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Introduction

1.1 KEY ISSUES

Media outlets have been awash in recent years with reports of environmental degradation and pollution, chiefly focusing on major cities in the developing world. Images of air pollution from New Delhi and Beijing are infamous, as are unprecedented levels of contamination of major rivers and waterways, such as the Ganges.¹ These reports are often accompanied by accounts of ineffective public administration, corruption, unrestricted economic development, and urbanisation.²

Contrary to the prevailing narrative, serious environmental harm is not solely, nor perhaps even primarily, a phenomenon in developing countries. Despite the comparatively detailed regulatory regimes that operate in Europe, millions of Europeans are routinely exposed to the most serious public health hazard of the twenty-first century, one that has been described as a greater threat than Ebola or AIDS.³ Largely unbeknownst to the wider public, the air is contaminated with highly dangerous pollutants that cause as many as 3.7

¹ Minsi Zhang, Yu Song, and Xuhui Cai, 'A Health-Based Assessment of Particulate Air Pollution in Urban Areas of Beijing in 2000–2004' (2007) 376 *Science of the Total Environment* 100; Steve Hamner and others, 'The Role of Water Use Patterns and Sewage Pollution in Incidence of Water-Borne/Enteric Diseases Along the Ganges River in Varanasi, India' (2006) 16 *International Journal of Environmental Health Research* 113.

² Hbib Sekrafi and Asma Sghaier, 'Examining the Relationship between Corruption, Economic Growth, Environmental Degