seabirds, \$287 million damages for financial losses and post-traumatic stress disorders.

litigation). Just four months after the Exxon Valdez oil spill, the famous Ohio v. DOI decision¹⁴¹ came in the spotlight to trigger the (already lively) debate. Here, Ohio and other States challenged the new regulations issued by the US Department of Interior (DOI)142 aimed at specifying the techniques for the assessment of environmental damage under US law.143 The issue at stake was that damages had to be limited to 'the lesser of the costs' of restoration, or the lost use value under the environmental damage assessment regulations. In addition, the DOI provided a hierarchy of techniques to estimate use values and market-based techniques were given priority over non-market valuation techniques. Lastly, the DOI included CV as a possible technique adding that 'estimation of option and existence values (i.e., non-use values) shall be used only if...no use values can be determined' (43 CFR § 11.83(b)(2)). Ultimately, the Court of Appeals for the District of Columbia challenged the regulations by explicitly stating three main principles: first, the main purpose of the environmental damage assessment should be to restore the damaged environment and, for this reason, damages should be based on restoration costs (the cost of a restoration project) rather than use values (unless they are 'grossly disproportionate to use values');¹⁴⁴ secondly, judges should be always allowed to order tortfeasors to compensate nonuse values, since it would be unreasonable to prioritise use values and exclude non-use values; thirdly, non-market valuation techniques (CV) should be used as much as market-based techniques.¹⁴⁵ The ruling was extremely relevant because it overturned the regulation by putting on the same level of importance market-based and revealed preference methods, which, in turn, led the government to introduce guidelines for their use in litigation.¹⁴⁶ In this way, the court wanted to overcome the previous trend of calculating environmental damages based on market prices and it opened the way to the calculation of non-use values through the CV method. After the Ohio court expressed its favour for the use of the CV, it was applied in the Exxon Valdez case and it led to a final amount of damages around US\$ 9 billion.¹⁴⁷ The decision triggered considerable debate among legal

- 141 State of Ohio v. US Department of the Interior, 880 F. 2d. 432 (DC. Cir. 1989).
- 142 43 CFR Part 11 § 11.83 (Code of Federal Regulation Title 43 Public Lands: Interior - Part 11: Natural Resource Damage Assessment - § 83 Damage determination phase - implementation guidance). See above n. 86.
- 143 In these guidelines, the DOI referred to: market price, appraisal, factor income, travel cost, hedonic pricing, benefits transfer, conjoint analysis, habitat equivalency analysis, resource equivalency analysis, random utility modelling.
- 144 In other words, the D.C. Circuit held that the lesser of the cost was invalid since in contrast with the intentions of the Congress. By contrast, the Parliament clearly expressed preference for restoration costs as a measure of recovery (880 F.2d 432 D.C. Cir. 1989, par. 459).
- 145 Giving priority to market-based valuation and appraisal techniques would be unreasonable (*ibid.*, par. 463).
- 146 K. Arrow, R. Solow, P.R. Portney, E.E. Leamer, R. Radner & H. Schuman, 'Report of the NOAA Panel on Contingent Valuation', 58(10) *Federal Register* 4601 (1993).
- 147 However, the case was settled for US\$ 1 billion in the end, plus \$3.4 billion in fines, compensation and clean-up costs, plus a lawsuit for punitive damages that were reduced to \$500 million in 2008 by the Supreme Court.

scholars. Scholars were split between those supporting the use of CV (Montesinos, Dobbins, Brookshire, McKee, McConnell, Baker), those limiting its use to exceptional cases where restoration could not be applied (Cross) and those clearly against because the costs of assessment outweighed the benefits (Niewijk) or because they were clearly flawed (Cummings, Harrison, Bohm, Binger, Copple, Hoffman). The former emphasised the advantages of CV (the most complete technique to monetise environmental damages) and the latter its shortcomings (especially overestimation of the damage). In 2002, Thompson made a first review of all cases after the Ohio decision to see how much judges have been using stated preferences in the US after the adoption of new guidelines on environmental damage assessment.¹⁴⁸ Very few cases after the Exxon Valdez relied on market-based techniques, like the California v. BP America (American Trader). When cases concerned instead non-use values of nature, a restoration cost approach has been more frequently implemented by judges. Apparently, judges prefer methods on which parties more or less agree and that do not raise too many issues of validity.¹⁴⁹ On the other hand, achieving high scientific standards in CV is extremely expensive for plaintiffs, so parties are disincentivised to propose a methodology that might be rejected in the end. Indeed, higher accuracy in valuing non-use values means higher administrative costs (the cost of CV analyses for the Exxon Valdez accident has been calculated around \$3 million).¹⁵⁰ From a law and economics perspective, the CV should be still preferred when the environmental damage includes non-use values of natural resources and they are proved to be quite large. Other methods, such as the choice experiment, have been applied to issues such as forest design, wetland conservation and river water quality, but never in environmental damage cases.¹⁵¹

6 Comparing Environmental Valuation Methods from the Efficiency Perspective

After reviewing the law and economics of damages and presenting the existing methods of environmental dam-

- 148 For a summary of the whole debate between 1989 and the late 1990s, see D.B. Thompson, 'Valuing the Environment: Courts' Struggles with Natural Resources Damages', 32(1) Environmental Law 57, at 62ss (2002).
- 149 Kopp and Smith examined all the issues of validity that may be raised in litigation when dealing with non-market valuation techniques in the famous Eagle Mine case. In particular, the economists commented that: 'the level of economic expertise available to judges to evaluate the facts of each side's evidentiary claims probably needs to exceed what many analysts of judicial behaviour have argued can be expected'. See R. Kopp and K. Smith, 'Eagle Mine and Idarado', in K.M. Ward and J.W. Duffield (eds.), Natural Resources Damages: Law and Economics (1992), at 381.
- 150 Goodstein and Polasky, above n. 66, at 85.
- 151 See M. Hanley and W. Mourato, 'Choice Modelling Approaches: A Superior Alternative for Environmental Valuation?', 15(3) Journal of Economic Surveys 453 (2001).
age assessment, it is now possible to compare and draw conclusions on their relative advantages and disadvantages. The following four dimensions shall be considered based on the previous analysis: accuracy, assessment costs, total value of nature and disagreements between parties in litigation.

From the perspective of validity and reliability (accuracy), market-based approaches are considered to be the most accurate, whereas revealed and stated preferences are expected to achieve a sufficient level of accuracy provided that very scrupulous assessments are conducted.

When it comes to the assessment costs, market-based approaches are surely the least resource-intensive and cheapest tools, whereas stated preference techniques are more expensive due to the need of experts, time and money to run surveys and to process the answers. These costs can be considerably cut down only when studies on similar natural resources exist and their outcomes can be transferred to the damaged environment that has to be valued (benefits transfer).

In terms of values of nature captured, market-based approaches and revealed preferences only reflect use and exchange values, while stated preferences also embed the values of those who do not use the natural resources in object but still gain utility from their existence.

Lastly, if we look at possible disagreements that may delay litigation, the restoration cost approach is arguably the least open method to disputes, whereas both revealed and stated preferences can raise controversies about the validity and reliability of their final estimates. In addition to the above, according to consolidated literature all methods may suffer from four main issues of inaccuracy. The first one relates to the relevant population whose values need to be estimated: should that be a limited group of people locally affected by the accident or the global population? If the aim of the valuation process is to compensate individuals for their post-accident losses, then it makes sense to limit the assessment to that people affected by the accident and those legally entitled to compensation.¹⁵² The second issue concerns how individual values are aggregated. Normally, aggregated measures of benefits are not weighted based on the income, even if preferences expressed by wealthier people are higher compared to low-income people and this should be considered when interpreting the results of valuation processes.¹⁵³ The third issue refers to the discount factor. The rationale for discounting is that people assign higher utility to immediate rather than future benefits (or they assign lower marginal utility to future benefits if an income increase is expected). Environmental policies pose an additional issue since future benefits are associated with future generations whose preferences should not to be weighted differently compared with present generations. The appropriate discount rate should thus depend on how utilities of different generations are weighted in a specific society and

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how consumption rates are expected to change over time.¹⁵⁴ The fourth issue is the uncertainty of environmental changes over time and the fact that factors, like climate change, might change future outcomes. Uncertainties can be incorporated to increase accuracy by means of models that identify all possible scenarios and then assign probabilities based on risk attitudes. Yet, these models are highly resource-intensive and time-consuming.

It is clear from the above that there is no one-fits-all solution for any environmental damage assessment and that the most efficient method shall be determined based on the specificities of the injured environment, the data and the resources available,¹⁵⁵ but also the expertise of the court. Some takeaways can be further inferred from the practice. It can be argued that the employment of market-based and revealed preferences should be avoided if a considerable share of the TEV of the damaged resource is given by non-use values. That is particularly true for unique, irreplaceable and irrecoverable natural resources, whose value (especially the non-use component of TEV) is so high that it outweighs the assessment costs. Concerning the restoration cost approach, it can end up in underestimation and underdeterrence if the equivalency analysis is not sufficiently accurate (like in the DWH accident). Therefore, judges should pay more attention to the way replacing resources are valued and weighted with the damaged ones. Having said that, the last issue to tackle is whether the debate on the environmental damage assessment can be considered exhausted or instead something new might still contribute to change the way environmental damages are valued in courts. The next section will delve into this final point.

7 Did the Well Run Dry or Is There Another Novel in There?

After the big accident of the DWH and given its complexity, the US Congress asked the National Academy of Science to evaluate the impacts of the DWH spill. Additionally, it was asked to determine how exactly the 'ecosystem services approach'¹⁵⁶ could help to achieve full

- 154 Increased consumption should bring to lower marginal utility in the future (*ibid.*, at 18).
- 155 Resource constraints and data collection options normally influence the choice of valuation techniques. *See* Barbier et al., above n. 73, at 40.
- 156 The term of ecosystem services intended as benefits that people can get from functioning ecosystems dates back to the 1980s (P.R. Ehrlich and A.H. Ehrlich, *Extinction: The Causes and Consequences of the Disappearance of Species* (1981)), whereas ecological economists have been working on their monetary valuation since the 1990s (Daily, above n. 83). See R. Costanza, R. d'Arge, R. de Groot, et al., 'The Value of the World's Ecosystem Services and Natural Capital', 387 Nature 253 (1997). There is now a common belief in ecology that the ecosystem services approach has the potential of allowing better policies based on more comprehensive valuations, despite its anthropocentrism. For a review of the existing debate around the

¹⁵² Segerson (2017), above n. 61, at 15. 153 *Ibid*.

compensation of victims when valuing post-accident damages.¹⁵⁷ The final report pointed out that the ecosystem services approach differs from traditional approaches to damage assessment and to restoration, because its focus is not on the natural resources themselves, but on the goods and services that those resources supply to people. Therefore, this method has the potential of supplementing rather than replacing traditional ways to value environmental damages.¹⁵⁸ Regarding the economic valuation of ecosystem services, Robert Costanza and his colleagues provided two monetary examples for the DWH. The first one assumed the almost total closure of Louisiana's fishery activities and it estimated an annual loss of \$ 2.5 billion. The second one calculated all values of services provided by the most affected area in the region (Mississippi River Delta) with an envisaged reduction of 10%-50% reduction in ecosystem services and it ended up in a final total loss of \$34-\$670 billion in present value (at a 3.5% discount rate) until full ecological restoration.¹⁵⁹ In addition, some ecologists in 2016 proposed a socio-ecological approach to restoration that integrated social (economic, ethical) and ecological variables in order to achieve a successful restoration.¹⁶⁰ While all these approaches have the potential of considerably improving the accuracy of the results, the remaining burning question revolves around the possibility to overcome traditional issues of inaccuracy and assessment costs via the ecosystem services approach. Apparently, the valuation of ecosystem services follows the traditional methods in environmental economics and it thus raises the same inaccuracy issues. However, two possible advantages might be considered. First, there is a widespread belief in ecological economics that the ecosystem service valuation provides useful information on social preferences that should not be ignored if we want to avoid massive losses of environmental values.¹⁶¹ Although this might be true, it has to be counterargued that the method suffers from a serious lack of data on the state of ecosystems and the values of ecosystem services in the world.¹⁶² An exception to that is represented by key eco-

notion of ecosystem services, *see* M. Schröter, E.H. van der Zanden, A.P.E. van Oudenhoven, et al., 'Ecosystem Services as a Contested Concept: a Synthesis of Critique and Counter-Arguments', 7 *Conservation Letters* 514 (2014).

- 157 Committee on the Effects of the Deepwater Horizon Mississippi Canyon-252 Oil Spill on Ecosystem Services in the Gulf of Mexico, Ocean Studies Board, Division on Earth and Life Studies, National Research Council, An Ecosystem Services Approach to Assessing the Impacts of the Deepwater Horizon Oil Spill in the Gulf of Mexico (2013).
- 158 Ibid., at 1.

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- 159 R. Costanza, D. Batker, J.W. Day, R.A. Feagin, M. Martinez & J. Roman, 'The Perfect Spill: Solutions for Averting the Next Deepwater Horizon', 1 *Solutions* 17 (2010).
- 160 A. Abelson, B.S. Halpern, D.C. Reed, et al., 'Upgrading Marine Ecosystem Restoration Using Ecological-Social Concepts', 66 BioScience 156 (2016).
- 161 For a full picture, see A. Kontoleon, U. Pascual & T. Swanson, Biodiversity Economics (2007).
- 162 For an overview of obstacles and possible solutions for mapping and assessing ecosystems in the EU, see B. Burkhard, J. Maes, M.B. Potschin-Young, et al., 'Mapping and Assessing Ecosystem Services in the EU – Lessons Learned from the ESMERALDA Approach of Integration', 3 One Ecosystem e29153 (2018).

systems (forests and wetlands) whose economic values have been already largely investigated and mainstreamed through databases. Since these data are regularly updated, they may effectively provide judges with easy-to-read information.¹⁶³ Secondly, two new trends in ecological studies – namely, the social network analysis (SNA) and big data – might further contribute to lower the costs of damage assessment in future. The SNA¹⁶⁴ has been used to assess cultural ecosystem services¹⁶⁵ and it reflects better relational values for them. On the other hand, the use of big data, and, especially, behavioural data, is expected to provide useful information on preferences that have not been yet fully explored.

To conclude, while the ecosystem service valuation has the potential of minimising the social costs of accidents by either reducing the costs of assessment or improving the spectrum of social preferences, there is still a strong need for more plentiful evidence on the values of all categories of ecosystem services. Once the state of the art in natural sciences is more robust, plausibly judges will be more in favour of supplementing traditional methods with this novel approach. Before that moment, more economic analysis in choosing and implementing the appropriate valuation technique would be needed to improve the environmental damage assessment so that the amount of money paid for ecological damages better reflects the harm and, as a consequence, polluters can receive optimal care incentives. Surely, natural resources with high non-use values or unique value would deserve more accurate assessments.

163 Ibid.

- 164 Emerged in the 1930s and progressively employed in several domains, it unveils how heterogenous groups interact in complex social-ecological systems and, in this way, transmit their ecological knowledge. See M. Salpeteur, L. Calvet-Mir, I. Díaz-Reviriego & V. Reyes-García, 'Networking the Environment: Social Network Analysis in Environmental Management and Local Ecological Knowledge Studies', 22(1) Ecology and Society 40, at 41 (2017).
- 165 Those referred to recreational, aesthetic and spiritual benefits. They shall be distinguished from provisioning services such as food, timber, water, and regulating services that affect climate, floods, disease, wastes and water quality.

Towards Corporate Obligations for Freshwater?

The European Commission's Proposal for a Corporate Sustainability Due Diligence Directive and Freshwater Issues

Candice Foot*

Abstract

Companies exert substantial pressures on freshwater. They may exacerbate depletion and can be a major source of pollution, adversely impacting human rights and the environment. Recent years have seen the emergence of regulatory instruments that aim to address adverse impacts by corporate activities on people and the planet. These have culminated in the European Commission's 2022 Proposal for a Corporate Sustainability Due Diligence Directive, which seeks to introduce an obligation for large EU companies to conduct human rights and environmental due diligence. Despite companies' adverse impacts on freshwater, the draft Directive does not explicitly focus on this. Nevertheless, its material scope does contain human rights and environmental standards from which its protection can potentially be extrapolated. In light of this potential, this article answers the question: to what extent does the draft Corporate Sustainability Due Diligence Directive encompass freshwater issues, and how can its role in this respect be improved? It finds that the draft Directive encompasses freshwater protection from the perspective of both human rights and environment but only to a limited extent. It is limited from a human rights perspective due to the reformulation of the human right to water, and from an environmental perspective due to the acritical transposition of international environmental obligations. Given these limitations, the article concludes with some recommendations on how freshwater issues can be more comprehensively included within the draft Directive.

Keywords: freshwater, corporate responsibility, due diligence, human rights, environment.

1 Introduction

Freshwater is a natural resource with unique characteristics, above all, that it is essential for all life on this planet.¹ Despite this fundamental life-sustaining role, freshwater availability is limited. While seventy-one percent of the earth's surface is covered by water, less than three percent of this is freshwater. Of that three percent, only half a percent is accessible for human and environmental needs.² Although this quantity of freshwater has remained unchanged for billions of years, the anthropogenic pressures exerted thereon have increased exponentially.³ Companies can exert substantial anthropogenic pressures on freshwater resources by exacerbating freshwater depletion and contributing to freshwater pollution, thus adversely impacting human rights and the environment.

Corporate activities may exacerbate freshwater depletion owing to their volumes of freshwater extraction. Globally, approximately eighty-four percent of freshwater resources are withdrawn by the agricultural and industrial sectors.⁴ This mass extraction contributes to freshwater scarcity in the basins where companies operate.⁵ Where scarcity occurs, freshwater is unavailable for humans to meet their basic needs, including drinking,

- 1 F. Greco and M. Antonelli, 'Not All Drops Are the Same', in F. Greco and M. Antonelli (eds.), *The Water We Eat: Combining Virtual Water and Water Footprints* (2015) 3, at 4.
- 2 D.M. Chirwa, 'Access to Water as a New Right in International, Regional and Comparative Constitutional Law,' in A. von Arnauld, K.von der Decken & M. Susi (eds.), The Cambridge Handbook of New Human Rights: Recognition, Novelty, Rhetoric (2020) 55, at 55; World Business Council for Sustainable Development, 'Water Facts and Trends', https://docs.wbcsd. org/2005/08/WaterFactsAndTrends.pdf (last visited 4 May 2022).
- 3 S.C. McCaffrey, C. Leb & R.T. Denoon, 'Introduction to the Research Handbook on International Water Law,' in S.C. McCaffrey, C. Leb & R.T. Denoon (eds.), Research Handbook on International Water Law (2019) 1, at 1.
- 4 United Nations-Water, 2021: Summary Progress Update 2021 SDG 6water and sanitation for all. Version 2021. Geneva, Switzerland, at 9-10 notes that 72% of all global freshwater withdrawals are used by agriculture, while 12% is used by industry.
- 5 Greco and Antonelli, above n. 1, at 4; S. Sojamo and E.A. Larson, 'Investigating Food and Agribusiness Corporations as Global Water Security, Management and Governance Agents: The Case of Nestle, Bunge, and Cargill', 5 Water Alternatives 619 (2012).

^{*} Candice Foot is a PhD Candidate at the Erasmus Graduate School of Law of the Erasmus University Rotterdam, the Netherlands. I would like to extend a special thanks to Prof. Liesbeth Enneking and Prof. Ellen Hey for their fruitful discussions, as well as to the editors of this special issue, Alessandra Arcuri, Lieselot Bisschop and Frank Weerman. I would also like to thank the Erasmus Law Review's anonymous reviewers for their constructive feedback. This work was supported by the research initiative on Rebalancing Public & Private Interests and Erasmus Center of Empirical Legal Studies of Erasmus School of Law and the sector plan for law funding of the Ministry of Education, Culture and Research.

hygiene, and cooking. Freshwater is also unavailable to meet environmental needs, and this results in disappearing wetlands, damaged ecosystem services and the inability to sustain plant and animal life.⁶

Corporate activities can also be a major source of freshwater pollution. This is caused, for instance, by the discharge of harmful agricultural effluents like fertilisers, herbicides and pesticides,⁷ as well as industrial wastewater contaminated with chemical and radiological substances into surrounding freshwater sources.⁸ This can create serious health problems for people and destroy ecosystems by deteriorating freshwater quality so that natural vegetation and healthy aquatic ecosystems cannot be sustained.⁹

Companies may be connected to adverse impacts to freshwater in different ways. On the one hand, there are companies operating directly on the ground and in the water basins where the freshwater depletion and pollution occurs. On the other hand, there may be many other companies that are indirectly linked to those same adverse impacts through their global value chains.¹⁰ There have been some notable cases in which EU-based companies have been connected to freshwater depletion and pollution with serious adverse impacts on human rights and the environment outside the EU.

A depletion-related case is that of Danish supermarkets that imported and sold avocados that had been harvested from plantations in a water scarce region of Chile.¹¹ The plantations' freshwater extractions from riverine systems and groundwater aquifers caused freshwater depletion and the deterioration of the ecosystems dependent thereon. Vegetation was reduced to piles of roots and dead tree stumps, and animals died from dehydration. Local communities had insufficient freshwater for necessities like drinking water, hygiene, cooking

- 6 World Wildlife Fund, 'Water Scarcity', www.worldwildlife.org/threats/ water-scarcity (last visited 4 May 2022).
- 7 Organisation for Economic Co-operation and Development, 'Water and Agriculture', www.oecd.org/agriculture/topics/water-and-agriculture/ (last visited 4 May 2022); United Nations-Water, 'Water Quality and Wastewater', www.unwater.org/water-facts/quality-and-wastewater/ (last visited 4 May 2022).
- 8 Pacific Institute, 'Bringing a Human Rights Lens to Corporate Water Stewardship: Results of Initial Research', https://pacinst.org/wp-content/ uploads/2013/02/full_report33.pdf (last visited 4 May 2022) (2012); Swedwatch, 'To The Last Drop: Water and Human Rights Impacts of the Agro Export Industry in Ica, Peru: The Responsibility of Buyers', https://swedwatch. org/region/food-companies-fail-to-address-water-risks-in-peru/ (last visited 4 May 2022) (2018), at 13.
- 9 Water Footprint Network, https://waterfootprint.org/en/water-footprint/ frequently-asked-questions/#CP30 (last visited 4 May 2022).
- 10 Global value chains are functionally integrated but geographically dispersed networks that encompass the full range of activities required to bring a product or service from conception, through its phases production, to its distribution to consumers, and finally its disposal after use. See: D. Danielsen and J. Blair, 'The Role of Law in Global Value Chains: A Window Into Law and Global Political Economy', https://lpeproject.org/blog/the-role-of-law-in-global-value-chains-a-window-into-law-and-global-political-economy/ (last visited 10 May 2022); and R. Kaplinsky and M. Morris, A Handbook for Value Chain Research (2001), at 4; OECD, 'Global Value Chains', https://www.oecd.org/sti/ind/global-value-chains.htm (last visited 10 May 2022).
- 11 Danwatch, 'Avocados and Stolen Water', https://old.danwatch.dk/en/ undersogelse/avocados-and-stolen-water/ (last visited 4 May 2022) (2017).

and cleaning.¹² A pollution-related case is that of Royal Dutch Shell being held responsible for polluting the Niger Delta's waterways as a result of numerous oil spills from pipelines operated by its Nigerian subsidiary.¹³ These oil spills have had irreparable impacts. Freshwater has been so polluted that it cannot be used for drinking, cooking or cleaning by the communities living in the vicinity of the affected pipelines, fish have died, and no vegetation will grow in or near it.¹⁴ Globally, the instances of companies adversely impacting freshwater are countless.

The past two decades have seen an increasing focus on the ways in which corporate activities may directly and indirectly cause adverse impacts on human rights and the environment and on the question of how this should be addressed. In recent years this has resulted in the emergence of a growing variety of regulatory instruments seeking to address companies' responsibility to prevent, mitigate and/or redress adverse human rights or environmental impacts that directly or indirectly result from their operations. Over time these instruments have become increasingly binding in nature, culminating in the European Commission's 2022 Proposal for a Corporate Sustainability Due Diligence Directive,¹⁵ which seeks to introduce an obligation for large EU companies to conduct human rights and environmental due diligence.

However, despite the fundamental life-sustaining role of freshwater, and despite the pressures exerted on this resource by corporate activities that result in adverse impacts to human rights and the environment, the draft Directive does not specifically address this issue. Yet its material scope does contain human rights and environmental standards from which a corporate responsibility to respect freshwater can potentially be extrapolated. In light of this potential, this article answers the question: to what extent does the draft Corporate Sustainability Due Diligence Directive (hereinafter: draft Directive) encompass freshwater issues, and how can its role in this respect be improved?

Using doctrinal legal methodology, this article will first outline the foundational international instruments establishing companies' responsibilities with respect to human rights and the environment and the role of due diligence in this context (Section 2.1), as well as the international human right to water (Section 2.2). It will then explore how freshwater issues have been encompassed within human rights and environmental due diligence as prescribed by these foundational instruments,

- 12 Ibid.
- 13 Milieudefensie: Friends of the Earth Netherlands, 'Milieudefensie's Lawsuite Against Shell in Nigeria', https://en.milieudefensie.nl/shell-in-nigeria/ milieudefensie-lawsuit-against-shell-nigeria (last visited 4 May 2022).
- 14 Ibid.; for case ECLI:NL:GHDHA:2021:1825 see https://uitspraken.rechtspraak. nl/inziendocument?id=ECLI:NL:GHDHA:2021:1825 (last visited 4 May 2022). (2021).
- 15 European Commission Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937, 2022/0051(COD), https://eur-lex. europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0071 (last visited 4 May 2022). (2022).

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focusing on the UN Guiding Principles on Business and Human Rights in Section 3.1 and on the OECD Guidelines in Section 3.2 and how this works in practice (Section 3.3). It will then explore the draft Directive's material scope with respect to human rights, specifically focusing on the human right to water (Section 4.1), and with respect to the environment, specifically focusing on the environmental aspect of freshwater issues (Section 4.2). It will also provide a critical reflection on the extent to which freshwater issues are included within the draft Directive as it currently stands. The article concludes with recommendations on how it could include freshwater issues more comprehensively (Section 5).

2 Setting the Scene

Before delving into an analysis of due diligence and freshwater issues, a brief exploration of human rights and environmental due diligence, as well as the status of the human right to water is in order.

2.1 Human Rights and Environmental Due Diligence

Recent decades have seen increased global scrutiny of companies' adverse impacts¹⁶ on human rights and the environment,¹⁷ prompting a rapid flourishing of instruments that attempt to prevent, mitigate and/or redress such impacts by introducing human rights and environmental due diligence.¹⁸ This section introduces the concept of human rights and environmental due diligence (hereinafter: due diligence) by exploring the relevant sections of the international instruments that established it: the 2011 UN Guiding Principles on Business and Human Rights (UNGPs)¹⁹ and the 2011 version of the OECD Guidelines for Multinational Enterprises (OECD Guidelines)²⁰

- 16 An 'adverse human rights impact' occurs when an action removes or reduces the ability of an individual to enjoy [their] human rights; see Office of the United Nations High Commissioner for Human Rights, 'The Corporate Responsibility to Respect: An Interpretive Guide', www.ohchr.org/sites/default/files/Documents/publications/hr.puB.12.2_en.pdf (last visited 24 November 2022) (2012), at 5; see also D. Birchall, 'Any Act, Any Harm, To Anyone: The Transformative Potential of "Human Rights Impacts" Under the UN Guiding Principles on Business and Human Rights', 2(1) Oxford Human Rights Hub Journal 120 (2019).
- 17 L. Enneking and J. Veldman, 'Towards Responsible Business Conduct in Global Value Chains: Relevant Legal Developments in the Netherlands', 4 *Erasmus Law Review* 1 (2019).
- 18 N. Bernaz, Business and Human Rights: History, Law and Policy- Bridging the Accountability Gap (2016), at 210; C. Scott, F. Cafaggi & L. Senden, 'The Conceptual and Constitutional Challenge of Transnational Private Regulation', 38 Journal of Law and Society 1, at 6 (2011); A. Paul, 'Human Right to Water Obligations, Corporate Entities, and Accountability Mechanisms', in N. Singh (ed.), The Human Right to Water: From Concept to Reality (2016) 1667, at 173.
- 19 United Nations, 'United Nations Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy", Framework, www.ohchr.org/sites/default/files/documents/publications/ guidingprinciplesbusinesshr_en.pdf (last visited 4 May 2022). (2011).
- 20 Organisation for Economic Co-operation and Development (OECD), 'OECD Guidelines for Multinational Enterprises', www.oecd.org/corporate/mne/

Seeking to establish a consensus on human rights standards applicable to companies, UN Special Representative John Ruggie²¹ introduced, in 2008, the 'Protect, Respect and Remedy' policy framework.²² This consists of three pillars, wherein states and companies are assigned different roles regarding human rights: I) the state duty to protect the human rights of those within their jurisdiction;²³ II) the corporate responsibility to respect the human rights of third parties; and III) access to remedies for victims of companies' adverse impacts on human rights. The second pillar outlines what is required of companies for them to respect the human rights of third parties who may be detrimentally impacted by activities in which these companies are directly or indirectly involved.²⁴ It introduces the concept of human rights-related due diligence as '...a process whereby companies not only ensure compliance with national laws but also manage the risk of human rights harm with a view to avoiding it.²⁵

The 'Protect, Respect and Remedy' framework was operationalised into the 2011 UNGPs,²⁶ according to which the corporate responsibility to respect encompasses three core aspects: 1) the adoption of a policy commitment to respect human rights;²⁷ 2) the implementation of an ongoing human rights due diligence process;²⁸ and 3) the adoption of remediation processes.²⁹ According to the UNGPs, companies should carry out due diligence³⁰

oecdguidelinesformultinationalenterprises.htm (last visited 4 May 2022). (2011).

- 21 In 2005 Ruggie was appointed as the Special Representative on human rights and transnational corporations and other business enterprises. UN Commission on Human Rights, Res. E/CN.4/RES/2005/69, 20 April 2005; UN Press Release SG/A/934, https://press.un.org/en/2005/sga934.doc. htm (last visited 24 November 2022). (28 July 2005); Enneking and Veldman, above n. 17, at 2.
- 22 UN Human Rights Council, A/HRC/8/5 'Protect, Respect and Remedy: A Policy Framework for Business and Human Rights', https://documentsdds-ny.un.org/doc/UNDOC/GEN/G08/128/61/PDF/G0812861. pdf?OpenElement (last visited 24 November 2022) (7 April 2008).
- 23 This duty is applicable to both home and host states, UNGPs, above n. 19, at 1.
- 24 United Nations Human Rights Council Report A/HRC/14/27, 9 April 2010, at 12; A.F.S. Russell, 'Incorporating Social Rights in Development: Transnational Corporations and The Right to Water', 7 International Journal of Law in Context 1, at 7 (2011); N. Chowdhury, B Mustu, H. St. Dennis & M. Yao, 'The Human Right to Water and the Responsibilities of Businesses: An Analysis of Legal Issues', SOAS School of Law Research Paper No. 03/2011, at 17 (2011).
- 25 Protect, Respect and Remedy, above n. 22, at 9.
- 26 UNGPs, above n. 19; Enneking and Veldman, above n. 17, at 2; Bernaz, above n. 18, at 193. E. Morgera, *Corporate Environmental Accountability in International Law* (2020), at 43.
- 27 UNGPs, above n. 19, at Principle 15 and 16; C.M. O'Brien and S. Dhanarajan, 'The Corporate Responsibility to Respect Human Rights: A Status Review', Accounting, Auditing & Accountability Journal 542, at 545 (2016); Shift, 'UN Guiding Principles Reporting Framework with Implementation Guidance' (2015), at 17.
- 28 UNGPs, above n. 19, at Principle 17-21, UNGPs Reporting, 'Human Rights Due Diligence', www.ungpreporting.org/glossary/human-rights-duediligence/ (last visited 10 May 2022); O'Brien and Dhanarajan, above n. 27, at 545; Shift, above n. 27, at 17.
- 29 UNGPs, above n. 19, at Principles 15 and 22; Shift, above n. 27, 17; A.M. Esteves, G. Factor, F. Vanclay, et al., 'Adapting Social Impact Assessment to Address a Project's Human Rights Impacts and Risks', *Environmental Impact Assessment Review* 67, at 75 (2017).
- 30 UNGPs above n. 19, at Principles 15-21.

to 'identify, prevent, mitigate and account for'³¹ actual or potential adverse human rights impacts that they may be involved in through their own activities or through their business relationships.³² Doing so requires them to take four essential steps:³³ 1) assessing the actual and potential adverse impacts of their business activities on human rights;³⁴ 2) acting on the findings of this assessment, including by integrating appropriate measures to address impacts into company policies and practices;³⁵ 3) tracking how effective the measures the company has taken are in preventing or mitigating adverse human rights impacts;³⁶ and 4) communicating publicly about the due diligence process and results on how impacts are addressed.³⁷

Although the UNGPs are not legally binding, they have been widely accepted and have proven highly influential in the decade since their unanimous adoption by the UN Human Rights Council. Since its introduction by the UNGPs, the due diligence concept has also found its way into other international soft law instruments, like the 2011 revised version of the OECD Guidelines for Multinational Enterprises.³⁸ Since the OECD Guidelines cover a range of topics that is broader than human rights, including, for instance, the environment, this has expanded the material scope of due diligence.³⁹ The OECD Working Party on Responsible Business Conduct has subsequently issued a number of guidance documents on what is required of companies in implementing due diligence, including a general guidance⁴⁰ (featuring, among other things, a six-step graphic representation of the due diligence process and supporting measures; see

31 Ibid., at Principle 15.

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- 32 Protect, Respect and Remedy, above n. 22, at para 56; UNGPs above n. 19, at Principle 15 and 17; R. McCorquodale, L. Smit, Neely S., et al., 'Human Rights Due Diligence in Law and Practice: Good Practices and Challenges for Business Enterprises', 2 Business and Human Rights Journal 195, at 196-7 (2017); A. Lafarre and B. Rombouts, 'Towards Mandatory Human Rights Due Diligence: Assessing Its Impact on Fundamental Labour Standards in Global Value Chains', 13(4) European Journal of risk Regulation 1, at 7 (2022); European Commission, 'Study on Due Diligence Requirements Through the Supply Chain, Part I: Synthesis Report' (2020), at 22; L. Smit, G. Holly, R. McCorquodale & S. Neely, 'Human Rights Due Diligence In Global Supply Chains: Evidence of Corporate Practices to Inform a Legal Standard', 17(6) The International Journal of Human Rights 945, at 946 (2021).
- 33 UNGPs above n. 19, Principles 18-22; Castan Centre for Human Rights Law, 'Human Rights Translated 2.0: A Business Reference Guide' (2016), at 4; Smit et al., above n. 32, at 946.
- 34 UNGPs above n. 19, Principles 18-22; O'Brien and Dhanarajan, above n. 27, at 545; Castan Centre for Human Rights Law, above n.33, at 4; Shift, above n. 27, at 17; Esteves et al., above n. 29, at 75.
- 35 Ibid UNGPs.
- 36 Ibid.
- 37 Ibid.
- 38 OECD Guidelines, above n. 20, Chapter V, at para 1, 35; Lafarre and Rombouts, above n. 32, at 7; European Commission above n. 32, at 9.
- 39 OECD Guidelines, above n. 20, Commentary to Chapter II: General Policies, at para 14, 23-24; S. Maljean-Dubois, 'The Applicability of International Environmental Law To Private Enterprises', in P.M. Dupuy and J.E. Viñuales (eds.), Harnessing Foreign Investments to Promote Environmental Protection: Incentives and Safeguards (2013) 69, at 88; Enneking and Veldman, above n. 17, at 2.
- 40 OECD, 'OECD Due Diligence Guidance for Responsible Business Conduct', http://mneguidelines.oecd.org/OECD-Due-Diligence-Guidance-for-Responsible-Business-Conduct.pdf (last visited 4 May 2022). (2018).

figure 1) as well as several sector-specific and/or thematic guidances.

In 2018, the UN Working Group on the issue of human rights and transnational corporations and other business enterprises noted that '[s]ince the endorsement of the Guiding Principles by the Human Rights Council in 2011, corporate human rights due diligence has become a norm of expected conduct'.⁴¹ This statement is corroborated by the fact that in an increasing number of countries, especially in Europe, legislative initiatives have been introduced featuring human rights and environmental due diligence obligations for companies. Examples include the French Law on Duty of Vigilance,⁴² the Norwegian Law on Transparency,43 the German Lieferkettengesetz⁴⁴ and several instruments in varying stages of development in the Netherlands,⁴⁵ Austria⁴⁶ and Belgium.47 This development has provided the main impetus for the introduction at the EU level of the draft Corporate Sustainability Due Diligence Directive.48

- 41 UN Working Group on the issue of human rights and transnational corporations and other business enterprises, A/73/163 (16 July 2018), at para 20; European Commission above n. 32, at 22.
- 42 LOI nº 2017-399 du 27 mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuses d'ordre (1) www.legifrance. gouv.fr/jorf/id/JORFTEXT000034290626/ (last visited 6 May 2022). (2017).
- 43 Vedtak til lov om virksomheters åpenhet og arbeid med grunnleggende menneskerettigheter og anstendige arbeidsforhold (åpenhetsloven), Lovvedtak 176 (2020–2021), https://stortinget.no/no/Saker-og-publikasjoner/ Vedtak/Beslutninger/Lovvedtak/2020-2021/vedtak-202021-176/ (last visited 6 May 2022). (2021).
- 44 Deutscher Bundestag, Drucksache 19/28649, Entwurf eines Gesetzes über die unternehmerischen Sorgfaltspflichten in Lieferketten, https:// dserver.bundestag.de/btd/19/286/1928649.pdf (last visited 6 May 2022). (2021).
- 45 Tweede Kamer, vergaderjaar 2020-2021, 35 761, nr. 2, Voorstel van wet van de leden Voordewind, Alkaya, Van den Hul en Van den Nieuwenhuijzen houdende regels voor gepaste zorgvuldigheid in productieketens om schending van mensenrechten, arbeidsrechten en het milieu tegen te gaan bij het bedrijven van buitenlandse handel (Wet verantwoord en duurzaam internationaal ondernemen), www.tweedekamer. nl/kamerstukken/detail?id=2021D09817 (last visited 6 May 2022). (2021).
 46 Entschließungsantrag, 1454/A(E) XXVII. GP,
- betreffend ein Lieferkettengesetz für eine soziale, menschenrechtskonforme und nachhaltige Produktionsweise, www.parlament.gv.at/PAKT/ VHG/XXVII/A/A_01454/fnameorig_935996.html (last visited 6 May 2022) (2021).
- 47 Belgische Kamer van Volksvertegenwoordigers, DOC 55 1903/001, Wetvoorstel: houdende de instelling van een zorg- enverantwoordingsplicht voor de ondernemingen, over hun hele waardeketen heen, www.dekamer. be/FLWB/PDF/55/1903/55K1903001.pdf (last visited 6 May 2022). (2021).
 40 Development of Diraction also and the second se
- 48 Draft Directive, above n.15, at 10-13.



2.2 The International Human Right to Water

Although the idea that everyone has a right to water is not new - and water's indispensability for human survival has been recognised throughout history -49 the human right to water is contentious in the field of international human rights.⁵⁰ The primary reason for this is that it has not been explicitly recognised in the three most authoritative instruments outlining fundamental international human rights: the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights.⁵¹ Nonetheless, the international human right to water has been recognised in two ways. First, it has been explicitly recognised as an individual human right in a few binding international human rights instruments. Second, it has been implicitly recognised in a wide array of international documents, notably in several non-binding Resolutions and Declarations⁵² as a derivative right.⁵³

The explicit recognition of the human right to water is made in a number of international instruments that require states to ensure that freshwater is available to specific groups of people who require special protection. The right to a basic water supply was explicitly recognised in instruments like the Convention on the Elimi-

49 O. Spijkers, D. Misiedjan, C. Foot & M. van Rijswick, 'Editorial for Localising the Sustainable Human Right to Water', 16(2) Utrecht Law Review 1, at 1 (2020).

- 50 Chirwa, above n. 2, at 55; Paul, above n. 18, at 177; T.S. Bulto, 'The Emergence of the Human Right to Water in International Human Rights Law: Invention or Discovery?', 12(2) *Melbourne Journal of International Law* 290 (2011) at 2.
- 51 Universal Declaration of Human Rights, 10 December 1948; The International Covenant on Civil and Political Rights, 16 December 1966; and the International Covenant on Economic, Social and Cultural Rights, 16 December 1966.
- 52 T. Lambooy, 'Corporate Social Responsibility: Sustainable Water Use', 19 Journal of Cleaner Production 852, at 853 (2011); A. Cahill, 'The Human right to Water- A Right of Unique Status': The Legal Status and Normative Content of the Right to Water', 9(3) The International Journal of Human Rights 390-1 (2005).
- 53 A derivative right is a right deriving from other related or 'dependent' rights, Cahill, above n. 53, at 391.

nation of All Forms of Discrimination Against Women,⁵⁴ the Convention on the Rights of the Child⁵⁵ and the Convention on the Rights of Persons with Disabilities.⁵⁶ The right has been implicitly recognised by the UN Committee on Economic, Social and Cultural Rights, which derived the human right to water from the International Covenant on Economic, Social and Cultural Rights (ICESCR) in General Comment 15, guided by the belief that water is essential to ensure human dignity, life and health.⁵⁷ The human right to water was derived primarily from Article 11 on the right to an adequate standard of living⁵⁸ and from Article 12 on the right to the highest attainable standard of health.⁵⁹

General Comment 15 defined the right as 'entitling everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses'.⁶⁰ This definition also elaborates why the human right to water is necessary, detailing that 'an adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related diseases, and to provide for consumption, cooking, personal and domestic hygienic requirements'.⁶¹

General Comment 15 is considered the most authoritative interpretation of the right, establishing its norma-

- 54 Convention on the Elimination of All Forms of Discrimination against Women (18 December 1978) at Art. 14(2)(h), Art. 12(2)(h).
- 55 Convention on the Rights of the Child (20 November 1989), at Art 24(2) (c).
- 56 Convention on the Rights of Persons with Disabilities (13 December 2006), at Art 28(2)(a).
- 57 Paul, above n. 18, at 177-8; United Nations Committee on Economic, Social and Cultural Rights, General Comment 15: The Right to Water (Arts 11 and 12 of the Covenant) (20 January 2003); R.S. Shukla and N. Singh, 'Human Right to Water in a Bottled Water Regime', in N. Singh (ed.), The Human Right to Water: From Concept to Reality (2016) 124, at 126; P. Thielborger, 'Something Old, Something New, Something Borrowed and Something Blue: Lessons to Be Learned from the Oldest of the 'New' Rights- the Human Right to Water', in A. von Arnauld, K von der Decken & M. Susi (eds.), The Cambridge Handbook of New Human Rights: Recognition, Novelty, Rhetoric (2020) 70, at 73.
- 58 General Comment 15, above n. 58, at para 3.

- 60 *Ibid.*, at para 2; Lambooy, above n. 53, at 853.
- 61 General Comment 15, above n. 58, at para 2.

⁵⁹ Ibid.

tive content⁶² that entails three components: freshwater availability (quantity), quality and accessibility. It is important to note that the three components of the normative content of the human right to water are indivisible and, thus, in order to realise the human right to water, respect should be given to all the constituent elements thereof. Unless all these elements are respected, the human right to water is not fully fledged.⁶³

Availability (quantity) means that each individual's freshwater supply must be sufficient and continuous for personal and domestic uses.⁶⁴ The UN has not determined the precise amount that entails a sufficient quantity; however, it follows World Health Organisation Guidelines in this regard,⁶⁵ which set twenty litres per person daily as the minimum quantity.⁶⁶ This minimum standard is set exceptionally low, especially considering that, globally, approximately eighty-four percent of freshwater resources are withdrawn by agriculture and industry,⁶⁷ and the water footprint of some products, which are offered a far greater amount of freshwater per unit. For example, one cup of coffee requires 130 litres of freshwater, and one kilogram of beef 15, 400 litres.68 Quality entails that water should be clean and free from harmful substances like micro-organisms, chemicals and radiological substances. It should also be of an 'acceptable colour, odour and taste for each personal or domestic use'.⁶⁹ This definition is broad and encompasses all possible types of freshwater pollution and does not limit this to specified chemicals. Accessibility has four overlapping dimensions: physical, economic and information accessibility, as well as non-discrimination.⁷⁰ Physical accessibility requires water facilities and services to be within the safe physical reach of all sections of the population and should be accessible within, or in the immediate vicinity of, each household, educational institution and workplace.71 Economic accessibility requires that water be affordable for all persons and that the cost of water does not compromise the realisation of

quires that water be affordable for all persons and that the cost of water does not compromise the realisation of other Covenant rights.⁷² Information accessibility 'includes the right to seek, receive and impart information concerning water issues'.⁷³ Non-discrimination⁷⁴ entails accessibility to all water facilities and services, without discrimination on any prohibited grounds.⁷⁵

- 63 J. Cernic, 'Corporate Obligations Under the Human Right to Water', 39 Denver Journal of International Law and Policy, 303, at 315 (2011).
- 64 General Comment 15, above n. 58.
- 65 Ibid., at para 12(a).
- 66 World Health Organisation, Guidelines for Drinking Water Quality (2017), at 84.
- 67 United Nations-Water, above n. 4 notes that approximately 72% of all global freshwater withdrawals are used by agriculture, while 12%-19% are used by industry.
- 68 Water Footprint Network, above n. 9.
- 69 General Comment 15, above n. 58, at para 12(b).
- 70 Ibid., at para 12(c); Chowdhury et al., above n. 24, at 6.
- 71 Ibid General Comment 15.
- 72 Ibid.
- 73 Ibid.
- 74 Ibid.
- 75 D. Chirwa and N. Amodu, 'Economic, Social and Cultural Rights, Sustainable Development Goals, and duties of Corporations: Rejecting the False

After its establishment in General Comment 15, the international human right to water has been affirmed or reinforced in multiple instruments since.⁷⁶⁷⁷ These include UN General Assembly Resolution 64/292 (2010), which reinforced the human right to water as a self-standing justiciable human right,⁷⁸ and UN Human Rights Council Resolution 15/9 (2010), which recognised the right to water as instrumental to the realisation of other human rights and affirmed that it is derived from the rights to an adequate standard of living, health, life and human dignity.⁷⁹ As Chirwa highlights, these developments demonstrate that the right to water is 'going through a process of achieving formal affirmation' and that there 'is a strong trend towards its full legal recognition'.⁸⁰

3 Due Diligence and Freshwater Issues

Given that human rights and environmental due diligence has become a norm of expected conduct for companies, the question arises as to whether this also means that companies are expected to include or even prioritise freshwater issues when conducting due diligence. Before going into an analysis of the draft Directive, this section will look at (and, where relevant, beyond) the foundational instruments that have established companies' due diligence expectations, the UNGPs and the OECD Guidelines to explore whether and to what extent freshwater protection is encompassed within their material scope. In addition, it will also look at studies that indicate whether companies do in fact conduct due diligence and, if so, what the material scope is of the activities they carry out in this respect.

3.1 The UNGPs and Freshwater Issues

According to Principle 12 of the UNGPs, due diligence should encompass, at a minimum, all internationally recognised human rights.⁸¹ According to Principle 12

Dichotomies', 6 Business and Human Rights Journal 21, at 37 (2021); General Comment 15, above n. 58, at para 12(c)(iii).

- 76 These include UN Economic and Social Council, 'Realisation of the right to drinking water and sanitation, Report of the Special Rapporteur, El Hadji Guissé', E/CN.4/Sub.2/2005/25, 11 July 2005; UNHRC, 'Annual Report of the United Nations High Commissioner for Human Rights on the scope and content of the relevant human rights obligations related to equitable access to safe drinking water and sanitation under international human rights instruments', A/HRC/6/3, 16 August 2007; UNHRC, Resolution 27/7 The human right to safe drinking water and sanitation, A/HRC/RES/27/7, 2 October 2014; UNGA, Resolution 70/169 The human rights to safe drinking water and sanitation, A/RES/70/169, 22 February 2016; UNGA, Resolution 74/141. The human rights to safe drinking water and sanitation, A/RES/74/141, 29 January 2020.
- 77 M. Arden, 'Water for All? Developing A Human Right to Water in National and International Law', 65(4) The International and Comparative Law Quarterly 771, at 785 (2016).
- 78 UN General Assembly, A/RES/64/292, 3 August 2010.
- 79 UN Human Rights Council, A/HRC/RES/15/9, 6 October 2010.
- 80 Chirwa and Amodu, above n. 76
- 81 UNGPs, above n. 19, at Principle 12; M.B. Taylor, 'Human Rights Due Diligence in Theory And Practice', in S. Deva and D. Birchall (eds.), *Research*

⁶² Cahill, above n. 53, at 392.

and its commentary, these include those human rights expressed in the International Bill of Rights, which is composed of the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the ICESCR, as well as the principles concerning fundamental rights set out in the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work.⁸² Organisations like the UN Global Compact⁸³ and the Danish Institute for Human Rights⁸⁴ have pointed out in this respect that understanding the meaning of rights in relation to the material scope of the UNGPs requires more than a textual reading of instruments and that their substantive content is elaborated in a multitude of places. These include declarations and general comments on human rights made by UN bodies, reports by UN special procedures on specific themes, as well as regional and national instruments and jurisprudence.⁸⁵ General Comment 15 as well as the UN General Assembly and Human Rights Council resolutions recognising the human right to water in Articles 11 and 12 of the ICESCR are instruments that elaborate the substantive content of human rights contained within the material scope of the UNGPs.

In addition to those instruments explicitly included, Principle 12 also states that '[d]epending on the circumstances, business enterprises may need to consider additional standards' like the rights of 'individuals belonging to specific groups or populations that require particular attention'.⁸⁶ The 2012 Interpretive Guide for the Responsibility to Respect by the Office of the UN High Commissioner for Human Rights (hereinafter, OHCHR) provides examples of additional standards that should be considered under different circumstances, emphasising those protecting specific groups of people like children, women, indigenous people, people belonging to ethnic or other minorities or persons with disabilities.87 Many of the instruments that have been considered 'additional standards' that companies may need to consider explicitly include the human right to water. Examples include the right to a basic water supply in the Convention on the Elimination of All Forms of Discrimination Against Women,⁸⁸ the right to water as part of the right to health in the Convention on the Rights of the Child,⁸⁹ and the right of equal access by persons with disabilities to clean water services in the Convention on the Rights of Persons with Disabilities.⁹⁰

Handbook on Human rights and Business (2020) 88, at 89.

- 82 UNGPs, above n. 19, at Principle 12 and Commentary to Principles 12, at 14.
- 83 A voluntary initiative based on CEO commitments to implement universal sustainability principles and to take steps to support UN goals; see: www.unglobalcompact.org/about.
- 84 A leading and independent institution that works on promoting and protecting human rights; see: www.humanrights.dk/about-us.
- 85 UN Global Compact, 'A Structured Process to Prioritize Supply Chain Human Rights Risks' (2015), at 11; Danish Institute for Human Rights, 'Human Rights Impact Assessment Guidance and Toolbox' (2020), at 40.
- 86 UNGPs, above n. 19, Commentary to Principle 12, at 13
- 87 OHCHR Interpretive Guide, above n. 16, at 11.
- 88 CEDAW, above n. 55, at Art. 14(2)(h), Art. 12(2)(h).
- 89 CRC, above n. 56, at Art. 24(2)(c).
- 90 CRPD, above n. 57, at Art. 28(2)(a).

Additionally, to illustrate how human rights are relevant to companies and how human rights issues can be managed, the OHCHR Interpretive Guide refers to the 2008 'Human Rights Translated: A Business Reference Guide' by the Castan Centre for Human Rights Law, the International Business Leaders Forum and the OHCHR.⁹¹ In this guide, it is observed that Article 11 ICESCR on the right to an adequate standard living has been interpreted to include the right to water,⁹² and an interpretation of its normative content is provided on the basis of, inter alia, General Comment 15.93 On this basis, the guide provides a number of recommendations as to how companies can include the human right to water within their due diligence processes, including: i) that companies should ensure that their human rights impact assessments identify any impacts on the right to water; ii) that they take steps to establish systems to monitor the impact of company activities on the water table and avoid overuse; and iii) that they establish systems to ensure that their activities do not pollute or otherwise damage water supplies and sources, for example by planning for the safe removal of toxic chemicals that could prove environmentally damaging.94

With respect to the material scope of the UNGPs, it can be concluded that this encompasses all internationally recognised human rights, which in turn include the human right to water. Furthermore, it should be noted that whereas most authors view the material scope of the UNGPs as limited to internationally recognised human rights and/or not directly involving environmental issues,9596 not everyone agrees that this is the case. Macchi, for instance, has highlighted that although the UN-GPs do not expressly include environmental issues, this does not bar a holistic interpretation of the open-ended due diligence standard, which contains an inherent degree of flexibility.⁹⁷ In line with this, Macchi notes that because environmental and human rights issues are fundamentally interrelated, it is appropriate to advocate for a holistic due diligence process with standards of

- 91 OHCHR Interpretive Guide, above n. 16, at 11; Castan Centre for Human Rights Law, 'Human Rights Translated: A Business Reference Guide' (2008), at vii; Castan Centre for Human Rights Law, above n. 33, at ix.
- 92 Castan Centre for Human Rights Law, 2008, above n. 92, at 113; Castan Centre for Human Rights Law, above n. 33, at 100.
- 93 Castan Centre for Human Rights Law, 2008, above n. 92, at 118; the 2008 version also references the Report of the United Nations High Commissioner for Human Rights on the scope and content of relevant human rights obligations related to equitable access to safe drinking water and sanitation under international human rights instruments, A/HRC/6/3, and the UN HRC 'Human rights and access to safe drinking water and sanitation', Resolution 7/22, 28 March 2008; Castan Centre for Human Rights Law, above n. 33, at xi and 101.
- 94 Castan Centre for Human Rights Law, 2008, above n. 92, at 124.
- 95 For example: Taylor, above n. 82, at 89-91; Birchall, above n. 16, at 136-7; and O'Brien and Dhanarajan, above n. 27, at 545.
- 96 C. O'Brien, 'Sustainable Corporate Governance: Submission to Consultation on European Commission's Proposal for a Directive on Corporate sustainability Due Diligence', COM(2022)71 final, at 3.
- 97 C. Macchi, 'The Climate Change Dimensions of Business and Human Rights: The Gradual Consolidation of a Concept of "Climate Due Diligence", 6 Business and Human Rights Journal 93, at 108-9 (2019).

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conduct that are interpreted considering environmental law as well. $^{\scriptscriptstyle 98}$

At the same time, however, the UNGPs leave it up to companies to determine which human rights risks should be prioritised for further action, based on the identification of the risks that are related to their operations (or those of their subsidiaries or supply chain partners) and an assessment of their severity and irremediability.⁹⁹ Furthermore, the scale and complexity of the means through which they address such risks may vary according to not only the severity of the risks but also the specific features of the company, including its size, sector, operational context, ownership and structure.¹⁰⁰ This means that the question of whether and to what extent a company is required to take action, as part of its due diligence process, on freshwater issues related to its operations (or those of their subsidiaries or supply chain partners), can only be determined on a case-bycase and a company-by-company basis.¹⁰¹

3.2 The OECD Guidelines and Freshwater Issues

Apart from the fact that their personal scope is limited to multinational enterprises, the OECD Guidelines have been formulated from an open and broad perspective to facilitate their application in numerous contexts. Their material scope is broader than the UNGPs as they cover not only human rights but also a number of other broad categories: disclosure; employment and industrial relations; environment; bribery, bribe solicitation and extortion; consumer interests; science and technology; competition; and taxation.¹⁰² However, neither the 2011 Guidelines¹⁰³ nor the 2018 Due Diligence Guidance¹⁰⁴ are explicit about specific subjects or issues that fall outside of their scope. The recommendation that companies should carry out due diligence is laid down in the General Policies chapter of the Guidelines.¹⁰⁵ According to the commentary, this recommendation applies to all matters in the Guidelines that are related to adverse impacts but does not extend to the chapters on Science and Technology, Competition and Taxation.¹⁰⁶ Other than this, the material scope of due diligence in the OECD Guidelines is not clearly delineated or restricted, mean-

98 See Ibid.

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- 99 UNGPs, above n. 19, at Principle 24.
- 100 Ibid., at Principle 14.
- 101 S. Deva, 'Global Compact: A Critique of the UN's "Public-Private" Partnership for Promoting Corporate Citizenship', 34 Syracuse Journal of International Law and Commerce 107, at 111 (2006), at 11.
- 102 European Commission, above n. 32, at 24; Taylor, above n. 82, at 90; A. Newton, The Business of Human Rights: Best Practice and the UN Guiding Principles (2019), at 111; S. Maljean-Dubois, 'The Applicability Of International Environmental Law To Private Enterprises', in P.M. Dupuy and J.E. Viñuales (eds.), Harnessing Foreign Investments to Promote Environmental Protection: Incentives and Safegaurds (2013) 69, at 88; Enneking and Veldman, above n. 17, at 2.
- 103 OECD Guidelines, above n. 20.
- 104 OECD Due Diligence Guidance, above n. 41.
- 105 OECD Guidelines, above n. 20, at para, A.10 et sea.
- 106 Ibid., at Commentary on General Policies, para.14.

ing that it is not immediately evident whether or not freshwater issues fall within their material scope.¹⁰⁷ Chapter IV of the OECD Guidelines on Human Rights is consistent with the UNGPs in that it expresses that companies should respect internationally recognised human rights.¹⁰⁸ The content and language of this Chapter replicates that of the UNGPs, also indicating that internationally recognised human rights encompass those in the International Bill of Rights, as well as additional standards like those protecting rights of individuals belonging to specific groups like women, children and persons with disabilities.¹⁰⁹ As previously established in the context of the UNGPs, the human right to water is an internationally recognised right within the scope of the instruments and standards referenced and is thus a human right that should be considered in the due diligence process that multinational enterprises are required to conduct under the OECD Guidelines.

Chapter VI of the OECD Guidelines on Environment takes a broad approach to material scope. It expresses that companies should, 'within the framework of laws, regulations and administrative practices in the countries in which they operate, and in consideration of relevant international agreements, principles, objectives and standards, take due account of the need to protect the environment ... and generally to conduct their activities in a manner contributing to the wider goal of sustainable development'.¹¹⁰ The Chapter refers to general standards of environmental protection and lists tools, with a view to broadly reflecting the principles and objectives contained in several international environmental instruments. These include the Rio Declaration, Agenda 21 and the Aarhus Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters.¹¹¹ It also provides a list of tools to achieve corporate environmental responsibility, including environmental management systems, life-cycle assessments, communication and stakeholder involvement and environmental impact assessments.¹¹² Whereas the reference in the OECD Guidelines to these standards, principles and objectives makes clear that companies are expected to protect the environment and act sustainably, the environmental protection of freshwater resources is not explicitly included within the Chapter.

This means that although owing to their broad set-up, freshwater issues can be said to fall within the material scope of the OECD Guidelines, the exact nature of their

- 107 OECD Due Diligence Guidance for Responsible Business Conduct, www. oecd.org/investment/due-diligence-guidance-for-responsible-businessconduct.htm (last visited 10 November 2022).
- 108 OECD Guidelines, above n. 20, Chapter IV Human Rights, at. 31
- 109 *Ibid.*, at para 39 and 40, at 31.
- 110 Ibid., Chapter VI. Environment, at 42.
- 111 Ibid., para. 60; United Nations Conference on Environment and Development, Rio de Janeiro, Brazil 3-14 June 1992, Rio Declaration and Agenda 21, www.un.org/en/conferences/environment/rio1992 (last visited 16 November 2022) (1992); Convention on Access to Information, Public Participation in Decision- Making and Access to Justice in Environmental Matters (25 June 1998); Morgera, above n. 26.
- 112 Ibid, Chapter VI. Environment, at paras 1-8.

inclusion therein requires analysis on a case-by-case basis. Examples of such cases (or 'specific instances') can be located within the database of the OECD National Contact Points (NCPs), which governments adhering to the OECD Guidelines are expected to set up in order to further the effectiveness of the Guidelines by, among other things, '...contributing to the resolution of issues that may arise from the alleged non-observance of the Guidelines in specific instances'.¹¹³ Despite the number of specific instances NCPs have taken on in recent decades, there are only a handful that include freshwater issues from either a human rights or an environmental perspective.¹¹⁴ An example of a specific instance that did involve freshwater issues is that of The Odoh Family & Shell Petroleum Development Company of Nigeria Ltd. (SPDC).¹¹⁵ In this case, the Dutch NCP demonstrated that freshwater issues, more specifically oil spillages rendering freshwater unfit for livelihood purposes as well as the construction of a pipeline that distorted the natural flow and purposes of the lake,116 are encompassed within the material scope of the OECD Guidelines from the perspective of both human rights and environment.117

Going beyond the case-by-case approach to due diligence under the OECD Guidelines, the OECD Working Party on Responsible Business Conduct has introduced sectoral guidance instruments providing detailed guidance on how companies operating in a number of specific sectors should conduct due diligence.¹¹⁸ Most of these

- 113 See: https://mneguidelines.oecd.org/Flyer-OECD-National-Contact-Points. pdf.
- 114 Cases located from the OECD NCP cases online database at: https:// mneguidelines.oecd.org/database/searchresults/?hf=10&b=0&q=water
- 115 OECD, The Odoh Family & Shell Petroleum Development Company of Nigeria Ltd. (SPDC), http://mneguidelines.oecd.org/database/instances/nl0047. htm (last visited 20 November 2022). (2021).
- 116 Dutch NCP, 'Initial Assessment Odoh Family vs The Shell Petroleum Development Company of Nigeria Ltd.', www.oecdguidelines.nl/documents/ publication/2022/02/10/ia-odoh-vs-spdc (last visited 15 November 2022), (10 February 2022), at 2, 3.
- 117 Dutch NCP, 'Initial Assessment Odoh Family vs The Shell Petroleum Development Company of Nigeria Ltd.', www.oecdguidelines.nl/documents/ publication/2022/02/10/ia-odoh-vs-spdc (last visited 15 November 2022), (10 February 2022), at 6.
- 118 See, for example: OECD, OECD Due Diligence Guidance for Responsible Business Conduct, mneguidelines.oecd.org/OECD-Due-Diligence-Guidancefor-Responsible-Business-Conduct.pdf (last visited 6 May 2022) (2018); OECD, OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector www.oecd-ilibrary.org/governance/ oecd-due-diligence-guidance-for-meaningful-stakeholder-engagementin-the-extractive-sector_9789264252462-en (last visited 6 May 2022) (2017); OECD-FAO, OECD-FAO Guidance for Responsible Agricultural Supply Chains, www.oecd-ilibrary.org/agriculture-and-food/oecd-faoguidance-for-responsible-agricultural-supply-chains_9789264251052en (last visited 6 May 2022) (2016); OECD, OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector, www.oecd-ilibrary.org/governance/oecd-due-diligence-guidance-forresponsible-supply-chains-in-the-garment-and-footwearsector_9789264290587-en (last visited 6 May 2022) (2018); and OECD, OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, www.oecd.org/daf/inv/ mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf (last visited 6 May 2022) (2016).

sectoral guidance instruments explicitly incorporate freshwater issues, albeit to different extents.¹¹⁹

The Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector, for instance, recommends that companies should understand how their operations impact both freshwater in the environment and the human right to water of surrounding communities.¹²⁰ The Guidance for Responsible Agricultural Supply Chains recommends that companies engage in the sustainable use of freshwater by reducing pollution and increasing freshwater efficiency. It also recommends that companies conduct enhanced due diligence when operating in water basins that experience freshwater scarcity.¹²¹ The Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector contains an entire module on freshwater that highlights specific risks the sector poses to freshwater and also provides tools to address these.¹²² Finally, the Due Diligence for Responsible Corporate Lending and Securities Underwriting demonstrates how decision-making in the financial sector can impact freshwater resources on the ground by setting out, for example, how an investor's decision not to install costly equipment to treat run-off at a steel factory can pollute the drinking water of local communities.¹²³

3.3 Due Diligence and Freshwater Issues in Practice

Despite the broad recognition of the UNGPs and the OECD Guidelines and the emphasis they place on due diligence, scholars like O'Brien and Ortega¹²⁴ have noted that there is a dearth of studies on the impact and effectiveness of due diligence processes in practice.¹²⁵ The few studies that exist have demonstrated a minimal uptake of due diligence by companies.

In 2016 O'Brien and Dhanarajan noted that after five years of the UNGPs promulgation, less than 350 of approximately 80,000 companies had a human rights policy, which constitutes (only) the first step of the due diligence process.¹²⁶ A 2017 empirical study by Mc-

- 119 Except the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, www.oecd.org/ daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf (last visited 10 November 2022) (2016).
- 120 Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector, above n. 119, at 37 and 46.
- 121 OECD Guidance for the Agricultural Sector, above, n. 119, at 28-9, 35.
- 122 OECD Guidance for the Textile Sector Section II, Module 9. Water, above n. 119, at 166-70.
- 123 OECD, Due Diligence for Responsible Corporate Lending and Securities Underwriting: Key Considerations for Banks Implementing the OECD Guidelines for Multinational Enterprises, https://mneguidelines.oecd.org/ due-diligence-for-responsible-corporate-lending-and-securities-underwriting. pdf (last visited 13 May 2022) (2019), at 43-4.
- 124 C. O'Brien and O. Martin-Ortega, 'In Depth Analysis: Commission Proposal on Corporate Sustainability Due Diligence: Analysis from a Human Rights Perspective', *European Parliament: Directorate-General for External Policies Policy Department* (2022), at 3.
- 125 Ibid., at 2.
- 126 O'Brien and Dhanarajan, above n. 27, at 544, referencing Business and Human Rights Resource Centre (2016a), 'Company Policy Statements on Human Rights', http://business-humanrights.org/en/company-policystatements-on-human-rights (last visited 18 October 2014).

Corquodale et al. surveying 150 companies found that almost half¹²⁷ of the respondents had never conducted a dedicated due diligence process.¹²⁸ In 2019 a Corporate Human Rights Benchmark assessment identified due diligence as a key weak performance area in 200 of the largest publicly traded companies globally, with almost half scoring zero points on the applicable indicators.¹²⁹ In 2020 the European Commission published a study on due diligence requirements through the supply chain that showed only 37.14% of European Union company respondents were conducting due diligence processes and that only 16% cover their entire supply chain, often relying on voluntary international standards.¹³⁰

In addition to the few studies that do provide empirical evidence indicating the extent to which there is uptake of due diligence in practice, there are some studies that detail how companies conduct their due diligence and what they consider the relevant material scope of this process to be.¹³¹ These studies indicate that in practice, companies narrow the material scope of due diligence to focus only on specific, well-determined human rights and environmental impact, and do not conduct due diligence with a material scope as broad as that recommended by the UNGPs and OECD Guidelines.

A study by the UN Global Compact found that companies limit the material scope of their due diligence prematurely and that few have operationalised their due diligence to encompass all impacts.¹³² Salcito and Wielga have noted that it is increasingly common for companies to identify a few impacts as pertinent and to devel-

ga have noted that it is increasingly common for companies to identify a few impacts as pertinent and to develop due diligence around these.¹³³ A study on due diligence through the supply chain commissioned by the European Commission has confirmed this, finding that only one third¹³⁴ of respondent companies undertook due diligence that considered all human rights and environmental impacts and that another third¹³⁵ limited their due diligence to specific areas, including health and safety, labour, non-discrimination and equality, environment, land rights and indigenous communities.¹³⁶ Studies have found that companies narrow the material scope of their due diligence in several ways. The UN Working Group on Business and Human Rights has not-

- 127 49.12%.
- 128 McCorquodale et al., above n. 32, at 206.
- 129 Macchi, above n. 98, at 110, referencing CHRB;2019 Key Findings-Agricultural Products, Apparel, Extractives & ICT Manufacturing'(2019), 6, www.corporatebenchmark.org/sites/default/files/2019-11/ CHRB2019KeyFindingsReport.pdf (last visited 27 October 2020).
- 130 European Commission, above n. 32; European Coalition for Corporate Justice, Evidence for mandatory human rights and environmental due diligence', http://corporatejustice.org/wp-content/uploads/2021/03/evidencefor-mhredd-january-2021-.pdf (last visited 2 May 2022) (2021); European Parliament, 'Corporate sustainability due diligence: Could value chains integrate human rights and environmental concerns?', (2022) at 2.
- 131 McCorquodale et al., above n. 32, at 196.
- 132 UN Global Compact, above n. 86, at 10.
- 133 K. Salcito and M. Wielga, 'Corporate Human Rights risk Assessment: Aligning what is Measured and Managed', 36(4) Nordic Journal of Human Rights 411, at 418 (2018).
- 134 37.14%.
- 135 37.71%.
- 136 European Commission, above n.32, at 14.

ed that rather than focusing on their significant impacts, companies focus on either those that are relatively easy to address or those that garner societal focus like modern slavery or diversity.¹³⁷ Shift has highlighted that when companies are confronted with a broad scope of impacts, not all of which they are able to address immediately, they often tend to focus on those impacts where they have the greatest leverage or control rather than on those that are most severe.¹³⁸ Additionally, companies tend to focus on impacts that are relevant to their own operations, sector or business relationships.¹³⁹ KPMG found that companies that sell products are particularly concerned with labour rights, while companies that market to consumers were primarily focused on privacy rights, whereas those in extractives and industrial manufacturing emphasise impacts like worker safety and environmental harm.¹⁴⁰

The material scope of current due diligence practices reveals that focus has mainly been placed on a limited number of specific impacts. These include labour,¹⁴¹ non-discrimination,¹⁴² Indigenous communities and land rights143 and environmental damage.144 Esteves et al. observed that as a result of this approach, community impacts like water insecurity or the loss of food production are not adequately covered.145 A study by Mc-Corquodale et al. revealed that those companies that initially narrowed but thereafter broadened the material scope of their due diligence realised that several impacts had not been covered by their preliminary approach.¹⁴⁶ This finding is supported by Smit, who notes that evidence indicates that companies that assume that their impacts are limited to those prevalent in their sector miss their other adverse impacts.¹⁴⁷

- 137 UN Working Group on Business and Human Rights, UN Doc. A/76/163, July 2018, https://documents-dds-ny.un.org/doc/UNDOC/GEN/N18/224/87/ PDF/N1822487.pdf?OpenElement, at para 25 (b).
- 138 Shift, 'Business and Human Rights Impacts: Identifying and Prioritizing Human Rights Risks', Workshop Report 15 & 16 January 2014, Social and Economic Council, The Hague, The Netherlands, at 6.
- 139 Institute for Human Rights and Business and Global Business Initiative on Human Rights, 'State of Play: The Corporate Responsibility to Respect Human Rights in Business Relationships' (2012), at 46; UN Global Compact, above n. 58, at 10.
- 140 KPMG International, 'Addressing Human Rights in Business: Executive Perspectives' (2016), at 10.
- 141 McCorquodale et al., above n. 32, at 206; UN Doc. A/76/163, July 2018, para 25 (b); Salcito and Wielga, above n. 134, at 418; European Commission, above n. 32, at 14; Smit et al., above n. 32, at. 951; UN Global Compact, above n. 86, at10.
- 142 McCorquodale et al., above n. 32, at 206; UN Working Group on the issue of human rights and transnational corporations and other business enterprises, UN Doc. A/76/163, 16 July 2018, https://documents-dds-ny.un.org/ doc/UNDOC/GEN/N18/224/87/PDF/N1822487.pdf?OpenElement, at para 25 (b); European Commission, above n. 32, at 14.
- 143 McCorquodale et al., above n. 32, at 206; European Commission, above n. 32, at 14.
- 144 European Commission, above n. 32, at 14.
- 145 Esteves et al., above n. 29, at 7 concurring with D. Kemp, S. Worden & J.R. Owen, 'Differentiated Social Risk: Rebound Dynamics and Sustainability Performance in Mining', 50 *Resources Policy* 19-26 (2016).
- 146 McCorquodale et al., above n. 32, at 206.
- 147 Smit et al., above n. 32, at 952 referencing McCorquodale et al., above n. 32, at 195.

It is clear from the foregoing that even though a wide material scope is recommended by the UNGPs and the OECD Guidelines, in practice companies are in many cases not conducting due diligence at all or, if they do, are focusing on specific impacts. What is also clear is that freshwater issues, although they fall within the material scope of the UNGPs and the OECD Guidelines, are not among the issues that are most commonly covered by companies' due diligence procedures in practice.

4 The Draft Corporate Sustainability Due Diligence Directive and Freshwater Issues

On 23 February 2022, the European Commission released its highly anticipated draft Directive introducing a European Union-wide due diligence obligation. It aims to ensure that certain large EU companies (including certain non-EU companies operating in the internal market) contribute to sustainable development by imposing a due diligence obligation with a view to minimising and ending their adverse environmental and human rights impacts. It is approximately aligned with the due diligence instruments that preceded it¹⁴⁸ but is also fundamentally different as it transforms the responsibility to respect and the due diligence process into hard law obligations.

The draft Directive introduces several obligations for companies, the primary ones being that companies should 'conduct human rights and environmental due diligence'.¹⁴⁹ This obligation comprises six steps: (1) 'integrating due diligence into their policies';¹⁵⁰ (2) 'identifying actual and potential adverse impacts';¹⁵¹ (3) 'preventing and mitigating potential adverse impacts;¹⁵² (4) 'establishing and maintaining a complaints procedure';¹⁵³ (5) 'monitoring the effectiveness of their due diligence policies and measures';¹⁵⁴ and (6) 'publicly communicating on their due diligence'.¹⁵⁵

This due diligence obligation is relevant to only a limited number of companies as the draft Directive has a narrow scope of application.¹⁵⁶ It only pertains to very large EU-based companies and large EU-based companies that operate in high-risk sectors like textiles,¹⁵⁷ agricul-

- $148 \hspace{0.1in} \text{UNGPs, above n. 19; OECD Guidelines, above n. 20.}$
- 149 Draft Directive, above n. 15, Art. 4(1)
- 150 Ibid., Art. 4 (1) (a), Art. 5.
- 151 *Ibid.*, Art. 4(1)(b), Art. 6.152 *Ibid.*, Art. 4(1)(c), Art. 7 and 8.
- 153 *Ibid.*, Art. 4(1)(d), Art. 9.
- 154 *Ibid.*, Art. 4(1)(e), Art. 10.
- 155 *Ibid.*, Art. 4(1)(f), Art. 11.
- 156 Ibid. Art. 2.
- 157 Ibid., Art. 2(1)((b)(i).

ture¹⁵⁸ and extractive industries.¹⁵⁹ It also pertains to non-EU companies from third countries that operate and generate a high turnover in the EU market.¹⁶⁰ It thereby excludes small- and medium-sized enterprises, and hence approximately ninety-nine percent of all EU companies are exempt from the obligations imposed by the draft Directive.¹⁶¹

4.1 Material Scope

The material scope of the due diligence obligation is defined by a selective set of human rights norms and environmental standards that originate from a limited number of international instruments. These norms are listed in the two-Part Annex to the draft Directive,¹⁶² Part I on human rights, and Part II on environmental standards. In the Explanatory Memorandum to the Commission proposal, it is clarified that the material scope covers those human rights and environmental standards 'that can be clearly defined in selected international conventions'.¹⁶³

Part I of the Annex on human rights has two sections. Section 1 contains a twenty-paragraph list of specific human rights that are included in international human rights instruments.¹⁶⁴ It covers most of the foundational international human rights, including civil and political rights as well as social, economic and cultural rights.¹⁶⁵ It also covers some human rights with a specific focus on groups like women, children and persons with disabilities.¹⁶⁶ Section 1 notes that the list of human rights it provides is non-exhaustive and that the material scope of due diligence obligations can also encompass human rights that are included in the conventions that are listed in Section 2.167 Section 2 lists conventions that include those encompassed within the International Bill of Human Rights,¹⁶⁸ those with a specific focus on particular groups,¹⁶⁹ as well as some non-binding human rights declarations like The Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities,¹⁷⁰ as well as the International Labour Organization's Declaration on Fundamental Principles and Rights at Work¹⁷¹ and Tripartite Declaration

- 158 Ibid., Art. 2(1)(b)(ii).
- 159 *Ibid.*, Art. 2(1)(b)(iii); at 16 the draft Directive notes that this would encompass 13,000 EU companies and 4,000 non-EU companies.
- 160 Ibid., Art. 2(2).
- 161 Ibid., 14.
- 162 Ibid.,16.
- 163 Ibid., Explanatory Memorandum, Section 2: Legal Basis, Subsidiarity, and Proportionality, at 16.
- 164 Ibid., Annex, Part I, Art. 1.
- 165 Like the UDHR, ICCPR, and ICESCR above n. 52.
- 166 Draft Directive, above n. 15; Annex, Part I (1) including CEDAW, above n. 55; CRC, above n. 56 and CRPD, above n. 57.
- 167 Ibid., Annex, Part I (2) para 21.
- 168 UDHR, ICCPR, and ICESCR above n. 52.
- 169 Including CEDAW, above n. 55; CRC, above n. 56 and CRPD, above n. 57.
- 170 UN General Assembly, Resolution 47/135, Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities (18 December 1992).
- 171 International Labour Organisation, ILO Declaration on Fundamental Principles and Rights at Work (1998).

of Principles concerning Multinational Enterprises and Social Policy.¹⁷²

Part II of the Annex pertains to environmental standards and lists a limited number of violations of recognised objectives and prohibitions included in certain international environmental conventions or multilateral environmental agreements (MEAs).¹⁷³ It is mentioned in the Explanatory Memorandum that this list is the result of a 'strict selection based on the need to ensure clear obligations and legal certainty'174 and thus contains 'only those environmental conventions which create an obligation that is sufficiently precise and implementable for the companies'.¹⁷⁵ The material scope of the selected standards that meet this criteria is wide but arbitrary and ranges from biological diversity,¹⁷⁶ to international trade of endangered fauna and flora,177 to certain chemical pollutants.¹⁷⁸ Unlike the human rights in Part I, there is no provision in Part II that allows other environmental standards that are not explicitly listed to be encompassed within the material scope by reference to entire MEAs. The list of environmental standards is thus exhaustive and limited to those contained in the Annex's twelve paragraphs.¹⁷⁹

Although explicitly detailed in the Annex, the draft Directive provides the opportunity for the material scope of the due diligence obligation to be reviewed. No later than seven years after the date of its entry into force, the Commission shall submit a report to the European Parliament and Council on its implementation. The report shall evaluate the effectiveness of the Directive, including whether the Annex needs to be modified considering international developments.¹⁸⁰

At first glance, the human rights norms and environmental standards that make up the material scope of the draft Directive do not seem to explicitly encompass freshwater issues. The next two sections will explore whether and to what extent the material scope of the draft Directive does in fact encompass freshwater issues, by examining the material scope from the perspective of both human rights and environment.

4.2 The Draft CSDD Directive's Human Rights Norms and Freshwater Issues

As introduced in Section 4.1, the draft Directive covers human rights in two ways. First, it explicitly lists human rights norms, and, second, it includes a 'catch-all' clause that refers to a list of international human rights instru-

- 172 International Labour Organisation, Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy (1977).
- 173 Draft Directive, above n. 15, Annex, Part II.
- 174 European Commission, 'Commission Staff Working Document', SWD (2022) 39, at 5.
- 175 Ibid., at 9.
- 176 Draft Directive, above n. 15, Annex, Part II, Art. 1; Convention of Biological Diversity (1992), Art. 10(b).
- 177 Ibid. Draft Directive, Annex, Part II, Art. 2; Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973), Art. III, IV, and V.
- 178 Ibid. Draft Directive, Annex, Part II, Art. 3, 4, and 5; Minamata Convention on Mercury (2013), Art. 4(1), 5(2) and 11(3).
- 179 Ibid. Draft Directive, Annex, Part II.
- 180 Ibid. Draft Directive, Art. 29 (c).

ments.¹⁸¹ This section will analyse whether and to what extent the international human right to water, which was outlined in Section 2.2, fits within the scope of the draft Directive's human rights norms.

Some of the human rights explicitly listed in Part I of the Annex are contained within paragraph 18:

Violation of the prohibition of causing any measurable environmental degradation, such as harmful soil change, water or air pollution, harmful emissions or excessive water consumption or other impact on natural resources, that

- a. impairs the natural bases for the preservation and production of food or
- b. denies a person access to safe and clean drinking water or
- c. makes it difficult for a person to access sanitary facilities or destroys them or
- d. harms the health, safety, the normal use of property or land or the normal conduct of economic activity of a person or
- e. affects ecological integrity, such as deforestation,

in accordance with Article 3 of the Universal Declaration of Human Rights, Article 5 of the International Covenant on Civil and Political Rights and Article 12 of the International Covenant on Economic, Social and Cultural Rights¹⁸²

Paragraph 18 explicitly includes the 'prohibition of causing any measurable environmental degradation', such as water pollution or 'excessive water consumption', that 'denies a person access to safe and clean drinking water' (paragraph 18(b)).¹⁸³ While this paragraph does refer to freshwater issues, it formulates the human right to water in a novel way that seems to limit its normative content compared with that of the international human right to water.¹⁸⁴ Paragraph 18(b) explicitly encompasses the normative content of the international right relating to accessibility¹⁸⁵ through the use of the word 'access'¹⁸⁶ as well as the normative content of the international right relating to quality through the use of the words 'safe and clean'.¹⁸⁷ However, there is no explicit reference to the normative content of the international right relating to quantity.¹⁸⁸

It is possible that the term 'drinking' should be read as an implicit reference to the quantity aspect of the human right to water.¹⁸⁹ Still, even if 'drinking' were to indicate that the human right to water as mentioned in the Annex also encompasses the quantity aspect, then this would be a very narrow conceptualisation compared

- 181 Ibid. Draft Directive , Annex, Part I.
- 182 Ibid. Draft Directive, para 18.
- 183 Ibid. Draft Directive, Annex, Part I, para 18(b).
- 184 Danish Institute, above n. 86, at 13.
- 185 General Comment 15, above n. 58, at para 12(c).
- 186 Draft Directive, above n. 15, Annex, Part I, para 18(b).
- 187 Ibid., Annex, Part I, para 18(b).
- 188 General Comment 15, above n. 58, at para 12(c).
- 189 Draft Directive, above n. 15, Annex, Part I, para 18(b).

with the international right. After all, the latter includes freshwater for a multitude of uses in addition to drinking, like cooking and personal and domestic hygienic requirements (see par. 2.2).¹⁹⁰

Nonetheless, a broader look at paragraph 18 as a whole reveals that it potentially has a much wider application to freshwater that encompasses both quality and quantity and that it is thus better aligned with the normative content of the international human right to water than appears to be the case at first glance. By referring to water pollution and 'excessive water consumption', paragraph 18 does, in fact, reference the normative elements of freshwater quality and quantity. The link between water pollution, excessive water consumption and the normative content of the human right to water relating to quality and quantity has already been established prior to the draft Directive by the UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, healthy and sustainable environment, David R Boyd. In a report on 'Human Rights and the global water crisis', Boyd noted that water pollution adversely affects the quality and quantity of water available to sustain ecosystems and meet human needs,¹⁹¹ while water scarcity caused by overuse has led to water being unavailable to maintain healthy ecosystems and meet people's basic needs.¹⁹²

Moreover, subsections (a) to (e) of paragraph 18 can all be related to water use and aligned with General Comment 15's explanation of why the human right to water is necessary. For example, paragraph 18(a), 'impairs the natural bases for the preservation and production of food', is closely related to General Comment 15, noting that the human right to water is necessary to provide for cooking,¹⁹³ while paragraphs 18(c), 'makes it difficult for a person to access sanitary facilities', and 18(d), 'harms the health ... of a person', relate to General Comment 15, noting that the human right to water is necessary to 'reduce the risk of water-related diseases ... and personal and domestic hygienic requirements'.¹⁹⁴

Paragraph 18 also notes that the substance of its provisions is in accordance with international human rights instruments, including the ICESCR, from which the international human right to water is derived. However, paragraph 18 only references ICESCR Article 12 on the right to the highest attainable standard of physical and mental health. This deviates from the international human right to water, which although linked to Article 12 and the right to health, has been predominantly derived

190 General Comment 15, above n. 58, at para 2.

 $193 \hspace{0.1in} \text{General Comment 15, above n. 58, at para 2.}$

from Article 11 on an adequate standard of living,¹⁹⁵ – especially in the context of corporate responsibilities.¹⁹⁶ Perhaps the most notable deviation from the international human right to water is that paragraph 18 renders the human right to water dependent on environmental degradation, meaning that without such degradation occurring, the human right to water is not encompassed within the material scope of the draft Directive. The international human right to water, by contrast, exists independently of environmental degradation, and no international instruments render the right dependent on the occurrence of environmental degradation. When it comes to human rights violations by corporate actors, this reformulation is highly problematic, as although companies can cause environmental degradation in tandem with impacts on the human right to water, these are not synonymous, and the human right to water can be adversely impacted without environmental degradation. This is particularly prevalent when corporate conduct diverts freshwater flow. For example, the Lesotho Highlands Water Project diverts freshwater from Lesotho to South Africa using naturally occurring riverine systems and water basins, as well as constructed dams. This diversion results in the exclusion of several villages near the dammed areas from access to historically used freshwater sources, while the points of diversion allow ecosystem services to exist relatively unaffected.¹⁹⁷ Instances like these appear to be excluded from paragraph 18.

In addition to paragraph 18, where the human right to water is most explicitly formulated, there are also a number of other human rights norms explicitly mentioned in Section 1 that are relevant to the right to water.¹⁹⁸ For example, paragraph 1 on the right 'to not be deprived of means of subsistence' can be related to the normative content of the human right to water as 'safe and sufficient water is vital for realising the right to food, particularly for poor and marginalised people engaged in subsistence ... farming'.¹⁹⁹ This demonstrates that the normative elements of freshwater quality and quantity are encompassed therewithin.

In addition to the explicit human rights norms listed in Section 1, the human right to water can also be encompassed within the material scope of the draft Directive through Section 2 that incorporates human rights that are included in the international human rights agree-

195 Ibid., at para 3.

197 UNGA, Res A/74/197, 'Human Rights to Safe Drinking Water and Sanitation' (19 July 2019) at 8, para 21.

198 Other paragraphs that may be related to water include paragraph 5 on 'violation of the prohibition of arbitrary or unlawful interference with a person's privacy, family, home'; paragraph 9 on the rights of the child, paragraph 19 on the 'violation of the prohibition to unlawfully evict or take ... waters' when developing or otherwise use of waters, as well as paragraph 21 on the rights of indigenous peoples to resources that they have traditionally owned, occupied or otherwise used or acquired.

¹⁹¹ UN Human Rights Council, A/HRC/46/28, 'Human Rights and the global water crisis: water pollution, water scarcity and water-related disasters, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, health and sustainable environment' (19 January 2021), at 3, para 13.

¹⁹² Ibid., at 4, para 14.

¹⁹⁴ Ibid.

¹⁹⁶ Castan Centre for Human Rights Law, 2008, above n. 92, at 113; Castan Centre for Human Rights Law, above n. 33, at 100.

¹⁹⁹ UNHRC, Human Rights and the Global Water Crisis, above n. 192, at 6, para 32.

ments listed therein.²⁰⁰ The instruments include the IC-ESCR, which, as established previously, is the legal basis of the international human right to water and encompasses the full normative content of the right. It also includes the treaties that encompass the human right to water for specifically protected groups²⁰¹ like women,²⁰² children and persons with disabilities.²⁰³ As the draft Directive envisioned broadening the human rights material scope with Section 2, it is plausible that the international human right to water and its normative content as defined by the international instruments listed in the Annex is included in the material scope of the draft Directive.

From the foregoing elaboration, it appears that the international human right to water is encompassed within the material scope of the draft Directive, and thus companies will be required to conduct due diligence on the full normative content of the human right to water. What the elaboration also reveals, however, is that the construction of the human right to water in the Annex creates ambiguities on the normative content of the human right to water. The draft Directive reformulates the human right to water by scattering its full normative content across Part I of the Annex. This novel framing of the right is inconsistent with the international human right to water, which clearly and consistently demonstrates that the full normative content of the right is self-contained within the right itself. Authors like O'Brien have noted that this complex scheme 'may pose challenges of interpretation and clarity'.²⁰⁴ The reformulation results in a lack of clarity when interpreting which normative elements thereof are encompassed within the draft Directive and which are not.²⁰⁵ Given the tenuous status of the human right to water, this lack of clarity has the potential to limit the practical realisation of the right within due diligence processes.²⁰⁶

4.3 The Draft CSDD Directive's Environmental Standards and Freshwater Issues

As 'there is a lack of an international framework for reference similar to that for international human rights' in relation to environmental due diligence²⁰⁷ and to 'ensure clear obligations and legal certainty',²⁰⁸ Part II of

- 200 Draft Directive, above n. 15, at Annex, Part I (2) para 21.
- 201 Ibid., at Annex, Part I (1).
- 202 CEDAW, above n. 55.
- 203 CRPD, above n. 57.
- 204 O'Brien, above n. 97, at 5.
- 205 Danish Institute, above n. 86, at 4.
- 206 Ibid., at 13; European Coalition for Corporate Justice, European Commission's Proposal for a Directive on Corporate Sustainability Due Diligence: A Comprehensive Analysis https://corporatejustice.org/publications/analysisof-eu-proposal-for-a-directive-on-due-diligence/ (last visited 9 May 2022), (2022), at 11.
- 207 European Commission, above n. 32, at 55, referencing C. Scherf, P. Gailhofer, N. Kampffmeyer & T. Schleicher, 'Responsibility Towards Society and the Environment: Businesses and Their Due Diligence Obligations Background Paper from the Research Project Commissioned by the Federal Environment Agency', German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, www.umweltbundesamt.de/publikationen/umweltbezogene-menschenrechtliche (2019), at 9.
- 208 European Commission, SWD, above n. 175, at 5.

the Annex pertains exclusively to those environmental standards from MEAs²⁰⁹ that 'create an obligation that is sufficiently precise and implementable' for companies.²¹⁰

As freshwater issues are not comprehensively regulated in the international environmental law regime, and as those MEAs that do regulate freshwater have not been determined to be translatable to companies, the only way freshwater issues can be encompassed within the material scope of the draft Directive is through MEAs focused on other environmental issues that are included in Part II of the Annex.

Some of the MEAs in the Annex contain provisions that encompass freshwater, even if freshwater is not explicitly mentioned in their environmental standards. For instance, some list chemicals that have been recorded as causing freshwater pollution. An example is that the Minamata Convention on Mercury²¹¹ includes a prohibition against the manufacture of products containing mercury and the use of mercury in manufacturing processes. The World Health Organisation (WHO) has noted that the use of mercury in industrial manufacturing processes for electrical appliances, antiseptics, preservatives and pharmaceuticals²¹² has polluted freshwater. This pollution has caused environmental degradation and the decline in drinking water quality with serious health implications.²¹³ Another example is the Stockholm Convention on Persistent Organic Pollutants, which includes a prohibition against the production and use of certain chemicals, including the insecticide dieldrin. The WHO has found that freshwater with dieldrin contamination from industrial and agricultural effluents is toxic to humans and can cause fatalities.²¹⁴

While freshwater pollution is encompassed by some MEAs and the environmental standards contained therewithin, the obligation to conduct due diligence is limited to only those chemicals explicitly listed in these instruments. Freshwater pollution caused by chemicals or substances that are not explicitly listed within these MEAs do not fall within the material scope of the draft Directive. Given that the number of chemicals in the global market has been estimated to range between 25,000 to 140,000,²¹⁵ with recent uppermost estimates

- 209 Draft Directive, above n. 15, Annex, Part II.
- 210 European Commission, SWD, above n. 175, at 9.
- 211 Minamata Convention on Mercury (2013) in Draft Directive, above n. 15, Annex, Part II, 3-5.
- 212 World Health Organisation, Mercury in Drinking-water: Background document for development of WHO Guidelines for Drinking-water Quality (2005), www.who.int/docs/default-source/wash-documents/wash-chemicals/mercury-background-document.pdf?sfvrsn=9b117325_4 (last visited 6 May 2022) at 10.
- 213 Ibid., at 15.
- 214 World Health Organisation, Aldrin and dieldrin in Drinking-Water: Background Document for the Development of WHO Guidelines for Drinking-Water Quality (2003), https://cdn.who.int/media/docs/default-source/washdocuments/wash-chemicals/adrindieldrin.pdf?sfvrsn=7b70f74_6 (last visited 6 May 2022), at 3.
- 215 UN Environment, Knowledge and Information Sharing for the Sound Management of Industrial Chemicals (2020), www.saicm.org/Portals/12/Documents/ EPI/Knowledge_Information_Sharing_Study_UNEP_ICCA.pdf (last visited 1 June 2022).

at 350,000,²¹⁶ and that freshwater contaminants may include a range of physical, chemical, bacteriological and radioactive substances,²¹⁷ this significantly limits the material scope of the draft Directive as it restricts the issue of freshwater pollution to only a few chemicals.

Similarly, freshwater depletion is not explicitly encompassed within any of the environmental standards referenced in the MEAs. The only way freshwater depletion can be implicitly encompassed is within the Convention on Biological Diversity (CBD),²¹⁸ which includes the obligation to take the necessary measures related to the use of biological resources in order to avoid or minimise adverse impacts on biological diversity. The CBD website elaborates that freshwater itself is not 'biodiversity', but rather that 'biodiversity' is the life associated with this resource.²¹⁹ It further notes that human impacts on freshwater, including pollution and use, impact biodiversity, and that thus freshwater and its associated biodiversity cannot be separated.²²⁰ Following this construction, it can be argued that freshwater is encompassed within biological resources and diversity because of the role that freshwater plays in maintaining biodiversity as defined within the CBD.

If this implicit interpretation is adopted, both freshwater depletion and pollution would be encompassed in the material scope of the draft Directive owing to the adverse impacts these can have on freshwater quality, quantity and its associated biodiversity. Freshwater likely falls within the material scope of this environmental standard, and thus the due diligence obligation would be applicable thereto. However, this environmental standard is limited to the extent that freshwater issues would have to relate to adverse impacts on biological diversity. Therefore, if biological diversity was not being adversely impacted by freshwater pollution and/ or depletion, it would not fall within the material scope of this environmental standard. Freshwater impacts that are not related to adverse impacts on biological diversity are thus not encompassed within the draft Directive. This severely limits the material scope of the draft Directive.

Generally speaking, the transposition of international environmental standards into the material scope of the draft Directive reproduces gaps that exist in the international environmental law regime. Notably, the international environmental law regime is characterised as a highly fragmented patchwork of MEAs, each of which is focused on regulating particular transnational environmental issues.²²¹ As a result, certain environmental issues do not fall within the scope of the international

216 Z. Wang, G. Walker, D. Muir & K. Nagatani-Yoshida, 'Towards a Global Understanding of Chemical Pollution: A First Comprehensive Analysis of National and Regional Chemical Inventories', 54 Environmental Science and Technology 2575 (2020).

- 217 United Nations-Water, above n. 4.
- 218 Convention on Biological Diversity, 5 June 1992, 69 U.N.T.S. 1760.
- 219 Convention on Biological Diversity Website, *Inland Waters Biodiversity* -What Is It?, www.cbd.int/waters/inland-waters/ (last visited 6 May 2022).
- 220 Ibid.
- $221 \ \ \, European \ \ Coalition \ for \ \ Corporate \ \ Justice, above \ n. \ 207, at \ 9.$

environmental law regime.²²² The structure of the draft Directive renders the material scope of the draft Directive reliant on the fragmented patchwork of MEAs in international environmental law and results in it missing the issues that this regime has not regulated. There are currently no MEAs at the global level that provide water quality or quantity standards, nor are there MEAs that comprehensively regulate freshwater pollution or extraction. As the environmental issue of freshwater has neither been explicitly nor comprehensively regulated by the international environmental law regime, it cannot be explicitly transposed into the draft Directive.²²³

Another gap that the transposition of international environmental standards reproduces is that it limits the applicable MEAs to those with translatable standards for companies and thus only utilises a limited number of the MEAs that are available. While there are currently over 250 MEAs dealing with various environmental issues,²²⁴ the draft Directive encompasses only seven.²²⁵ The majority of standards from MEAs cannot be translated for companies, and thus crucial international instruments on freshwater protection are excluded from the material scope of the draft Directive.

Some seminal freshwater MEAs that are not encompassed within the material scope include the Water Convention²²⁶ and Watercourses Convention,²²⁷ which 'consolidate the principles and rules that underpin contemporary international water law'.²²⁸ Although standards from these MEAs have not been included in those translatable to companies, the content of some appears to be relevant to company conduct. For example, the Water Convention requires parties to take appropriate measures to ensure that transboundary waters are used in a reasonable and equitable way,²²⁹ and the Watercourses Convention details the factors that parties should take into account when utilising an international watercourse in this way, including natural factors like hydrological, climatic and ecological factors, as well as populations dependent on the watercourse.²³⁰ The draft Directive also excludes important MEAs on specific freshwater issues like the Ramsar Convention on Wetlands.231

- 222 P-M. Dupuy and J.E. Viñuales, International Environmental Law (2018), at 39.
- 223 See L. Boisson de Chazournes, Fresh Water in International Law (2021).
- 224 World Trade Organisation, *The Doha Mandate on Multilateral Environmental Agreements*, www.wto.org/english/tratop_e/envir_e/envir_neg_mea_e. htm (last visited 9 May 2022).
- 225 Draft Directive, above n. 15, Annex II.
- 226 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 March 1992, U.N.T.S. 1936.
- 227 Convention on the Law of the Non-Navigational Uses of International Watercourses, 21 May 1997, U.N.T.S. 2999.
- 228 UN Water, 'The United Nations Global Water Conventions: Fostering Sustainable Development and Peace', www.unwater.org/sites/default/files/ app/uploads/2021/01/UN-Water_Policy_Brief_United_Nations_Global_ Water_Conventions.pdf (last visited 10 November 2022) (2020), at 11.
- 229 Water Convention, above n. 228, at Article 2(2)(c).
- 230 Watercourses Convention, above n. 227, at Article 6.
- 231 Ramsar Convention on Wetlands of International Importance as Waterfowl Habitat (1971) provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources; see: www.ramsar.org/ (accessed 17 November 2022).

The transposition of international environmental standards from MEAs also limits the material scope of the draft Directive, in the sense that it excludes standards and principles from the international environmental regime that cannot be derived from MEAs. These translated environmental standards did not originally apply to companies but had to be extrapolated in order to be encompassed within the material scope of the draft Directive. There is no reason why this extrapolation cannot be done with environmental standards that are not in MEAs in order to expand the material scope of the draft Directive to more comprehensively encompass freshwater issues. This has already been done in Part I of the Annex on human rights norms, which is not limited to international conventions but also includes non-binding instruments (which, as noted by O'Brien, are not fully binding on states).²³²

These human rights instruments have the same non-binding status in international law as, for example, the Rio Declaration. The Rio Declaration incorporates foundational principles of international environmental law like the precautionary approach,²³³ which the European Commission has already acknowledged is relevant as it is 'likely to be influential in the interpretation of any due diligence standard'.²³⁴ The OECD has already provided an example of how instruments like the Rio Declaration can be translated into environmental standards applicable to companies. The Environmental Chapter notes that its text 'broadly reflects the principles and objectives contained in the Rio Declaration'235 and has translated the precautionary principle to companies, stating that enterprises should 'consistent with the scientific and technical understanding of the risks, where there are threats of serious damage to the environmental, taking also into account human health and safety, not use the lack of full scientific certainty as a reason for postponing cost-effective measures to prevent or minimise such damage'.²³⁶ Freshwater issues like pollution or depletion can fit well within the wide scope of such environmental standards; however, these are currently not encompassed within the material scope of the draft Directive.

In light of the foregoing, it is clear that the draft Directive encompasses freshwater issues within its environmental material scope only to a limited extent. The transposition of international environmental standards from MEAs into the material scope of the draft Directive replicates the fragmented patchwork of obligations in international environmental law, where not all freshwater issues are covered. Limiting environmental stand-

232 Draft Directive, above n. 15, at Part I, includes the UDHR above n. 52; The Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities, above n. 171; the International Labour's Organisation's Declaration on Fundamental Principles and Rights at Work, above n. 172; and Tripartite Declaration on Principles concerning Multinational Enterprises and Social Policy, above n. 173; O'Brien, above n. 97, at 5. ards to those that can be translated to companies further limits the material scope to a handful of environmental standards. The draft Directive excludes other international instruments, like the Rio Declaration, that may expand the scope of environmental standards to encompass freshwater issues more comprehensively. Limiting the material scope to translatable international environmental standards from MEAs results in the most obvious environmental risks to freshwater posed by companies, like depletion and pollution, being largely excluded from Part II of the Annex and therefore from the draft Directive.

5 Conclusion and Recommendations

While scholars like Birchall have noted that the broad material scope of due diligence instruments like the UN-GPs and OECD Guidelines is widely understood,²³⁷ there has been limited engagement on the issue of whether this is a preferential approach. Most scholars and international organisations specialising in business and human rights advocate for this broad material scope of due diligence. They have acknowledged that companies can adversely impact virtually the full scope of human rights and environmental standards and should thus conduct due diligence on the complete spectrum of these rights and standards as contained in international instruments.²³⁸ Support for this wide scope has been reiterated by the late Professor Ruggie,²³⁹ the UN,²⁴⁰ scholars²⁴¹ and international organisations.²⁴²

However, while a broad material scope has been widely reiterated, it has also been criticised. SOMO notes that the UNGPs' and OECD Guidelines' lack of explicit reference to all internationally recognised human rights results in a loophole for companies to escape some of the human rights they are responsible to respect.²⁴³ This concern seems to be corroborated by Section 3, which emphasised that despite these instruments' broad material scope, in practice companies limit the material scope of their due diligence to certain human rights and environmental standards, which seldom include freshwater issues.

The draft Directive has the potential to make a difference to how companies include freshwater issues in their due diligence processes as it imposes a legally

- 237 Birchall, above n. 16, at 139.
- 238 Danish Institute, above n. 86, at 12-14; European Coalition for Corporate Justice, above n. 207, at 11.
- 239 Protect, Respect, Remedy, above n. 22, at para 52.
- 240 UN, Interpretive Guide, above n. 16, at 13.
- 241 Esteves et al., above n. 29, at 84; Taylor, above n. 82, at 90; O'Brien, 2022, above n. 97, at 4.
- 242 Shift, 2015, above n. 27, at 16; Global Compact, 'Assessing Human Rights Risks and Impacts: Perspectives from Corporate Practice' (2016), at 11; Danish Institute, above n. 86, at 39.
- 243 SOMO, 'How to Use the UN Guiding Principles on Business and Human Rights in Company Research and Advocacy', (2012), at 12.

²³³ Rio Declaration, above n. 112, at Principle 15.

²³⁴ European Commission, above n. 32, at 35.

²³⁵ OECD Guidelines, Environmental Chapter VI., at 44, para 60.

 $^{236 \}hspace{0.1in} {\sf OECD} \hspace{0.1in} {\sf Guidelines}, {\sf above} \hspace{0.1in} {\sf n}. \hspace{0.1in} 20, {\sf at} \hspace{0.1in} 43, {\sf para} \hspace{0.1in} 4.$

binding obligation for companies to conduct due diligence that includes freshwater issues from both a human rights and an environmental perspective that was previously non-existent. The potential of legal obligations to influence the material scope of due diligence has been noted by McCorquodale et al., who emphasised that those human rights and environmental standards that are regulated have a higher likelihood of being considered in due diligence processes.²⁴⁴

The potential of the draft Directive to influence the material scope of due diligence in practice remains limited, however, as the draft Directive does not encompass all the adverse impacts that companies can have on freshwater from both a human rights and an environmental perspective. From a human rights perspective, the Annex reformulates the internationally recognised human right to water and scatters its normative content over several other rights, as well as making the right dependent on ecological degradation. From an environmental perspective, the Annex's transposition of international environmental standards from MEAs reproduces the limitations of the international environmental law regime, resulting in a patchwork of protection on a limited number of specific issues only.

Thus, while the draft Directive takes positive steps towards implementing legal obligations for companies to include freshwater issues in their due diligence processes from both a human rights and an environmental perspective, it only does so to a limited extent. The material scope of the draft Directive is insufficient to cover some of the most significant adverse impacts that companies can have on freshwater from both a human rights and an environmental perspective. If the draft Directive were to move forward in its current form, some of the adverse impacts that EU companies have on freshwater, either directly or indirectly through their global value chains, may fall within the scope of the obligation to conduct due diligence, but many may not.

As proposed by UN Special Rapporteur David R. Boyd, instruments that address companies' adverse impacts on freshwater should align with relevant human rights and environmental standards, because if they are only partially included this will inevitably result in protection gaps in practice.²⁴⁵ In order to fill those gaps identified in this article, the draft Directive's material scope should be amended to encompass freshwater issues more comprehensively.

From a human rights perspective, the human right to water in paragraph 18(b) should be amended to align with the full normative scope of the right as it exists in international instruments like General Comment 15,²⁴⁶ UNGA Resolution 64/292²⁴⁷ and UNHRC Resolution

15/9.²⁴⁸ It should also be amended so that it is not conditional on 'measurable environmental degradation'.²⁴⁹ From an environmental perspective, a wider range of MEA standards that encompass freshwater should be included in Part II of the Annex, like the Water Convention requiring parties to take appropriate measures to ensure that transboundary waters are used in a reasonable and equitable way.²⁵⁰ Even if this approach were to be adopted, however, the material scope would still be limited to those specific environmental issues that are regulated by MEAs and that are also translatable to companies. The better option would therefore be to amend Part II of the Annex in such a way that instead of merely listing environmental standards from MEAs, it would align with the 'catch-all' approach in Part I. It should then list an array of environmental instruments that are wider than just MEA standards but that also include references to specific environmental principles, like, for instance, the precautionary principle as contained in the Rio Declaration.

Amending the material scope of the draft Directive to more comprehensively include freshwater issues is essential if it is to have any meaningful impact on how this life-sustaining resource is used by companies.

248 UNHRC Res 15/9, above n. 80.

- 249 Draft Directive Annex Part I Section 1, above n. 15, para 18.
- 250 Water Convention, Art. 2(2)(c), above n. 228, at 12.

²⁴⁴ McCorquodale et al., above n. 32, at 223 referencing R. Hamman et al., 'Business and Human Rights in South Africa: An Analysis of Antecedents of Human Rights Due Diligence', 87(2) *Journal of Business Ethics* at 453-73, at 453 (2009).

^{245~} UNGA, Res A/74/197, above n. 198, at 6 para 13 and 8 para 22.

²⁴⁶ General Comment 15, above n. 58.

²⁴⁷ UNGA Res 64/292, above n. 79.

EU Competition Law and Sustainability

The Need for an Approach Focused on the Objectives of Sustainability Agreements

María Campo Comba*

Abstract

EU competition law potentially has a role to play in the pursuit of sustainability goals and the fight against climate change. The need to interpret the EU competition law provisions in a manner consistent with the sustainability objectives that the EU is committed to - the sustainable development goals (SDGs), and the EU Green Deal and derived policies - is emphasised in this article. While agreements between competitors are generally prohibited by Article 101 TFEU, cooperation agreements among market actors pursuing sustainability objectives (sustainability agreements) might in certain situations fall under the cartel exception of Article 101(3) TFEU. In recent years, there have been numerous calls to clarify conditions under which sustainability agreements can be allowed under EU competition law, especially under Article 101(3) TFEU, and there is a heated debate among academics, national competition authorities (NCAs) and the European Commission. After questioning whether the objectives and measures of the agreements are being properly assessed with the current trends (for example, with the willingness-to-pay method), this article will add to the debate another possibility involving a broad interpretation of Article 101(3) TFEU under which the pursuit of sustainability agreements will be facilitated. Such a possibility will largely depend on the objectives of the agreements themselves and may allow a proper consideration of the objectives of a sustainability agreement for certain cases, by focusing on agreements that pursue pre-established objectives derived from international or national standards or concrete policy objectives that are not previously mandatory for the companies involved.

Keywords: EU competition law, sustainability agreements, efficiency gains, sustainability objectives, qualitative assessment.

1 Introduction

EU competition law can contribute to the enhancement of sustainability and the fight against climate change. While some have submitted that there are better and more effective ways to tackle these challenges, such as regulation or taxation, competition law also has a role to play. Indeed, facing climate change requires efforts from all legal fields, from public and private actors, and while other regulatory initiatives might be slowed down by political or budgetary difficulties, competition law can facilitate those efforts.

While it is generally considered that competition law enforcement contributes to sustainable development by ensuring effective competition (leading to innovation and increased quality and choices, as well as an effective allocation of resources and reduction of production costs), it is also true that sometimes individual production or consumption decisions have negative effects on society, the environment, etc. Although cooperation between competitors is against Article 101 TFEU, there are many situations where, in order to achieve certain sustainability objectives, cooperation between competitors can be the right tool. When a company suddenly wishes to produce 'greener' products or use 'greener' technologies it is likely to have to deal on certain occasions with higher costs ('first mover disadvantage') and is thus not encouraged to take that step. By agreeing with other competitors on such sustainability measure, the 'first mover disadvantage' is avoided or reduced.

Among examples of sustainability agreements, we can find agreements among suppliers to reduce their use of plastics/packaging, or to increase recycling; agreements to reduce car emissions; agreements to improve the efficiency of home appliances; agreements to improve animal welfare conditions, etc. Thus, 'sustainability agreements' are understood as agreements between competitors that pursue one or more sustainability objectives –environmental, economic or social sustainable development goals.¹ However, in many cases, sustainability agreements would be considered anti-competitive according to Article 101(1) TFEU. For example, the sustainable measures agreed might result in a general price

María Campo Comba is a postdoctoral researcher at the Erasmus University Rotterdam, the Netherlands.

¹ The 2012 UN Resolution 66/288 refers to sustainable development as the development towards 'an economically, socially and environmentally sustainable future for our planet and for present and future generations'. A broad definition is to be followed when referring to 'sustainability agreements' in the competition law context. Among the sustainable objectives of these agreements we may find the protection of the environment, biodiversity and addressing climate change, public health, animal welfare, fair trade, working conditions, etc. This broad definition of 'sustainability agreements' is also supported by the European Commission (European Commission, 'Draft Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Cooperation Agreements' (2022), paras. 541-43).

increase of the products available to consumers or end up limiting their options.

During the last few years, there have been several discussions as to whether EU competition law should allow these agreements and, if so, how. Following the heated academic discussion in this context, diverse NCAs and the European Commission have also acknowledged the controversy regarding sustainability agreements and Article 101 TFEU and are working on it.² For example, the Commission has issued draft revised Horizontal Guidelines (hereinafter Draft Horizontal Guidelines) in March 2022 with a chapter dedicated to sustainability agreements.³

In this context, this article aims to highlight the need to interpret competition law in a manner consistent with the sustainability objectives that the EU is committed to – the SDGs, and the EU Green Deal and derived policies. This article will analyse the current difficulties in doing so and add to the competition law and sustainability debate another possibility involving a broad interpretation of Article 101(3) TFEU, under which the pursuit of sustainability agreements will be facilitated. Such a possibility will depend largely on the objectives of the agreements themselves.

First, a reflection regarding the goals of EU competition law and the concept of consumer welfare, and the existing foundations of the Treaties, will be included so as to support a sustainability-consistent interpretation of EU competition law. Second, the current developments regarding the interpretation of sustainability agreements within EU competition law, with a special emphasis on the modifications proposed by the Draft Horizontal Guidelines, will be described. Third, the potential of sustainability agreements to achieve sustainability objectives, and the adequacy of the current assessment tools, will be analysed. A case example, the 'Chicken of Tomorrow' agreement, which initiated heated debates concerning the assessment of sustainability benefits and the need (or not) for competition law to allow sustainability agreements, will be the starting point of the discussion. Following this case example, focus will be placed on the existing difficulties that arise from the assessment of sustainability benefits under the current interpretations. A different interpretation, under which the pursuit of sustainability agreements is facilitated on the basis of the existence of their pre-established objectives, is suggested.

Setting the Foundations for a Sustainability-Consistent Interpretation of EU Competition Law

EU competition law manuals and textbooks often tell us that the 'main' objective of EU competition law is consumer welfare.⁴ At the end of the 1990s, the European Commission initiated a process of economisation and modernisation of EU competition law that placed economics and efficiency at the centre of the competition law analysis. The so-called 'more economic' approach has brought different developments in the area, such as a focus on the effects on the market of a specific practice to determine whether it is anti-competitive.⁵ Also, 'effects on the market' refer to the economic effects on the market, and. consequently, the resulting approach is based on the concept of consumer welfare focused on economic efficiency. Consumer welfare, narrowly meant as the ability of consumers to benefit from lower prices and higher output, has been placed at the centre of the economic analysis.⁶

The 'more economic' approach is particularly apparent in the interpretation that the Commission made of Article 101(3) TFEU until now.⁷ This provision constitutes an exception that can be relied on when benefits offset the anti-competitive effects of an agreement. It seems that it is understood that consumer detriment would consist of higher prices, reduced output, less choice or lower quality of products or less innovation, while consumer benefit would consist of the opposite (lower prices, greater output and choice, etc.). The Draft Horizontal Guidelines, while introducing clarifications concerning sustainability agreements, remain grounded on an economically informed consumer welfare analysis.⁸

Those claiming economic efficiency as the solely goal of competition law consider that competition law should

- 4 A. Jones, B. Sufrin & N. Dunne, EU Competition Law (2019), at 28 et seq.; J.W. van der Gronden and C.S. Rusu, Competition Law in the EU: Principles, Substance, Enforcement (2021), at 9-13.
- 5 *Ibid.*, at 28-30; Blockx, above n. 2, at 477.
- 6 This system was perceived as an improvement that left irrationalities and distortions of 'old' competition law behind, sometimes accused as formalistic and lacking legal certainty. Behind the 'old competition law', which refers to the competition policy developed before the 1990s, is the underlying understanding that competition and the market were directed to achieve social and economic optimal outcomes. Competition law was seen as an instrument to achieve fairness and economic freedom and, at the same time, an instrument for creating and developing the internal market. K.K. Schweitzer and H. Patel, *The Historical Foundations of EU Competition Law* (2013); A. Gerbrandy, 'Rethinking Competition Law within the European Economic Constitution', 57 Journal of Common Market Studies 127 (2019).
- 7 As it can be reflected in: Commission, Guidelines on the application of Art. 81(3) of the Treaty [2004] OJ C101/08; Commission, Guidelines on Vertical Restraints [2010] OJ C131/01; and Commission, Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal Cooperation Agreements [2011] OJ C11/1.
- 8 See discussion below under 2. Also, R. Inderst and S. Thomas, 'Sustainability Agreements in the European Commission's Draft Guidelines', *Journal of Competition Law and Practice* Ipac020 (2022).

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Within the academic discussion, among many others, we find: R. Claassen and A. Gerbrandy, 'Rethinking European Competition Law: From a Consumer Welfare to a Capability Approach', 16 Utrecht Law Review 1 (2016); A. Gerbrandy, 'Solving a Sustainability-Deficit in European Competition Law', 40 World Competition 539 (2017); I. Lianos, 'Policentric Competition Law', 4 CLS Research Paper Series (2018); J. Blockx, 'The Limits of the 'More Economic' Approach to Antitrust', 42 World Competition 475 (2019); S. Holmes, D. Middelschulte & M. Snoep (eds.), Competition Law, Climate Change & Environmental Sustainability. Concurrences (2021).

³ European Commission, above n. 1, https://ec.europa.eu/competition-policy/ public-consultations/2022-hbers_en.

deal only with well-defined economic questions and reject employing some value-based or discretionary public interest test.⁹ Although this became the dominant approach in the US since the 1970s and the general consensus among the EU since the end of the 1990s, later political and economic developments (i.e. inequality concerns, populism, the rise of big tech power, or the climate emergency) have brought back heated discussions regarding the goals of competition law.

Also, in the EU, the reigning of consumer welfare as economic efficiency has always had another dimension of complexity added to it given the internal market imperative. Internal market integration has been an inherent part of EU competition law, and the single market imperative can be found in many judgments of the Court of Justice of the European Union (CJEU) and Commission decisions.¹⁰

In addition, in recent years, Commissioner Vestager has emphasised the role of fairness as a guiding principle of EU competition law. It is true that the meaning of fairness can be integrated into a conservative interpretation aligned with the more economic approach, for example when associating 'fair share' of benefits in Article 101(3) TFEU in terms of allocation of efficiency gains and maximisation of overall consumer surplus.¹¹ However, the new insistence on this concept can be seen as an attempt to reconcile competition law with society and re-legitimise its essential role for the social market economy, giving adequate attention to the social side of the social market economy.¹² The extent to which 'fair-

ness' will guide the progressive development of competition law when it comes to competition enforcement by the Commission and courts remains to be seen.

However, for now, it seems other possible objectives of competition law live under the shadow of the consumer welfare goal. Even when Commissioner Vestager emphasised the need for competition law to contribute to the Green Deal goals,¹³ she also claimed that '[c]ompetition policy is not, and cannot be, in the lead when it comes to making Europe green'.¹⁴ The reasoning behind this statement is the idea that competition law ensures effective competition and consumer welfare, which improves innovation, quality of products, efficient alloca-

- 10 For example, as to the General Court and Court of Justice: Case T-168/01, GlaxoSmithKline Services EU:T:2006:265, at para. 11 and paras. 59-62; Case C-126/97, Eco Swiss China Time Ltd v. Benetton International NV, EU:C (1999), 269, para. 36; Case C-453/99, Courage Ltd v. Crehan EU, C (2001), 465, at para. 20. As to the Commission: COMP/39.351, Swedish Interconnectors [2010] OJ C142/28 (settled with a commitments decision); Guidance on the Commission's Enforcement Priorities in Applying Art. 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings [2009] OJ C45/2 (the Guidance Paper), at para. 7.
- 11 N. Dunne, 'Fairness and the Challenge of Making Markets Work Better', 84 Modern Law Review 230, at 246 (2021).
- 12 Ibid., at 256-263.
- 13 For example, in a conference in Brussels on competition law and sustainability in October 2019 (the 'Brussels Sustainability Conference'), Commissioner Vestager claimed that 'every one of us-including competition enforcers-will be called on to make a contribution to that change'.
- 14 M. Vestager, 'The Green Deal and Competition Policy', *Renew Webinar* (22 September 2020).

tion of resources, etc. and that this contributes to sustainable development.

The pursuit of more specific public objectives beyond the purely economic understanding of consumer welfare has been discussed by many scholars in recent years.¹⁵ This has been specifically, but not limited to, within the context of sustainability objectives and the climate crisis. A narrow reading of the consumer welfare goal makes it difficult to consider sustainability agreements under the exception of Article 101(3) TFEU, since a restrictive reading and an only economics-informed quantification of benefits and offsets would make 'non-market' interests difficult to take into account, as well as benefits involving a different group of consumers that the ones consuming the products involved.¹⁶ Indeed, such an approach has been qualified by many as inadequate and outdated.¹⁷

The TFEU articles concerning competition law (in this case, Article 101 and, especially, Article 101(3) TFEU) are drafted broadly and are able to adapt to the changing realities in view of the interpretations of the Commission and CJEU. A narrow consumer welfare understanding, simplified as lower prices (i.e. prices of a specific product affecting the consumers within that product market) equalling better consumer welfare is not found in the wording of those articles. EU courts have also not strictly adhered to such an approach. Also, the NCAs have not followed such a strict approach and, even before the Commission took action regarding the concerns of competition law and sustainability, some NCAs had already established their divergent approach as to the previous Commission guidelines.¹⁸

Deep and insightful discussions on formulating the goals of EU competition law are important and necessary for the foundations and evolution of the subject, and thus it is extensively and endlessly discussed in the literature. In recent years we have witnessed an extensive debate on the goals of EU competition law and the pursuit of sustainability and other public interests. However, without getting deeper into the debate, which falls outside the scope of this article, I will join many colleagues on the call for urgency on the matter in light of the climate crisis and the need for immediate action.¹⁹

- 16 Gerbrandy 2019, above n. 6.
- 17 Dunne 2020, above n. 15, at 257; T. Wu, 'After Consumer Welfare, Now What? The "Protection of Competition" Standard in Practice' *Columbia Pub. L. Research, Working Paper No.* 14-608 2018; Lianos, above n. 2; Gerbrandy 2019, above n. 6.
- 18 J. Malinauskaite, 'Competition Law and Sustainability: EU and National Perspectives', Journal of Competition Law and Practice Ipac003 (2022); O. Brook, 'Struggling with Article 101(3) TFEU: Diverging Approaches of the Commission, EU Courts, and Five Competition Authorities', 56 Common Market Law Review 121 (2019). Also, see Section 2.
- 19 Among others: S. Holmes, 'Climate Change, Sustainability and Competition Law', 8 Journal of Antitrust Enforcement 354 (2020); Gerbrandy 2019, above n. 6; G. Monti, 'Four Options for a Greener Competition Law', 22 Journal of European Competition Law and Practice 124 (2020).

⁹ Jones et al., above n. 4, at 35.

N. Dunne, 'Public Interest and EU Competition Law', 65 The Antitrust Bulletin 256 (2020); Gerbrandy 2019, above n. 6; Lianos, above n. 2; B.G. Norton, Sustainability as the Multigenerational Public Interest (2018); M.J.V. Abrenica, 'Balancing Consumer Welfare and Public Interest in Competition Law', 13 Asian Journal of WTO & International Health Law and Policy 443 (2018).
 Corbrandy 2019, above n. 6.

Competition law should make use of all the available tools in this regard, and, given the increasing power of private actors, sustainability agreements should be an important tool. A consistent interpretation of the 'constitutional' provisions of the Treaties would require it to be so.

The Treaties (Treaty on the European Union (TEU) and Treaty on the Functioning of the European Union (TFEU)), as well as the EU Charter of Fundamental Rights of the EU, consider sustainability among the main objectives of EU law.20 First, Article 37 of the Charter provides that environmental protection and the quality of the environment are to be integrated into the EU policies and guaranteed in accordance with the principle of sustainable development. Then, Article 3(3) TEU emphasises that the Union shall work for the sustainable development of Europe, while Article 3(5) TEU says that 'it shall contribute to ... the sustainable development of the earth' and to 'free and fair trade'. When it comes to implementation, Article 7 TFEU says that 'the Union shall ensure consistency between its policies and activities, taking all of its objectives into account', while Article 9 TFEU provides that 'in defining and implementing its policies and activities, the Union shall take into account ... the protection of human health', and Article 11 TFEU claims that 'environmental protection requirements must be integrated into the definition and interpretation of the Union policies and activities, in particular with a view to promoting sustainable development'. Regardless of the consideration of sustainability or other public interests as goals of EU competition law, it is a given that sustainability considerations (even more particularly environmental considerations) must be taken into account in applying the Treaties, and, as such, in applying Article 101 TFEU, even more given the emergency that climate change poses.

Thus, the pursuit of sustainability should not be pitted against the pursuit of consumer welfare. The problem may very well lie in a narrow understanding of the concept of 'consumer welfare' as a single measuring rod.²¹ We should reconsider the reason for the narrow approach to consumer welfare. While in practice (shortterm) price effects are indeed easier to measure, they should not be given excessive weight to what is easily measurable and thus understood as more predictable. If consumer welfare is the goal of competition law, then it should be embedded in a progressive economic and legal thinking and not detached from reality.²²

3 Article 101(3) TFEU and Sustainability Agreements: Current Understanding in the EU

The most feasible and generally supported manner for sustainability agreements to be allowed under EU competition law is through Article 101(3) TFEU. Article 101(3) TFEU states that agreements, decisions or concerted practices declared anti-competitive according to Article 101(1) TFEU might be exempted if they: 1. contribute to improving the production or distribution of goods or to promoting technical or economic progress (efficiency gains); 2. allow consumers a fair share of the resulting benefit; 3. their conditions are indispensable to the attainment of these objectives; 4. sufficient competition remains on the market. In the context of sustainability agreements, most of the questions arise regarding the first two conditions, i.e. efficiency gains and fair share: should 'non-economic' benefits (sustainability benefits) be taken into account to calculate efficiency gains? If so, how can they be measured? What is considered a 'fair share' to consumers? Does it allow consideration of benefits that are directed to most of society at large or that affect a group different from the consumers suffering loss of consumer welfare, or benefits that will occur in a much longer term? This section describes the approach of the European Commission regarding these questions during recent years and the changes that the Draft Horizontal Guidelines propose.

The European Commission, in line with the previous discussion regarding the goals of competition law and the emphasis on consumer welfare and economic efficiency in the last couple of decades, seemed to adhere to a narrow interpretation of Article 101(3) in relation to sustainability agreements. Following the guidelines issued by the Commission (particularly the 2004 Exemption Guidelines and the 2010 Horizontal Guidelines),²³ in the measurement of efficiency gains, losses and gains to consumer welfare are calculated, and, if costs are greater than benefits, the agreement is generally considered contrary to EU competition law. As discussed in the previous section, when considering the anti-competitiveness of an agreement or conduct, competition law relies on economic efficiency and ignores (or considers only to a marginal extent) non-economic objectives. Regarding the 'fair share' requirement, while it seems that the European Commission stipulates that users should be seen as a group for each relevant market, and full compensation of the users on the relevant market is necessary, it also requires that society benefit as a whole in certain situations (para. 85 Exemption Guidelines 2004). In the CECED (Conseil Européen de la

²⁰ For an interesting reflection in this regard: A. Gerbrandy, 'Changing Competition Law in a Changing European Union: The Constitutional Challenges of Competition Law', 14 The Competition Law Review 33 (2019); A. Sikora, Constitutionalisation of Environmental Protection in EU Law (2020); M. Humphreys, Sustainable Development in the European Union: A General Principle (2017).

²¹ Gerbrandy 2019, above n. 6, at 131-32.

²² See in this regard: Holmes above n. 19, at 362-65.

²³ See above n. 7.

Construction d'Appareils Domestiques) case,²⁴ concerning the agreement between washing machine manufacturers to stop the production of the least energy-efficient washing machines, the Commission assessed the individual economic benefits for washing machine users but also analysed the collective environmental benefits for society as a whole. Still, the conclusion was based on the decision that users of the relevant market were fully compensated. If a narrow interpretation of this requirement is followed, and full compensation of affected users is required, the room for allowing self-regulation agreements with sustainability objectives is very much reduced.

During the last decade, there has been a growing debate regarding sustainability and competition law and calls for clarity in sustainability agreements and Article 101 TFEU. Doubts regarding whether agreements of this type are anti-competitive or not can be a deterrent for companies to enter into such agreements. Both NCAs and the Commission have taken notice and are currently clarifying their interpretation of sustainability agreements under Article 101(3) TFEU.

Some NCAs took action before the Commission did. The Dutch competition authority (ACM) has been leading this debate. The Dutch ACM has had a long experience regarding sustainability agreements (e.g. Energieak-koord (2013),²⁵ Chicken of Tomorrow (2015)²⁶). In its revised Draft Guidelines concerning sustainability agreements published on 26 January 2021,²⁷ the Dutch ACM recognises that agreements between undertakings can

ments published on 26 January 2021,²⁷ the Dutch ACM recognises that agreements between undertakings can contribute to achieving public sustainability objectives and takes a practical and comparatively progressive approach to the interpretation of Article 101(3) TFEU.²⁸ Similarly, the Hellenic Competition Commission (HCC) has also been active in this debate and has published a staff discussion paper concerning sustainable development and competition law. Taking a different route, Austria has even incorporated a new sustainability exception into its legislation in a recent competition law amendment of September 2021.²⁹

- 24 Commission Decision of 24 January 1999 relating to a proceeding under Art. 81 of the EC Treaty and Art. 53 of the EEA Agreement (Case IV.F.1/36.718. *CECED*).
- 25 Netherlands Authority for Consumers and Markets, Notitie ACM Over Sluiting 5 Kolencentrales in SER Energieakkoord (2013).
- 26 Netherlands Authority for Consumers and Markets, ACM's Analysis of the Sustainability Arrangements Concerning the 'Chicken of Tomorrow', Case No. 13.0195.66 (2015).
- 27 Netherlands Authority for Consumers and Markets (ACM), Draft Guidelines on Sustainability Agreements (2021).
- 28 M. Campo Comba, 'EU Competition Law and Sustainability: Key Aspects from the Dutch ACM Draft Guidelines Towards a Unified EU Approach', in EU Antitrust: Hot Topics and Next Steps. Proceedings of international conference held in Prague on January 24-25, 2022 (2022): https://rozkotova. cld.bz/EU-ANTITRUST-2022/166/.
- 29 The Austrian exemption provision for anti-competitive agreement, equivalent to Art. 101(3) can be found in § 2 para 1 Cartel Act. The new amendment added a sentence to the provision stating that '[c]onsumers shall also be considered to be allowed a fair share of the resulting benefit if the improvement of the production or distribution of goods or the promotion of technical or economic progress significantly contributes to an ecologically sustainable or climate-neutral economy'. V.H.S.E Robertson, 'Sus-

At the EU level, the Commission has reviewed and evaluated the Horizontal Guidelines and issued the new Draft Horizontal Guidelines, which will enter into force in January 2023. These new guidelines contain a specific chapter on sustainability agreements and provide an answer to some of the questions regarding these agreements and Article 101(3) TFEU:

Chapter 9 of the Draft Horizontal Guidelines is dedicated to sustainability agreements, with Section 9.4 focusing on its assessment under Article 101(3) TFEU. Efficiency gains must be substantiated, objectively concrete and verifiable (paras 577-579). Emphasis is placed on the indispensability condition (the third condition of Article 101(3)): parties need to demonstrate that the agreement is reasonably necessary for the claimed sustainability benefits (paras 580-587). When regard to the measurement of efficiency gains and a fair share to consumers, unless it is obvious, there is a need for a detailed assessment. Here the Draft Guidelines distinguish among 'individual use value benefits' and 'individual non-use value benefits'. The former is the same type of benefits that may result from other agreements (price, quality etc.) that, in this case, also happen to bring positive externalities. The latter are defined by the Commission as indirect benefits, which result from the consumers' appreciation of the impact of their sustainable consumption on others, and are therefore to be measured by a willingness-to-pay method. For instance, example 4 introduced in the guidelines, referring to an agreement between furniture producers to introduce a 'green tree label' for furniture made of sustainable grown wood, requires a willingness-to-pay assessment since the possible efficiencies come in the form of improved sustainability in the growing and harvesting of wood.

Finally, the Draft Guidelines refer to 'collective benefits', which, irrespectively of consumers' individual appreciation, are benefits that affect a larger group of society. Where two markets are related, efficiencies achieved on separate markets can be taken into account, provided that the group of consumers affected by the restriction and benefiting from the efficiency gains is substantially the same (para 602). For example, when considering an agreement concerning sustainable cotton that reduces chemicals and water use where it is cultivated, the benefits would not be considered collective because there is no overlap between clothing consumers and those living in the area where the cotton is cultivated. According to the Draft Guidelines, these benefits would fall in the category of 'individual non-use value benefits' and can only be considered to the extent that consumers are willing to pay for them (para 604). In addition, there are specific conditions for collective benefits in para 606, and evidence based on public authorities' reports or on the reports prepared by recognised academic organisations would be of particular value.

tainability: A World-First Green Exemption in Austrian Competition Law', Journal of European Competition Law & Practice lpab092 (2022).

The last two situations concerning the benefits classified as non-value use benefits and collective benefits are, in general, the problematic sustainability agreements, which are a subject of discussion regarding their efficiency gains and fair share to consumers. Many sustainability agreements are considered to be outside the exception of Article 101(3) TFEU according to the new revised guidelines, unless a willingness-to-pay study can show that those benefits are given enough value by the consumers to compensate the harm from competition. The next section will consider whether such an approach is adequate in order to ensure the potential of sustainability agreements to achieve sustainability objectives.

4 Achieving Sustainability Objectives through Sustainability Agreements in EU Competition Law

4.1 The Potential of Sustainability Agreements to Achieve Sustainability Objectives: Re-analysing the 'Chicken from Tomorrow' Example

In order to explore the potential of sustainability agreements in achieving sustainability objectives, this section uses as a starting point the controversial *Chicken of Tomorrow* case,³⁰ which initiated heated debates on the necessity of competition law to allow (or not) these type of agreements and the way in which the 'sustainability benefits' of these agreements should be assessed.

The Chicken of Tomorrow ('Kip van Morgen') case involved a self-regulation agreement that the Dutch competition authority (ACM) understood as anti-competitive in 2014. The ACM's analysis of the Chicken of Tomorrow case determined that the measures to improve chicken welfare were not 'enough', and thus the agreement did not fall under the national equivalent exception of Article 101(3) TFEU. This specific case of 2014 is still of special interest for our discussion for two main reasons. First, because in 2020 the ACM compared the specific animal welfare measures proposed by the agreement with the improvements achieved by other private initiatives that do not clash with competition law in order to check whether the same objectives were achieved through different means. Secondly, the revised Draft Horizontal Guidelines make it seem like the Commission would nowadays follow a similar interpretation in order to declare such an agreement anti-competitive. The assessment conducted by the ACM is analysed further on, as well as the later Memorandum published in 2020, where the ACM finds that chicken welfare was better improved by other private initiatives, and thus con-

Netherlands Authority for Consumers and Markets above n. 26.

firmed that the 'anti-competitive' agreement was not necessary.

The ACM concluded in 2014 that the sustainability agreement entered into between producers and retailers with the primary purpose of improving chicken welfare was anti-competitive, according to Section 6, paragraph 3 of the Dutch Competition Act, the Dutch national equivalent of Article 101(3) TFEU. With the main focus on the first two conditions (efficiency gains and fair share), the analysis of the ACM used a willingness-to-pay study to measure whether the benefits of the agreement offset the harm caused by the restriction of competition. The willingness-to-pay test showed that consumers were unwilling to pay the increased price for the proposed improvements, and, as a result, the ACM concluded that the sustainability arrangements, as currently designed, did not generate any net benefits for consumers and were therefore anti-competitive. From the current Draft Horizontal Guidelines, it would appear that the Commission would now follow a similar reasoning. The chicken welfare measures would most likely be seen as indirect benefits, comparable to the example of a 'green tree label' for furniture made of sustainable wood according to the guidelines referred to in the previous section. For these cases, the Commission also refers to the willingness-to-pay assessment as the only way to assess whether the benefits from such an agreement would outweigh the anti-competitive consequences according to the consumers.

Years later, the ACM evaluated the case in a Memorandum published in 2020.³¹ In this report, the ACM looked at the developments regarding the welfare of chicken sold at the supermarkets and concludes that the current standards go beyond those required by the Chicken of Tomorrow agreement. The study suggests that the anti-competitive agreement was not necessary to achieve the established animal welfare objectives. The Memo compares the animal welfare features laid down in the Chicken of Tomorrow agreement with the features of the situation in 2020. It compares the chicken welfare conditions of the Chicken of Tomorrow with those from other non-anti-competitive private regulation initiatives: market-wide certification labels (the Better Life Label - 1, 2 or 3 BLK stars; Organic chicken label) and chicken welfare initiatives of individual supermarkets (ah chicken from Albert Heijn, Nieuwe Standaard Kip from Jumbo, etc.). The ACM concludes that, with some exceptions, these initiatives meet or exceed the requirements of the Chicken from Tomorrow. However, several relevant remarks should be made. There is unknown data regarding several points (see life span or continuous darkness of some supermarket initiatives), and some assumptions are made.³² Moreover, the analysis seems to ignore the fact that this is only some of the chicken offered by the supermarkets, while the Chicken of Tomorrow initiative involved all the chicken products offered by the participating supermarkets (high market

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³¹ Netherlands Authority for Consumers and Markets (ACM) above n. 27.

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share), which, besides the Chicken of Tomorrow standards, could have also participated in the higher standards initiatives at the same time (meaning that a better animal welfare can still be part of the competition strategy of a company). In addition, as the ACM also recognises, it is not possible to make an estimate of the hypothetical scenario in which the agreement would have been given the green light, nor can it be ruled out that chicken welfare could have improved more or sooner than it did. Furthermore, the possible deterrent effect that the ACM's decision had on the animal welfare strategies of the companies involved cannot be ruled out. In this respect, the deterrent effect could also be extended to other companies that could have liked to follow a similar strategy regarding other sustainability objectives. Moreover, numerous factors could have influenced the situation that led to the improvement of the measures proposed in the agreement, such as the growing awareness regarding animal welfare concerns among society, or sustainability as a powerful marketing tool.

While private initiatives such as voluntary market labels or individual initiatives can bring about improvements, as shown by the ACM in this study, the existence of such initiatives does not preclude the existence of sustainability agreements. Sustainability agreements are a different tool with a different reach that can bring other advantages and results. The mandatory nature of self-regulation agreements and the big reach in the industry concerned have the potential to lead to wider re-

sults and create a bigger impact in the market, since they impose mandatory minimum requirements for all. For example, as mentioned, the Chicken of Tomorrow initiative affected all the chicken products offered by the participating supermarkets, which, at the same time, held a big market share on the market. Also, such an agreement did not preclude participants from participating in voluntary initiatives with higher standards. Finally, the Chicken of Tomorrow case generated an in-

rmany, the Chicken of Tomorrow case generated an intense debate on the inclusion of sustainability agreements under Article 101(3) TFEU, which has continued until today.³³ When assessing the efficiency gains of the agreement, the ACM concluded that the specific objectives of the agreement were not enough, since, when evaluating it with a willingness-to-pay analysis, it was concluded that consumers were willing to pay only a small amount for the measures provided in the agreement and that the additional costs exceed that amount. The key element is the specific measures and objectives contained in the agreement. The manner in which the

33 Among others, Gerbrandy above n. 2; G. Monti and J. Mulder, 'Escaping the Clutches of EU Competition Law: Pathways to Assess Private Sustainability Initiatives', 42 European Law Review 635 (2017); J. Bos, H. van den Belt & P. Feindt, 'Animal Welfare, Consumer Welfare, and Competition Law: The Dutch Debate on the Chicken of Tomorrow', 8 Animal Frontiers 20 (2018); M. Gassler, 'Sustainability, the Green Deal and Art 101 TFEU: Where We Are and Where We Could Go', 12 Journal of European Competition Law & Practice 430 (2021); P. Jansen, S. Beeston & L. van Acker, 'The Sustainability Guidelines of the Netherlands Authority for Consumers and Markets: An Impetus for a Modern EU Approach to Sustainability and Competition Policy Reflecting the Principle that the Polluter Pays?', 12 European Competition Journal 287 (2022). Commission and NCAs decide to assess whether those objectives are enough is crucial, and it is necessary to inquire whether the current interpretations of the rules take the importance of the objectives of sustainability agreements sufficiently into account.

4.2 Ensuring the Potential of Sustainability Agreements within the Current Competition Law Rules

The question of whether those objectives are 'enough' to achieve the public interest objective behind them is answered in competition law terms by assessing whether the sustainability benefits to consumers offset the harm that the restriction of competition has caused to them.

Focus is placed on the agreements that are considered to be outside the exception of Article 101(3) TFEU unless a willingness-to-pay study can show that those benefits are given enough value by the consumers to compensate the competition harm, and the sustainability agreements with collective benefits (normally, environmental damage agreements, since they aim to compensate the market failure consisting of non-sustainable consumption producing negative externalities on others). There are traditionally two fundamental difficulties when applying Article 101(3) TFEU:

First, there are multiple setbacks when assessing sustainability benefits to ascertain efficiency gains: By using a direct evaluation method (a technique that asks consumers which value they ascribe to a product) such as the willingness-to-pay method used by the ACM in the Chicken of Tomorrow case and the one chosen by the Commission to assess 'non-value use benefits' or 'indirect benefits', it is possible to assess goods that would otherwise be difficult to value. However, such a method comes with difficulties. For instance, results may be influenced by the chosen structure of the survey or wording of questions. Moreover, it has been shown that the actual willingness-to-pay frequently differs from the stated willingness-to-pay (bounded rationality of consumers).³⁴ Potential biases or lack of knowledge may arise both when considering future benefits against immediate costs and when assessing the preferences of consumers for a balancing of effects.³⁵ Even the Draft Horizontal Guidelines from the Commission recognise that such a method comes with difficulties (para 598).

There are multiple evaluation methods that can be used. However, it has been pointed out that the relationship between the avoidance costs and the utility

³⁴ OECD Directorate for Financial and Enterprise Affairs Competition Committee, 'Sustainability and Competition – Note by Germany', at 16-17 (2020); K. White, D. Hardisty & R. Habib, 'The Elusive Green Consumer', July-August 2019 Harvard Business Review (2019); C. Volpin, 'Sustainability as a Quality Dimension of Competition: Protecting Our Future (Selves)', July 2020 CPI Antitrust Chronicle, at 3-4 (2020).

³⁵ R. Inderst and S. Thomas, 'Integrating Benefits from Sustainability into the Competitive Assessment—How Can We Measure Them?', 12 Journal of European Competition Law & Practice 705 (2021).

loss caused by externalities is not very strong and that the actual damage might differ from avoidance costs.³⁶

On top of the disadvantages of a method itself, the existence of a plurality of methods becomes a practical problem since different evaluation methods can be used for different improvements regarding sustainability objectives. When the results vary depending on the method chosen, uncertainties arise, which makes the assessment vulnerable.37 More importantly, it is not always possible to economically quantify all aspects of sustainability goals (e.g. valuing intergenerational equity).³⁸ The need to take into account the 'constitutional' requirements to incorporate sustainability policies into the implementation of EU policies is important in this measurement, and the principle of proportionality to weight the values involved should be of relevance. Thus, a quantitative assessment of benefits deriving from sustainability agreements is indeed not an easy task, and the uncertainties around it might prevent businesses from entering into this type of agreement. The revised Draft Horizontal Guidelines provide for specific requirements in order to ensure the accuracy of the willingness-to-pay studies presented by the undertakings involved. However, given the uncertainties around it, we could wonder whether this is an adequate tool in order to properly harness the potential of these agreements to achieve certain objectives.

- Second, the next prerequisite for the application of the exception of Article 101(3) TFEU requires that product users must receive a fair share of the benefits resulting from the agreement. In other words, consumers should be compensated for the harm caused by the restriction of competition (e.g. increase in prices, limitation of products, etc.).

There have been innumerable doubts and discussions as to whether the requirement only refers to benefits for users of the relevant market of the product and a full compensation for them is necessary or whether the scope can be broader. This issue is fundamental in the context of sustainability agreements, since the negative externalities that a sustainability agreement may aim to avoid, or the benefits that it aims to seek, will generally affect society as a whole (e.g. less pollution, health, etc.). In the CECED case, concerning the agreement between washing machine manufacturers to stop the production of the least energy-efficient washing machines, the Commission assessed the individual economic benefits for washing machine users but also analysed the collective environmental benefits for society as a whole. Still, the conclusion was based on the decision that users of the relevant

market were fully compensated. After years when it seemed that the Commission's more economic approach would follow a narrow approach, the new revised Draft Guidelines take back the view of the CECED case. Collective benefits will be taken into account when parties provide evidence of the claimed benefits, define the beneficiaries, show that the consumers in the relevant market substantially overlap with the beneficiaries, and demonstrate what part of the collective benefits outside of the relevant markets accrue to the consumers of the product in the relevant market. Evidence based on public authorities' reports or on the reports prepared by recognised academic organisations will have particular weight (paras 606 and 607). The example used by the Commission in the revised Draft Horizontal Guidelines (example 5, para 621) resembles the facts and findings on the CECED case.

In the same line of reasoning, the Dutch ACM, in the Draft Guidelines on Sustainability Agreements (second draft version, January 2021), also believes, only regarding environmental damage agreements, that benefits for people other than the users should be taken into account since, in those cases, it is the demand for the products in question, the one creating the problem, that affects society, and it can be fair not to fully compensate users for the harm that the agreement causes. The ACM also mentions that these users enjoy the same benefits as society. For this more extensive interpretation regarding environmental damage agreements to be applicable, the ACM requires in the Draft Guidelines that the agreement contribute efficiently towards the fulfilment of an international or national standard or concrete policy objective.

Following these interpretations, it seems that outof-market benefits can be taken into account as long as users of the relevant market receive at least some substantial part of those benefits, but only regarding environmental damage agreements. This is not the case when it comes to the other type of sustainability agreements, such as those considered by the Commission as bringing 'indirect benefits' (individual non-use value benefits), since the willingness-to-pay analysis is based on the consumers of the specific product, and the assessment is generally limited to the consumers in the relevant market. However, we consider that such an approach can be extended to sustainability agreements in general. Even the ACM, when justifying the approach for environmental damage agreements, refers to the obligation to apply the competition rules in a manner consistent with the objectives of the Treaty. These arguments do not require a distinction between environmental damage agreements and other agreements but could support the application of the broad 'fair share' interpretation for both cases.

Taking this into account, in addition to the difficulties deriving from the quantitative assessment of sustaina-

³⁶ OECD Directorate for Financial and Enterprise Affairs Competition Committee, above n. 34, at 16-17.

³⁷ Gassler, above n. 33, at 103.

³⁸ Gerbrandy 2019, above n. 6, at 116.

bility benefits (especially regarding the difficulties and discussed 'adequacy' of the willingness-to-pay approach), a broader use of the qualitative assessment can be explored. More emphasis could be placed on the fact that certain agreements aim to pursue pre-established objectives, derived from international or national standards, or concrete policy objectives, which are not mandatory for the companies involved. While benefits deriving from the agreement are required to be objective and based on existing studies, greater focus can also be placed on the objectives of the agreement. For example, the sustainability objectives that our society is aiming for are specified, in general, in the SDGs and Paris Agreement and its related strategies, and, even more locally, in the EU Green Deal and its derived strategies. When the agreement pursues pre-established public objectives, whose benefits can also be objectively substantiated, a broader use of a qualitative assessment could be promoted.

This approach could prove especially useful when those pre-established objectives (and the measures needed to reach them) are not going to be reached in the near future by public regulation. For example, the European Commission has said, following a European Citizens' Initiative (ECI), that it will work towards phasing out, and finally prohibiting, caged animal farming.³⁹ As part of the farm to fork strategy, the Commission will revise the existing animal welfare legislation, aiming to enter into force by 2027. The European Food Safety Authority will complement the existing scientific evidence to determine the conditions necessary to phase out and prohibit cages, and the socio-economic and environmental implications of the measures to be taken, as well as the benefits to animal welfare, are to be considered by the Commission in an impact assessment. The financial challenges of such a transition to farmers are important. In this case, a sustainability agreement could constitute an option to start raising the animal welfare standards now and agreeing on phasing out the cage systems for one of the considered animals, following those pre-established objectives, and using the upcoming studies to justify those measures and their consequences to the consumers (such as a price increase). Such initiatives may contribute to creating awareness among consumers and even preparing the market in some cases for potential public regulation (which may or may not enter into force in the near future). Another example is found in the ACM's Draft Guidelines on sustainability agreements when considering a similar option in the case of environmental damage agreements and refers to the concrete policy objective of the government's policy aimed at reducing CO2 emissions on Dutch soil by year X by Y%.⁴⁰ It is well established that private actors can

have an important role in complementing regulatory efforts. $^{\rm 41}$

Thus, creating an exception for those agreements that aim to pursue pre-established objectives (derived from international or national standards, or concrete policy objectives, which are not mandatory for the companies involved) and to ensure objective benefits, can help achieve the potential that self-regulation agreements have within the competition law context. An assessment by the Commission or NCAs would still be required but can be of a qualitative nature rather than a stricter and more complicated quantitative assessment of efficiency gains.

5 Conclusion

EU competition law should take into account sustainability considerations as much as possible and has the potential to do so. Despite the discussions regarding the goals of competition law, it is clear that the Treaty foundations require that EU policies take into account sustainability considerations, and if consumer welfare is the main goal of competition law, then this concept should be interpreted under a progressive economic and legal thinking not disconnected from reality. Thus, efforts are required in order to use the available tools that competition law has to enhance sustainability. Sustainability agreements are one of those tools.

Article 101(3) TFEU seems to be the most feasible route nowadays in order to allow sustainability agreements under EU competition law. After years of academic discussions and numerous calls for clarifications, the actions of the NCAs and the Commission in order to clarify whether and, if so, when sustainability agreements can fit within the exception of Article 101(3) TFEU are welcome. Indeed, legal certainty in this regard was very much called for in order not to discourage undertakings from entering into these agreements. The Draft Horizontal Guidelines allow agreements that contain those considered as indirect or non-value use benefits, but as long as there is a willingness-to-pay study that shows that the consumers give enough value to those benefits in order to compensate the competition harm. They also allow agreements containing collective benefits, as long as certain conditions are fulfilled.

The 'Chicken of Tomorrow' case from the Dutch ACM also used a willingness-to-pay study that showed that consumers did not value the animal welfare measures derived from the agreement and were unwilling to pay the price increase that those measures would bring. Thus, the Dutch ACM considered that the measures and objectives pursued by that sustainability agreement were not 'enough' to fall under the exception of Article 101(3) TFEU. This case raised a lot of doubts about

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³⁹ European Commission Press release 30 June 2021, 'Commission to propose phasing out of cages for farm animals' at: https://ec.europa.eu/ commission/presscorner/detail/en/IP_21_3297.

⁴⁰ Netherlands Authority for Consumers and Markets (ACM), Draft Guidelines on Sustainability Agreements (2021), para. 48.

⁴¹ A.G. Scherer, G. Palazzo & D. Matten, 'The Business Firm as a Political Actor: A New Theory of the Firm for a Globalized World' (2014) 53 *Business* & *Society* 143.

the interpretation of Article 101(3) and whether the willingness-to-pay method was adequate to measure the benefits of such agreements. In 2020, the Dutch ACM published a Memo highlighting the improvements brought forward by other private initiatives such as voluntary market labels or individual initiatives. However, the potential big market reach of sustainability agreements and the imposition of mandatory minimum requirements on all the participants would likely create a bigger impact in the industry and lead to wider results. Substantively, the key lies in the objectives and measures imposed by the agreement. However, it has been questioned whether the objectives and measures of the agreements are being properly assessed (for example, with the willingness-to-pay method).

While the willingness-to-pay method comes with inherent difficulties, such as those related to consumer behavioural science, it is not always possible to economically quantify all aspects of sustainability goals. Even the quantitative measure of the benefits of environmental damage agreements through environmental damage prices does not come without problems. The uncertainties around the quantitative assessment of benefits from sustainability agreements might create a deterrent effect for businesses that want to enter into this type of agreements. The reach or scope of the benefits is also a subject of discussion. It seems that out-of-market benefits can be taken into account as long as consumers of the relevant market receive at least a substantial part of those benefits, but only in the case of agreements with those classified as 'collective benefits' (environmental damage agreements). However, in the case of agreements bringing individual non-use value benefits, the willingness-to-pay analysis is based on the consumers of the specific product, and the assessment is generally limited to the consumers in the relevant market.

In order to overcome these difficulties, this article proposes an approach that may allow a proper consideration of the objectives of a sustainability agreement for certain cases, by focusing on agreements that pursue pre-established objectives derived from international or national standards, or concrete policy objectives that are not previously mandatory for the companies involved. To overcome the difficulties derived from a quantitative assessment, such assessment could be omitted when the agreement at hand pursues pre-established objectives derived from international or national standards or concrete policy objectives, whose benefits are objective and based on existing studies, relying instead on the qualitative assessment. Such an exception may promote these types of agreements as opposed to other sustainability agreements and help achieve the potential that self-regulation agreements have within the competition law context.

Why Can't Stakeholder Theory Save the Planet and What Can Corporate Law Do Instead?

Seniha Irem Akin*

Abstract

In the midst of a multidimensional crisis with economic, social and environmental aspects, corporations have become aware that the reality of our day necessitates that they must play a dual role both for their businesses and for the general public. A primary reason for the change in this perception is the alarming state of the environment and especially the potentially irreversible effects of the climate crisis. As a living and evolving entity within society, companies now take on the public duty to address the mounting concerns about the environment and adopt environmentally sustainable corporate strategies. While doing this, many of them refer to the stakeholder theory. Almost forty years ago, the stakeholder theory was introduced by Freeman as a management concept. Including environmental sustainability within the scope of the stakeholder theory is, therefore, a fairly new approach and raises the following question: Is the stakeholder theory the best tool to integrate environmental sustainability into corporate activity? This article will aim to demonstrate why the answer to this question should be 'no'. Adding to this, it will then discuss how legal reform in the area of corporate law focusing on the key concepts of corporate interest and directors' duties should be done instead.

Keywords: stakeholder theory, corporate environmental sustainability, corporate reform, corporate interest, board of directors.

1 Introduction

There is now a mutual understanding between different parties, scholars, lawmakers and businesspeople that attributing the limited role of profit maximisation is an underestimation of corporations' potential. Currently, we live in a world where corporations are expected to have a dual role both for their shareholders and for non-shareholder stakeholders. This change in the perception was triggered by the harsh criticism against the way corporations operate in the modern day as capitalism has reached its 'inflection point'.¹ Multinational corporations have started to be seen as 'behemoths'² or 'money monsters'.³ In line with this, the role of corporations within society has also changed and the idea of revisiting the business as usual has evolved.⁴

In the United States, one exciting private initiative came from the Business Roundtable (BRT), which includes influential CEOs of companies such as Apple, Amazon, and JP Morgan. In 2019, through their Statement on Purpose of Corporation they 'redefined' their purpose and declared that they are making a 'fundamental commitment to all of our stakeholders'.⁵ This was a radical shift when it is considered that the same body, in its statement back in 1997, set forth that 'the Business Roundtable wishes to emphasize that the principal objective of a business enterprise is to generate economic returns to its owners'.6 It can be seen from this old statement that, apart from the explicit preference for financial gains over other purposes a business can pursue, shareholders were perceived as the 'owners' of the businesses. Nevertheless, the new statement in 2019 shows that the view of BRT has changed dramatically throughout those twenty-five years. In a similar vein, as another internationally influential institution, the World Economic Forum (WEF) also embraced a view in favour of a broader range of stakeholders by stating that

the purpose of a company is to engage all its stakeholders in shared and sustained value creation. In creating such value, a company serves not only its shareholders but all its stakeholders – employees, customers, suppliers, local communities and society at large.⁷

edu/2019/02/11/its-time-to-adopt-the-new-paradigm/ (last visited 9 October 2022).

- 2 L. Davoudi, C. McKenna & R. Olegario, 'The Historical Role of the Corporation in Society', 6 Journal of the British Academy 17 (2018).
- 3 C. Mayer, Prosperity: Better Business Makes the Greater Good (2018), at 229.
- 4 This term is used to refer to the business model established under the influence of the shareholder primacy approach.
- 5 www.businessroundtable.org/business-roundtable-redefines-the-purposeof-a-corporation-to-promote-an-economy-that-serves-all-americans (last visited 4 January 2023).
- 6 www.ralphgomory.com/wp-content/uploads/2018/05/Business-Roundtable-1997.pdf (last visited 4 January 2023).
- 7 www.weforum.org/agenda/2019/12/davos-manifesto-2020-the-universalpurpose-of-a-company-in-the-fourth-industrial-revolution/ (last visited 4 January 2023).

^{*} Seniha Irem Akin is PhD researcher at the Erasmus University Rotterdam, the Netherlands.

¹ M. Lipton, 'It's Time to Adopt the New Paradigm', *Harvard Law School Forum on Corporate Governance* (2019) https://corpgov.law.harvard.

One of the primary reasons for this shift is the soaring expectations the society has from the private sector to take an active role in combating environmental challenges, climate change being the most serious one.⁸ The achievement of global far-reaching environmental goals (such as limiting global warming to 1.5 °C by the 2030 deadline) requires the active participation of the private actors. On the one hand, corporations have a transformative role to play in the green transition as they constitute a significant part of the economy through the production of goods, provision of services and employment generation. The desired transitions to make consumption and production habits more environmentally sustainable, therefore, necessitates their full involvement. On the other hand, private corporations, especially the ones in the fossil fuel industry, are significant contributors to the environmental challenges of today, and most specifically, anthropogenic climate change.9 For this reason, corporations now feel the responsibility to adopt environmentally sustainable strategies as a part of their business policy. As a recourse, they often reach the stakeholder theory. However, such a construction creates subtle problems.

Almost forty years ago, the stakeholder theory was introduced by Freeman as a management concept to find a balance between the conflicting interests of shareholders and non-shareholder corporate constituencies. The main focus group of stakeholders was employees and customers.¹⁰ Including environmental sustainability within the scope of the stakeholder theory is, therefore, a fairly new approach and raises the following question: Is the stakeholder theory the best tool to integrate environmental sustainability into corporate activity? This article will aim to demonstrate why the answer to this question should be 'no' and why we need a structural legal reform in corporate law instead.

2 Clarification of the Meaning of Stakeholder Theory

Before presenting a critique of the stakeholder theory and its suitability for achieving corporate environmental sustainability, a point of clarification should be made regarding its meaning with reference to in this article. Stakeholderism can be described in two different ways:

- 8 WEF's 2021 Global Risks Perception Survey reports that five out of the ten most serious global risks over the next decade are environmental risks with the first three being climate action failure, extreme weather and biodiversity loss respectively.
- 9 According to the Carbon Majors Report, 70% of all anthropogenic GHG emissions are caused by the fossil fuel industry and its products. In a similar vein, in its Sixth Assessment Report, the UN Intergovernmental Panel on Climate Change (IPCC) highlights that the biggest contributor to global net anthropogenic emissions is the CO2 from the fossil fuel industry (CO2-FFI).
- 10 B. Sjåfjell and J.T. Mähönen, 'Corporate Purpose and the Misleading Shareholder vs Stakeholder Dichotomy', 43 University of Oslo Faculty of Law Legal Studies Research Paper Series 1, at 11 (2022) https://papers.ssrn.com/ sol3/papers.cfm?abstract_id=4039565 (last visited 8 December 2022).

(i) as stakeholder-oriented corporate law systems and (ii) as a strategic management concept. This article will refer to the latter.

The first category of stakeholderism refers to jurisdictions that have stakeholder-friendly corporate law systems, such as Germany and the Netherlands. In these jurisdictions, consideration of different stakeholder groups, especially employees, has been a long tradition that precedes the managerial stakeholder theory. For instance, in both Germany and the Netherlands, employee representation at the board level has been a living tradition.¹¹ For this reason, they are often considered as a 'stakeholder society'.¹² What makes a legal territory stakeholder society is not related to the managerial stakeholder theory. Rather, it is because these jurisdictions have adopted corporate law systems which are *designed* to promote stakeholder interests.

These corporate law systems favouring a stakeholder society are completely different from the second version of stakeholderism which is a 'genre of management theory'.¹³ Stakeholder theory was introduced by Freeman in 1984 as a management tool.¹⁴ This is fairly different from the first understanding of stakeholderism which refers to corporate law systems that have established stakeholder societies. Stakeholder theory does not define the whole identity of the corporate law system, it merely refers to a managerial concept. Thus, a comparison between these two versions of stakeholderism can advance a faulty dichotomous view. For this reason, this article will not handle these concepts through a comparative analysis. Rather, it will raise criticism against using the managerial stakeholder theory in achieving stakeholder societies. It will contribute to the state of the art by discussing why a total reliance on stakeholder theory, as a management concept, will fail in creating sustainable societies. These sections will be complemented by providing argumentation on the need for corporate law reform to make the necessary changes in corporate behaviour and construct a legal system that can favour environmental sustainability.

3 Problem I: The Identification of the Environment as a Stakeholder

Under the stakeholder theory, the first step is to define the scope of the stakeholders. Up to this day, there has

- 11 For instance, under the 1976 Codetermination Act (*Mitbestimmungsgesetz*) of Germany, companies which have over 2,000 employees are required to have half of their supervisory board directors from representatives of workers.
- 12 G.M.M. Gelauff and C. den Broeder, Governance of Stakeholder Relationships: The German and Dutch Experience (1996).
- 13 B. Parmar, R.E. Freeman, J.S. Harrison & A.C. Purnell, 'Stakeholder Theory: The State of the Art', 4 The Academy of Management Annals 403, at 408 (2010).
- 14 R.E. Freeman, Strategic Management: A Stakeholder Approach (1984).

not been a unified definition for the term stakeholder. Opinions on the scope of stakeholders are generally categorised into two types as narrow and broad.¹⁵ To start with, Freeman's original definition falls under the broader type of definitions since he defines stakeholders as 'any group or individual who can affect or is affected by the achievement of the organization's objectives'.¹⁶ In fact, his definition was later criticised for being 'the broadest definition in the literature'.¹⁷ This is because the notion 'can affect or is affected' annihilates any requirement for a contract, transaction or even a reciprocal relationship.¹⁸ Under the broad definitions, stakeholders can vary from shareholders to the general public.

There are also definitions for the stakeholder theory that aim to narrow the scope by introducing different criteria for the attribution of the stakeholder title. These definitions generally identify stakeholders based on whether the relevant group takes a risk, often a financial one, due to business activity.19 This approach is also more in line with the etymological roots of the word stakeholder as 'stake' represents the risk-bearing nature of this concept.²⁰ In line with this, narrow definitions define a stakeholder as 'an individual or group that asserts to have one or more of the stakes in a business'21 or more specifically, they make entitlement for the stakeholder status conditional upon putting 'some economic value at risk'.22

From the perspective of the environmental interests, broad and narrow definitions can have both advantages and disadvantages. Broad definitions are inherently more beneficial for the larger group of stakeholders as they cover even those who do not have direct ties with the corporation. Nevertheless, since broader definitions require almost no distinctive feature for the identification of stakeholders, they can put too many different stakeholder interests on the management's plate at the same time. This will mean that each stakeholder's interest needs to be considered with a larger number of interests. In addition to this, the lack of a special focus can cause managers to pay scant attention to the stakeholder interests they are asked to safeguard and promote.23 This can impair the managers' vision, leaving each stakeholder group worse off. Such an approach will also lower the chance of the environmental interests being upheld during management's decision-making process.

- 15 D. Windsor, 'Stakeholder Management in Multinational Enterprises', 3 Proceedings of the International Association for Business and Society 241 (1992).
- 16 Freeman, above n. 14, at 46.
- 17 R.K. Mitchell, B.R. Agle & D.J. Wood, 'Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts', 22 The Academy of Management Review 853 (1997). 18
- Ibid. at 856

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- 19 E.W. Orts and A. Strudler, 'The Ethical and Environmental Limits of Stakeholder Theory', 12 Business Ethics Quarterly 215 (2002), at 218. 20 Ibid.
- 21 A.B. Carroll and A.K. Buchholtz, Business & Society: Ethics and Stakeholder Management (2009).
- 22 K.E. Goodpaster, 'Business Ethics and Stakeholder Analysis', 1 Business Ethics Quarterly 53, at 54 (1991).
- 23 J. Tirole, 'Corporate Governance', 69 Econometrica 1, at 27 (2001).

Narrow definitions, on the other hand, are more advantageous for the management as they limit their attention to a smaller group. This seems more workable from the management's perspective since it is harder to consider different stakeholders and their varying interests at the same time due to the 'practical reality of limited resources, time, attention, and limited patience of managers'.²⁴ In addition, the preferred group of stakeholders will also benefit from narrow definitions since they can now be selected amongst a smaller number of stakeholders. Nevertheless, a narrow approach may not be favourable for the environmental interests as they are located at the outermost layer of a corporation's external relationships. The chances of the environmental interests being considered within the scope of the stakeholder theory are, therefore, low if narrow definitions are adopted.

As to the more philosophical question of whether the environment, by itself, can be deemed as a stakeholder, there are also different views. One of the clearest examples of an affirmative answer to this question is given by Starik.²⁵ He criticises the fact that the notion of stakeholder has been limited to natural human beings. Indeed, as he raises the question, stakeholders have generally been described as 'individuals or groups' which is a phrase that indicates human nature. Conversely, Starik believes that the environment is a stakeholder in itself, and its protection is required for its own interests. Contrary to his views, a bigger majority of scholars fiercely argue over the stakeholder status of the environment. The most straightforward argument here is the non-anthropocentric nature of the environment, unlike other stakeholders.²⁶ Under this view, the environment cannot pursue its own interests and will require other stakeholders for its protection. Building upon this, Orts and Strudler argue that the protection of the environment should be due to its 'moral and aesthetic importance' and 'not because of its interests or needs'.²⁷ Their opposition primarily focuses on the ethical aspects of attributing stakeholder status to the environment as they believe that balancing economic interests and environmental interests will be 'morally repugnant'.²⁸ In their view, the management should consider environmental interests due to moral reasons and should not address them under the stakeholder theory which they call 'an unnecessary and unworkable theory'.29

Similarly, according to Phillips and Reichart, the environment cannot be regarded as a stakeholder on its own and for its own interests. According to their view, a corporation will have an obligation to protect the environment, not for the sake of the environment itself, but for

- 24 Mitchell et al. above n. 17, at 857.
- 25 M. Starik, 'Should Trees Have Managerial Standing? Toward Stakeholder Status for Non-Human Nature', 14 Journal of Business Ethics 207 (1995).
- O.M. David, 'The Impact of Environmental Law on Corporate Governance: 26 International and Comparative Perspectives', 12 European Journal of International Law 685, at 689 (2001).
- 27 Orts and Strudler, above n. 19, at 223.
- Ibid., at 225. 28
- 29 Ibid., at 227.

the interests of the legitimate stakeholders such as local communities, who have environmental interests.³⁰ Regarding this point, they also make a similar argument with Orts and Strudler and state that even when legitimate stakeholders do not press demands on the corporation for safeguarding their environmental interests, these interests will still be relevant since the management will then have a 'moral obligation' to take them into consideration. This argumentation, however, is still problematic since it now leaves the consideration of environmental interests fully to the management's moral values.

As can be understood, there is not, and probably will not be, a consensus regarding the identification of the environment as a stakeholder. In case the environment is not considered as a stakeholder, then the focus will turn either to other stakeholders who will pursue the interests of the environment or to the management which will consider environmental interests due to moral and ethical reasons. Under the first scenario, where environmental interests are left to the 'legitimate' stakeholders, these interests will be considered by the management only if these stakeholders have a demand to do so. Under the second scenario, the consideration of environmental interests will be left purely to the management's subjective discretion. The first step of the stakeholder theory, therefore, causes impracticalities under each of these scenarios. Nevertheless, even if this step is neglected, the subtle problems inherent in the stakeholder theory remain during the management of stakeholder interests. The next section will elaborate on the more practical issues relating to the application of the stakeholder theory by the management in pursuing environmental sustainability.

4 Problem II: Management of Stakeholder Interests

The previous section aimed at demonstrating how the identification of the relevant stakeholders can lead to managerial inefficiencies regarding the proper consideration of environmental interests and the environment. However, there are even more compelling reasons that make the stakeholder theory an inapplicable tool for the integration of environmental sustainability into corporate practice.

The stakeholder theory does not end with the identification of stakeholders. A proper application of the stakeholder theory requires more than that. Stakeholder management will come only after determining the scope of stakeholders and relevant stakeholder interests. While coming to a decision, the management has to consider the various interests of these stakeholders and find an optimal balance between them. Stakeholder interests can be 'multiple and not always entirely congruent'.³¹ This may lead to some trade-offs. In other words, while managing these interests, the management will have to favour some stakeholder interests over others. The task of management here can be regarded as 'to mediate'³² between the divergent interests of different stakeholders. In an ideal world, the aim should be to cause minimal damage to the unpreferred group of stakeholders while making sure that the chosen group of stakeholders is adequately satisfied. However, the act of balancing stakeholder interests can be problematic in two ways: (i) power inequality between shareholders and other stakeholders and (ii) lack of guidance the stakeholder theory can offer.

4.1 Power Inequality between Shareholders and Other Stakeholders

First, the initial problem occurs due to the power inequality between shareholders and other stakeholders. Ever since Berle and Means introduced the notion of separation of control and ownership in the early twentieth century, mechanisms impacting management's behaviour was constructed in a way that would improve shareholder value.³³ This was further strengthened with the introduction of the agency theory.³⁴ To prevent managerial opportunism arising from the lack of involvement of shareholders in the daily management of the modern company, corporate law has been focusing on aligning managers' interests with the interests of the shareholders. Since shareholders bear the residual risk of the company, they are considered as the vulnerable group. To protect 'passive investors who placed their economic interests in the hands of professional managers',³⁵ executives' incentives are tied to the interests of the shareholders. As a result, financial benefits, such as stock compensations or bonuses, are linked to the economic performance of the corporation which heavily relies on financial criteria and ultimately, the share price. Through this, the aim is to blur the line between the management and the shareholders and to, as the cliché goes, 'make employees think and act like owners'. However, the current design of compensation schemes produces little alignment with the interests of non-shareholder stakeholders. Since the interests of the management often go in the same direction as shareholders, there is a very little chance that other stakeholder interests will be considered carefully. This is because, under the conventional design of the compensation schemes, executives know that they can enjoy direct economic benefits deriving from the increased share-

³⁰ R.A. Phillips and J. Reichart, 'The Environment as a Stakeholder? A Fairness-Based Approach', 23 Journal of Business Ethics 185 (2000).

³¹ T. Donaldson and L.E. Preston, 'The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications', 20 The Academy of Management Review 65, at 70 (1995).

³² H.S. Birkmose, M. Neville & K. Sorensen, The European Financial Market in Transition (2012), at 178.

 $[\]label{eq:and_state} 33 \qquad A. \, Berle \, and \, G. \, Means, \mbox{\it The Modern Corporation and Private Property (1932)}.$

³⁴ M. Jensen & W. Meckling, 'Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure', 3 *Journal of Financial Economics* 305 (1976).

³⁵ D. Millon, 'Theories of the Corporation', 1990 *Duke Law Journal* 201, at 215 (1990).

holder value whereas they gain either very little or no direct benefit when they improve the environmental performance of the company. From the perspective of the environment, this entails the risk of 'the environment being subjugated to providers of capital'.³⁶ Hence, so long as the structure of compensation schemes stays the same, the evolving view on stakeholders in theory will continue to encounter the barrier in practice posed by the formulation of compensation schemes.³⁷

Based on similar arguments, scholars often argue the need to change the formulation incentive mechanisms to shift the motivation of executives.³⁸ From the societal and environmental perspectives, they offer changing the conventional 'pay for performance' to 'pay for social and environmental performance'.³⁹ However, this will be easier said than done since using alternative mechanisms will lead to a great deal of subjectivity in the assessment process. This subjectivity can be, first, regarding the parameters to be used in the evaluation process of the director's performance. Unlike the ultimate goal of increasing the share price, if environmental performance standards are adopted by companies, each company can choose separate criteria and assess executive performance based on different variables. Second, subjectivity can happen regarding the level of parameters used to measure executive performance on environmental matters. Even if two corporations adopt environmental parameters to be used in the executive compensation, one may choose to adopt an ambitious environmental policy and aim for a positive impact whereas the other can be satisfied with the accomplishment of the bare minimum based on legal obligations imposed through external laws. Furthermore, compensation schemes based on vague and broad environmental goals can enable executives to reap financial benefits by tak-

can enable executives to reap financial benefits by taking actions that actually do not provide an improvement in terms of the corporation's environmental performance. A lack of certainty in terms of targets and their achievement will also raise doubts about the transparency of the compensation scheme. Thus, if the Key Performance Indicators (KPIs) are to be tied to environmental performance, this should be based on objective and measurable targets, such as a percentage of reduction in greenhouse gas emissions in a determined timeline, rather than merely aiming to 'reduce' them.

4.2 The Lack of Guidance Stakeholder Theory Can Offer

The second major challenge in the management of the stakeholders is the absence of guidance for the management as to the act of balancing various interests. This is also a major point attacked by supporters of a more

- 37 A. Edmans, 'Company Purpose and Profit Need Not Be in Conflict If We "Grow the Pie", 40 Economic Affairs 287, at 291 (2020).
- 38 Tirole, above n. 23, at 3; Edmans, above n. 37, at 291.

shareholder-centric approach as they state that 'their model at least gives the board of directors a clear, straight-forward and objectively verifiable direction to fulfil their duties for which directors can actually be held accountable'.⁴⁰ The stakeholder theory is heavily criticised because it does not specify how different stakeholders will be treated and largely depends on executives' discretion.⁴¹

In addition to this general scepticism, the problem with the management of interests can be specifically problematic for safeguarding and promoting environmental sustainability within the corporation. Unless supported by certain tasks for the executives or specific objectives for the corporation, it can lead to a higher degree of ambiguity. In contrast, the straightforwardness and comfort in achieving financial goals based on more concrete parameters can motivate the management to continue pursuing shareholder interests. This can lead to a strong path dependency in executive behaviour by favouring shareholder interests and neglecting environmental matters to the extent allowed by external laws the corporation is bound by. However, the focus on shareholder interests is not only because of the construction of compensation schemes or the lack of guidance. It can also be rooted in the inherent characteristics and the origins of the stakeholder theory. The following two sections will elaborate on these issues in more detail.

5 Problem III: The Stakeholder Theory Ultimately Aims to Serve the Interests of the Shareholders

Based on the ultimate objective pursued, approaches towards the stakeholder theory can be separated into two main groups as normative and instrumental. The normative approach to the stakeholder theory perceives the promotion of stakeholder interests as an end on its own whereas the instrumental approach sees it as a mean to maximise long-term shareholder value.⁴² Starting from Freeman, the instrumental approach has been the traditional understanding of stakeholder theory. In fact, Freeman explains stakeholder theory as 'a reasoned perspective for how firms should manage their relationships with stakeholders to facilitate the development of competitive resources and attain the larger idea of sustainable success'.⁴³ Thus, under this view, the main motive for embracing the stakeholder theory is its potential contribution to the success of the business and eventu-

43 Parmar et al., above n. 13, at 427.

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³⁶ Sjåfjell and Mähönen, above n.10, at 14.

³⁹ C. Flammer, B. Hong & D. Minor, 'Corporate Governance and the Rise of Integrating Corporate Social Responsibility Criteria in Executive Compensation: Effectiveness and Implications for Firm Outcomes', 40 Strategic Management Journal 1097, at 1098 (2019).

⁴⁰ M. Lokin and J. Veldman, 'The Potential of the Dutch Corporate Governance Model for Sustainable Governance and Long Term Stakeholder Value', 12 Erasmus Law Review 50, at 57 (2019).

⁴¹ L.A. Bebchuk and R. Tallarita, 'The Illusory Promise of Stakeholder Governance' 1052 *Cornell Law Review* 91, at 95 (2021).

⁴² Ibid., at 106.

ally, shareholder value. For this reason, Bebchuk and Tallarita view the instrumental approach to the stake-holder theory as a 'particular articulation of shareholder value'.⁴⁴

The current perception of the stakeholder theory still largely leans towards the instrumental approach. Since the Organisation for Economic Cooperation and Development (OECD) establishes benchmarks for corporate practices all over the world, its approach can be taken as an important indicator to demonstrate this trend. The G20/OECD Principles of Corporate Governance envisage that 'corporations should recognise that the contributions of stakeholders constitute a valuable resource for building competitive and profitable companies'.⁴⁵ As can be understood from this statement, the OECD still treats stakeholder interests as a contribution to the competitiveness and profitability of a company. This supports the idea that, at the end of the day, stakeholder theory is still not adopted for the sake of stakeholders but rather for the benefit of the corporation and its shareholders. Under such a view, sustainability matters will remain to be treated as 'nice-to-have' option to improve shareholder value.⁴⁶ From the perspective of environmental sustainability, this means that the stakeholder theory will integrate environmental sustainability so long as it serves the shareholder value. Adopting this approach, however, will greatly underestimate the urgency and importance of environmental sustainability.

It may be controversial to expect corporations to uphold the interests of the wider society even at the cost of their private interests. This may even seem naïve by those who adopt an economic approach to the corporation that will not accept an action which will not serve the shareholder value let alone harm it. However, the realities of our day can blur the line between public and private interests in line with the needs of the society. Recent experiences also show that this idea is not just wishful thinking. In its landmark *Shell* decision, the Dutch court has stated that the public interest arising from the reduction obligation can *outweigh* the commercial interests of the corporation even if this means making financial sacrifices for the corporation:⁴⁷

This all justifies a reduction obligation concerning the policy formation by RDS for the entire, globally operating Shell group. **The compelling common interest that is served by complying with the reduction obligation outweighs the negative consequences RDS might face due to the reduction obligation and also the commercial interests of the Shell group,** which are served by an uncurtailed preservation or even increase of CO2-generating activities. Due to the serious threats and risks to the human rights of Dutch residents and the inhabitants of the Wadden region, private companies such as RDS may also be required to take drastic measures and **make financial sacrifices** to limit CO2 emissions to prevent dangerous climate change '(emphasis add-ed)'.

In brief, what the court meant was that the public interest of society in the protection of the environment can prevail over the private interests of the corporation. Nevertheless, (instrumental) the stakeholder theory ultimately aims to serve the interests of the corporation. Under such a view, it cannot and will not see environmental sustainability as an end but merely a means for the promotion of shareholder value. Forsaking profits for the sake of environmental interests will not fit in its agenda. Therefore, under the instrumental version of the stakeholder theory, the management's obligation to consider environmental interests will be interpreted narrowly in an area between minimum legal requirements and up until their contribution to the success of the business. Anything above that line will be an extra and thus, will not be pursued.

6 Problem IV: The Stakeholder Theory Never Aimed to 'Save the Planet'

The last, and probably the most important, argument this article will provide regarding the unsuitability of the stakeholder theory in achieving corporate environmental sustainability concerns the original aims of the stakeholder theory. This last point can also act as an umbrella argument encompassing and summarising the previous ones. To again go back to the roots, Freeman explains his motive for introducing the stakeholder theory back in 1984 as a necessity. According to his view, other conceptual corporate theories at that time were 'inconsistent with both the quantity and kinds of change that are occurring in the business environment of the 1980's'.⁴⁸ As can be inferred from his statement, the stakeholder theory was established to answer the requirements of that time. The stakeholder theory may, or may not, have served the necessities of that day. This is not what this article wants to discuss. What is important here is why the same tool should not be used to tackle the challenges occurring in the business of the twenty first century. Currently, we are standing at the point where the urgency of environmental action has caused social intolerance in the public toward environmentally unsustainable business practices. Since corporations are kernel to the economy, they bear a shared responsibility to take action. However, the stakeholder theory was never designed to pursue social or environmental purposes in corporations, nor to answer the needs of society. The essence of the stakeholder theory is a 'theory of organi205

⁴⁴ Bebchuk and Tallarita, above n. 41, at 106.

⁴⁵ OECD, G20/OECD Principles of Corporate Governance (2015), at 9.

⁴⁶ K. Raworth, Doughnut Economics: Seven Ways to Think Like a 21st Century Economist, at 215 (2017).

⁴⁷ The Hague District Court's Shell Decision numbered ECLI:NL:RBDHA: 2021:5339 and dated 26 May 2021, at 4.4.54.

⁴⁸ Freeman, above n. 14, at 5.

sational management and ethics'.⁴⁹ The following statement, which is from an article in which Freeman himself is one of the authors, strongly supports this argument: 'From its inception, it was not developed to promote policies or organizational behaviour associated with social goals such as corporate philanthropy or taking care of the environment'.⁵⁰

For this reason, using the stakeholder theory to improve the relationship corporation has with society will either be a misinterpretation or a distortion of the term.⁵¹ The stakeholder theory should not be perceived as a panacea for corporate ills. Its use should be narrowed to management and organisational studies.⁵² While referring to it, one has to acknowledge its limitations. Additionally, expanding the meaning and use of this term to push companies to become more environmentally sustainable is not only inconvenient but can also be to the detriment of environmental interests. On this issue, Bebchuk and Tallarita have formulated the idea of an 'illusory promise' against the stakeholder theory.53 In their view, promoting the stakeholder theory as the main tool to achieve corporate transitions in societal and environmental matters can deter legislators from adopting laws and policies which can actually be more effective in changing and shaping corporate behaviour. As for the environment, for instance, they believe that adopting legislations and strategies on the carbon tax or renewable energies should be the solution rather than relying on the stakeholder theory.54

Although this article agrees with the problem Bebchuk and Tallarita identify, that the stakeholder theory is not the proper tool to fundamentally transform corporate behaviour, it disagrees with the argument that the optimal solution can come from external regulation and legislation. Criticism of the use of the stakeholder theory in achieving broader societal and environmental goals through corporate activity does not lead to a direct referral to external regulation and legislation. It is believed that such a thinking pattern fails to notice the extra layer between the corporation and external regulation and legislation: corporate law. In line with this, the next section will elaborate on why and how corporate law can achieve a structural transformation in corporate behaviour and why it can be more effective than external regulation and legislation.

Until this point, this article has focused on the main problems the managerial stakeholder theory can pose before the effective integration of environmental sustainability into corporate behaviour and practice. To do this, the first section of the article elaborated on the reasons why corporations will continue to fall into deep-rooted shareholder-focused business patterns under the managerial stakeholder theory. These explanations were also provided to demonstrate the disadvantages of using the stakeholder theory in attempts to push corporations to become more environmentally sustainable. Nevertheless, this does not mean that there should be a direct recourse to external regulation and legislation. Figure 1 illustrates this view which this article opposes.

The kernel of this system is the corporation. Since the stakeholder theory is a managerial theory adopted by the corporation, it is endogenous. Hence, it lies within this inner circle. Conversely, any regulatory or legislative action coming from the outside should be drawn outside this inner circle as it would be exogenous. Nevertheless, corporate law has a special place for the corporation which differentiates it from external regulation and legislation. Thus, as illustrated in Figure 2, it should be positioned in between the corporation and external regulation.

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53 Bebchuk and Tallarita, above n. 41, at 69.

⁷ The Need to Reform Corporate Law

A. Keay, 'Stakeholder Theory in Corporate Law: Has It Got What It Takes?',
 9 Richmond Journal of Global Law and Business 249 (2010).

⁵⁰ J.S. Harrison, R.E. Freeman & M.C. Sá de Abreu, 'Stakeholder Theory as an Ethical Approach to Effective Management: Applying the Theory to Multiple Contexts', 17 Revista Brasileira De Gestão De Negócios 858 (2015).

⁵¹ R. Phillips, R.E. Freeman & A.C. Wicks, 'What Stakeholder Theory Is Not', 13 Business Ethics Quarterly 479 (2003).

⁵² Ibid.

⁵⁴ Ibid., at 71.


Figure 2 Proposed Approach to the Legal Layers of the Corporation



Corporate law is not inside the inner circle of the corporation but, at the same time, cannot be considered a totally external type of legislation since it is different from other fields of law. Companies owe their existence to the national corporate legislation of the jurisdiction they are domiciled in. In other words, corporate law creates the corporation.⁵⁵ Thus, corporate law is *existential* for a company. It not only encompasses the fundamental rules for the corporation's establishment and internal dynamics but also encompasses the rules regarding its relationships with other actors. This way, it can act as an intermediary between the corporation and its outer world. As the legal field closest to the heart of the corporation, it makes changes to corporate law directly and inevitably affects the corporation. This gives corporate law unparalleled power over the corporation and makes it a powerful tool to control, influence and change corporate behaviour. For this reason, in moving corporations to become environmentally sustainable, intervention in the area of company law can establish a practical, solid and solution-oriented legal framework.

These are also the features the stakeholder theory lacks. In fact, the stakeholder theory remains largely theoretical with few implications for corporate practice. Moreover, it does not delegate any legal or social responsibility to the management to find a cure for the adverse impacts its operations may cause on the environment and eventually, society. Finally, the stakeholder theory does not require the law to be changed.⁵⁶ In fact, it is based on 'non-legal ethical grounds'.⁵⁷ Nevertheless, past experiences with the stakeholder theory, and its 'ancestor' cor-

Mayer, above n. 3, at 149.

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⁵⁶ Parmar et al., above n. 13, at 412.

⁵⁷ Sjåfjell and Mähönen, above n. 10, at 12.

porate social responsibility,⁵⁸ have proven that the effects of voluntary managerial actions are largely limited. Under the mechanisms supporting shareholders and their interests, corporations will continue to fall into deep-rooted, shareholder-focused business patterns. Structural changes in corporate law, on the other hand, can lead to remarkable changes in corporate behaviour if adopted with a pragmatist, well-structured and legislative approach. For this reason, solutions to unsustainable corporate behaviour should be obtained through a hard law intervention.

One may think that an argument in favour of corporate environmental sustainability will be against Milton Friedman's critical view on the responsibilities of the corporation. In contrast, this article rather agrees with it with a variation. Friedman believed that the solutions for society should come from the mandatory laws of the state and not from the management and its executives. This article also discussed in various parts the risks and/ or inefficiencies of leaving integration of environmental sustainability to the management's human judgement under the stakeholder theory. Nevertheless, the point that this article opposes as regards Friedman's views is again the solution provided. Just like Bebchuk and Tallarita, Friedman also conceptualised these mandatory laws of the state as external legislation. Therefore, he also neglected the sphere of corporate law and argued that internal mechanisms of the corporation and external legislation are the only two options. However, Friedman acknowledged in his well-known article that even when they are maximising profits, corporations should conform 'to the basic rules of society, both those embodied in law and those embodied in ethical custom'.59

What this article adds to his argumentation is that cor-

porate law, as a law of the state, should be reconstructed

in a way that environmental sustainability becomes a

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'basic rule of the society' that corporations must conform to. While working on a structural change in corporate law, the focus can be on one of the two principal corporate actors: Shareholders and the board of directors. To start with shareholders, they have a strong place in the corporation not because the laws explicitly say so but because their say in critical matters, such as election and dismissal of directors, grants them such power. Also, as mentioned under Problem II, the formulation of executive compensation schemes also strengthens their situation immensely. Therefore, shareholder interests can easily influence corporate motives and actions. Nevertheless, since the integration of environmental sustainability is a matter concerning the overall strategy of the corporation, focusing on the board of directors, rather

than on the shareholders, will comply more with this objective as the board is the corporate body designated with this task. Because of this, the last part of the article will provide explanations on how to conduct a legal intervention in corporate law regarding directors and their duties. Here, the explanation of the recommended solutions will be based on the European Union (EU) to concretise the subject matter through examples. However, these explanations can also be implemented for other jurisdictions.

8 A New Perspective on Corporate Interest and Directors' Duties

In legal terms, directors are directors of the company and not agents to the shareholders unlike what the agency theory suggests. Thus, their primary legal duty should promote the interests of the corporation. Yet, corporate legislations often do not provide a definition for the term 'corporate interest'. For this reason, this term becomes subject to interpretation. The legal ambiguity of the term combined with the powers of shareholders often is the reason this term is translated as shareholders' interests, cynically exploiting their privileged position amongst other stakeholders. In these cases, a (re)interpretation of the term corporate interest is needed to shift the perspective toward directors and their duties. On the other hand, in some jurisdictions, the law's definition of corporate interest can explicitly uphold interests of the shareholders. For instance, under Finnish Limited Liability Companies Act, it is stated that the purpose of a company is to generate profits for the shareholders, unless otherwise provided in the articles of association of the company.⁶⁰ Thus, the mainstream corporate interest to be pursued by a director would be shareholder profit maximisation. Under this legal formulation, directors will not be keen on the idea of promoting environmental sustainability since it would mean deviating from the established norm. In these cases, not a reinterpretation but rather a reformulation of the term corporate interest should be aimed at. The link between the key concepts of corporate interest and directors' duties remains functionally important regardless of whether the law defines corporate interest in a way promoting shareholder interests or does not deal with its meaning through the law at all. The presence of such a link was also acknowledged in the report on the Study on Directors' Duties and Sustainable Corporate Governance prepared for the European Commission.⁶¹ The report identifies the core problem in the EU before sustainable business practices as the 'trend for publicly listed companies within the EU to focus on short-term benefits of shareholders rather than on the long-term interests of the company'. After this, the report lists the main problem drivers.

⁵⁸ Orts and Strudler, above n. 19, at 216.

⁵⁹ M. Friedman, 'A Friedman Doctrine: The Social Responsibility of Business Is to Increase Its Profits', *The New York Times* (1970).

⁶⁰ Section 5 of the Finnish Limited Liability Companies Act (Osakeyhtiölaki 624/2006).

⁶¹ EY, Study on Directors' Duties and Sustainable Corporate Governance (2020), at vi.



The first identified problem specifically deals with directors' duties. It states that 'directors' duties *and* company's interest are interpreted narrowly and tend to favour short-term maximisation of shareholders value' (emphasis added). Therefore, it identifies the interpretation of these two concepts ((i) directors' duties and (ii) company's interests) as a single combined cause that favours shareholder interests. It seems like the choice of making a combined statement with these two elements was a deliberate decision.

The link between these terms is also apparent in the EU when the corporate laws of the Member States are considered. In fact, most legislations in the EU use the term 'corporate interest', or a similar translation of this term, while defining the duties of the directors. Most national provisions on directors' duties will consist of a phrase that will more or less indicate that the board will perform its duties in line with the 'corporate interest'.⁶² Figure 3 demonstrates this intertwined relationship between the key concepts of corporate interest and directors' duties:

This means that a legal intervention on directors' duties to achieve integration of environmental sustainability into corporate activity should take two consecutive steps: With a backward-looking approach (starting from the right of the illustration and moving towards the left), it can be inferred that the initial point to be considered should be the interpretation of the first keyword (i.e., corporate interest). In the current situation, as a result of the lack of a concrete definition for this term combined with the dominance of shareholder primacy approach, corporate interest is often translated as shareholders' interests. Thus, a well-established design of the term corporate interest can be the first step in busting the 'myth of shareholder primacy'63 and overcoming the barriers it poses before corporate environmental sustainability.

The evaluation of the term corporate interest can act as an intermediary step to get one step closer to the primary actor, the board of directors. This is because the manner in which the term corporate interest is interpreted and/or formulated can have a direct effect on directors' behaviour due to the indispensable legal link between this term and directors' duties. If the term corporate interest can be reinterpreted or reformulated in a way encompassing the interests of the wider public, such as environmental sustainability, then the directors will owe these duties not only to their shareholders but also to other stakeholders. From the perspective of environmental sustainability, this can put great pressure on the directors to take adequate actions as they will now see it as a genuine liability risk. Under the present legal framework, the well-known business judgement rule, or similar concepts which offer protection to directors, are also related to the term corporate interest. A reformulation of the term corporate interest, therefore, will also prevent directors to be exonerated of all responsibility by merely arguing that their actions and decision were in line with (not-so-clear) 'corporate interest'. After working on the term corporate interest, the focus then can be shifted to directors' duties. An intervention in their duties can change the behaviour of the directors, and eventually, the corporation. This is because, as the brain of the company, directors are mostly framed by their duties while taking decisions and actions on behalf of the corporation. The formulation and perception of their duties, in a way, identify the outer limits where they can use their discretion. This is a potential that can also be used to change directors' approaches toward environmental sustainability.

As for the method of legal intervention, directors' duties can be amended in two ways. First, it can be done by including environmental matters within the scope of the current duties of the directors. This was the approach the European Commission adopted in the Proposal for the Directive on Corporate Sustainability Due Diligence (Proposal).⁶⁴ As it can be seen from the title of Article 25 of the Proposal, 'Duty of Care', the European Commission proposed to make consideration of environmental consequences arising from the corporate activities a part of the well-known duty of directors. Pursuant to this Article, Member States will have to ensure that

⁶² For instance, under the Dutch Civil Code, members of the management board shall be guided 'by the interests of the Corporation and its affiliated enterprise' while performing their duties. In a similar vein, the German Corporate Governance Code states under Art. 4 that the management board is responsible for managing the company 'in the interest of the enterprise'.

⁶³ L.A. Stout, The Shareholder Value Myth: How Putting Shareholders First Harms Investors (2012).

⁶⁴ Proposal for a Directive on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937 COM(2022) 71 final.

when fulfilling their duty to act in the best interest of the company, directors of companies referred to in Article 2(1) take into account the consequences of their decisions for sustainability matters, including, where applicable, human rights, *climate change and environmental consequences*. (emphasis added)

Therefore, it adds an external duty to the existing duties of the directors. Nevertheless, these kinds of reconstructions of the existing duties have less chance to provide an accountability mechanism to other stakeholders as they will still be restricted to the internal dynamics. Thus, directors' accountability will remain primarily to the shareholders. This can, however, be a disadvantage in holding directors accountable for environmental matters.

The second way of incorporating environmental sustainability into directors' duties can be through the establishment of a new type of duty. This was indeed what scholars suggest by proposing 'the duty of societal responsibility'.⁶⁵ For instance, in the Netherlands, twenty-five Dutch professors advocated the introduction of a social duty of care for the management and supervisory board members for them to consider the interests of the wider society while performing their tasks.⁶⁶ This kind of a legal intervention will not mean a reformulation of the existing duties but rather a creation of a new type of duty for the directors which can answer the social and environmental requirements. A well-established novel duty for the directors can have the advantage of being formulated in a way that can answer the environmental needs of the wider society since the design process. This way, directors can be held liable not only by the shareholders but also by the stakeholders who have suffered

formulated in a way that can answer the environmental needs of the wider society since the design process. This way, directors can be held liable not only by the shareholders but also by the stakeholders who have suffered due to a failure in performing such duty adequately. This can be a potential advantage over the first way of intervention.

It is believed that changing the formulation of directors' duties can have a powerful impact on making directors feel accountable towards their societies and internalise environmental matters. Amendments to fiduciary duties can also be in different ways in terms of environmental protection as positive or negative.⁶⁷ Negative duties can indicate reducing, or if possible, preventing adverse impacts the corporation may have on the environment. However, the effectiveness of negative duties may be limited as directors can then avoid liability through tokenism without actually making the necessary changes in the corporation. In line with this, enforcement of these narrowly defined duties will also require a higher threshold to claim liability as a breach of such duty will only be accepted in exceptional cases. Imposing positive environmental duties, on the other hand, can be more ambitious and challenging for the

corporation as then the directors will have to make sure that the corporation also makes a beneficial impact on the environment through active environmental policies and strategies.

In either case, the formulation and wording used through these legal interventions will be crucial and should not be vaguely determined. Formulating duties by using wording such as 'not harming the environment' for negative duties or 'respecting the environment' for positive duties can leave wide room for interpretation. This carries the risk of the duty being symbolic since directors can easily fulfil it without actually improving the corporation's environmental performance.⁶⁸ To prevent directors from taking advantage of these situations, duties should be defined in a precise way that can produce concrete results. In this regard, objective and quantifiable criteria should be chosen to concretise what is expected from the directors. Vague expressions such as 'taking into account' or 'considering' environmental impacts as the European Commission did in the Proposal can easily lead to legal ambiguity regarding what can be expected from the directors. Therefore, it is a matter of doubt how effective these provisions can be, if adopted, in shifting the board's behaviour. Conversely, integrating planetary boundaries,69 for instance, can help to establish scientifically proven ecological limits to corporate activity.⁷⁰

9 Conclusion

Recent movements towards a new business model, where non-shareholder stakeholders and their interests are safeguarded alongside shareholders and their interests, often take stakeholder theory as their base point. By relying on stakeholder theory, corporations believe that they can admit their responsibility towards environmental matters and address the demands and concerns of society in this regard. However, the necessities of our day require more than what stakeholder theory can offer to change corporate behaviour toward environmental sustainability. Stakeholder theory has important pitfalls when it comes to achieving these in practice. First, two consecutive steps of stakeholder theory (i.e., stakeholder identification and stakeholder management) does not provide adequate grounds to pay careful attention to the environmental interests to consider the environment (or the society as being the representative stakeholder group for environmental interests) as a stakeholder. It also does not provide any guidance to the management on how to thoroughly consider environmental matters while taking decisions or ac-

⁶⁵ J. Winter, 'Towards a Duty of Societal Responsibility of the Board', 17 European Company Law 192 (2020).

⁶⁶ https://pure.uva.nl/ws/files/55759850/Naar_een_zorgplicht_voor_ bestuurders_en_commissarissen.pdf (last visited 4 January 2023).

⁶⁷ B. Sjåfjell and B.J. Richardson, *Company Law and Sustainability: Legal Barriers and Opportunities* (2015), at 332.

⁶⁸ M. Rodrigue, M. Magnan & C.H. Cho, 'Is Environmental Governance Substantive or Symbolic? An Empirical Investigation', 114 *Journal of Business Ethics* 107 (2013).

⁶⁹ J. Rockström, et al., 'A safe operating space for humanity', 461 *Nature* 472 (2009).

⁷⁰ H. Ahlström, 'Policy Hotspots for Sustainability: Changes in the EU Regulation of Sustainable Business and Finance', 11 Sustainability 499 (2019).

tions. Moreover, the powers of shareholders together with the lack of guidance on the stakeholder theory offers for the management exacerbates the impregnable position of shareholders and worsens the situation for other stakeholders. In addition to these, the essence and fundamental aims of stakeholder theory also do not correlate with the goal of achieving corporate environmental sustainability. Stakeholder theory was originally founded as a management concept and it ultimately aimed to serve the interests of the corporation. Answering the environmental concerns of society was not originally on its agenda let alone, as the title of this article goes, saving the planet. Assigning stakeholder theory with these tasks, therefore, constitutes not only a misinterpretation but also a distortion of the term. Stakeholder theory should not be perceived as the remedy for each and every corporate dysfunction. Its aims and capacity should be recognised as limitations for its usage. Building upon the idea that stakeholder theory is incompatible with the goal of integrating environmental sustainability into corporate practice, the second part of the article was based on the necessity to use corporate law as a solution instead. A solution coming from a corporate law intervention can target the company at the core. How the two interrelated key concepts of corporate law (corporate interest and directors' duties) are interpreted and/or formulated can have far-reaching impacts on the directors' behaviour and actions which inevitably and eventually, influence and construe corporate behaviour. Hence, a legal reform in corporate law aiming to (re)formulate and/or (re)interpret these terms can help to make the desired transitions in corporate activity more effective.

It is true that corporations are a big part of today's environmental crisis, but this does not mean they can become a part of the solution, or even, *the* solution.⁷¹ By making the right choices, they have the potential to change the course of things. However, they need a clear, mandatory and practical legal framework on this matter. Corporations are not only created but also shaped by corporate law. Thus, a shift from business as usual cannot be achieved by remaining indifferent to corporate law. It is no longer a question of whether corporate law should act on the current environmental crisis but a question of how, and this article aimed to shed some light on it. As the title of this article goes, 'stakeholder theory cannot save the planet'. However, businesses can if corporate law is adopted as the tool in pursuing this objective.

71 This phrase is taken from Emmanuel Faber's (Danone's former CEO and the Chairman of the Board of Directors) interview https://time.com/6121684/ emmanuel-faber-danone-interview/.

Collective Ownership and Representation in a Sustainable City

Investigating the Potential of the Community Land Trust and the Zoöp Model

Laura Burgers & Kinanya Pijl*

Abstract

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The question is no longer whether we should move to an environmentally sustainable way of living; rather, the question is - how are we supposed to do that? Katharina Pistor's seminal book The Code of Capital pointed out that our current form of capitalism is enabled by private law, which selectively 'codes' certain assets, endowing them with the capacity to protect and produce private wealth. Law can be changed by the legislature, but legal concepts can equally be imbued with new meanings due to changing ways of seeing in society. Indeed, our investigation into two legal innovations - the Community Land Trust (CLT) and the Zoöp model - demonstrates how little change of the legal hardware of society is required for meaningful legal change in service of sustainability in the city and beyond. Whereas the CLT rethinks the stewardship function of property rights, the Zoöp model transforms corporate governance structures to consider nonhumans' interests - and both do so without waiting for relevant legal changes to be enacted by legislatures. To evaluate the potential and the limitations of these two legal innovations, we assess the extent to which these innovations align with four 'glocal' lenses of the Doughnut model developed by the British economist Kate Raworth: to what extent to these legal innovations support the thriving of humans and environment both locally and globally?

Keywords: ownership, representation, community land trust, zoöp model, sustainable city.

Laura Burgers is Assistant Professor in the Amsterdam Centre for Transformative private law (ACT) of the University of Amsterdam, the Netherlands. Kinanya Piil is Assistant Professor in the Amsterdam Centre for Transformative private law (ACT) of the University of Amsterdam, the Netherlands. We would like to thank Klaas Kuitenbrouwer for making available Zoöp's legal documents and answering our questions, as well as Marjolein Smeele for keeping us posted on developments related to CLT's in Amsterdam. We would also like to thank our colleagues at ACT, with a special thanks to Marleen van Uchelen-Schipper; and the participants of the online seminar 'Using the Law to Save the Planet' of 20 May 2022, with a special thanks to Prof. Liesbeth Enneking, Lastly, we would like to express our gratitude to the editors of this special issue on inclusive prosperity, Alessandra Arcuri, Lieselot Bisschop and Frank Weerman, as well as the Erasmus Law Review's anonymous reviewers for their constructive feedback. This article builds on research conducted in the context of the N-EXTLAW project which has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (Grant agreement No. 852990). We would like to thank the ERC and the UvA's Sustainable Global Economic Law (SGEL) research project for financially supporting our research.

1. Introduction

The question is no longer whether we should move to an environmentally sustainable way of living, the question is how. Current capitalism is clearly unsustainable. It is widely accepted that the economy needs to become circular, so that our societies operate ecologically sustainably, and the transition should take place in a socially just manner.1 Katharina Pistor's seminal book The Code of Capital pointed out that our current form of capitalism is *enabled* by private law, which selectively 'codes' certain assets, endowing them with the capacity to protect and produce private wealth.² With the right legal coding, any object, claim or idea can be turned into capital and, thereby, increase its propensity to create wealth for its holders. The legal coding protects the asset holder and gives their wealth longevity, thereby setting the stage for sustained inequality.³

Thus, importantly, capital is coded in institutions of private law, including property, corporate law and contract law. These are the legal modules that bestow critical legal attributes on the select assets that give them a comparative advantage over others in creating new and protecting old wealth.⁴ Capital owes its power to law and is backed and enforced by the state. As Pistor points out, law is often treated as a sideshow, while in fact it is the very cloth from which capital is cut. Crucially, this means that the law is also a potential site for change. Hence, the question how to move to an environmentally sustainable way of living might well be answered by looking at how to change private law.

Law can be changed by the legislature, but legal concepts can equally be imbued with new meanings due to changing ways of seeing in society, which can translate in renewed (judicial) interpretations or usages of

¹ Indeed, this is the goal of the European Green Deal, *see*: Communication of the Commission 11 December 2019, COM(2019) 640 final, 'The European Green Deal', available at https://eur-lex.europa.eu/legal-content/EN/ TXT/?qid=1588580774040&uri=CELEX:52019DC0640.

² Katharina Pistor, The Code of Capital - How the Law Creates Wealth and Inequality (2019).

³ Ibid., 6.

⁴ Ibid., 21.

Figure 1 Raworth's model of doughnut economics



existing law.⁵ Indeed, our investigation into two legal innovations - the Community Land Trust (CLT) and the Zoöp model - demonstrates how little change of the legal hardware of society is required for meaningful legal change in service of sustainability in the city and beyond. Whereas the CLT rethinks the stewardship function of property rights, the Zoöp model transforms corporate governance structures to consider nonhumans' interests - and both do so without awaiting legal change enacted by legislatures. We selected these two legal innovations as case studies as both are gaining popularity in the Netherlands but are understudied, while they appear highly promising to alter current conceptualizations of the legal modules of property and representation in a bottom-up fashion and in service of sustainable cities.

In this article, we aim to evaluate the potential and the limitations of these two legal innovations for the transition towards socially just and ecologically sustainable cities. As an analytical framework, we make use of the doughnut model developed by the British economist Kate Raworth. The city of Amsterdam, in its Circular Strategy 2020-2025, relies on the Amsterdam City Doughnut, which it designed with Kate Raworth and her team. The fact that Amsterdam's officials took it up as the basis for their strategy shows that they believe the Doughnut can act as a compass for human progress. Hence, we study the CLT and Zoöp models in Amsterdam specifically: our chosen analytical framework has democratic legitimacy there. The findings, however, are relevant for any community - city, village or neighbourhood - that pursue inclusive and sustainable design of their living environment.

The doughnut model depicts an economy where societies and businesses contribute to economic development while respecting the limits of the planet.⁶ The Doughnut provides a playful approach to framing humanity's challenge of the 21st century: meeting the needs of all people (the 'social foundation') within the means of the planet (the 'ecological ceiling') (Figure 1). The strength of this model is that it captures the dimensions of social justice and environmental sustainability in one simple - and tasty - metaphor. In the current era of the Anthropocene, it is vital to merge these social and environmental dimensions in one comprehensive picture – after all, the notion of the Anthropocene suggests that humans themselves are a geological force on earth, which blurs the boundaries between what used to be perceived as two separate domains. Climate change will disproportionately impact already marginalized groups, young people and those not yet born. Any conception of the common good must therefore reflect the interconnectedness of the natural and social environment. Hence, also the legal design of property rights and representation in organizational governance are legitimate only to the extent that they can be justified by reference to the common good.⁷ Does the design of the CLT and the Zoöp models, respectively, live up to this promise to foster a doughnut-proof vision of the common good? In this light, it is important to recognise that the city of Amsterdam demonstrates how global change requires local action. Within the city, the social foundation must be secured and the environment must be healthy;

⁵ See also: the account of deliberative democracy in L. Burgers, 'Should Judges Make Climate Change Law?' 9(1) Transnational Environmental Law 55-75 (2020).

⁶ K. Raworth, Doughnut Economics: Seven Ways to Think Like a 21st-century Economist (2017).

⁷ Eric T. Freyfogle, 'Taking Property Seriously', in David Grinlinton and Prue Taylor (eds.), Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges (2011) 51.

Table 1Kate Raworth's Amsterdam City Doughnut

	SOCIAL	ECOLOGICAL
LOCAL	1 . What would it mean for the people of Amsterdam to thrive?	2 . What would it mean for Amsterdam to thrive within its natural habitat?
GLOBAL	4 . What would it mean for Amsterdam to respect the well-being of people worldwide?	3 . What would it mean for Amsterdam to respect the health of the whole planet?

however, the city must also strive not to adversely affect either of them elsewhere.⁸ In this vein, the central question to the Amsterdam City Doughnut reads: how can our city be a home to thriving people in a thriving place, while respecting the well-being of all people and the health of the whole planet?⁹ The following four interdependent questions provide a tool and starting point for reflection upon these 'glocal' ambitions (see Table 1).

This article is structured as follows. Section 2 looks through these four glocal lenses at *collective ownership* in the form of a Community Land Trust (CLT), by diving deep into the first CLT in the Netherlands, namely CLT H-neighbourhood in the Bijlmer, South-East Amsterdam. Section 3 applies the four glocal lenses to assess how *representation* is changed by the Zoöp model, an organisational governance model for both for-profit and not-for-profit organisations, in which interests of nonhuman beings are addressed. In our concluding remarks, we set out under what conditions these legal innovations contribute to meeting the needs of social justice and ecological sustainability, that is, the goal envisaged

and ecological sustainability, that is, the goal envisaged inter alia by the doughnut model. By doing so, we demonstrate how private legal institutions can be potential sites for change towards a sustainable future.

This article is based on desk research and thus relies on the information that can be found in the public domain. We have sympathy for both legal innovations, but we see it as our role to provide independent scrutiny to assess their potential and limitations. We do engage informally with some key figures involved in the CLT movement in the Netherlands and the Zoöp model to learn about latest developments and to share our thinking to help the Dutch CLT community think through if the Zoöp model can be integrated in their CLTs in development.

2 Ownership in a Sustainable City

This section reflects on the dominant models of property, contrasting them with the Community Land Trust (Section 2.1), after which it zooms into an Amsterdam-based CLT (Section 2.1.1), and analyses the potential of that CLT in light of our analytical framework: the four glocal lenses of the Amsterdam City Doughnut (Section 2.1.2). The section finishes off with some concluding remarks (Section 2.2) before moving to an analysis of the Zoöp model in the next section.

Property in its broadest sense refers to the ways in which a society regulates the distribution of resources – be it land, buildings or other objects - and the level of care accorded to these resources.¹⁰ Both as a legal concept and social narrative, property shapes how humans relate to one another and to the nonhuman living world. While there is great variety in the meaning of property throughout cultures and over time, the contemporary default image of property in capitalist legal systems is associated with private entitlements. This default image is shaped by the liberal political ideology that promotes individual autonomy, by allowing owners to exclude others from their property as well as exercising power over the object itself.¹¹ The freedoms that our property laws ensure, especially through private ownership, have been a valuable component of the social order and of economic flourishing. Property can encourage and facilitate private efforts to build homes, stores and factories, making the economy grow and yielding widespread public benefits.12

However, while property empowers and enables the proprietor, it often disempowers and disenables non-proprietors.¹³ Moreover, the freedoms that our property laws ensure, together with the notion that an economy can grow beyond ecological limits, have facilitated ecological harm.¹⁴ Over time, the legal institution of property has been shaped and interpreted by political ideologies, dominant social values and associated ideas about the purposes that property ought to promote.¹⁵ Property rights are legitimate only to the extent that they can be justified by reference to the common good.¹⁶ Due to new circumstances, knowledge or values, new visions of the common good arise. This requires lawyers and legal

- 10 Nicole Graham, Margaret Davies & Lee Godden, *The Routledge Handbook* of *Property, Law and Society* (2023), Introduction.
- 11 Ibid.; Klaus Bosselman, 'Property Rights and Sustainability: Can They Be Reconciled?', in David Grinlinton and Prue Taylor (eds.), Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges (2011) 42.
- 12 Freyfogle, above n. 7, at 52.
- 13 Margaret Davies, Property: Meanings, Histories, Theories (2007), at 7.
- 14 Prue Taylor and David Grinlinton, 'Property Rights and Sustainability: Towards a New Vision of Property', in David Grinlinton and Prue Taylor (eds.), Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges (2011) 10.
- 15 Margaret Davies, Lee Godden & Nicole Graham, 'Situating Property within Habitat: Reintegrating Place, People, and the Law', 6(1) *Journal of Law, Property, and Society* 7 (2021); Freyfogle, above n. 7, at 50.
- 16 Freyfogle, above n. 7, at 51.

⁸ Kate Raworth, 'Introducing the Amsterdam City Doughnut' (2020), www. kateraworth.com/2020/04/08/amsterdam-city-doughnut/.

⁹ Ibid.

scholars to examine how legal tools such as the design of property rights – and associated understandings of responsibilities of owners – foster the new vision of the common good.¹⁷ Does Amsterdam's property rights system foster a doughnut-proof vision of the common good?

In Amsterdam, 80% of the land is owned by the municipality of Amsterdam.¹⁸ Its use is distributed through ground lease (erfpacht), a limited proprietary right that enables the lessee to hold and use land that is owned by the municipality.¹⁹ In return for payment, the lessee has the right to use the property as if they were the owner. The City of Amsterdam has two types of ground lease: (1) continuous ground leases, where the price is adjusted every 50 or 75 years, or (2) perpetual ground leases, where a fixed land price is agreed and will remain at that level in perpetuity. The introduction of the latter in 2017 was an important innovation of the Amsterdam ground lease system. It ensures that lessees no longer have to deal with the uncertainty around increasing land lease prices. The other 20% of Amsterdam's land consists of plots held in private ownership. These are mainly located in the city centre, within the ring of canals. These plots were already given out in private ownership before the emergence of the adoption of the ground lease system in 1896.

In Amsterdam's context, relevant questions thus include: who gets to lease the city's plots of land and therewith develop and own the building and facilities that make the city? Tenders for plots of land are competitive. Does Amsterdam's doughnut-proof vision filter down to how it allocates its plots of land? In its vision for 2050, the Amsterdam municipality expresses its support for bottom-up initiatives, including the CLT H-neighbourhood.²⁰ Whether that translates to granting CLTs plots of land is yet to be seen. The following subsection explores further the model of collective ownership through a CLT.

2.1 Collective Ownership in the Community Land Trust

Collective ownership in the form of a Community Land Trust is an alternative approach to private or public ownership of land, houses and other facilities. A CLT is a non-profit and community-led organization that typically develops and manages homes for low- and middle-income groups of population. CLTs are open member organisations supporting the interests of residents of the buildings that fall under the CLT's governance, the neighbourhood and the public interest. Ownership and management of the land, homes and neighbourhood facilities is anchored in a CLT organisation, and conditions are drawn up for sustainable and social use of it. By means of a continuous anti-speculation clause and buyback arrangement on the houses, the CTL aims to establish affordable living for current and future generations. The ambition is to counterbalance the commercial real estate development, rising land and housing prices, and the slow 'pushing away' of low- and middle-income households from the city.²¹

'Trust' in CLT's name is a somewhat unfortunate formulation in the Dutch context, as the Netherlands has not accepted the legal form of a trust. It is an Anglo-American legal form and one of the tools for 'coding capital' discussed by Pistor.²² The Anglo-American trust allows an owner to transfer an asset into a legal shell, which is set up only for this purpose. The rights to the asset are divided between the trustee, who holds formal title, and the beneficiary, who receives the (future) economic interest. Once the trust deed is drawn up and the asset transferred to the trustee, the original owner no longer owns the asset. His personal creditors therefore cannot seize it to satisfy their claims. To date, the trust is an invaluable legal coding device among the wealthy who wish to protect their assets from tax authorities and other creditors.

The CLT imbues the concept of trust with a different meaning. It builds on the ideas by one of the CLT thought leaders, Ralph Borsodi, who claimed that buildings can be treated as property but that land could never be called property.²³ Instead, it should be called trusterty, as no man or government has a moral title to the earth's ownership and we hold the earth in trust. Land is understood as part of the commons, a shared resource to be managed on behalf of the community of all mankind. Over time, the emphasis of whom the CLT should serve has altered. The community for whom land was held in trust was no longer all of mankind, but a disadvantaged subset, the people who are excluded from the economic and political mainstream.

CLTs are not a type of legal form. In some jurisdictions, such as the UK, CLT's are defined in law and must adhere to certain requirements, such as: to be set up to benefit a defined local community; to be not-for-profit; and to grant local people the opportunity to join as members who have a controlling vote in the Annual General Meeting and the Board.²⁴ Often the model is combined with other models of private non-market housing, such as housing cooperatives. The difference between a CLT and an ordinary housing cooperative is that by design the interests of residents, neighbours and the public at large are represented in the organizational design of the CLT. Moreover, housing cooperatives are owned and run

22 Pistor, above n. 2, at 42-43.

¹⁷ Ibid.

¹⁸ See: Gemeente Amsterdam, 'Eigendoms- en erfpachtkaart' (November 2021), www.amsterdam.nl/wonen-leefomgeving/erfpacht/erfpachtlocaties/ (last visited 4 December 2022).

¹⁹ Art. 5:85 Dutch Civil Code.

²⁰ Municipality of Amsterdam, 2050 Vision for Amsterdam [Omgevingsvisie Amsterdam 2050] (2021), 250.

²¹ And The People, CLT Bijlmer, 'Een Community Land Trust (CLT) in de Bijlmer – Whitepaper Betaalbaar wonen in verbondenheid met buurt' (June 2020).

²³ John Davis and the National Community Land Trust Network, 'Roots of the CLT: Origins and Evolution of the Community Land Trust in the United States' (4 chapters on YouTube, www.youtube.com/watch?v=aC7YRbih4IY).

²⁴ UK Housing and Regeneration Act 2008, section 79. *See also*: Community Land Trust Network, 'Legal Structures of CLTs', www.communitylandtrusts. org.uk/about-clts/what-is-a-community-land-trust-clt/ (last visited 4 December 2022).

by and for their members, while membership of a CLT is open to everyone in the local community.

Communities around the world, in the most diverse contexts, have relied on the CLT model for more than 50 years to ensure their collective future.²⁵ The model finds its origins in the US (from 1969 onward), and CLT pilot projects were run at the beginning of the 21st century in the UK. There are now hundreds of CLTS in both the US and the UK, and the model is gaining popularity in other parts of the world, including in the continental Europe.²⁶ The Netherlands is relatively late to the game. A few years ago, the CLT model was introduced in the Netherlands by the advisory firm And The People, resulting in a first CLT being developed in the Amsterdam neighbourhood Southeast, also known as the Bijlmer. A community of more than 180 local residents are now actively working on project plans and neighbourhood development. The municipality of Amsterdam has set out in its 2050 vision statement that more space will be granted to housing and energy cooperatives and other forms of collective self-management of the living environment. The municipality stresses that it will support and monitor smaller bottom-up initiatives such as the CLT H-neighbourhood in the Bijlmer in their quest to realise sustainable and affordable housing for and by the local community.²⁷ Currently, a second CLT is under development in Amsterdam. 'De Ceuvel' in Amsterdam North is exploring the potential of the CLT model to transform a temporary circular innovation hub into a permanent space for circular innovation and community involvement.

The following sections examine the potential of the CLT model to contribute to a sustainable city as viewed through the four glocal lenses. Before doing so, the CLT H-neighbourhood in the Bijlmer will be discussed in more depth to deepen our insight into the workings of the CLT model.

2.1.1 The CLT H-Neighbourhood in the Bijlmer

For the past 50 years, the Bijlmer in Amsterdam South-East has been perceived as the roughest part of Amsterdam. The area was developed from 1966 onward, but its monotonous building blocks did not appeal to people and the buildings remained empty.²⁸ Rent prices dropped

- 25 John Davis and the National Community Land Trust Network, above n. 23.
- 26 Matthew Thompson, Reconstructing Public Housing: Liverpool's Hidden History of Collective Alternatives (2020); J.E. Davis, L. Algoed & M.E. Harnandez Torrales (eds.), 'The Growth of Community Land Trusts in England and Europe' (2021); SHICC, 'Urban Community Land Trust in Europe Towards a Transnational Movement' (2020), www.nweurope.eu/media/11838/shicc_eu-clt-guide_2020_en.pdf (last visited 8 December 2022); SHICC, 'Towards Stronger EU Support for Community Land Trusts' (Policy Paper, December 2020), www.nweurope.eu/media/12294/shicc_eu-policy-conference_policy-paper.pdf (last visited 7 December 2022); UK Community Land Trust Network, 'Success Stories', www.communitylandtrusts.org.uk/about-clts/success-stories/ (last visited 7 December 2022).

and the Bijlmer started to attract the underprivileged, particularly large numbers of immigrants from Suriname. By the end of the 1980s, the area had the profile of a poor neighbourhood, with soaring crime rates, drug abuse and unemployment. In 1992, the municipality of Amsterdam, the city council of South East and the social housing corporations decided for a large-scale area renewal. Slowly, the Bijlmer is becoming a more attractive city district that never lost its unique character of a multicultural melting pot.²⁹ 'However, residents continue to struggle, to fully prosper socially and economically', Moses Alagbe - Initiator and Board Member of the CLT H-neighbourhood - notes, which he states can be explained by high costs of living and disappearance and lack of physical community infrastructure to support emancipation, community activities and capacity building.30

The initiative the H-neighbourhood originated from a grassroots organisation that has been active in the H-neighbourhood for more than 15 years. Community members set up an open member association called CLT H-neighbourhood that consists of a diverse community with over 180 members. The group chose community development first, including the establishment of the association, even before a concrete plot of land was available to them. To date, the community is waiting for the municipality to set out a tender for a plot of land in their area, which tender has been postponed several times, to the community's dismay.³¹

The CLT H-neighbourhood built on the CLT model as developed in the US, which they sought to tailor to their own community. Three characteristics are core to any CLT, namely self-organisation, shared ownership and real estate management and operation. Organising management and locally, CLTs arguably have a strong connection with the neighbourhood and a good understanding of the local needs. Building on these core building blocks, this community developed five guiding principles: (1) affordability in the present for current residents hailing from low- and middle-income population groups; (2) affordability in the future by making speculation with housing or rapid rent increases impossible; (3) connectedness with the neighbourhood through permanent decision-making power of local residents over developments in the vicinity of their homes and neighbourhood facilities; (4) stimulating self-reliance and providing opportunities for the socioeconomic emancipation of residents from the neighbourhood, by having them take charge of the elaboration and organization of the projects; and (5) combining the development of the CLT model with circular area development.³² The H-neighbourhood set up three separate entities for its three stakeholder groups that collectively

- 29 See also: https://kadastralekaart.com/wijken/bijlmer-centrum-dfh-WK036393.
- 30 Moses Alagbe (Initiator and Board Member of the CLT H-neighbourhood) in the video on www.clthbuurt.nl/home-english (last visited 7 December 2022).
- 31 CLT NL, 'H-Buurt', www.communitylandtrust.nl/clt-hbuurt (last visited 5 December 2022).
- 32 And The People, above n. 21, at 12.

²⁷ Municipality of Amsterdam, above n. 20.

²⁸ Selma Zahirovic and Boudewijn Sterk, 'The Bijlmer: A Dutch Approach to Multiculturalism' (2007), https://humanityinaction.org/knowledge_detail/ the-bijlmer-a-dutch-approach-to-multiculturalism/ (last visited 4 December 2022).



work together to realize sustainable and affordable housing and neighbourhood facilities for people from the neighbourhood, by taking these assets under shared ownership and management (as commons) and by establishing legally embedded conditions that ensure sustainable and social use. See Figure 2 for a quick overview of the three separate entities and Annex 1 at the end of this article for a more elaborate overview.

First, an open membership association was set up for the CLT H-neighbourhood, in which local residents and other stakeholders from the neighbourhood represent their local interests. They stimulate the development of homes and neighbourhood facilities according to the CLT vision, map the neighbourhood needs, play a role in allocating new residents in the CLT properties and fulfil a procedural role in the buyback scheme.

Second, the development of the actual homes will be done with the soon-to-be residents who form a separate legal entity. As all the houses to be developed will be for rent (not for sale), this legal entity will be a housing cooperative.³³ In the statutes of this legal entity, a link is made with the CLT H-neighbourhood association when it comes to keeping houses affordable through a buyback scheme, rules regarding anti-speculation and an allocation policy for new residents. Third, the public interest is to be represented by the CLT NL platform which is currently being developed.³⁴ This platform consists of external advisors and experts, most of whom have been part of the development of the CLT movement in the Netherlands from the start. They advise and fulfil a control function vis-à-vis the CLT H-neighbourhood association and provide knowledge and support to the housing cooperative. To date, these advisors have fulfilled an important role when it comes to the engagement with local government, with regard to the search for a plot of land. The CLT NL platform is in development. It must develop a clear understanding of the various social and ecological interests to be protected and who can be regarded well-positioned to represent these human and nonhuman stakeholder groups adequately. As we argue in the following, the Zoöp model could be integrated in this third stakeholder group that represents the public interest, in order to ensure that the interests of the nonhuman living world are taken into account. The public interest can also be safeguarded in the conditions that the municipality sets as part of land lease requirements or as additional tender requirements.³⁵

The municipality of Amsterdam would like to see the number of housing cooperatives in the city rise sharply in the coming years. The ambition is that by 2045, as many as 40,000 homes (10% of all houses in Amsterdam) must be owned by housing cooperatives. The municipality is releasing plots of land for new buildings and makes available a loan fund of €50 million.³⁶ However. these ambitious municipal plans do not cater for CLTs. By definition, these plans force the CLT H-neighbourhood to present themselves as a housing cooperative rather than a CLT to be eligible for plots of land or a loan from the municipal loan fund. The practice so far shows that the technical knowledge required to start a housing cooperative is already present within groups with above-average high education and with predominantly professional experience in city development and (self) building processes and/or existing relationships within municipal bodies.³⁷ These are not characteristics of residents of the CLT H-neighbourhood. With the support of knowledgeable partners (CLT NL, the Foundation Woon,

- 35 And The People, above n. 21, at 15.
- 36 Woon, 'Actieplan wooncoöperaties Amsterdam', www.wooninfo.nl/vraagbaak/ wooncooperatie/actieplan-wooncooperaties-amsterdam/ (last visited 8 December 2022).
- 37 CLT H-neighbourhood, 'Workgroup Self Building Course', www.clthbuurt. nl/event-blog/workgroup-selbuilding-and-wooncooperatie (last visited 8 December 2022). See also: CLT-H Members Platform, 'Woon Coop', https:// clt.community/Woon-Coop-27ab53654c25498c84d378fbba5c73e8 (last visited 8 December 2022).

³³ If the houses would be for sale, residents would form a Collective Private Commissioning (*Collectief Particulier Opdrachtgeverschap, CPO*).

³⁴ Update provided by Marjolein Smeele – representative of Common City Development and advisor in the CLT NL platform – in private communication (5 December 2022). See also: CLT NL, www.communitylandtrust. nl/.

housing cooperation de Warren, and the organization New Economy), a working group is set up in the CLT H-neighbourhood to equip the community with the required capacity and knowledge to start a housing cooperative.

2.1.2 The CLT through the Four Glocal Lenses

What is the potential of the CLT model to contribute to a city being a home to thriving people in a thriving place, while respecting the well-being of all people and the health of the whole planet? In the following subsection, the impact of the CLT model on (1) local people, (2) local environment, (3) the global environment and (4) people elsewhere will be discussed.

Local People

Just like many other cities around the world, Amsterdam is suffering from a housing affordability crisis.³⁸ The further it penetrates into the fabric of the city, the more the social and economic sustainability of the city is threatened. The CLT model is promising when it comes to enabling affordability, community-building and agency. However, the CLT may equally be a vehicle that can be exploited by the insiders to ensure affordable housing for themselves and their loved ones. Hence, we argue that the statutes of the CLT H-neighbourhood association must help ensure that powers in the governance design are distributed in such a way that there are real checks on power and the CLT does not create novel inclusion-exclusion fault lines.

218 First, by controlling market speculation, homes are made affordable for generations to come. This results in lower costs of living and therewith more inclusive neighbourhoods. The CLT model also allows for the creation of neighbourhood shops, a daycare centre or a community centre, contributing to local employment opportunities.

> Second, the model inherently fosters community-building. As said, a key difference between a CLT and an ordinary housing cooperative is that CLTs tend to arise from existing forces in a neighbourhood. Moreover, the interests of residents, neighbours and the public interest are represented in the organizational design of the model. The model is designed to foster co-creation, deliberation and participation. Due to the involvement of neighbourhood in area development, CLTs tend to have a keen eye for the integration of community assets that contribute to thriving neighbourhoods. Examples of such community spaces that are being considered in the CLT H-neighbourhood in the Bijlmer include co-working spaces, a shared kitchen where residents of the neighbourhood can cook for big or festive occasions, and a community-owned park with play facilities that will be maintained by the community.³⁹

Third, the CLT model aims to provide for permanent agency of the local community to directly influence their living environment through coordinated action. The model seeks to nurture an increased sense of ownership for one's neighbourhood. By design, the model is community-led, which empowers locals to voice their needs and wishes and to contribute to neighbourhood development.

Nevertheless, the CLT may equally be a vehicle that can be exploited by insiders to ensure affordable housing for their loved ones. Hence, CLTs must be very careful that they do not create novel inclusion-exclusion fault lines. As the CLT H-neighbourhood association influences who gets selected for the CLT houses, favouritism or even xenophobia may be lurking. The organizational design must therefore ensure that participation is open to anyone residing within the geographically defined community. The CLT H-neighbourhood association is in the process of developing criteria for the allocation of houses for rent. They consider the following to be of relevance, but concrete criteria must still be validated by their members: one's current living situation, income and connection with and involvement in the H-neighbourhood.⁴⁰ The third stakeholder group representing the public interest (CLT NL) must be able to serve as a system of checks and balances that can thwart potential favouritism. Moreover, we argue that legal design - in this case, the association's statutes - can equally imbue the governance design with checks and balances. The statutes of the CLT H-neighbourhood association can also set out the measures to be taken to ensure that community participation is inclusive. To facilitate community participation, it helps people feel included when they are free and have the opportunity to speak the same language and, hence, be comfortable with speaking up on matters that are of importance to them. CLTs are not by design so inclusive as to account for language diversity, introversion/extroversion and preferred communication styles.

In addition, community participation and collaborative decision-making is a time-consuming and labour-intensive process. Especially the lower-income households that the CLT aims to serve cannot afford to spend their time deliberating neighbourhood development. Hence, the CLT must reflect on how to fairly distribute efforts to be invested, so that the burden of neighbourhood development is shared. This can be done based on trust or by integrating something that resembles a credit system, with which credits the members of the neighbourhood can enjoy neighbourhood services such as vegetables from the community's garden or assistance in the maintenance of their home by skilled fellow neighbours.

Local Environment

It is not a design feature of the CLT model to care for the local environment, planetary boundaries and circularity. However, the CLT H-neighbourhood's approach to

³⁸ Steffen Wetzstein, 'The Global Urban Housing Affordability Crisis', 54(14) Urban Studies 3159 (November 2017).

³⁹ And The People, New Economy, and Space&Matter, 'Co-operate – A Neighbourhood for Seven Generations', slide 28, https://docs.google.com/presentation/d/1bSFo8vAJhUo0visOCsveSBvr3rnkj7LXFj3RaA7xGx0/edit#slide=id.gcc49d07726_0_674 (last visited 8 December 2022).

⁴⁰ CLT-H Members Platform, 'FAQ', https://clt.community/FAQ-2b42acf78 7854417b68458357552b875 (last visited 8 December 2022).

CLT has integrated concern for the natural habitat as one of the guiding principles in their operations. To illustrate this, the CLT frontrunners in the Netherlands – And the People, New Economy and Space & Matter – have developed a vision on 'a neighbourhood for seven generations' for the CLT H-neighbourhood in the Bijlmer, related to a specific area called the H-midden neighbourhood. In their vision, which builds on input from the residents of that neighbourhood, the CLT must develop and manage a place where ecological value is created by residents and nature-based solutions are the first choice. Energy should come from renewable sources, and the carbon and ecological footprint should be drastically lowered by extending the lifespan of buildings through adaptability.⁴¹

These CLT frontrunners tried to apply the Doughnut principles at the neighbourhood scale, where they were then confronted with existing processes of area development.⁴² They observe that in traditional area development processes, the site is usually maximised for economic return. Applying the doughnut model, they developed a methodology that balances social and environmental with spatial and economic value. First, they identified opportunities for circularity in the built environment and then filtered those opportunities down based on maximising the positive spatial, social and environmental impact of those opportunities.

A material flow analysis identified what turns out to be problematic from an environmental perspective. For this community in this location that turned out to be: the building materials (concrete and stone) used for the new housing and infrastructure; the current energy mix being based mainly on non-renewable energy sources such as gas and fossil fuels; non-recycled residual, construction and renovation waste; emissions; the relatively high beverage intake in this neighbourhood; and grey and black water due to residual, construction and renovation waste.⁴³

They identified important interventions to have a positive environmental impact in the neighbourhood. The most impactful intervention would be replacing structural concrete with cross-laminated timber, in addition to bio-based interior walls, facade panels and insulation materials that would greatly reduce CO2 emissions from new construction.44 Moreover, the roofs of the neighbourhood can provide for renewable energy, and biobased thermal materials can be used for the insulation of houses. The CLT members who have time and skills can join the energy group within the CLT to maintain renewable energy sources. Other impactful interventions include harvesting rainwater, introducing wastewater purification to reduce freshwater consumption and allow for the extraction of nutrients, and turning parking places into green public spaces.⁴⁵ As caring for

44 Ibid., slide 32.

the local environment, planetary boundaries and circularity is not a design feature of the CLT model, the statutes of the CLT association could legally anchor these principles in the purpose description of the CLT.

Global Environment

What does it mean for the CLT model to respect the planet? The foregoing section demonstrated that area development can be conducted in ways in which social, ecological and economic sustainability are balanced and made central to area design. When it comes to respecting the planet, buildings and other community facilities can be designed in such a way that energy consumption and CO2 emissions are reduced. When it comes to global impacts, developers should source their materials responsibly, such as by making sure that the timber it relies on was not illegally logged. Local practices have a global impact and help reduce pressures on ecological boundaries. As noted earlier, the CLT model does not by design respect planetary boundaries; however, lawyers can assist the CLT community by legally embedding the principle of ecological protection in the purpose description of the CLT H-neighbourhood association.

People Elsewhere

The CLT model has become a tool for the empowerment of locally disadvantaged people. Attention to the impact of a CLT model on people globally is absent in the design of CLTs generally and the CLT H-neighbourhood in the Bijlmer. There are three ways in which the CLT model may impact people elsewhere: adverse impact on people's health and well-being worldwide by unsustainable energy consumption and CO2 emissions of the buildings that the CLT develops and manages; adverse impact on the human rights of those affected in the value chain of the materials relied on in construction; but, the positive impact here is that the a CLT model can be used as the basis to further the ultimate goal of redesigning the business model behind the built environment in a way that ensures our planet remains liveable for current and future generations.

In its different forms – homes, work places, schools, hospitals, libraries or other public buildings – the built environment is the single largest energy consumer and one of the largest CO2 emitters in the EU.⁴⁶ Collectively, buildings in the EU are responsible for 40% of our energy consumption and 36% of greenhouse gas emissions, which mainly arise from construction, usage, renovation and demolition. Improving energy efficiency in buildings therefore has a key role to play in achieving the ambitious goal of carbon-neutrality by 2050 as set out in the EU Green Deal.⁴⁷ By embracing circularity as a guiding principle in the development and maintenance of

⁴¹ And The People, above n. 39, side 55.

⁴² Ibid., slide 24.

⁴³ *Ibid.*, slide 30.

⁴⁵ Ibid., slide 31.

⁴⁶ European Commission, 'In Focus: Energy Efficiency in Buildings' (17 February 2020), https://ec.europa.eu/info/news/focus-energy-efficiencybuildings-2020-lut-17_en#:~:text=Collectively%2C%20buildings%20 in%20the%20EU,%2C%20usage%2C%20renovation%20and%20demolition.

⁴⁷ European Commission, 'Delivering the European Green Deal', https:// ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/ delivering-european-green-deal_en (last visited 5 December 2022).

buildings, a reduction in energy consumption and emissions can be achieved therewith, respecting the health and well-being of all people and the planet.

In the CLT literature and practice, concern for the impact on people elsewhere is not systematically addressed. In constructing buildings and other community facilities, developers rely on materials that must be sourced and transported in line with respect for the human rights of those affected by these activities. To date, this has been a blind spot. CLTs could consider contractually requiring developers to demonstrate that they have conducted adequate due diligence to ensure that the materials they rely on are sourced and transported in line with international human rights standards. The Zoöp model set out in the following provides inspiration for ways in which the interests of people elsewhere can be taken into account in the CLT's governance model. The third stakeholder group that represents the public interest in the CLT's governance model (CLT NL) could explicitly reserve a seat for a representative of the interests of people elsewhere.

Last but not least, pressure on the social, economic and ecological sustainability of the city due to the combination of a housing affordability crises as well as climate and ecological crises are not unique to Amsterdam. Climate change will disproportionately impact the already marginalized groups, young people and those not yet born. There is a need to shake up our collective imagination on how to design and manage our living environment in a way that is inclusive and respects planetary boundaries. The CLT model makes local people the stewards of their own living environment while it builds

in a legal obligation to take decisions that benefit future generations. The model has the potential to help rekindle our imagination so as to rethink and ensure that the business model behind the built environment in service of people around the globe and the planet.

2.2 Concluding Remarks

The legal coding of land, buildings and other facilities holds the promise that it might be used for purposes other than optimization of economic value at the expense of other social and ecological place-based values. As Pistor notes, property rights can take many shapes and forms, and they might just as well be used to protect collective use rights and sustainable practices.⁴⁸ The CLT model thus provides a challenge to our understanding of property rights and the responsibilities that come with it.

Interestingly, the CLT is able to imbue the notion of property and ownership with new meanings without requiring laws and regulations to change first. The model can work with existing legal forms and can legally embed its governance model in statutes and contracts. Barriers to the flourishing of CLTs are therefore more financial or political in nature. CLTs need start capital, a reduced rate on ground lease, or land to be gifted to them. This requires political willingness at the national and local levels to support such efforts of collective ownership as well as willingness by financiers to grant loans to such a socially beneficial collective against reasonable conditions.

Importantly, the CLT is no holy grail. By applying Raworth's four glocal lenses to the CLT model, we investigated the potential of the CLT model to contribute to a sustainable city. This article demonstrates that the needs of local people now and in the future are at the heart of the CLT model - hence one of the four glocal lenses - while concern for people elsewhere (geographically), the local natural habitat and planetary boundaries are not integrated in the CLT model by design. We argue that this is an important limitation of the contemporary CLT model. This limitation, however, can be overcome by rethinking the understanding of the community to be served in the concept of Community Land Trust. The community to be served by the CLT can be understood as serving the whole community of life, beyond mere human interests. This understanding better reflects the interconnectedness of the natural and social environment and therewith grant the nonhuman living world the position of primacy needed to protect and enhance ecological systems for the common good. Our environmental predicament is sufficiently severe to call for a reassessment of the place of the environment in our understanding of the common good and in the objectives pursued through the legal instruments we employ.

Let us now move on from legal innovation in the domain of *property* to the domain of *representation* to investigate the limits and potential of the Zoöp model for a sustainable city. In the concluding section, Section 4, the potential cross-fertilization between the CLT and Zoöp model is further discussed.

3 Representation of People and Planet in a Sustainable City

This section starts with general reflections on how the legal module of representation impacts sustainability issues and how the rising movement of the rights of nature is aiming to alter such representation in the domain of law. Current representation models are contrasted with the Zoöp model, which is further described and analysed against our analytical framework in Section 3.1. The section finishes of with some concluding remarks (Section 3.2), after which the article moves to an integrated analysis of both CLT and Zoöp in the last section that will conclude the article.

We know for a fact that the legal-political system so far has not been able to effectively prevent the economy from moving into a direction that will not respect planetary boundaries, that is, the ecological ceiling of the

⁴⁸ Pistor, above n. 2, at 24.

doughnut model.⁴⁹ Political theorists have argued that this is due to a one-sided focus of law and politics on people in the here and now. In other words, the interests of people elsewhere, of future generations and of nonhuman beings are systematically overlooked. Thus, the question is asked whether we can redesign our legal-political system so as to include representation of these groups. If we would make such procedural changes in our legal-political decision-making, the thought goes, also the outcomes will be more transnationally oriented, more future-oriented and more oriented to 'nonhumans', that is, animals, plants and ecosystems.⁵⁰

It is important to note that in a city like Amsterdam, there is some representation of these groups but that this representation is limited. The municipal council and mayor are in principle representing the current human inhabitants of the city. The municipal council is elected every four years, the mayor is appointed for a period of six years, with the possibility of reappointment for six years. These relatively short cycles do not by design stimulate the municipal government to think long term. Of course, this is not to say that they are not thinking about the future. Quite to the contrary, the Amsterdam Circular Strategy calls the environmental crisis very concerning for future generations, and it insists Amsterdam's ambitions to account for the future.⁵¹ But there is no institutional safeguard that municipal governance is future-proof. Such institutional safeguards do exist elsewhere by means of a special future representative; in Wales there is for instance a so-called future-generations commissioner at the national level of government. On every legislative proposal, a report has to be sent to this commissioner showing how it is accounting for the future.⁵²

As for people elsewhere, their representation is limited in Amsterdam. True, the city has a special stedenband (literally city bond) with other cities in the world, including Tangier, Tokyo and Beijing. These bonds with 'twin' or 'sister' cities are aimed at fostering cultural and knowledge exchange. However, there is no institution that guarantees that the views of people elsewhere are represented in the process of municipal decision-making. For nonhuman beings, this is a bit different, because both environmental laws and animal welfare laws require the municipality to think through at least the local environmental impacts of its policies. Moreover, green political parties take seats in the municipal board of Amsterdam. Nevertheless, in the case of nonhumans as well, representation is not anywhere near that of currently living Amsterdam citizens.

In other countries, there are interesting developments when speaking of the *legal* representation of nonhu-

- 49 For example, each year 'Earth Overshoot Day' is earlier: the day in which the whole carbon budget for that year has already been used. In 2022, this day fell on 28 July. *See*: www.overshootday.org/.
- 50 See, for example: J.S. Dryzek and J. Pickering, The Politics of the Anthropocene (2018).
- 51 Gemeente Amsterdam, 'Amsterdam Circular Strategy' (2020), 10, www. amsterdam.nl/en/policy/sustainability/circular-economy/.
- 52 More information is available on www.futuregenerations.wales/.

mans. In the transnational rights of nature or Earth Jurisprudence movement, an increasing number of natural entities, like rivers, forests, mountains or even Mother Earth, are recognised as rights-holders.⁵³ The motivation for doing is so is - generally speaking - twofold. First, there is a moral dimension: it is thought that because nature has intrinsic value, this should be recognised in law. The rights of nature signal a paradigm shift, because nature is no longer seen as an object of property but as a subject of rights. Second, there a practical dimension: only when humans institutionalise the representation of nature, they force themselves to take nature's interests properly into account in their political-legal decision-making processes. In short, the presumption is that representation as nature qua subject will lead to more effective environmental protection.54 There are more and more jurisdictions worldwide recognising the rights of nature. Ecuador was famously the first in adopting constitutional provisions in 2008, recognising the 'right to integral respect for its existence' of PachaMama, or Mother Earth.⁵⁵ Bolivia followed in 2010 with a national law also recognising the rights of Mother Earth.⁵⁶ Famous as well are New Zealand's Te Urawera forest and the Whanganui river, which were recognised as legal persons in acts from 2014 and 2017, respectively.⁵⁷ Rights of nature are often recognised by way of legislation but, occasionally, also by the judiciary. In Colombia, for instance, there is case law of the highest courts recognising rights of the Colombian Amazon rainforest and the Atrato River.⁵⁸ Moreover, recognition of rights of nature is not limited to the national level; to the contrary, many local communities have recognised the rights of nature in one way or another.⁵⁹

Because nature does not speak human language, it needs to be represented by humans in order to participate in the legal system. Representation is heterogeneously regulated across the various examples cited. The Ecuador Constitution allows anyone standing to sue on

- 53 For an overview of the movement, see: D.R. Boyd, The Rights of Nature: A Legal Revolution That Could Save the World (2017); L. Burgers & J. den Outer, Compendium Rights of Nature – Case-Studies from Six Continents (2021); A. Putzer, T. Lambooy, R. Jeurissen & E. Kim, 'Putting the Rights of Nature on the Map. A Quantitative Analysis of Rights of Nature Initiatives across the World', 8 Journal of Maps 1-8 (2022).
- 54 See also: C.M. Kauffman and P.L. Martin, The Politics of Rights of Nature: Strategies for Building a More Sustainable Future (2021), at 7.
- 55 Title II, chapter 7 of the Constitution of Ecuador. Citation comes from Art. 71.
- 56 Ley 71 de 21 Diciembre 2010: Ley de derechos de la madre tierra, full text available at www.fao.org/faolex/results/details/es/c/LEX-FAOC144985/.
- 57 Te Urewera Act 2014, Public Act, 2014, No. 51, Date of assent, 27 July 2014, available at www.legislation.govt.nz/act/public/2014/0051/latest/whole. html; Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, Public Act 2017, No. 7, Date of assent, 20 March 2017, available at www. legislation.govt.nz/act/public/2017/0007/latest/whole.html.
- 58 Supreme Court of Colombia, 5 April 2018, available at www.cortesuprema. gov.co/corte/wp-content/uploads/2018/04/STC4360-2018-2018-00319-011.pdf; Constitutional Court of Colombia 10 November 2016, Judgment T-622/16 (Atrato River case), English translation by the Dignity Rights Project, Delaware Law School, available at http://files.harmonywithnatureun. org/uploads/upload838.pdf.
- 59 See, for example: the discussion of local ordinances adopted in the US in Kauffman and P.L. Martin, above n. 54, at 163 e.s.

behalf of nature, whereas the New Zealand Acts are mostly dedicated to constituting sophisticated representative bodies for the forest and the river, respectively. In these representative bodies, there are various organs and representatives from the indigenous Māori people as well as 'the Crown', that is, the government that took power in New Zealand since it was colonised by the British.⁶⁰ Also the Colombian Constitutional Court appoints special representatives for the Atrato River in its ground-breaking decision.⁶¹

Now it is important to note two things. First, rights of nature aim primarily at legal representation and not at political representation. This means that they will often be used in litigation against harms that are already done, or of which the threat is immanent. Their preventive effect could therefore be seen as limited. Nevertheless, even if the rights of nature do not result in 'a parliament of things',⁶² they can institutionally impact political decision-making and thus have some preventive effects. After all, in principle legislatures and executives intend to draft policies that do not violate any rights of individuals.

Second, rights of nature are mostly being recognised outside Europe.⁶³ It goes beyond the scope of this article to deeply delve into the question why this would be the case. Presumably, politicians with non-European world-views find it easier to accept the idea that nature can be a (legal) person, and non-continental judges are more willing to engage in what many in continental European

legal traditions would see as *judicial activism* in the pejorative sense of the word. For example, the Colombian Supreme Court recognised the rights of the Colombian Amazon *without* a request of the plaintiffs to do so.⁶⁴ Such judicial creativity seems impossible in the Dutch legal system. So far, in Europe, there have been a lot of activists pleading for rights of nature, but only the Spanish lagune the Mar Menor has actually been recognised as a rights-holder,⁶⁵ and only very recently, since the fall of 2022.⁶⁶ Otherwise, the potential for rights of nature within Europe and the Netherlands is limited, at least in the short term.

These two factors make it extra interesting to explore the potential of the Zoöp model to transform current models of representation. We will turn to the technical details of this model shortly, in Section 3.1. It aims to represent nonhumans within all kinds of organisations:

- 60 Indeed, the colonial history of this particular case is extremely interesting, but it has been extensively discussed elsewhere and falls outside the scope of this article.
- 61 Ibid.
- 62 B. Latour, We Have Never Been Modern (2012).
- 63 See also: A. Putzer & L. Burgers, 'European Rights of Nature Initiatives', IA-CL-IADC Blog (2022).
- 64 Supreme Court of Colombia, above n. 58.
- 65 Ley 19/2022, de 30 de septiembre, para el reconocimiento de personalidad jurídica a la laguna del Mar Menor y su cuenca ('Law 19/2022 of 30 September 2022 recognising the legal personality of the Mar Menor lagune and its basin'), available at www.boe.es/diario_boe/txt.php?id=BOE-A-2022-16019.
- 66 For more information and the full text of the law, see: J. García Badía, 'Así es el texto del Congreso que aprueba al Mar Menor como "sujeto de derechos": 1.600 km blindados', El Español (2022).

both for profits and non-profits. First, this model is building on the ideas of the rights of nature. It is driven by its moral intention – that nature has intrinsic value and therefore merits institutionalised representation. It is also driven by the practical dimension, that is, by the belief that such representation will lead to better environmental protection, at least within the premises of a Zoöp organisation. Because the model is aimed at representing nonhumans within organisation's decision-making process, its effects are by design more preventive and less reparative in character than recognition of legal rights only.

Second, the Zoöp model is of Dutch (i.e. European) origin, but even though in the Netherlands the rights of nature are not recognised, this does not impede the Zoöp's immediate effectiveness. It is a bottom-up initiative, working with existing legal instruments and is not dependent on top-down adoption of new laws or legal rulings. Thus, the Zoöp model allows organisations to be frontrunners: they operationalise the ideas of the rights of nature without the need to wait for governmental institutions to do so.

This bottom-up aspect of the Zoöp is interesting in light of existing initiatives to create for-profit corporations that respect environmental and social standards. The so-called Public Benefit Corporation, is a legal entity enabled by the legislatures of various States of the US, which allows a corporation to integrate public aims in its objectives.⁶⁷ Hence, the public benefit corporation is not a bottom-up initiative in the sense that it depends on the top-down implementation by the legislature. In that sense, the Zoöp model is closer to the 'B-corp', a private certification for profit-driven companies that integrate environmental and social standards in their business. What is truly unique about the Zoöp model is how it radically changes those whose voices are represented in organisational decision-making: Zoöp is not only about realising environmental standards; the model also enables deliberating with the nonhuman world on what those standards should be.

3.1 The Zoöp Model

The Zoöp model was officially launched on 22 April 2022. It is so recent, that to our knowledge, no academic literature on it has yet been produced.

⁶⁷ See also: J.H. Murray, 'Social Enterprise Innovation: Delaware's Public Benefit Corporation Law', 4(2) Harvard Business Law Review 345-72 (2014).



In what follows, we base ourselves mostly on non-academic sources and on legal documents provided to us by the designers of the model.⁶⁸

Zoöp stands for cooperation on the one hand, and the Greek word for life, zoe, on the other. The model was developed by the Rotterdam-based museum Het Nieuwe Instituut (The New Institute), supported pro bono by lawyers from one of the most prestigious corporate firms in the Netherlands, De Brauw Blackstone Westbroek. The Zoöp model provides an organisational form in which nonhumans are represented. It works with existing company and contract law to create a new legal structure.

Figure 3 illustrates the design of the Zoöp model. Key players are the Zoönomic Institute, a Zoönomic Foundation and the various zoöps and proto-zoöps. The Zoönomic Institute maintains this complicated network and does all kind of organisational work.⁶⁹ This institute has in turn set up a so-called Zoönomic Foundation.⁷⁰ Any organization can become a zoöp, and those on their way to become one are called 'proto-zoöp'. In each zoöp's board, nonhumans are represented by someone working for the Zoönomic Foundation. This way, nonhumans get a voice in the decision-making process of the zoöps. Nonhumans are not (only) on the menu; they are at the table in the zoöps.

- 68 Full disclaimer: in the last couple of years, author [1] of this article has attended various brainstorming sessions with the lawyers developing the Zoöp model. There, she has also personally met some of the people who aim to transform their organisation in to a 'Zoöp' in the coming years, for example, the couple who started the farm Bodemzicht that is discussed in the following.
- 69 On the Zoönomic Institute's managerial board are an entrepreneur, an artist and a lawyer at the time of writing this article (respectively, Ernestien Idenburg (president), Merel Willemsen, and Margaret Sattya-Rose), but there are no formal prerequisites for becoming a member of this board.
- 70 On the board of this foundation Ernestien Idenburg and Merel Willemsen are also sitting right now, together with Sander Turnhout, a biologist. No formal requirements apply here either. It is the intention of these members to find replacement in 2023.

'Zoöp' is a certified trademark.⁷¹ Any organization significantly influencing at least 243 m³ of a biosphere is eligible to become a zoöp, that is, $9 \times 9 \times 3$ meters, or the size of a small apartment.⁷² When an organisation wants to become a zoöp, it should conclude a three-party contract with the Zoönomic Institute and the Zoönomic Foundation.73 Through this contract, the Zoönomic Institute conditionally commits to license the organisation to become a zoöp, and the Zoönomic Foundation acquires an observer seat in the board of the organisation. This Zoönomic Foundation employs 'speakers for the living', that is, human experts in regeneration who can voice the nonhuman interests in the executive board of the organisation that wants to be a zoöp.⁷⁴ It is also necessary for this organisation to subscribe to the Zoöp Manifesto and to publish it and make it easily accessible on its website.⁷⁵ Once these conditions are met, the Zoönomic Institute will license the organisation as a zoöp.⁷⁶ From then on, the new zoöp pays an annual fee to the Zoönomic Institute, the amount of which depends on inter alia the type and size of the organisation and its annual turnover.⁷⁷ The money thus collected is being used for administrative purposes and to compensate the speakers of the living for their work.

Through the mentioned contract, the newly established Zoöp commits to carry out a baseline assessment, mapping 'the ecological system within its special and operational domain', including economic relations, social dimensions and legal aspects.⁷⁸ Thereafter, the Zoöp can

75 Ibid., Art. 5.13. The Zoöp Manifesto is available at https://zoop.hetnieuweinstituut. nl/zoop-manifesto.

- 77 Ibid., Art. 6.3.
- 78 Citation taken from https://zoop.hetnieuweinstituut.nl/zoop-model (last visited 18 August 2022), the website to which the Zoöp Certification re-

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⁷¹ The certification document (hereafter: Zoöp Certification) is not made public, but it is available with the authors of this article.

⁷² Art. 5.1 Zoöp Certification.

Ibid., Art. 5.3. 73

Ibid Art 5.5 74

⁷⁶ Ibid., Art. 6.1.

set out yearly goals for ecological regeneration, following a 'zoönomic annual cycle', in which listening to sentient nonhuman beings plays a central role.⁷⁹ These yearly goals are laid down in a 'Zoönomic Annual Plan' that is to be approved annually by the Zoönomic Foundation.⁸⁰ Interventions laid down in this plan should aim at 'ecological regeneration in the spatial and operational sphere of the Zoöp'.⁸¹ Several instruments and methods to this end can be chosen, but at least one 'must provide qualitative insight into the ecological integrity of the Zoöp'.⁸² These instruments and methods can be chosen from a list that is accepted by the Zoönomic Institute, or the Zoöp has to propose one to the institute for approval.

As said, the Zoöp model can be used for any type of organisation, whether for profit or non-profit. Existing 'proto-zoöps' include a farm, a university campus and a holiday resort. Within Amsterdam, there is an art platform and community garden called *Zone2Source*. In the direct surroundings of Amsterdam, there are a hotel – Fort Abcoude – and a holiday resort, Sumowala. Moreover, De Ceuvel, mentioned in Section 2.1, is considering to adopt not only the CLT but also the Zoöp model. Because the Amsterdam-based proto-zoöps are very much at the early stages of their development, this section will draw on the examples of other (proto-)zoöps in the Netherlands as well. Since 22 April 2022, the Nieuwe Instituut itself is the first full-fledged zoöp.

Let us now turn to the four questions of the glocal lense to further assess the potential of this promising-looking model. What is the potential of the Zoöp model to contribute to a city like Amsterdam being a home to thriving people in a thriving place, while respecting the well-being of all people and the health of the whole planet?

• *3.1.1 The Zoöp Model through the Four Glocal Lenses* Local People

Zoöp stresses being embedded in a local community, as apparent in Figure 3. Also, the Zoöp Manifesto declares: 'Together with other Zoöps we work towards the transformation of our economy into a regenerative *human-inclusive* ecosystem, a network of exchange of matter, energy and meaning that supports all bodies in their existence'.⁸³ The word 'human-inclusive' signals that there is attention for the well-being of (local) people – next to of that of other 'bodies'.

This is confirmed when looking at the practice of various proto-zoöps. For example, *Ecovredegaard* is a non-profit food forest that is open for all.⁸⁴ One of its main aims is to fight poverty within the Netherlands and

- 79 Art. 5.8 Zoöp Certification. *See also*: https://zoop.hetnieuweinstituut.nl/ zoonomische-jaarcyclus.
- 80 Ibid., Art. 5.12.

- 82 Ibid., Art. 5.10.
- 83 Available at https://zoop.hetnieuweinstituut.nl/zoop-manifesto. Emphasis added.
- 84 The website of this organisation is https://sites.google.com/view/ecovredegaardcentral-website.

to provide poor people with free and healthy food that is grown in the forest. It thus has a clear orientation towards to the social well-being of local people. As a second example, the art platform *Zone2Source* is inherently oriented towards the local community: it offers freely accessible indoor and outdoor art exhibitions.⁸⁵ This creates space for members of the local community to meet and relax. And as a last example, the for-profit farm *Bodemzicht* works closely together with local chefs and local consumers, to whom it sells its re-generatively produced vegetables, herbs and eggs. Moreover, the farm is open for visitors.

In the baseline assessment that is to be carried out by every zoöp, the social dimension must also be mapped. This institutionally forces any zoöp to think about social aspects. At the same time, how this works out in practice depends on the type of organisation; for instance, local communities do not always like a hotel being built close to them. After all, hotels attract tourists, which makes the neighbourhood busier and which can cause other nuisances. Thus, the social dimension can prove to be challenging to the proto-zoöp Fort Abcoude, a for-profit hotel that is to be situated in an old fortress near Amsterdam. Now of course, this hotel can also bring benefits to its neighbourhood, like improved employment and social safety, and the preservation of the monumental fort. Moreover, it is likely that, because of the institutional requirements that are applicable to zoöps but not necessarily to other for-profit hotels, zoöp hotels may at the very least have less negative impact on a local community than a business-as-usual hotel.

Local Environment

By design, the Zoöp model fully integrates the local environment. After all, it is primarily the local environment - that is, a living world that encompasses both human and nonhuman lives within the premises of a certain zoöp represented by the speakers who are there to function as the voice of both humans and nonhumans in the local environment. These speakers are delegated by the Zoönomic Foundation which has 'laid down in its statutes that its sole task is to represent the voice of non-human life in the operational sphere of Zoöp'.⁸⁶ The concentration at the *local* environment can be seen as well in the first phase of the zoönomic annual cycle that is to be carried out by every zoöp on an annual basis. That is, this first phase is one of 'demarcation': the zoöp must clearly set out inter alia which physical structures demarcate the zoöp, like fences, watercourses or roads.⁸⁷ In the annual cycle, it should also be determining which interventions the zoöp should aim for; for instance, to improve the quality and biodiversity of the soil.⁸⁸ Moreover, a zoöp should be 'committed to strive

88 Ibid.

fers numerous times.

⁸¹ Ibid., Art. 5.9.

⁸⁵ See: https://zone2source.net/en/about-zone2source/.

⁸⁶ As per the description at https://zoop.hetnieuweinstituut.nl/zoop-model.

⁸⁷ See: Art. 5.6 Zoop Certification, referring also to https://zoop.hetnieuweinstituut. nl/zoonomische-jaarcyclus.

To do so, the regenerative farm *Bodemzicht* engages in a project with the Dutch Radboud University, developing a biodiversity monitoring tool.⁹⁰ With this tool, the local biodiversity can be assessed and measures for improvement can be taken. The Radboud University researchers study effectiveness of environmental measures in various local contexts⁹¹ and stress that it is not enough to create nature reserves but that agriculture should also be redesigned to restore biodiversity.⁹²

The improvement of biodiversity is also a key goal of the food forest *Ecovredegaard*. This proto-zoöp creates a forest, which should function as a small, localised ecosystem. Thus, it is very low-maintenance – in principle, the plants and trees and the fauna should maintain each other. Special about this small, local ecosystem is that most of the plants are edible, thus meeting the other key goal of *Ecovredegaard*, namely providing healthy food for local people (see 'local people' above).

Artist Debra Solomon is the owner of another proto-zoöp, *Urbaniahoeve*, a food forest in Amsterdam Noord (north Amsterdam). She developed a methodology to further engage with nonhuman world that can be used by the speakers of the living. She called it 'Radical observation'.⁹³ Radical observation consists of rather spiritual exercises, through which humans can understand their direct environment better and experience how they form part of it. It is clear that this tool – like many practices and interests of proto-zoöps – is 'glocal' in the true sense of the world. The aim is to recognise the interconnectedness between local and global and between social and environmental dimensions.

Global Environment

The motivation for zoöp is very much for local organisations to do their bit in tackling global problems like climate change. In this vein, it is stated on the website:

The zoöp is based on the premise that the global climate crisis and ecological devastation are the effects of an economic system that has systematically put human interests above non-human interests: zoöps strengthen the position of non-humans within human societies, stimulate ecological regeneration or quality of life for multispecies communities (that include humans) and counter extractivist dynamics.⁹⁴

Thus, the Zoöp model is clearly inspired by Anthropocene thinking – it is motivated by the interconnectedness of local and global environment. As one of the ad-

- 91 See: www.ru.nl/onderzoek/over/vm/healthy-landscape/onderzoek/individueleherstelmaatregelen/.
- 92 See: www.ru.nl/onderzoek/over/vm/healthy-landscape/onderzoek/ landschapsinitiatieven/.
- 93 See:, D. Solomon, J. Da Mosto, S. Young Han & R. Nollen 'Chapter 16: Radical Observation', in C. Nevejan, J. Da Mosto & H. AbiFarès (eds) Cahier 2: Values for Survival, the Venice Exploratorium (2020) 165-79.
- 94 https://zoop.hetnieuweinstituut.nl/zoop-model.

vantages of the model, the website also – we believe rightly – mentions that it is *empowering* people to 'channel concerns about the climate catastrophe into action'.⁹⁵

This can be recognised in the practice of proto-zoöps. For instance, the NGO *Milieufederatie Zeeland* aims to protect the environment in the Dutch region Zeeland *and beyond*. The couple who started the farm *Bodemzicht* state on their website that they are 'climate farmers for life' and that their farm 'starts from 21st century challenges such as climate change, biodiversity loss and the farmers crisis and translates this into CO2-positive, biodiverse and profitable agriculture'.⁹⁶ This emphasis on the climate signals how they stress the global dimension of their practice – their care stretches beyond care for a local healthy environment, precisely because of an awareness of the interconnectedness between the two.

People Elsewhere

The Zoöp model is inspired by the transnational rights of nature movement, and a substantive part of its background research consists of exchange and learning from people from around the world.⁹⁷ Zoöp is clearly motivated by the wish to minimise environmental impact for the benefit of every human and more-than-human beings around the world (see also 'the global environment' below). Still, zoöp is primarily a localised and environmentally sustainable model. By design, there is no particular attention to people from communities faraway. Some zoöps have an international orientation - the museum Het nieuwe instituut hosts expositions with non-Dutch artists, for example, and the university campus of University College Utrecht hosts international students. The regional environmental NGO Milieufederatie Zeeland stresses on its website that it is member of a national network and that it is therefore 'part in a larger whole', across provincial as well as national boundaries.98 Thus, the Zoöp model does not prevent an international orientation. However, to our knowledge, no (proto-)zoöp so far is focused on social justice issues of people abroad.

The design of the Zoöp model does integrate care for the environment with a focus on regeneration. This goal is clearly future-oriented and can thus benefit future generations, by design. Thus, to the extent that one interprets 'people elsewhere' as 'people elsewhere in time', there is attention for them. We can see this also in the practice of the proto-zoöps; for instance, *Milieufederatie Zeeland* explicitly mentions care for future generations as one of its strategic goals.⁹⁹ Usually, however, future generations refer to the future generations of local people.

- 95 https://zoop.hetnieuweinstituut.nl/.
- 96 www.bodemzicht.nl/.
- 97 As clear from its media library: https://zoop.hetnieuweinstituut.nl/medialibrary.
- 98 See also: https://zmf.nl/over-zmf/over-zmf/.
- 99 https://zmf.nl/dit-doen-wij/#doelen.

⁸⁹ Ibid.

⁹⁰ See: www.ru.nl/onderzoek/over/vm/healthy-landscape/ for more information.

3.2 Concluding Remarks

Having carried out the above assessment, it becomes manifest that the innovations in representation brought about by the Zoöp model are present mostly when considering the local and global environmental dimensions. Its design is geared to include the local nonhuman community, with a strong motivation to thereby improve the global environment. Moreover, this improvement of the global environment can help in preventing people elsewhere to become deprived of basic needs, such as water, food and safe shelter. Anthropocene thinking, deeply engrained in the Zoöp model and mission, shows that while the four glocal lenses are analytically useful, they should not be used as a vehicle to artificially separate something that is so deeply interconnected. After all, taking care of local ecological conditions can indeed contribute to a globally better (or at least, less worse off) environment and thereby mitigate the adverse impacts of climate change and degrading biodiversity on humans here as well as abroad.

Perhaps it might be a nice challenge for those working with the Zoöp model to think through further about the kind of impact their activities may have on the social situation of people elsewhere. The university campus of UCU could do its best to make housing affordable for students from all nations, for example. At the same time, taking the small regenerative farm *Bodemzicht* as an example, it is hard to imagine what more it could do, except for *not harming* people from other places. Indeed,

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like the CLT, the zoöp is a bottom-up, private initiative. Hence, zoöps arguably only carry the private obligation to not harm others rather than actively protect others, similar to how multinational obligations are primarily responsible not to harm human rights, rather than to actively protect them, according to the United Nations' Guiding Principles on Business and Human Rights.¹⁰⁰ Indeed, an important limitation of the Zoöp model – and one that is actually inherent in CLT as well – is exactly its nature as a private initiative. Surely, this is one of the strengths of both models, because it allows peo-

ple to take action before the legislature – they can be frontrunners. At the same time, in the end, what is needed is *everyone* to work together against the global environmental crises and against growing inequalities worldwide. Private initiatives are necessary but not sufficient to achieve that goal.

Necessary indeed, because representing the nonhuman beings in an organisation remains highly innovative and promising. In our anthropocentric times, the nonhuman living world has been seen an object of use in our society and legal thinking. This is revisited by a legal governance tool like zoöp. This goes to show how the laws have long empowered some (i.e. mostly Western and wealthy people) at the expense of others (less wealthy people as well as nonhumans); it also demonstrates how relatively easily we can at least partly fix such defects through constructions like zoöp.

4 Concluding Remarks: Legal Innovation in Service of a Sustainable City

This article started from Katharina Pistor's observation that our current form of capitalism is *enabled* by private law, which selectively 'codes' certain assets, endowing them with the capacity to protect and produce private wealth.¹⁰¹ Crucially, this means that the law can equally be a potential site for change. Law can be changed by the legislature, but legal concepts can equally be imbued with new meanings due to changing ways of seeing in society, which can translate in renewed (judicial) interpretations or usages of existing law. Moreover, the article was built on the presumption that Kate Raworth's model of Doughnut Economics comes close to where society at large should be heading in the coming century. This is true at the very least for Amsterdam, where this economic model is integrated in democratically accepted policymaking. Hence, the article analysed the potential and the limitations of the bottom-up legal innovations - the CLT and the Zoöp - for the transition towards socially just and ecologically sustainable cities. In doing so, we have paid particular attention to what these innovations do to our understanding of private law categories and how they use conventional private legal tools to alter whose voices get heard and whose interests get to count.

Based on this analysis, we conclude that the CLT and Zoöp models demonstrate that the legal modules of *property* and *representation* indeed can be adjusted such that the legal system can better accommodate an economic system in which neither planetary boundaries nor social foundations are transgressed. Importantly, they are able to do so by utilizing private legal tools of company law, corporate governance and contract law without having to wait for governmental institutions to adopt legal reform.¹⁰²

In our analysis, we reconsidered the mainstream conceptualization of *property* and *representation* in legal and cultural discourses. Property and representation are not only legal structures but also expressions of socio-political values that connect with embedded social practices. To illustrate this, the appeal of individual autonomy as a goal of classical liberal political ideology is closely associated with a model of private ownership in which individual owners can exclude others from their property as well as exercise power over the thing itself.¹⁰³ Moreover, in dominant legal-political systems, (adult)

¹⁰⁰ Office of the UN High Commissioner for Human Rights, United Nations Guiding Principles on Business and Human Rights - Implementing the United Nations 'Protect, Respect and Remedy' Framework (2011), available at www. ohchr.org/sites/default/files/documents/publications/ guidingprinciplesbusinesshr_en.pdf.

¹⁰¹ Pistor, above n. 2.

¹⁰² See also: Davies, Godden & Graham, above n. 15.

¹⁰³ Graham, Davies & Godden, above n. 10

human beings are seen as the only truly relevant political actors meriting representation in public and private decision-making. The CLT and Zoöp models demonstrate that through committed action on the basis of alternative interpretations, one can remake legal meaning, imbue property relationships with place-based responsibilities and feelings of belonging, and incorporate ecology in models of representation. Hence, our analysis confirms that meanings of legal structures such as property and representation depend upon their social, material and temporal contexts that are not fixed but rather to be negotiated over time.¹⁰⁴

What is interesting about the CLT and Zoöp models is that they transcend the tendency to address environmental harms one issue at a time, as is prevalent in existing sustainable development practices.¹⁰⁵ Nevertheless, both the CLT and Zoöp models are designed in reaction to a socio-political reality to empower a certain underprivileged and disadvantaged stakeholder group, namely local people in the CLT and local ecology in the Zoöp model. Hence, both do *not* by design holistically account for all the four glocal lenses of the Amsterdam City doughnut map that we used as our analytical framework: interests in relation to local people, local environment, global environment and people elsewhere.

Thus, we hold that there is room for cross-fertilization between the CLT and Zoöp models to help overcome the pitfalls of both models. As the environment is underrepresented in the CLT model, the Zoöp model can lend its expertise to build in representation for the local natural habitat and the planet in the governance design of the CLT. The CLT's expertise on the use of ownership to nurture a sense of stewardship for inclusive and empowered local communities can inspire the designers of the Zoöp model to maximize its potential for social inclusion. Moreover, both models would benefit from exploring how people elsewhere could be represented in their governance designs, inspired by the way in which zoöps enable representation of voiceless nonhuman actors already now.

Moreover, we find it important to point out that the CLT and Zoöp models demonstrate the fundamental importance of legal and non-legal support to make legal innovation in service of a sustainable city happen. The development of the Zoöp model was supported pro bono by lawyers from De Brauw Blackstone Westbroek. The CLT H-neighbourhood is constantly supported by a coalition of experts from the advisory firm – And The People; the advisory firm – Common City; housing-related advisory services provider – !Woon; and the design studio – Space &Matter. This coalition of experts assist the community with the engagement with local government and working through the legal and regulatory complexities of making a CLT initiative come to life. A lack of understanding of relevant processes, or even an absence of such processes, can make it very difficult for community members to participate in remaking the city in more democratic or sustainable ways.¹⁰⁶ This highlights the importance of hands-on legal support by lawyers to assist in shaping the interpretation of law in service of a new economy that is sustainable, just and democratic.¹⁰⁷ Furthermore, the CLT makes painfully clear how important the support of local government is for communities to participate in remaking the city. While the CLT H-neighbourhood has been building their community from 2018 onward, the municipality keeps postponing the tender for the actual land on which the community hopes to build its houses and neighbourhood facilities. It is not unlikely that that tender will come out six years after the CLT H-neighbourhood started their efforts. It is difficult for the CLT to keep people engaged if there is no clear plan that they will be able to remake their neighbourhood. Moreover, due to electoral cycles, the people with whom they engage at the municipality come and go and the community must start from the scratch, engaging with the municipality over and over again.

In its vision for 2050, the Amsterdam municipality expresses its support for bottom-up initiatives, including the CLT H-neighbourhood.¹⁰⁸ It is yet to be seen whether this is mere lip service. The support required is not merely about making available plots of land for CLTs; what is critical here is the recognition and understanding that law and regulation frequently operate as barriers to community engagement in remaking the city and accordingly build the design to circumvent such barriers. The process of taking ownership for their neighbourhood is at times such an uphill battle that disincentivised people to develop feelings of ownership of their neighbourhood or their city. Municipalities must learn from this experience and assist people hands-on in taking responsibility for shaping their neighbourhoods in a collaborative manner. Municipalities must learn to nurture people's feelings of belonging and normalize community agency and empowerment for shaping their neighbourhoods.¹⁰⁹ Moreover, cities like Amsterdam could itself consider to either recognise the rights of the local environment or restructure some of its key agencies such as zoöps in which nonhuman interests (and, by extension, the interests of people elsewhere) are represented.

Indeed, we observed that the bottom-up nature of both the CLT and the zoöp is their strength as well as weakness. Whereas the strength lies in their unique potential for values-based legal innovation, the weakness lies in their limited sphere of influence of any private initiative and their dependence on support from public parties. Hence, if the municipality of Amsterdam takes its own

- 106 See also: Thorpe, above n. 104, at 115.
- 107 Indeed, Pistor calls lawyers 'the true masters of the code of capital' because of their influential role in shaping the law that enables the formation of capital; Pistor, above n. 2, at 3, 158 e.s.
- 108 Municipality of Amsterdam, above n. 20.

¹⁰⁴ See also: Davies, Godden & Graham, above n. 15; Amelia Thorpe, "This Land Is Yours": Ownership and Agency in the Sharing City', 45(1) Journal of Law and Society 112 (March 2018).

¹⁰⁵ Bronwen Morgan and Amelia Thorpe, 'Introduction: Law for a New Economy: Enterprise, Sharing, Regulation', 45(1) *Journal of Law and Society* 1 (March 2018).

¹⁰⁹ See also: the wonderful example of Montreal, in Thorpe, above n. 104, at 108.

Doughnut Strategy seriously, it ought to recognise the innovative changes made by private parties, support them and spread their insights. That way, the city can also inspire those beyond its boundaries to adopt an ecologically sustainable and socially just way of living. Annex 1: The organizational structure of the CLT H-neighbourhood (elaborate version)



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Environment Tax Law to Save the Planet?

Ilona van den Eijnde*

Abstract

The EU and Member States of the EU have introduced a number of new fiscal policy measures aimed to combat climate change in the past three years and will introduce more in the coming three years, including but not limited to (national) carbon taxes, airport taxes, plastic taxes, and likely a carbon border adjustment tax and taxation of aircraft fuels. To what extent can measures of fiscal nature standalone aid in preventing climate change in the EU by changing producer's or consumer's behaviour? Or in other words: could Environmental Tax Law Save the Planet?

Keywords: environmental taxes, carbon taxes, airport taxes, plastic taxes.

1 Introduction

The European Union (EU) and Member States of the EU have introduced a number of new fiscal policy measures aimed to combat climate change in the past three years and will introduce more in the coming three years, including but not limited to (national) carbon taxes, air passenger taxes, plastic taxes, and likely a carbon border adjustment tax and taxation of aircraft fuels. For taxes introduced in the past three years, in this article, the author reviews what behavioural changes can be identified as a consequence of the fiscal policy measures introduced in the past three years - effective, ineffective, side effects or evasion - and identifies what factors of the tax structure of these new measures - e.g. taxable person, rates, exemptions - are likely to have contributed to these effects. Combined with a view beyond borders examples from other parts of the world and if need be, in other fields - the author assesses to what extent the currently proposed measures are expected to have effect, and what type of effects are expected – e.g. effective, ineffective, side effects or evasion. The author concludes whether and under what conditions fiscal policy could help in changing either producer or consumer behaviour, or perhaps both, in the light of preventing climate change and whether and under what conditions fiscal policy could be successful standalone or should ideally be assisted by other (non-fiscal) measures in order to be more effective. To what extent can measures of fiscal nature standalone aid in preventing climate change in the EU by changing producer's or consumer's behaviour? Or in other words: *could Environmental Tax Law Save the Planet*?

2 Recent Developments and Article Scope

2.1 Recent Developments in EU Environmental Tax Law

The EU and Member States of the EU have introduced a number of new fiscal policy measures aimed to combat climate change in recent years and will introduce more in the coming years, including but not limited to (domestic) carbon taxes, airport/air passenger taxes,¹ plastic taxes,² and potentially a carbon border adjustment mechanism (CBAM)³ and taxation of aircraft fuels.⁴ Not all of these initiatives are part of the EU Green Deal,⁵ but all are considered or implemented with an aim to overcome climate change and environmental degradation within their own area of existential threats.

In this first paragraph, three measures are discussed in more detail: the EU CBAM, the Dutch air passenger tax and the Spanish excise tax on single-use plastic packaging materials. These measures are selected and considered for a further detailed review for the following reasons:

- Each measure aims to overcome climate change or environmental degradation, however,
- in different fields of play, meaning reduction in carbon emissions (CBAM), reduction in fossil fuel use (air passenger tax) and reduction in (single-use and/ or virgin) plastic packaging materials (plastic packaging tax or PPT);
- 1 For example the Dutch air passenger tax that was (re)introduced as of 1 January 2021: www.belastingdienst.nl/wps/wcm/connect/bldcontenten/ belastingdienst/business/air-passenger-tax/dutch-air-passenger-tax/ dutch-air-passenger-tax.
- 2 For example an excise duty on single use plastic packaging materials as entered into force in Spain as per 1 January 2023: https://sede.agenciatributaria. gob.es/Sede/en_gb/impuestos-especiales-medioambientales/impuestoespecial-sobre-envases-plastico-reutilizables.html.
- 3 For example, the proposal for an EU Carbon Border Adjustment Mechanism: Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, 14 July 2021, COM(2021)564 final.
- 4 As part of the EU Green Deal, proposals were drafted to subject (certain) aircraft fuels to standard levels of taxation currently applicable to motor fuels and electricity in gradual increments for 10 years: Proposal for a Council Directive restructuring the Union framework for the taxation of energy products and electricity, 14 July 2021, COM(2021)563 final.
- 5 See: https://ec.europa.eu/info/strategy/priorities-2019-2024/europeangreen-deal_en.

^{*} Ilona van den Eijnde is a PhD researcher at the Erasmus School of Law of the Erasmus University Rotterdam, the Netherlands.

- All measures are bound by international law, Union law and international and Union principles, albeit,
- The specific rules and restrictions vary depending on the legislator, as the Spanish (plastic) and Dutch (air passengers) legislators are bound by additional/ different rules than the Union legislator (CBAM);
- Each measures aims to 'nudge' either consumers or businesses – towards better climate or environmental behaviour, by either attempting to increase consumer pricing, to increase costs for businesses or to increase the compliance burden for businesses when associated with unpreferred climate/environmental options (i.e. emit less carbon, use less plastic, fly less, or pay more);
- All measures have entered into force or are expected to enter into force between 2019 and 2025.⁶

2.2 Article Scope

Following a descriptive introduction of the respective measures and considering the aforementioned similarities and differences, the identified (if available) and potential or expected effects are compared to the proclaimed objective of the measure in order to establish the effectiveness of the measure. In particular, this article will focus on imminent risks that the legislation or its scope may cause tax subjects to respond to it in a way other than initially intended by the legislative objectives. Such responses can be distinguished as 'avoidance' or 'evasion'. For the purpose of this article, avoidance is considered to be a legally permitted response, that includes behaviour aimed at reducing the tax burden by other means than envisaged to reduce environmental damage. Evasion, including tax fraud, is considered the illegitimate equivalence of avoidance and therefore this will not be discussed further in this article. For each measure, specific design elements that may either contribute to or oppose/complicate meeting the proclaimed objective of the measure will be highlighted and analysed. The article will conclude to what extent the current legislative structures could contribute to the

improvements are suggested. When discussing the proclaimed or published objectives, it is important to remember that all tax measures, by nature, already have a dual objective. Next to potentially preserving, protecting or improving the quality of the environment, tax measures always have a side-objective of collecting state revenue in order to cover collective expenditure. Most tax legislation, however, that is proclaimed as an environmental tax is not aimed at maximising state revenue. Referencing the examples to be discussed in this article, the scope of CBAM is limited and state revenue maximisation would have had CBAM applied to all imported goods and not to a designated few. The scope of Dutch air passenger tax is again limited as it does not include transferring passengers and furthermore, compared to the overall ticket pricing, the

reduction in environmental damage and where required,

tax rate is rather low (even following the increase in the rates per 1 January 2023). And finally, the scope of Spanish excise tax on single-use plastic packaging materials is limited to single use and plastic and also, the tax rate is rather low. As such, it is considered highly unlikely that many factors of these taxes are designed in order to maximise state (or in case of CBAM: EU) revenues. For the purposes of this article, state revenue is therefore not considered a 'main' objective of the measures introduced or proposed.

At the same time, even if only a side-objective, a state revenue objective is by nature conflicting an environmental objective. That is, as and when environmental tax law is successful, environmental damage may reduce, but so will the state revenue associated with the previously 'taxed' harmful activities. This is referred to as the 'excise paradox', and the reason why an environmental objective and a state revenue objective can never coexist as main objectives for the same tax legislative measure.

2.3 EU Carbon Border Adjustment Mechanism

2.3.1 Introduction

As part of the COVID-19 recovery plans⁷ of the EU, the European Commission has published a proposal⁸ to introduce a CBAM. This mechanism requires importers of designated basic materials to buy carbon certificates upon import into the EU, compensating for the greenhouse gas emission that is associated with the production of these materials outside the EU. CBAM should create a level playing field for non-EU manufacturers and EU manufacturers, provided that the latter would have to compensate their greenhouse gas emissions in the EU by way of purchasing certificates in the EU Emission Trading System (ETS). For a comprehensive and detailed overview of the CBAM proposal, reference is made to Schippers and De Wit.⁹

2.3.2 Scope and Tax Structure

Prior to the draft CBAM proposal, six different CBAM design options were assessed against a dynamic framework, including World Trade Organization (WTO) law and international commitments. These six design options included:

- Introduction of an import carbon tax, based on the EU price of carbon and a default carbon intensity of the products.
- Introduction of a system similar and parallel to EU ETS on imports, based on default carbon values.
- Introduction of a system similar and parallel to EU ETS on imports, based on actual carbon values (this is now included in the CBAM proposal).

⁶ This period is considered to be approximately three years back and three years forward, as of the moment this article was initiated.

⁷ Conclusions of the European Council, 17-21 July 2020 (COVID-19 recovery plan and multiannual financial framework 2021-2027), EUCO 10/20.

⁸ Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, 14 July 2021, COM(2021)564 final.

⁹ M.L. Schippers and W. de Wit, 'Proposal for a Carbon Border Adjustment Mechanism', 2022, 17(I) *Global Trade and Customs Journal* 10.

- Introduction of a system similar and parallel to EU ETS on imports, based on actual carbon values, but with a 10-year phased transitional period, allowing gradually decreasing free allocations.
- Introduction of a system similar and parallel to EU ETS on imports, based on actual carbon values throughout the value chain, i.e. also including carbon-intensive materials used to produce semi-finished and finished products.
- Introduction of an excise duty on carbon-intensive materials, covering both domestic and imported products.

The third option outlined above was converted into the CBAM proposal. Based on that proposal, the CBAM is payable by way of the purchasing of CBAM certificates that are reflecting the greenhouse gas emissions embedded in the materials imported. The certificates have to be surrendered by the authorised declarant, i.e. the person or entity in whose name the customs declaration is lodged. According to Article 5(3)(d) of the CBAM proposal, the authorised declarant is required to request authorisation in the Member State in which it is established, implying that the declarant is required to be established in the EU. This would also be parallel to the requirement for the declarant to be established in the EU in parallel according to the Union Customs Code (UCC). The taxable event is the importation into free circulation of designated goods, according to Article 4 of the CBAM proposal, and the goods and their respective CN codes are included in Annex I. The goods are limited to rather primary forms of cement, iron, steel and aluminium, fertilisers and electrical energy. Upon import of these goods, classified under these CN codes, the authorised declarant must surrender CBAM certificates equal to the greenhouse gas emissions embedded in the goods imported, i.e. the greenhouse gas emissions released during the production of the respective imported goods. For goods that originate in Iceland, Liechtenstein, Norway, Switzerland, Büsingen, Heligoland, Livigno, Ceuta and Melilla, no CBAM certificates would have to be surrendered. These are countries that are linked to the EU ETS and therefore exempt from CBAM. Future countries (partially) exempt from CBAM may be added in future, should these countries develop a system similar to EU ETS or also be linked to EU ETS.

2.3.3 Targeted Climate Change

Both the CBAM proposal and the Explanatory Memorandum¹⁰ refer to the legal basis of CBAM to be Article 192(1) of the Treaty of the Functioning of the European Union (TFEU). Article 192(2) TFEU forms a derogation from the decision-making procedure provided for in paragraph 1 and applies to provisions primarily of a fiscal nature. This implies that the CBAM proposal was not considered to be a measure primarily of a fiscal nature by the European Commission but was actually pre-

10 Explanatory Memorandum to the Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, 14 July 2021, COM(2021)564 final. sented as part of a policy with an objective to preserve, protect and improve the quality of the environment, or to promote measures at the international level to deal with regional or worldwide environmental problems, and in particular to combat climate change as per Article 191(1) TFEU.

In the absence of its legal basis, the CBAM cannot exist. That also means that its effects should contribute to meet one or more of the environmental objectives outlined in Article 191(1) TFEU. A detailed reading of the explanatory memorandum however uncovers a number of other objectives than those merely aimed at preventing environmental damage. A couple of examples are discussed in Section 2.3.4.

The press corner of the European Commission provides for a brief FAQ¹¹ on why the CBAM is proposed, what CBAM is and how it will work in practice. In that press corner, it is explained that CBAM will ensure equal treatment for products made in the EU and imports from elsewhere and avoid carbon leakage, by ensuring that importers pay the same carbon price as domestic producers under the EU ETS. That suggested impact does not appear to have a mainly environmental objective, but moreover an equality or 'fair play' objective. While EU legislation would have to honour the fair play principle, it has historically not served as a side-objective to introduce new legislation, up to the introduction of CBAM now. For legislation with more than one objective generally it is more difficult to pass the effectiveness test, as these objectives may not always be served by the same choices in (tax) structure or in scope. The suggested scope for CBAM is a very good example thereof, as that scope intends to simulate that the products manufactured by non-EU producers attract the same amount of carbon costs as the EU producers would owe under EU ETS. While, at the same time, that limited scope may not provide for sufficient 'nudging' to actually reduce carbon emissions on a global level, as the evasion opportunities are easy to achieve – perhaps easier than collecting relevant data on embedded carbon emissions.

2.3.4 Limited Initial Scope of Materials and Production Levels

As outlined above, the scope of CBAM is limited to the goods and their respective CN codes as listed in Annex I. According to the considerations, these goods were carefully selected based on an analysis including their relevance in terms of cumulated greenhouse gas emissions, risk of carbon leakage in the corresponding ETS sectors, while limiting complexity and administrative burden. In particular, the actual selection considers basic materials and basic products covered by the EU ETS. The scope of EU ETS has been ruled on by the European Court of Justice (ECJ), upon objection by certain industries, claiming that the principle of equal treatment was infringed by the selection of the sectors included in and excluded

¹¹ See: https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_3661.

from EU ETS.¹² The ECJ ruled however that the margin of appreciation that Member states have is bound by Union law, including the principle of equal treatment. That means that in the selection of sectors in and outside the scope of EU ETS, it must consider objective criteria based on technical and scientific information. In the *Société Arcelor Atlantique* case, the ECJ acknowledges differences between the chemical sector and the non-ferrous metal sector and has found these sufficient to conclude that the principle of equal treatment was not infringed, as it simply concerned unequal sectors – albeit both contribute to greenhouse gas emissions in their own way. Similar considerations can now be found in the impact assessment done for the CBAM proposal, including for example the statement that

the fact that a CBAM is initially introduced on imports of a few basic materials and basic material products results in large businesses being the main impacted ones. Therefore, the practical impact of import related measures would have little practical impact on SMEs, even though that impact would be relatively higher than for large businesses if compared on the amount imported.¹³

Whether this limited scope of materials and production levels would contribute to less damage to the environment by way of reduction in carbon emissions, rather than evasion and carbon leakage, remains to be confirmed. That answer can only be provided after changes in production locations, production levels and import levels before and after the introduction of CBAM have been monitored. What is clear upfront is that any limited scope that does not cover all goods may cause non-EU manufacturers or EU-authorised declarants to respond to the introduction of CBAM in the way other than initially intended. There are a couple of responses that are imaginable:

- Source materials from locations not in the scope of CBAM, i.e. within the EU or Norway or Switzerland. Considering the base level of materials in the scope of CBAM (see below), this option is limited to the domestic production capacities of these materials and eventually, the level of natural mining resources available in these countries.
- Import materials into the EU at a different production level, i.e. in the case of CBAM, mostly at a more advanced production level. This option may cause (primary) production to relocate from locations inside the EU to locations outside the EU and may therefore not necessarily reduce but merely relocate carbon emissions. This is generally referred to as 'carbon leakage' and may apply to a broad scope of situations. For example, iron and steel products are

only included in the scope of CBAM up to subheading 7311, while Chapter 73 continues to subheading 7326, including goods like stranded or barbed wire, robes and cables, metal cloth, netting, fencing, chains, anchors, nails, screws, bolts, springs, stoves, radiators and anything further processed than subheadings 7301 to 7311. As according to the proposal, only direct emissions are required to be reported and compensated, an EU-authorised declarant may be inclined to request non-EU manufacturers to supply at a later production stage (i.e. tubes and pipes rather than sheets, for example), if possible, even up to the point that the respective production level is outside the scope of CBAM (subheading 7312 and beyond). As a result, the limited scope of materials included in the CBAM proposal may not necessarily lead to the overall reduction in greenhouse gas emissions, but moreover to shift in manufacturing from inside the EU to locations outside of the EU - at least until such other locations look into taking carbon measures too.

- Replace materials in the scope of CBAM with materials not in the scope of CBAM. This option is highly dependent on replacement suitability of the specific materials within the specific production process and therefore expectedly limitedly applicable.
- Interchange imports with existing 'green' production equivalents. For example, if a multinational company has production facilities in the United States of America (US) as well as Canada to cater both the North American and the EU market. The Canadian facility has significantly higher carbon emission footprints compared with the US facility. The Canadian facility currently serves the EU market due to the Canada-EU Free Trade Agreement (FTA), while the US facility currently serves the US and other Northern America markets. In this example, depending on the value of the loss of the Canadian FTA benefits, the manufacturer may consider supplying the EU market from its green(er) US facility and supplying the US market from its grey(er) Canadian facility, instead of investing in production with lesser carbon emissions in Canada. As a result, the net global emissions will remain similar than prior to the introduction of CBAM.

2.4 Dutch Air Passenger Tax

2.4.1 Introduction

As part of a national strategy ahead of the Fit-for-55 package, the Netherlands has introduced a national air passenger tax (translated as 'fly tax') as of 1 January 2021.

Member States of the EU are allowed to introduce other indirect taxes than those included in the Recast Horizontal Directive,¹⁴ governing EU excise duty on alcohol, tobacco, mineral oils and energy, as well as the VAT Di-

¹² ECJ 16 December 2008, C-127/07 (Société Arcelor Atlantique et Lorraine), ECLI:EU:C:2008:728.

¹³ Explanatory Memorandum to the Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, 14 July 2021, COM(2021)564 final, under 'Regulatory fitness and simplification'.

¹⁴ Council Directive (EU) 2020/262 of 19 December 2019 laying down the general arrangements for excise duty (recast), OJ 2020, L 58, p. 4.

rective,¹⁵ governing EU VAT. Member States are however not allowed to introduce (domestic) indirect taxes that apply to excise goods that are exempt under the Recast Horizontal Directive, also if these indirect taxes apply *indirectly*.

An example of an indirectly levied excise duty can be found in the Braathens case.¹⁶ This Swedish national environmental protection tax was calculated on the fuel consumption and emissions of hydrocarbons and nitric oxide. The calculation of the emissions was done on the basis of the average fuel consumption and corresponding emissions of hydrocarbons and nitric oxide from the type of aircraft used on an average flight. This was found to be the most accurate method to approximate the actual polluting substances emitted by aircrafts taking off. However, the ECJ ruled that based on the characteristics of the tax and the tax structure, this tax must be regarded as levied on the consumption of fuel itself, albeit indirectly. Consequently, the Swedish national environmental protection tax is charged on products which must be exempt¹⁷ from excise duty based on the Recast Horizontal Directive, and therefore not allowed.

The Dutch air passenger tax is not based on average emissions caused by the take-off of different aircraft types, but as per the below tax structure it is levied as a 'ticket tax', i.e. applicable only on passenger airline tickets that have Schiphol as their departing airport. It can therefore likely not be linked, also not indirectly, to the consumption of fuel itself and should therefore, contrary to the Swedish national environmental protection tax, be allowed based on the Recast Horizontal Directive. The same has however not be the subject of a preliminary ruling for the ECJ to decide upon (yet).

2.4.2 Scope and Tax Structure

The Dutch air passenger tax law is included in the existing Dutch law for 'taxes with an environmental base', that already includes tap water tax, waste tax, coal tax, energy tax and the Dutch carbon tax. It is short and only encompasses eight articles, from Article 72 to Article 79. Dutch air passenger tax is payable by the airport operator, e.g. Schiphol, and includes an obligation for airlines to report to the airport operator what flights with how many passengers have departed from Schiphol in order to allow calculation of the tax. From the explanatory memorandum¹⁸ of the (amendment to the) law, it is also clear that it is the expectation that the tax is charged onwards from the airport operator to the airlines and from the airlines to the passengers (see below). The taxable event is the departure of a passenger on an airplane from an airport situated in the Netherlands. Most tran-

- 15 Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax, OJ 2006, L 347, p. 1.
- 16 ECJ 10 June 1999, C-346/97 (Braathens), ECLI:EU:C:1999:291.
- 17 Art. 14(1)(b) of the Energy Directive and deriving from the International Civil Aviation Organization (ICAO) Convention, Doc 7300/9; www.icao. int/publications/Documents/7300_9ed.pdf.
- 18 Parliamentary Documents (Kamerstukken) II 2018-2019, 35 205, no. 3, consultable in Dutch language only: https://zoek.officielebekendmakingen. nl/kst-35205-3.html.

sit passengers (leaving the Dutch airport as part of the second or more leg of their journey) as well as all passengers below the age of two years and all onboard crew members are exempt from Dutch air passenger tax. The tax rate amounts to EUR 7,947 per in scope passenger, albeit the Dutch Parliament is currently debating an increase to approximately EUR 24 as per 1 January 2023. A motion to remove the exemption for transit passengers and instead introduce an exemption for each first flight (i.e. holiday flight) from the Netherlands, in an attempt to tax frequent (business) travellers.¹⁹ Article 79(2) of the Dutch Environmental Tax Law provides for an obligation of the airline to pay any air passenger tax that is charged by the airport operator to the respective airline, to the extent the same amount is due by the airport to the Dutch Tax Authorities.

2.4.3 Targeted Climate Change

As outlined above, the Dutch Environmental Tax Law includes an obligation for the airline to 'reimburse' the air passenger tax to the airport operator.²⁰ While this does not entail an obligation for the airport operator to actually recharge the Dutch air passenger tax to airlines, and also not an obligation to charge all airlines, it is likely that in practice the Dutch air passenger tax will be rolled off from the airport operator to the airlines. The law does not include an obligation for the airlines to subsequently roll the Dutch air passenger tax off on their passengers, and also not to roll it off on the passengers whose departure is actually subject to air passenger tax. It is however presumed in the explanatory memorandum that the airlines do roll off these costs to the passengers. See below under 'rolling off and price impact'.

One of the most important objectives to introduce an air passenger tax as deriving from the explanatory memorandum is to increase the price of airline tickets and accordingly provide a competitive advantage to the prices of international train and bus tickets. A secondary objective is the compensation of environmental costs into the cost of an airline ticket, in the absence of excise duty on kerosene or VAT on international passenger transport. The current rate of air passenger tax does however not provide for a full compensation, but that has also not been an objective of the Dutch Parliament - mainly due to border effects expected from airports located close by. See below under 'proximity of alternative airports'. The difference between these two objectives - increasing airline tickets prices to provide for a competitive advantages to alternative transportation methods on the one hand, and compensation of environmental damage on the other, is very important for the justification of an air passenger tax as well as its tax structure and exemptions.

Parliamentary Documents (Kamerstukken) II 2021-2022, 21 501-07, no. 1844, consultable in Dutch language only: www.tweedekamer.nl/debat_ en_vergadering/plenaire_vergaderingen/details/activiteit?id=2022A02813.
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²⁰ Art. 79(2) of the Dutch Environmental Tax Law.

Table 1Overview of ticket prices and travel details for different means of transport for travel from Amsterdam, Netherlands to
London, United Kingdom

From/to	To/from	Stops	Travel time	Transport mode	Ticket price
Amsterdam AMS	London LHR	0	1 h 20	Air (KLM)	EUR 182
Amsterdam CS – Brussels BRU	London LHR	5	10 h 37	Train & Air (AccesRail / Brussels Airlines)	EUR 147
Amsterdam CS	London St Pancras	1	4 h 42	Train (NS International / Thalys)	EUR 351
Amsterdam AMS	London City Centre	1	13 h 15	Bus (Flixbus)	EUR 66

Sources: https://www.google.com/travel/flights, www.nsinternational.com and shop.flixbus.nl; all economy or second class rates.

In light of compensation of environmental damage alone, it does not really matter what airline tickets would be exempt from air passenger tax. For example, the current exemption for transit passengers does not fit into that objective, as firstly transit passengers contribute to environmental damage in a way similar to non-transit passengers (i.e. boarding the same airplane, leaving the same airport), and secondly, compensation of that damage can be owed by anyone: the airport, the airline, the passengers or the companies using airfreight services on the same flight. Who eventually pays for the air passenger tax is however a lot more important in light of the price competition objective. In order to achieve that objective, it is important for the *right* ticket prices to actually increase, i.e. those for which passenger based on price can actually choose a different transportation mode. Either or both of the objectives will be discussed by way of the following practical examples.

2.4.4 Rolling Off and Pricing Impact

As outlined above, the Dutch Environmental Tax Law does neither include an obligation for the airport to roll off the Dutch air passenger tax on airlines nor for airlines to subsequently roll the Dutch air passenger tax off on their passengers, and also not to roll it off on the passengers whose departure is actually subject to air passenger tax. Tax, including air passenger tax, must be considered as part of the costs that companies can choose to absorb in their margin, compensate by an increased margin or reduce as much as possible. Provided that the airport operator is the taxable person and the airline responsible for the taxable event, there is a wide array of possibilities for the air passenger tax to be rolled off onto, other than the ticket prices it would be intended to increase.

Currently, the High Speed Rail Network of Europe connects the Netherlands with specific destinations in Austria, Belgium, Czech Republic, Denmark, France, Germany, Hungary, Italy, Portugal, Spain, Sweden, Switzerland and the United Kingdom. That means that, in order to have the best possible effect, airline ticket prices should increase (significantly) in particular to destinations close to those in reach of an international train station (e.g. Copenhagen, London and Frankfurt). As the current air passenger tax is rather low in terms of rates, and does not distinguish on the basis of these destinations and/or competition of alternatives, it is no surprise that officials and newspapers are reporting that effects of the introduction of the Dutch air passenger tax – in terms of a decreased demand for airline tickets – has so far not been identified.²¹

In order to reflect current price differences and by consulting Google Flights and train and bus operator websites, Table 1 is drafted for a trip from Amsterdam to London on 20 May 2022, and from London to Amsterdam on 21 May 2022.

It is clear from this overview that passengers that are looking for cheaper prices to travel relatively short distances within Europe would have to make significant concessions on travel times that do not appear relative to the price payable. Furthermore, lengthening the transport chain by combining rail and air transport seems to slightly reduce the price, while technically increasing carbon emissions even more. That is completely out of line with the objective to have an air passenger tax provide for a (negative) price incentive to encourage alternative transport modes, and correspondingly also out of line with the objective to compensate environmental damage in the price of any ticket.

The debated increase in the air passenger tax from EUR 7,947 to EUR 24 is expectedly not going to make much of a difference as this would merely increase the above first line item's price from EUR 182 to approximately EUR 198, expectedly not changing the behaviour of passengers wanting to travel from Amsterdam to London and back in response. As and where that price would closely be approximate or be significantly more expensive than the option by train is when passengers may start to consider spending close to 5 hours in a train rather than an hour and a half in an aircraft, more specifically as the latter would have to be increased with the time that passengers are advised to arrive prior to their flight departure time, which in case of European flights in normal circumstances is 2 hours.

²¹ See, consultable in Dutch language: www.taxlive.nl/nl/documenten/nieuws/ vliegbelasting-waarschijnlijk-naar-24-euro-per-vlucht/#:~:text=Hierdoor%20 kunnen%20sommige%20reizigers%20afzien,Financi%C3%ABn)%20 aan%20de%20Tweede%20Kamer.



Table 2Overview of ticket prices and travel details for air travel from different approximating airports in Europe to London,
Heathrow, United Kingdom

From/to	To/from	Stops	Travel time	Proximity to AMS	Ticket price
Amsterdam AMS	London LHR	0	1h20	0 km	EUR 182
Brussels BRU	London LHR	0	1h20	203 km / 2 h 01	EUR 161
Frankfurt FRA	London LHR	0	1 h 50	437 km / 4 h 22	EUR 194
Paris CDG	London LHR	0	1 h 20	485 km / 4 h 52	EUR 164

Sources: https://www.google.com/travel/flights and www.googlemaps.com, based on travel times to AMS by car with none to light traffic and economy fares.

2.4.5 Proximity of Alternative Airports, Foreign Air Passenger Taxes and Pricing Impact

The explanatory memorandum also refers, albeit briefly, the risk that Dutch passengers will choose to depart from other airports outside but in countries neighbouring the Netherlands. The risk is described as expectedly lower than during the course of the former Dutch air passenger tax, that lasted from 1 July 2008 to 1 January 2010, considering that Germany has in the meantime also introduced an aviation tax. Belgium has recently introduced²² an airline ticket tax, as per 1 April 2022 and hence not at the time of writing of the explanatory memorandum to the Dutch air passenger tax. The Belgian airline ticket tax is EUR 10 for all flights below 500 km, EUR 2 for all other (longer) flights with a European (EU, EER, UK and Switzerland) destination and EUR 4 for all flights with a destination outside Europe. The 500 km range would affect flights to Amsterdam, Frankfurt, Paris and London. The German aviation tax also differentiates the rate depending on destinations in three tiers amounting to EUR 12,77, EUR 32,35 and EUR 58,23 per passenger. The French air passenger tax also differentiates the rate depending on destinations in three tiers, amounting to EUR 5,70 to 7,95, EUR 10,80 and EUR 14,00 per passenger. A map reflecting other neighbouring countries and whether they have introduced or used to have an airport, air passenger or airline ticket tax is included in the explanatory memorandum and also included below.

Based on the aforementioned ticket tax prices, it could be reasonably expected that airline ticket prices to, again, London Heathrow would not vary greatly between the different departure locations in each of the countries that have introduced an airport or airline ticket tax. Table 2 reflects ticket prices and travel times again for a trip to London on 20 May 2022, and from London on 21 May 2022.

²² See, consultable in Dutch and French language: www.stradalex.com/nl/ sl_news/document/sl_news_article20220331-2-nl.

Table 3Overview of ticket prices and travel details for air travel from different approximating airports in Europe to New York,
United States of America

From/to	To/from	Stops	Travel time	Proximity to AMS	Ticket price
Amsterdam AMS	New York JFK	0	8h05	0 km	EUR 2,797
Brussels BRU	New York JFK	0	8h20	203 km / 2 h 01	EUR 1,047
Frankfurt FRA	New York JFK	0	8h45	437 km / 4 h 22	EUR 918
Paris CDG	New York JFK	0	8 h 10	485 km / 4 h 52	EUR 2,403

Sources: https://www.google.com/travel/flights and www.googlemaps.com, based on travel times to AMS by car with none to light traffic and economy fares.

While the expectation is supported by the ticket prices, it does not completely match with the air passenger tax rates outlined above. For example, the Belgian airline ticket tax is approximately 2 euros more per passenger than the Dutch air passenger tax, but the ticket to London is 21 euros less expensive for passengers flying from Brussels.

Contrary to the table comparing train and air transport above, the price differences in the above table comparing departure from proximity airports are not likely to provide sufficient incentives for Dutch passengers to departure from an airport outside the Netherlands. The same cannot be concluded if the comparison is however done for travel to New York, United States. Table 3 reflects ticket prices for a trip to New York on 20 May 2022,

and from New York on 21 May 2022, without layovers. These prices can in no way be related to the airport or airline ticket tax rates applicable in each country of departure, and therefore it is also clear that airline ticket prices – at least long distance, but also shorter distance – are based on many other factors than airport or airline ticket tax rates alone. Also, based on this comparison, it is significantly more likely that Dutch passengers would travel to Frankfurt to depart to New York from there for a third of the ticket price of a flight from Amsterdam, provided the travel time concession is made and not taking into account fuel costs to drive to and from Frankfort airport.

While concluding that the tax rate differentiation that is applied by Belgium is in line with the objective to have an air passenger tax provide for a (negative) price incentive to encourage alternative transport modes for short distance, and the tax rate differentiation that is applied by Germany and France is in line with the objective to compensate environmental damage in the price of any ticket, the overall airline ticket prices are based on other factors and costs as well. Therefore, all current rates of airport and airline ticket taxes applicable in the Netherlands, Belgium, France and Germany do not meet the objectives of providing for a price incentive to steer passenger behaviour towards more environmentally friendly travels – in some cases even the opposite.

2.4.6 Airport Slot Retention

During the course of the COVID-19 pandemic, many newspapers²³ reported on the 'ghost flights', i.e. empty flights that would depart from, particularly German, airports completely or near-empty.

The reason for departure would be suggested to the Slots Allocation Regulation.²⁴ This Regulation, more in particular Article 10(5), prescribes that where airlines are unable to demonstrate 80% usage of the series of slots allocated to them, all the slots allocated to that airline would be placed back in the slot pool and thereby become available to (all) other airlines. The European Commission reportedly reduced the allocated slot usage threshold to 50% in January 2022.²⁵ If an airline rather chooses to have an aircraft depart (near-)empty than to lose its allocated slots, the value of retention of allocated slots is apparently of such a significant importance that it should be considered while evaluating existing or future (tax) measures to reduce or compensate environmental damage caused by departing aircrafts.

2.5 Spanish Plastic Tax

2.5.1 Introduction

As per 1 January 2023, Spain introduced a PPT that is aimed at providing businesses a financial incentive to use recycled plastic materials in the manufacturing of plastic packaging that is used to bring goods to the Spanish market.

Member States of the EU are allowed to introduce other indirect taxes than those included in the Recast Horizontal Directive (see Section 2.4.1 above). The Spanish PPT is not considered to (indirectly) apply to excise goods that are exempt under the Recast Horizontal Directive. Furthermore, the tax is not understood to give rise to EU border formalities, and therefore considered allowed based on the Recast Horizontal Directive.

²³ For example: www.theguardian.com/environment/2022/jan/26/airlinesflying-near-empty-ghost-flights-to-retain-eu-airport-slots.

²⁴ Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports, OJ 1993, L 14, p. 1.

²⁵ See, consultable in Dutch language: www.europa-nu.nl/id/vlpdl8izbty8/ nieuws/luchthavens_geen_noodzaak_om_met_lege?ctx=vg9pkzu1yryd& s0e=vhdubxdwqrzw.

2.5.2 Scope and Tax Structure

The Spanish PPT is introduced by way of Law 7/2022 on Waste and Contaminated Soils (PPT Law) and its corresponding implementing regulations. The tax is payable by either the importer of plastic packaging materials in scope, by the acquirer of these goods when shipped from other EU countries or by the Spanish manufacturer. The taxable event is correspondingly either the import of in scope materials, the acquisition thereof when shipped from another EU country or upon the first supply to the purchaser in Spain. The rate amounts to EUR 0.45 per kilogram plastic material (by weight). Exemptions apply to the amount of plastic materials that is considered recycled (as per UNE-EN 15343:2008), plastic packaging used in the medical industry, plastic packaging components that are exported out of Spain, some designated plastic used in the agricultural sector and to any acquisitions or purchased that are destroyed, no longer suitable for use or returned for reuse or recycling. Furthermore, a registration threshold of 5 kilograms of plastic packaging per month applies to the intra-EU acquisition or imports. Importers or acquirers that remain below that threshold are not required to register for PPT, but they are however required to retain records allowing to prove that the threshold was not exceeded.

2.5.3 Targeted Climate Change

In the preamble of the PPT Law, reference is made to the first objective being 'to minimise the negative effects of waste generation and management on human health and the environment' – climate change and marine litter in particular. Furthermore, the policy must also aim to 'make efficient use of resources' in line with principles governing the circular economy. Particular references are made to Sustainable Development Goals number 12 (sustainable production and consumption), 13 (climate action) and 14 (life below water). The remainder of the preamble is extensive and refers to a number of specific goals in the light of the introduction of PPT, including 'to prevent waste' and 'to encourage the recycling of plastic products'. All objectives reviewed together can be summarised as:

- Prevent (plastic) waste, in particular those often found in waters/oceans.
- Internalise costs of recycling or cleaning (plastic) waste.
- Encourage recycling initiatives.

The PPT Law is understood to transpose both Directive (EU) 2018/851²⁶ (on extended producer responsibility) and Directive (EU) 2019/904²⁷ (on single-use plastics) into domestic legislation. With respect to the Single Use Plastics (SUP) Directive, Spain is one of the few countries, if not currently the only country, that has convert-

ed the associated obligations into an excise tax. The Spanish tax authorities are expecting the annual revenue from PPT to amount to EUR 780 million. Spain expectedly owes approximately EUR 528 million to the EU budget in the light of the EU plastic levy that was introduced in 2021.²⁸ The coverage of the expenditure to the EU budget is however not referenced by the preamble of the PPT Law as an objective to introduce a PPT nor to convert SUP Directive obligations into an excise tax.

2.5.4 Recycled (Non-Virgin) vs. Recyclable (Single Use)

The Spanish PPT basically provides for an exemption for recycled plastic materials and for plastic packaging that is reusable or recyclable. The amount (weight) of recycled plastic in packaging materials is outside the scope of Spanish PPT without any applicable thresholds. Furthermore, the entire plastic packaging is outside the scope of Spanish PPT in case it can evidently be reused, i.e. if it was 'manufactured, designed and marketed to perform multiple circuits or rotations throughout its life cycle, or to be refilled or reused for the same purpose for which it was designed'. This distinguishes Spanish PPT from for example the regime applicable in the United Kingdom since 1 April 2022. The UK exempts packaging components that are not predominantly (in weight) plastic and plastic packaging that comprises of more than 30% recycled content in weight. These two exemptions on the 'input' side of things provide for at least two perverse incentives: 1) to include unnecessary non-plastic packaging materials for the plastic to no longer be the predominant element and 2) to plan for 30% recycled content but not necessarily beyond that.²⁹ By excluding both recycled content without a threshold and reuse of packaging materials, by scarcely applying

and reuse of packaging materials, by scarcely applying exemptions and by including also semi-finished plastic packaging materials, the Spanish PPT actually entails a broad and extensive scope that is not unusually prone to evasive behaviour and may very well be effective when it comes to at least encouraging businesses towards recycling initiatives and preventing (plastic) waste.

2.5.5 Tax Rates and Compliance Burden

Such a broad, extensive and potentially highly effective scope however comes at a cost, and in this case that appears to be compliance. The abovementioned estimated revenue of EUR 780 million annually merely covers the cost of the PPT itself and not the compliance costs, both one-off and recurring, that companies would incur. The data that are required to comply with Spanish PPT may be extensive. Companies importing, acquiring or manufacturing plastic packaging materials may have to request information from suppliers that may be difficult to obtain, difficult to establish or difficult to provide in the light of confidentiality. Equally, businesses that are

²⁶ Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste, OJ 2018, L 150, p. 109.

²⁷ Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment, OJ 2019, L 155, p. 1.

²⁸ www.politico.eu/article/france-germany-set-to-pay-the-most-under-euplastics-tax/.

²⁹ See also: www.ft.com/content/34de1931-3467-469c-bb69-5ba0e7d23308, in particular: 'A source from a large food company said the way the tax had been implemented was "*hugely contradictory* as there would be no incentive to use recycled content – the very aim of the plastic tax."

entitled to a refund or exemption of PPT due to export, recycled content or (intended) medical use of the plastic packaging materials may have to collect details around the full supply chain, official certifications or intended use statements. Considering the current rate of the PPT, it would not be unthinkable that businesses would choose to, instead of incurring high compliance costs, simply pay the Spanish PPT and not change any behaviour towards the use of more recycled plastic materials. The combination of a high compliance burden and relatively low tax burden may cause the excellent nuances made in the scope as discussed in Section 2.5.4 to go to waste. As discussed in Section 2.4.4, also the Spanish PPT does not include an obligation for businesses to roll of the tax or the compliance costs to consumers. The legislation also does not include an incentive for the consumer to return plastic to the producer for recycling purposes. The legislation therefore seems to lack an important steering element towards the behaviour of consumers. Considering that one of the objectives of the PPT Law was to prevent (plastic) waste, in particular those often found in waters/oceans, and the legislation lacks clear incentives for consumers to return plastic packaging materials rather than to 'waste' those, producers may additionally have to look into developing an incentive to close this loop/circularity. As such, Spanish PPT legislation seems to solely rely on the response behaviour of producers, while in the supply chain of plastic waste from cradle to ocean, both producers and consumers play an important role.

3 Conclusions and Recommendations

3.1 Conclusions

The EU and Member States of the EU have introduced a number of new fiscal policy measures aimed to combat climate change in the past three years and will introduce more in the coming three years. In this article, the identified, potential and expected impact of the CBAM, the Dutch air passenger tax and the Spanish plastic tax are discussed in more detail, in particular the imminent risks that the legislation or its scope may cause tax subjects to respond to it in a way other than initially intended by the legislative objectives. This exposure to 'avoidance' impacts the effectiveness of the implemented or proposed measures.

Based thereon, conclusions can be summarised as follows:

 Having more than one (main) objective – and especially if these are conflicting – drastically challenges the success of legislation passing the overall effectiveness test, both in terms of structure and scope. That is, bearing in mind that all tax measures in essence already have dual objectives, i.e. state revenue increases. When environmental taxation is successful, this automatically and negatively impacts the state revenue objective too, which is why these objectives are by nature conflicting and not suitable to coexist as main objectives.

- 2. Limited scopes lead to greater exposure to tax avoidance and are therefore considered less effective. Expanding the scope however generally conflicts with the legislative execution complexity. Environmental tax legislation therefore appears to be a compromise between preserving, protecting or improving the quality of the environment on the one hand, and executional on the other. In line with general expectations and referencing the excise paradox, states may consider to further expand the scope of environmental tax measures gradually. This would meet the aim of stabilising state revenue as well as a phased approach towards including sectors or companies having to comply with the legislation.
- 3. None of the environmental tax measures discussed in this article include a legal obligation to pass on the costs of the tax to the consumer exhibiting the 'taxed' environmentally harmful behaviour. As can be particularly concluded from the Dutch air passenger tax, the combination of the absence of a roll off obligation and (relatively) limited tax rates do not provide for a negative price incentive for airline ticket prices compared to transportation alternatives. The same could be concluded for the Spanish excise tax on single-use plastic packaging materials.
- 4. Tax exemptions lead to a greater exposure to tax avoidance and are therefore considered to reduce the effectiveness of the tax legislation. In particular the current exemptions for transit passengers and cargo with the Dutch air passenger tax do not appear to serve any of the proclaimed objectives of this legislation.

Due to either the limited scope, conflicting objectives, the absence of a pass on obligations and inappropriate exemptions, the CBAM, the Dutch air passenger tax and the Spanish PPT can expectedly win in terms of expected and identified preserving, protection or improvement of the quality of the environment. Standalone, each measure is – as is – expected to or identified as a measure to have a limited effect on changing producer's or consumer's behaviour. Greater effects may expectedly be available through necessary amendments of the existing or proposed legislation, or by combining such environmental tax legislation with other measures. Suggestions for further research are included below.

3.2 Recommendations for Further Research

In the light of future research, the following fiscal and non-fiscal measures may be further explored.

3.2.1 Minimum Airline Ticket Pricing

Austria has announced an intention to introduce a minimum ticket price for particular (short haul) flights of EUR 40. The level of minimum airfares may be explored in combination with rate differentiation based on environmental damage and in particular to (significantly) increase flights for which viable alternatives exist. Particular attention should be paid to Article 22 of the Air Services Regulation,³⁰ that prescribes that EU air carriers are allowed to freely set their air fares and air rates for intra-EU air services.

3.2.2 Packaging Deposit Schemes

Extension of current and introduction of new packaging deposit scheme, compensating (part of) the 95% value loss as a result of using packaging materials on the one hand, and providing for an economic incentive for consumers to correctly collect and offer for recycling their used packaging materials on the other. The latter may assist in overcoming the current challenge of collection, sorting and recycling of (plastic) packaging materials.

3.2.3 EU Carbon Tax

Replace the EU ETS and CBAM legislation with a single EU carbon policy, including minimum unit prices and an excise duty. The use of a minimum unit price has been successfully implemented by Scotland and Wales in the light of alcohol units and may be suitable for copying to embedded carbon emissions. The minimum unit price ensures that costs are recharged to the final consumers and not incorporated in other, 'green' products that better allow for premium pricing. The excise duty would allow for equal treatment of EU and non-EU manufacturers; however, the scope of products subject to carbon excise may have to be increased gradually to manage compliance burdens for industries affected.

30 Regulation (EC) No. 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community (Recast), OJ 2008, L 293, p. 3.

How Taxes of Local Governments Can Contribute to Climate Goals

Arjen Schep, Anneke Monsma & Robert Kastelein*

Abstract

This article examines the roles (local) taxes can play in pursuing climate goals. The authors analyse the factors within the Dutch context which are limiting, and which are contributing to the effectiveness of the use of local taxes in the pursuit of climate goals. On the one hand, (local) taxes can serve their primary purpose: funding government spending, for example the creation of certain sustainable facilities. On the other hand, taxes can give a financial incentive to influence behaviour by improving the business case for sustainable solutions or make unsustainable behaviour more expensive or sustainable behaviour financially more attractive. This article presents examples of both funding sustainable facilities as of stimulating desired sustainable behaviour by means of a certain Dutch local tax measure. Despite the examples presented, we conclude that under the current legislative restrictions, in the Netherlands local taxes can play a modest role within the sustainability policy of local governments. The research into the current legal restrictions and possibilities for achieving climate goals with local taxes in the Netherlands leads to an analysis of insights that are also relevant outside the Dutch context.

Keywords: local taxes, municipal taxes, property tax, climate goals, climate objectives.

1 Introduction

Climate change is one of the most pressing societal issues of our time. To turn the demolishing consequences, in the Paris Agreement of 2015, the United Nations Convention on Climate Change (UNFCCC) formulated the long-term goal to limit global warming to well below 2, preferably to 1.5°C, compared to preindustrial levels. Similar to any other national government that signed the climate agreement, the Dutch government translated these goals into policy resolutions, formulated in a National Climate Agreement,¹ followed by a codification of the goals in a national Climate Act.² The National Climate Agreement also addresses specific roles and tasks to local governments to limit climate change.³ In this way, the global climate goals trickle down through national policies towards local climate action.⁴

In the Dutch Climate agreement, the Netherlands is divided into 30 so-called Energy Regions. Provinces, water boards and municipalities are working together in these regions to set up a 'Regional Energy Strategy'.⁵ In this strategy, the regional choices are developed for:

- the generation of renewable electricity;
- the heat transition in the built environment; and
- the required storage and changes in the energy infrastructure.

Local governments, through their umbrella organisations, have endorsed the national Climate Agreement and the climate goals included therein.⁶ In addition, many local governments have also concluded local climate agreements and formulated their own climate goals.⁷

- 1 See for version of the Climate Agreement translated in English: www. klimaatakkoord.nl/documenten/publicaties/2019/06/28/national-climateagreement-the-netherlands (last visited 31 October 2022).
- 2 Klimaatwet, Stb. 2019, 254, https://wetten.overheid.nl/BWBR0042394/2022-03-02 (last visited 31 October 2022). The goals are regulated in Art. 2 Climate Act of which the first clause states: 'This law provides a framework for the development of policies aimed at irreversibly and step-by-step reduction of greenhouse gas emissions in the Netherlands, to a level that is 95% lower in 2050 than in 1990, in order to limit global warming and climate change'. Art. 2(2) states: 'In order to achieve this target for 2050, our Ministers who are concerned aim for a reduction in greenhouse gas emissions of 49% by 2030 and a full CO2-neutral electricity production by 2050'.
- 3 See the advice from The Council for Public Administration, 'Van Parijs naar praktijk; bekostiging en besturing van de decentrale uitvoering van het klimaatakkoord', www.raadopenbaarbestuur.nl/documenten/ publicaties/2021/01/25/advies-van-parijs-naar-praktijk (last visited 31 October 2022).
- 4 The role of local governments in the achievement of SDGs is also acknowledged by the EU Commission: see https://ec.europa.eu/commission/ presscorner/detail/en/IP_22_5395 (last visited 31 October 2022).
- 5 See the website of the National Program Regional Energy Strategy: www. regionale-energiestrategie.nl/default.aspx (last visited 31 October 2022).
- 6 See for the endorsements of the Association of Dutch Municipalities: https:// vng.nl/rubrieken/onderwerpen/klimaatakkoord; Waterboards: https:// unievanwaterschappen.nl/themas/klimaatakkoord/; and Provinces: www. ipo.nl/thema-s/klimaat-en-energie/ (all last visited 2 December 2022).
- 7 See for examples the cities of Amsterdam: www.nieuwamsterdamsklimaat. nl/, Rotterdam: www.rotterdamsklimaatakkoord.nl/ and The Hague: www. haagsklimaatpact.nl/index.php/ambities-haags-klimaatpact/ (last visited 31 October 2022).

Arjen Schep is endowed professor Taxes of Local Government at Erasmus School of Law and Scientific Director at the Erasmus Study Centre for Local Taxes (ESBL). Anneke Monsma was scientific researcher at ESBL until the end of 2022 and is now visiting researcher at the Department Law & Tax. Robert Kastelein is scientific researcher at the Erasmus Study Center for Local Taxes (ESBL). ESBL is part of the Department Law & Tax of Erasmus School of Law of the Erasmus University Rotterdam. The Endowed Chair of Taxes of Local Government and ESBL are co-funded by the J.H. Christiaanse Foundation in which representatives of the Erasmus University as well as several local governments participate. See for more info: www.esbl.nl.

To achieve their climate objectives, local authorities not only need policy space, but also legal powers and financial instruments to fund these policies, such as taxes. In this article, we explore if and how existing taxation by local governments in the Netherlands could play a role in achieving climate goals. In 2021, it was estimated that the implementation of the tasks assigned to local governments in the National Climate Agreement will cost them around \in 1.8 billion,⁸ the funding of which is currently being discussed.

In this article, we will investigate the following questions:

- 1. What roles can (local) taxes in general play in pursuing climate goals? (Section 2)
- 2. Which factors within the current Dutch context are limiting and which are contributing to the effectiveness of the use of local taxes in the pursuit of climate goals? (Section 3)
- 3. What insights does this analysis provide and to what extent can these also be relevant outside the Dutch context? (Section 4)

The article ends with a conclusion (Section 5).

2 General Roles of (Local) Taxes in Achieving Climate Goals

Since ambitious goals are set to fight climate change, there is a wide search for instruments to achieve these goals. Not only technical instruments, such as CO2 capture and storage technology, but also legal and financial instruments are investigated. Taxation might be one of the financial instruments that could help achieve climate goals.

Firstly, taxes have a funding role: they are levied to generate revenue for public spending. Governmental measures and services to achieve climate goals could be paid for by the revenue of taxes. The role of taxation in helping achieving sustainability goals (the UN SDGs) by its revenue has been broadly acknowledged and also recommended by several international organisations, including the UN, OECD, World Bank and IMF.⁹ Climate goals are amongst these SDGs. Prerequisite for this role of taxes in funding climate measures to meet the corre-

- 8 See the advice from The Council for Public Administration, above n. 4.
- 9 A. Pirlot, Chapter 4, pages 17-18 'A Legal Analysis of the Mutual Interactions between the UN Sustainable Development Goals (SDGs) and Taxation', in C. Brokelind and S. van Thiel (eds.), *Tax Sustainability in an EU and International Context* (2020). She mentions UN General Assembly, Resolution A/RES/70/1, 'Transforming Our World: The 2030 Agenda for Sustainable Development', adopted on 25 September 2015, 21 October 2015, at paragraph 17.1, p. 26. And OECD, 'OECD and the Sustainable Development Goals: Delivering on Universal Goals and Targets', at www.oecd. org/dac/sustainable-development-goals.htm (last visited 31 October 2022). She also refers to IMF, OECD, UN, World Bank Group, 'Taxation & SDGs. First Global Conference of the Platform for Collaboration on Tax', Conference Report, 14-16 February 2018. *See* www.oecd.org/ctp/countriesmust-strengthen-tax-systems-to-meet-sustainable-development-goals. htm (last visited 31 October 2022).

sponding SDGs is a sufficient potential revenue of the taxes used. In case environmental taxes are used to raise revenue for climate goals, this could be difficult. Taxing polluting behaviour or environmental harmful events might lower the revenue if people adjust their behaviour. An effective environmental tax leads to less revenue in time unless rates are increased.¹⁰

But there is another option regarding the use of taxation for climate goals, namely the possibility of influencing behaviour by fiscal incentives and disincentives in other taxes than environmental taxes. Desirable behaviour, such as business investment in less polluting technologies and private people's choice for environment-friendly alternatives, could be stimulated by lowering rates or tax exemptions. Unwanted polluting behaviour could be discouraged by higher rates or by introducing a specific levy. There is not a widespread consensus about using taxes for social engineering. This role meets several 'ifs, buts and maybes'. A major concern is the effectiveness of fiscal (dis)incentives in achieving the aspired goal. Vanistendael and Redonda conclude that a tax is not an adequate instrument to eliminate harmful environmental behaviour in an absolute way and that taxes are a very inaccurate instrument to achieve specific targets of social engineering.¹¹ A more direct way to reach the goal of elimination of harmful environmental behaviour should be a legal prohibition sanctioned by fines and prison sentences. Regarding tax incentives to stimulate investment, Van Thiel remarks that taxation is only one and not necessarily the most crucial factor that influences an investment decision. Offering tax incentives to compensate for investment climate deficiencies may not be effective and is discouraged.¹² Secondly, tax incentives might provide an advantage to an investment that would have also taken place without the incentive.¹³ Two other concerns, besides the question about the effectiveness, are the potential conflict with state aid regulation within the European Union (EU)¹⁴ and the issue

- 10 For a more elaborated view on the effectiveness of environmental taxes in achieving climate goals, *see* D. Fullerton, A. Leicester, & S. Smith, Chapter 5, pages 435-436 'Environmental Taxes', in *Dimensions of Tax Design* (IFS 2010).
- 11 F. Vanistendael, Chapter 2, page 51 'Reflections on Taxation and the Choice between Development and Sustainability', in C. Brokelind and S. van Thiel (eds.), in *Tax Sustainability in an EU and International Context* (2020) and A. Redonda, Chapter 9 pages 193-194 'Tax Expenditures and Inequality', in C. Brokelind and S. van Thiel (eds.), *Tax Sustainability in an EU and International Context* (2020).
- 12 S. van Thiel, Chapter 1, page 25 'Sustainable Taxes for Sustainable Development', in C. Brokelind and S. van Thiel (eds.), Tax Sustainability in an EU and International Context (2020). Van Thiel refers to OECD, Tax Incentives for Investment: A Global Perspective Experiences in MENA and Non-MENA Countries (2008).
- 13 See for a more elaborated guideline for an effective approach of tax incentives for sustainable investments, including preventing the 'gift effect', IMF, World Bank, OECD and UN, Options for Low Income Countries' Effective and Efficient Use of Tax Incentives for Investment, report to the G-20 Development Working Group, 2015.
- 14 See J. Pedroso and J. Kyrönviita, Chapter 16, page 377 'A Pluralistic Approach to the Question How to Balance Different Objectives of Sustainable Development through Environmental Taxes within the Framework of EU State Aid Law', in C. Brokelind and S. van Thiel (eds.), Tax Sustainability in an EU and International Context (2020). See also P. Pistone and M.

of potential climate poverty.15 Firstly, government spending on climate goals and fiscal incentives for climate-friendly investments might conflict the state aid prohibition within the EU. Especially the selectivity criterion can be easily fulfilled when drafting a special sustainability incentive in an environmental tax. Secondly, fiscal incentives could lead to the missing out of specific groups of taxpayers with low income. If people are not able to take climate-friendly measures or to choose the more environmentally friendly option because of their poor financial position, they also miss the financial advantage of the fiscal incentives, like lower rates and tax exemptions. And if the government simultaneously increases rates for the more polluting options, the tax burden shifts to taxpayers who are not able to adjust their behaviour. Moreover, climate goals cannot be achieved effectively if not everyone can join in because of their financial position.

Given these concerns, tax influencing can only play a modest role in helping achieve climate goals. Vanistendael noted that taxes can help accelerate changes in behaviour, specifically when there are clear alternatives of desirable behaviour that can be facilitated by financial support.¹⁶ Redonda states that estimating and reporting the fiscal cost of tax exemptions should be a priority for governments worldwide. This would not only enhance transparency and accountability, but also help to evaluate the effectiveness and efficiency of these provisions, which should help governments to better target their policy objectives.¹⁷

Local taxes are amongst the financial instruments that governments could use to help achieve climate goals and perform the tasks. For local taxes, all the above-mentioned concerns are applicable. Influencing behaviour through the adjustment of tax rates and the introduction of tax exemptions meets several concerns. The major concern, namely the effectiveness of tax measures, is even more important for local taxation. In the Netherlands, rates and therefore the potential revenue of local taxes are relatively low, related to tax rates and revenue of national taxes which could also hinder the effectiveness of tax measures for climate policies. The effectiveness of tax measures at the level of the local government can also be negatively affected if different neighbouring local governments implement different tax incentives and disincentives. People might avoid higher rates by moving polluting behaviour to the neighbouring municipality. Lastly, differences in local climate provisions and in local tax systems might also raise questions about the equality of citizens and companies.

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3 Limiting and Contributing Factors to the Effective Use of Local Taxes for Climate Goals

As described in Section 2, the primary function of tax instruments is funding public spending. In addition, taxes can be used to achieve certain policy goals by using them as a price incentive. The price incentive is then intended to influence the behaviour of taxpayers. Based on both functions, respectively in Sections 3.3 and 3.4 we discuss the current restrictions and possibilities specifically for municipal taxes in achieving climate objectives in the Netherlands. We will do the same for taxes of provinces and water boards in Section 3.5.

For a good understanding of our analysis, in Section 3.1 we will first describe briefly the decentralisation and financial position of local governments in the Netherlands. In Section 3.2 we will explain the legal limitations and possibilities of local taxation in the Netherlands in general.

3.1 Decentralisation and Financial Position of Local Governments in the Netherlands

The Kingdom of the Netherlands is a constitutional monarchy. The European part of the Netherlands consists of 12 provinces and 345 municipalities. The Dutch Constitution enshrines the fact that the Netherlands is a decentralised unitary state. On the one hand, provinces and municipalities have a general power of regulation and administration, which can only be limited by or pursuant to the law. On the other hand, provinces and municipalities are obliged to cooperate in the implementation of rules laid down by central government and may be subject to supervision by or pursuant to the law. The idea of decentralisation entails that some of the responsibilities of the central government are left to other public bodies and their agencies, which are more or less independent from the central government. Territorial decentralisation requires that provinces and municipalities have general legislative and administrative powers within their territory. Functional decentralisation means that one or more branches of central government functions are left to other public bodies. In the Netherlands, this is the case with water boards.¹⁸ The central government, the provinces, the municipalities and the water boards all have their own independent competences to levy taxes. The taxes that provinces, municipalities and water boards can levy are determined and restricted by legislation that is incorporated in coordinating acts: respectively the Provinces Act, the Municipalities Act and the Water Boards Act. These acts contain both tax and non-tax provisions.

Villar Ezcurra (eds.), Energy Taxation, Environmental Protection and State Aids (2016).

¹⁵ See M. Lewandowski, Chapter 15, pages 347-349'Energy Poverty and Energy Taxation in the European Union: An Overview of Tax Measures', in C. Brokelind and S. van Thiel (eds.), *Tax Sustainability in an EU and International Context* (2020).

¹⁶ Vanistendael, above n. 12 pages 52-53 2.

¹⁷ Redonda, above n. 12, page 210.

¹⁸ Dutch water boards are regional governmental bodies charged with managing water barriers, waterways, water levels, water quality and sewage treatment in their respective regions.


Withdrawals reserves

The main funding of Dutch municipalities and provinces comes from the central government.¹⁹ In the total revenue of all levels of Dutch government, the revenues of local governments represent a share of only 3.4%. This puts the Netherlands far below average compared to the other OECD countries. To illustrate, in Denmark and Sweden this percentage is 25.7% and 35.5%, respectively.²⁰ A relatively small part of the revenue consists of local governments' own income. In budgetary terms, in 2021, municipal levies in the Netherlands amounted to € 11,312 million in total, corresponding to 1.35% of the GDP.²¹ This is per capita € 647. In the Netherlands, municipalities receive roughly one-sixth of their income from taxes. The main source of income of municipalities is financial transfer from the central government in the form of general and specific grants (see Figure 1). Property taxes account for 40.3% of the local tax income, other taxes (e.g. 'parking taxes') account for 16%; 34.4% of the municipal income comes from sewage and waste processing taxes and 9.3% from fees for services.

In 2021, Dutch provinces received roughly one-fifth of their income from taxes amounting to \in 1,733 million in total.²² Apart from tax revenue and financial transfers from the central government, there are differences between municipalities in their financial position. For example, the city of Rotterdam sold its shares in the for-

- 19 By governmental financial transfers through grants from the Province Fund and Municipality Fund.
- 20 Organization for Economic Cooperation and Development (OECD), *Revenue Statistics* (2021), Table 1.4.
- 21 CBS, 'Gemeentebegrotingen; heffingen naar regio en grootteklasse', www. cbs.nl/nl-nl/cijfers/detail/83614NED (last visited 31 October 2022).
- 22 Ministerie van Financiën, 'Rijksbegroting', www.rijksfinancien.nl/memorievan-toelichting/2022/OWB/C/onderdeel/1066575 (last visited 31 October 2022).

mer municipal energy company Eneco and gained a substantial revenue by doing so, whilst other municipalities did not have such income. Rotterdam now has the opportunity to use this revenue for funding local climate initiatives, whilst other cities must raise their taxes. The main source of income of provinces is financial transfer from the central government in the form of general and specific grants (in 2021: \in 2,543 million). The main tax of the provinces is surcharge on the state motor vehicle tax (in 2021: \in 1,701 million). Dutch water boards do not receive any financial transfer from the central government. Their main source of income consists of their own levied taxes (in 2021: \in 3,138 million).²³

3.2 Legal Restrictions and Possibilities of Local Taxes in the Netherlands in General

In general, the legal framework of local taxation in the Netherlands is formed by four main pillars:

- 1. a closed system of taxes;
- 2. the obligation of compliance with higher rules;
- 3. the prohibition of taxing according to the ability to pay of the taxpayer; and
- 4. the autonomy to set tax bases and tariffs.

The first three pillars contain mostly restrictions for the taxing powers of a local government, whilst the fourth pillar states the (granted) tax autonomy of local governments.

3.2.1 Pillar 1: Closed System of Taxes

Firstly, local authorities in the Netherlands can only levy taxes if and to the extent that the national legisla-

²³ CBS, 'Opbrengsten waterschapsheffingen; begrotingen en realisatie', www. cbs.nl/nl-nl/cijfers/detail/83520NED (last visited 31 October 2022).

tor (defined in the Constitution as the Cabinet and Parliament acting in concert) has given them the power to do so.²⁴ In the Dutch context, this is called a 'closed system'.²⁵ This means that the 'menu' of taxes which local authorities can introduce has been stipulated in an Act of Parliament and that they are bound by the restrictions set therein (principle of legality). Twelve Dutch municipal levies are based on the Municipalities Act.²⁶ Two more municipal taxes have been made possible by separate laws.²⁷ The taxes levied by water boards are based on the Water Boards Act and the provincial taxes are based on several laws.

If local governments in the Netherlands want to use their tax sovereignty to contribute to a more sustainable society, they must meet the rules and obligations of the Dutch local tax system. The closed system and the principle of legality involves a limitation in the taxable events that can be chosen by the local government. The same applies to the wording of the essential elements of a levy in a local regulation: the municipality council has to stay within the boundaries set by the national legislator.

In the Netherlands, local levies can be categorised into three types, each with its own characteristics, restrictions and possibilities:

- 1. *General taxes*. Can be characterised as forced payments to the municipality, whilst the municipality does not offer any direct, individual performance in return. Revenues go to the general funds of the municipality and can be spent by the municipality as it sees fit.²⁸
- 2. *Fees (duties)*. Can be distinguished from general taxes because they are levied regarding a specific, individual service rendered by the government, acting in its governmental capacity. There are no fees due when the government has not rendered any services. Furthermore, it is required by law that the tariffs are established in such a way that the projected benefits do not exceed the projected costs.²⁹ Fees
- 24 Art. 132 Constitution of the Netherlands in conjunction with Art. 219 Municipalities Act.
- 25 As opposed to an open system which for example exists in Belgium where local governments can – within certain restrictions – create their own taxes and levies. See M.J.M. de Jonckheere, A.W. Schep, & A.P. Monsma, pages 468 and 470 'Open versus Closed Competence to Tax: A Comparative Legal Study of Municipal Taxes in Belgium and the Netherlands', 47(5) Intertax 468 (2019).
- 26 These are taxes on immovable property (Arts. 220-220h); taxes on movable property (Art. 221); taxes on commuting (Art. 223); a tax levied from tourists (Art. 224); parking taxes (Art. 225); dog license taxes (Art. 226); advertising taxes (Art. 227); sufferance taxes (Art. 228); sewing charges (Art. 228a) and fees on utility, pleasure and amusement rights (Art. 229).
- 27 These are the waste tax in respect of the disposal of household waste, which is levied based on the Environmental Protection Act, Art. 15.33, and the BIZ-Contribution in BI-Zones (Business Investment Zones), based on the BI-Zones Act.
- 28 Dutch municipalities can levy the following general taxes: property taxes (onroerende-zaakbelastingen), taxes on movable residential and business premises (roerende woon- en bedrijfsruimtebelastingen), commuter taxes (forensenbelastingen), tourist tax (toeristenbelasting), parking taxes (parkeerbelastingen), dog tax (hondenbelasting), advertising tax (reclamebelasting) and sufferance tax (precariobelasting).
- 29 Art. 229b Municipalities Act.

come in all sorts of levies, based on enjoying municipal services or the use of municipal property.³⁰

3. *Destination-based taxes*. Can be distinguished from a general tax because destination-based taxes entail a form of cost recovery. The tax revenue is intended for a specific purpose. The costs of certain municipal facilities are allocated towards a group of benefiting taxable subjects or objects. Unlike fees, the service provided by the government of which the costs are recovered by the destination-based taxes does not have to render any individual profit.³¹,³²

3.2.2 Pillar 2: Compliance with Higher Rules

Secondly, municipalities must stay within the boundaries of higher legislation and – written and unwritten – principles of proper legislation and good administration. Examples of higher legislation are Acts of Parliament (like the restrictions for the different taxes given in the Municipalities Act), the Constitution and Treaties. An example of a general principle is the principle of equality.

The obligation to comply with higher rules can restrict the leeway for local governments to implement more climate-friendly policies. For instance, varying rates to stimulate more climate-friendly behaviour must meet general legal principles, such as the principles of equality and proportionality. National legislation does, for example, not explicitly prohibit implementing a lower tariff for the sewerage levy for residential homes with a climate-friendly (sedum) roof and excluding other buildings from this tax incentive. Nevertheless, this is not allowed without an objective and reasonable justification for this selective preferential treatment. This justification can be tested by the judiciary.³³

3.2.3 Pillar 3: Prohibition of Taxing According to Carrying Capacity of Taxpayers

Thirdly, the taxable amount may not be made directly dependent on personal income, business profit or capital/wealth.³⁴ The reason for this legal restriction is that income policy in the Netherlands is reserved for the central government only. It is considered undesirable that local taxes could distort central income policies. In general, less wealthy taxpayers are sometimes less able to adjust their 'polluting behaviour' because more

able to adjust their 'polluting behaviour' because more climate-friendly alternatives are too costly for them. For example, partly because of rising energy prices, there is

- 30 The following fees are i.a. levied in the Netherlands: cleaning fees, funeral services fees, burial fees, fire department fees, fees for permits and official documents, harbour fees and market fees.
- 31 In this way, destination-based taxes are an instrument of allocation: the tax burden is distributed among those who benefit of the corresponding municipal service ('profit principle') or who cause municipal costs ('the polluter pays-principle'). Another characteristic is the relation between costs and the tax, which limits the rates: the tax income may not exceed the related costs.
- 32 Dutch destination-based taxes are the betterment levy (baatbelasting), the sewerage tax (rioolheffing) and the household waste tax (afvalstoffenheffing).
- 33 For example: Court of Appeal Arnhem-Leeuwarden 14 December 2021, ECLI:NL:GHARL:2021:11527.
- 34 Art. 219(2) Municipalities Act and Art. 221(2) Provinces Act.

a societal debate regarding the risk of 'energy poverty' among certain population groups.³⁵

3.2.4 Pillar 4: Autonomy to Set Tax Bases and Tariffs

Despite the above-mentioned three main restrictions, Dutch local authorities have considerable freedom in drawing up their local tax regulations.³⁶ Municipalities and provinces are explicitly allowed to set the taxable amount and tariff, if not yet laid down in a specific legal provision regarding the concerned tax. The same applies to the indication of the taxable person, the taxable object and exemptions. In that way, municipalities are capable of certain taxation policies. Furthermore, using a municipality's tax or fee as a policy instrument is allowed. In fact, in the latest *grand revision* of the substantive local tax law provisions in the Dutch Municipalities Act, the national legislator explicitly stated that a more instrumental approach of local taxes not only is permitted, but even be stimulated.³⁷

The fourth pillar gives local governments the power to vary the amount of tax to fit their climate policies. Within the boundaries set by the national legislator concerning the possible levies and the essential elements of the tax (such as the taxable object), local governments have a certain autonomy. Nevertheless, local authorities must also consider higher laws, regulations and legal principles when exercising this policy freedom. For example, for the municipal advertisement tax the national legislator already codified the taxable object, namely 'public announcements, visible from the public road'.³⁸ Within the boundaries of this definition, the municipality may choose to vary the rate for various kinds of advertisements. The council could for example set a higher rate for neon signs, which could be justified by the higher carbon emission.

3.3 Restrictions and Possibilities in Funding Climate Goals with Municipal Taxes

In this section, we describe some examples of possibilities of funding climate goals with different municipal taxes. Based on the type of levy (as described in Section 3.2.1), the possibilities of using tax revenue for funding of climate policies can vary. In theory, the possibilities of general taxes are wider than with fees or destination-based taxes since the rates of general taxes are not legally restricted or bound by the costs of rendered services. To fund climate initiatives, the (potential) revenue has to be substantial. The question is whether local tax revenue in the Netherlands meets this requirement. As described in Section 3.1, the revenues

38 Art. 227 Municipalities Act.

doi: 10.5553/ELR.000233

of all types of local governments combined represent a share of only 3.4% of the total revenue of all levels of Dutch government.

3.3.1 Property Tax

Dutch municipalities have limited possibilities of using property tax to fund climate mitigation measures. This is due to the extensive regulation of this tax.³⁹ The property tax is limited to three categories of tax subjects: 1) owners of non-residential properties, 2) users of non-residential properties and 3) owners of residential properties. Other forms of tariff differentiation are not allowed. For example, the tariffs cannot be made dependent on an energy label that is linked to the property. The amount of tax is mandatorily related to the value of the property. However, municipalities can decide how the revenue of the property tax will be spent. For example, municipalities can decide to increase one or more rates of the property tax to invest the additional revenue in a climate fund. In various Dutch municipalities, there are already so-called 'revolving funds' that are financed in this way with an increase in property tax rates.⁴⁰ The property tax, which in itself qualifies as a general tax, thus partly acquires the character of a destination-based tax.

Within this framework, the effects of making real property more sustainable for the valuation must be mentioned. International research shows that investing in making real estate more sustainable leads to higher values and thus to higher property tax revenue.⁴¹ In principle, this effect of an increase in value leads to higher taxation of property tax. This effect is undesirable, given the fact that many municipalities, such as the city of Rotterdam, have established their own local climate policy, which is aimed at making real estate more sustainable. We therefore find that the system of the most important own municipal tax undermines local climate policy. The municipal taxation of properties forms in that sense a financial impediment to investing in making real property more sustainable. Previous research conducted by us into the possibilities of local taxation to facilitate efforts in making port-related industry more sustainable confirms this observation.⁴²

3.3.2 Baatbelasting (Betterment Levy)

To lower carbon emissions, the Dutch government has concluded that the natural gas connection in residential homes should be replaced by an alternative (low emission) heating solution. Homeowners are responsible

³⁵ In 2021, for example, the central government made 150 million euros available to municipalities to take measures in residential areas with less wealthy residents aimed at saving energy, www.rijksoverheid.nl/actueel/nieuws/2021/10/15/150-miljoen-euro-voor-aanpak-energiearmoedekwetsbare-huishoudens (last visited 31 October 2022).

³⁶ For a more detailed analysis, see de Jonckheere, Schep & Monsma, above n. 26. Pages 469-473.

³⁷ Documents of the House of Representatives 1989/1990, 21 591, no. 3, at 32-33, 65-67 and 77-78. *See* https://zoek.officielebekendmakingen. nl/0000041200 (last visited 31 October 2022).

³⁹ Art. 220 Municipalities Act.

⁴⁰ For example Leiden: www.ondernemersfonds.nl (last visited 31 October 2022), and Utrecht: www.ondernemersfondsutrecht.nl (last visited 31 October 2022).

⁴¹ P. Zancanella, P. Bertoldi, & B. Boza-Kiss, Chapter 2, page 14. 'Energy Efficiency, the Value of Buildings and the Payment Default Risk', *JRC Science for Policy Report* 2018.

⁴² A.P. Monsma, A.W. Schep, J.A. Monsma, & R.H. Kastelein, 'Gemeentelijke belastingheffing & verduurzaming van havengebonden en industrieel vastgoed', ESBL Report 2020, www.eur.nl/sites/corporate/files/2021-03/esblrapport-verduurzaming-havengebonden-vastgoed-juli-2020-finaal.pdf (last visited 31 October 2022).

themselves for the replacement and for the insulation, which is often needed for the usability of the alternative heating facility. It is not yet forbidden to use natural gas, but as part of the municipality's Regional Energy Strategy (as mentioned in Section 1), the municipality can set a deadline in future for disconnection of the gas supply. Municipalities in the Netherlands have been identified as the competent authority to create the conditions for citizens to replace their natural gas connection. Besides the availability of an alternative solution, a major condition is affordability. The estimated replacement costs, including the necessary insulation, for a residential home are high: \in 40,000 on average.⁴³

One option for the municipality to create the conditions for the transition is to provide for a public heating solution for the whole district. An example is an environment-friendly underground heat network that uses the residual heat of industrial plants nearby. The construction costs of this public heating network can be recovered by a municipal tax: the 'baatbelasting' (betterment levy).⁴⁴ The levy is imposed on the owners of all immovable property in the vicinity, on the condition that the property can be connected to the network. To keep this solution affordable, the levy can be spread over 30 years. Using this tax, the (extra) tax burden can be put specifically on the benefiting group and not, as is the case with the property tax, on all taxpayers.

Another option that is currently being investigated is funding adjustments in private property. Homeowners are responsible for the adjustment of their property, which is necessary to (technically) connect to an alternative heating solution. The costs of these adjustments, like insulation and solar panels, could form an obstacle to the owner to make the adjustments. Financial instruments for private persons, such as mortgages and borrowings, could help. But for a part of the homeowners, those financial instruments are not an ideal solution, due to borrowing restrictions and interest rates. In a recent report, we investigated on behalf of the Utrecht Province whether the betterment levy can be used in this case.⁴⁵ Advantage of the betterment levy over a mortgage or borrowing is the long payback period of 30 years, the low interest and the connection between the monthly tax amount and the monthly reduction in energy costs because of the home adjustments. Also, the betterment levy is linked to the immovable property in-

- 43 J. Arnoldussen e.a., Proeftuinen aardgasvrije wijken. Een maatschappelijk-economische analyse van de proeftuinen (2021), www.eib.nl/publicaties/proeftuinenaardgasvrije-wijken/.
- 44 A.P. Monsma, 'Warmtenet Groningen: baatbelasting en ozb', ESBL Report 2020, www.eur.nl/sites/corporate/files/2020-12/eindrapport_baatbelasting_ ozb_warmtenet_groningen.pdf; A.P. Monsma and M.R. de Boer, 'Fiscale bekostiging warmtenet Drechtsteden', ESBL Report 2019, www.eur.nl/en/ esl/media/83899#:~:text=De%20aanleg%20van%20een%20 warmtenet.gebaat%20zijn%20door%20de%20aanleg(last visited 31 October 2022).
- 45 A.W. Schep, A.P. Monsma, R.H. Kastelein, & B.S. Kats, 'De gemeentelijke verduurzamingsregeling getoetst', ESBL/EY Report 2022, www.eur.nl/en/ esl/media/2022-02-de-gemeentelijke-verduurzamingsregeling-getoetstdef (last visited 31 October 2022). The Dutch municipality Wijk bij Duurstede already experimented with this type of taxation.

stead of the property owner, which ensures an automatic shift of the residual tax amount to a next homeowner in case of removal within the 30-year period. All in all, the betterment levy is a promising option in this respect but meets legal restrictions which could only be resolved by the national legislator. The provision in the law should make it possible for the municipality to use the levy as a specific cost recovery instrument for adjustments to individual residential homes instead of a levy based on cost recovery of public amenities within a certain district. After consideration of this option by the national legislator, in November 2022 the decision was made not to choose this path, but to develop other legislation for building-related financial instruments to make residential homes more sustainable.⁴⁶

3.3.3 Parking Taxes

It is conceivable that municipalities could use the parking tax to pay for climate initiatives. Local authorities could decide to invest the revenue of the parking tax (after increasing the rates) in environment-friendly alternatives to driving. For instance, one can think of investing in a mobility fund or a bicycle programme for the city.

3.3.4 Sewerage Levy

Municipalities are responsible for the ground water level. Due to climate change, periods of exceptional levels of rainfall are to be expected. To collect a huge amount of water in a brief time, big water collection reservoirs can be built underneath public squares, playgrounds and parks. The construction costs of these facilities can be recovered by the municipal sewerage levy. This levy can also be used to subsidise various private or business investments to prevent the amount of rainwater reaching the sewerage such as barrels to collect rainwater for households or the installation of a so-called green roof or living roof.

3.4 Restrictions and Possibilities of Influencing Behaviour with Municipal Taxes for Climate Goals

In this section, we describe some examples of the possibilities of using municipal taxes for stimulating more climate-friendly behaviour.

3.4.1 Waste Collection Levy

The municipal waste collection levy is an example of a highly effective tax for both cost recovery of municipal costs of collection and handling of household waste as well as an instrument for influencing behaviour of taxpayers. A municipality is allowed to introduce a 'reversed' collection policy: the collection of recyclable waste (such as glass, cardboard and vegetable, fruit and garden waste) is free of charge, whilst the collection of residual waste is paid for (by taxing the waste collection). This system has been proved to be effective in re-

⁴⁶ See parliamentary documents: Kamerstukken II 2021-2022, 30196, nr. 788, Kamerstukken II 2021-2022, 32847, 885 and Kamerstukken II 2022-203, 32847, nr. 980.

ducing waste.⁴⁷ In addition to a rate depending on the amount of residual waste offered, a fixed amount per collection location is often also used in most municipalities. In this way, the cost-effectiveness of the levy can be combined with the reduction of residual waste.

3.4.2 Property Tax

It is possible for municipalities to include exemptions in the property tax regulation. These exemptions may include certain sustainable investments. In our before mentioned research in the context of making port-related and industrial real estate more climate-friendly, we suggested altering the legislation to make an exemption for wastewater treatment plants.⁴⁸ We consider such an exemption to be a meaningful and justifiable option.⁴⁹ Apart from making port-related and industrial real estate more climate-friendly, it is also conceivable, for example, to disregard the value of solar panels when determining the tax base for the property tax.⁵⁰ For homes, the legal possibilities for this are currently being explored by the Dutch government.⁵¹

3.4.3 Parking Taxes

In the Netherlands, municipalities can levy parking taxes for parking regulation purposes. That parking taxes are intended as an instrument for municipalities to regulate parking follows from the literal text of the law.⁵² In view of that regulatory objective, municipalities can choose to levy the parking tax only in a certain part of the municipality, or to differentiate rates per area. Where and under what conditions the tax is levied must be indicated in the municipal regulation. Several municipalities are currently responding to the climate change challenge by means of the parking tax. For example, by introducing an exempt for the parking of shared cars at designated places in the city, thus stimulating sustainable mobility.⁵³

Other examples of environment-friendly parking taxes can be found in municipalities where no parking tax is due on parking spaces for charging an electric car, for example, in Haarlem.

The parking tax rates can be set depending on parking duration, parking time, occupied surface and location of terrains or road sections.⁵⁴ Other forms of rate differentiation than those mentioned in the law are not possible. Dutch municipalities can therefore not differentiate according to the degree of emission of a vehicle, also

- 47 M.A. Allers and C. Hoeben, Chapter 2, pages 409-411, 'Effects of Unit-Based Garbage Pricing: A Differences-in-Differences Approach', 45(3) Environmental Resource Economics 405 (2010).
- 48 The current legal exemption is limited to government-managed wastewater treatment plants.
- 49 Monsma et al., page 5, above n. 43.
- 50 See A.P. Monsma, 'De modelakte zonnepanelen en de Wet WOZ', 2019(43) Vastgoed Fiscaal & Civiel 1 (2019).
- 51 See the letter of the Minister of Internal Affairs of 14 January 2021, Documents of the House of Representatives, 2020/2021, 32 813, no. 658, https://zoek.officielebekendmakingen.nl/kst-32813-658.html (last visited 31 October 2022).
- 52 Art. 225(1) Municipalities Act.
- 53 See www.share-now.com/nl/nl/ (last visited 31 October 2022).
- 54 Art. 225(8) Municipalities Act.

called 'green rate differentiation'. We know that green rate differentiation is being applied in other countries, such as Norway and the United Kingdom.⁵⁵

Parking taxes in the Netherlands were not originally created to respond to the climate challenges of municipalities. However, setting a price to parking with parking taxes can become an incentive for alternative less polluting forms of transport such as public transport. From this point of view, parking taxes are environment-friendly taxes, although this was not the reason to introduce them.

3.4.4 Sewerage Levy

Dutch municipalities can introduce two types of sewerage levy side by side: a sewerage levy for the disposal of wastewater and a sewerage levy for the drainage of rainwater. Regarding climate adaptation in the form of making cities rainproof, another possibility is stimulating households to uncouple rainwater drainpipes from the sewer and to green their garden by varying the tariff of the sewerage levy for rainwater. A tariff of sewerage levy dependent on the percentage of the garden surface that is tiled is another possibility.

3.5 Promoting Climate Goals by Taxes of Provinces and Water Boards

3.5.1 Provinces

Provinces in the Netherlands have traditionally played a coordinating role when it comes to the spatial layout of the country. They could for example decide where industrial plants, agriculture and living areas are allowed. Together with municipalities, they are also responsible for making the regional energy plans, to switch off gas in living areas. Like municipalities, provinces receive most of their funding from the central government, as described in Section 3.1. By far the most important provincial 'own' source of tax revenue comes from surcharges on the motor vehicle tax, levied by the central government. In the National Climate Agreement, it was decided to introduce a 0-rate in the motor vehicle tax for electric vehicles.⁵⁶ As a result of this central government decision, provinces miss tax revenue. In time, the motor vehicle tax will be replaced by a kilometre-based charge. A revision of the provincial tax area is therefore under consideration.⁵⁷ This could be an opportunity to introduce new taxes or rate differentiation options aimed at achieving climate objectives. Because of the dependence on the state regarding their own tax revenue, provinces lack experience and an executive office for the execution of taxation. Using their regulation powers in spatial planning and granting permits are likely to be more effective measures in achieving climate goals.

- 55 See R.H. Kastelein, page 7, 'Groene parkeerbelastingen in binnen- en buitenland', 5(17) MBB 32 (2022).
- 56 See National Climate Agreement, above n. 2, at 64-68.
- 57 See Ministry of Home Affairs and Kingdom Relations, 'Herziening provinciaal belastinggebied', www.rijksoverheid.nl/documenten/ kamerstukken/2021/05/27/aanbieding-rapport-herziening-provinciaalbelastinggebied (last visited 31 October 2022).

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3.5.2 Water Boards

Water boards in the Netherlands have specific tasks related to water management. Part of that task is building and keeping dikes to protect the areas below sea level in the Netherlands. Due to longer periods of drought, water boards have to inspect more often the quality and strength of the dikes. Also, water boards may have to do more in order to keep a proper water level in the water system. These adjustments might lead to higher costs. Since water boards pay their tasks completely by own levies (without grants from the central government) these levies will probably increase.

Water boards in the Netherlands are also responsible for turning wastewater into drinking water through purification. This purifying process can be made more circular by using green energy for the machinery. The wastewater treatment process itself yields energy, which can be converted into green energy, biogas to power cars or electricity to be supplied to households. The raw materials that can be recovered from wastewater include phosphate, which is used to produce fertilisers. Finally, the residual silt can be recovered and turned into bioenergy. Water boards are currently setting up an 'Energy and Resources Factory' to enhance these circular initiatives.58 We have researched the legal possibilities and restrictions of funding these initiatives within the rules set by the national legislator for the water treatment levy.⁵⁹ The main conclusion is that as long as these initiatives remain a side effect or by-product of the execution of their public task, they are allowed according to

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the Water Boards Act and its legal history, and the costs and benefits can be incorporated in the corresponding levies.

In 2022, a draft law was made to confirm this option by an explicit legal article in the Water Boards Act.⁶⁰ In the draft there is also a proposal to enable water boards to use substances for measuring the pollution load of discharged water that are less harmful to the environment than the substances that are now prescribed by law. It also proposes the possibility of paying industrial companies for supplying their wastewater, in case this water contains valuable substances or makes the purifying process more effective. By doing so, water boards hope to keep receiving this wastewater. Industrial companies are not obliged to discharge their wastewater into the purifying system of the water board; they are also allowed to purify the water themselves. Two more proposals were made concerning climate adaptation. The first proposed amendment enables the water boards to impose an extra rate on a specific group that requests or uses an extra clean water supply in case of drought. Secondly, the draft law ensures the option for water boards

58 See www.efgf.nl/english (last visited 31 October 2022).

59 J.A. Monsma and A.P. Monsma, 'Rapportage onderzoek fiscaal-juridische advisering over energieproductie door waterschappen', ESBL Report 2019; Documents of the House of Representatives 2018/2019, 35 000-J, no. 30, annex, https://zoek.officielebekendmakingen.nl/kst-35000-J-30.html (last visited 31 October 2022).

60 See www.internetconsultatie.nl/wijziging_waterschapsbelasting (last visited 31 October 2022). to take measures to prevent rainwater drainage into the purifying system of the water boards.

4 Analysis: Relevant Insights Outside the Dutch Context

In addition to the insights on the role that taxes in general can play in achieving climate goals, as described in Section 2, in this section we specifically analyse the roles that taxes from local governments could play. We will focus on insights that can also have relevance outside the Dutch context.

First, we note that the global climate objectives are not only reflected in national legislation, but also in new tasks and responsibilities for local authorities. In addition, we note that large cities in particular have also formulated their own climate plans that sometimes go beyond the national climate objectives. We also note that the new tasks assigned to Dutch local authorities in the context of the climate goals have not yet led to legal adjustments to the local tax systems.

If we look at the current possibilities and limitations that apply specifically to the Netherlands, the following conclusions can be drawn from this, which may also have relevance for systems other than the Dutch local tax system. First, the observation that the revenue from local taxes is relatively insignificant compared to other OECD countries. If a larger part of the total funding of local governments would come from local taxes, there could be wider opportunities to stimulate or finance climate goals fiscally. In addition to financial space, local governments are also dependent on the central government for the extent to which they are empowered to make autonomous choices. In the Netherlands, local governments are prohibited to levy according to the ability to pay of taxpayers (see Section 3.2.3). In countries where this restriction does not apply, there may be broader possibilities in directing behaviour. Then, the ability of taxpayers to pay when taxing climate-unfriendly behaviour can also be considered in the taxation. In the Dutch context, taxing undesirable behaviour at local level means that the well-to-do can adjust their behaviour by, for example, purchasing an electric car, so that the tax burden mainly falls on the less well-off.

Furthermore, the Dutch system is determined by the fact that it is a closed system (see Section 3.2.1). Local authorities in the Netherlands are not authorised to design and introduce their own taxes, unlike the open system of local taxes in Belgium, for example.⁶¹ New specific local environmental taxes are only possible in the Netherlands after the central government makes this legally possible. This also has implications for the pace at which local governments can adjust their tax policies. In the Dutch context, it is therefore essential that municipalities and provinces are allowed to set the taxable

61 See de Jonckheere, Schep, & Monsma, above n. 26.

amount and tariff, the taxable person, the taxable object and exemptions. This competence extends to limited, but concrete possibilities for the use of local taxes for climate goals, as described in Sections 3.3, 3.4 and 3.5. Then there is the distinction between funding measures on the one hand (Section 3.3) and steering behaviour on the other (Section 3.4). In the Dutch context, we note that general taxes in particular can be used both to finance climate measures and to steer behaviour. Examples are the general taxes whose revenues are used for certain investments that lead to more climate-friendly behaviour. An example is using the parking tax revenue to fund climate initiatives, such as environment-friendly alternatives to driving a car with an internal combustion engine. Another example is to use the revenue of the tourist tax to stimulate sustainable tourism by subsidising sustainable initiatives of the tourism industry. Another example is the 'revolving funds' mentioned in Section 3.3.1, funded with the revenue of the property tax. From these funds, various environment-friendly initiatives could be subsidised or funded.

The observed effects of making immovable property more sustainable on its value also have consequences for property taxes in countries other than the Netherlands. This is a general consequence of sustainability, according to international research, mentioned in Section 3.3.1. The local taxation of real properties forms in that sense, a financial impediment to investing in making real property more sustainable. We can imagine that in various countries specific exemptions from property tax will arise for investments in making real estate more sustainable.

International research into parking taxes shows that green parking taxes can have a positive impact on the climate.⁶² However, the greatest climate impact is achieved within a broader package of measures.⁶³ As an example of this type of measure, environmental zones can be mentioned. There are also points of attention. For example, foreign parkers can be disadvantaged compared to domestic parkers. This is because foreign vehicles are not registered in the national vehicle registration, so these vehicles – which are often driven by foreigners – do not receive a green discount or exemption. Potentially, this is contrary to European law.⁶⁴

The examples we have described of the use of water boards' taxes for climate goals illustrate, on the one hand, the need of local governments to actively contribute to climate objectives and, on the other hand, that the active participation of the legislator can lead to successful adjustments to the tax system.

63 K.Y. Bjerkan, T.E. Nørbech, & M.E. Nordtømme, 'Incentives for Promoting Battery Electric Vehicle (BEV) Adoption in Norway', 43 Transportation Research Part D (Elsevier Ltd.) 169, at 176 (2016).

64 Art. 18 Treaty on the Functioning of the European Union.

5 Conclusion

In this article, we first investigated the roles (local) taxes in general can play in pursuing climate goals. The role of taxation in helping achieving sustainability goals by its revenue has been broadly acknowledged and recommended by several international organisations.

At the same time, in the literature there is not a widespread consensus about using taxes for social engineering. This role meets several 'ifs, buts and maybes'. A major concern is the effectiveness of fiscal (dis)incentives in achieving the aspired goal. Given these concerns, tax influencing can only play a modest role helping achieve climate goals. For local taxes, all the above-mentioned concerns are applicable. The major concern, namely the effectiveness of tax measures, is even more important for local taxation. In the Netherlands, rates and therefore the potential revenue of local taxes is relatively low which could also hinder the effectiveness of tax measures for climate policies. The effectiveness of tax measures at the level of the local government can also be negatively affected if different neighbouring local governments implement different tax incentives and disincentives. People might avoid higher rates by moving polluting behaviour to the neighbouring municipality. Given these concerns, we described several restrictions, possibilities and examples for both funding climate goals and influencing behaviour with local taxes in the Dutch context. This led to an analysis of relevant insights outside the Dutch context. The examples we describe illustrate that local taxes do offer opportunities to contribute to the achievement of climate goals.

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⁶² R. Wolbertus, M. Kroesen, R. van den Hoed, & C.G. Chorus, 'Policy Effects on Charging Behaviour of Electric Vehicle Owners and On Purchase Intentions of Prospective Owners: Natural and Stated Choice Experiments', 62 Transportation Research Part D (Elsevier Ltd.) 283, at 293-294 (2018).

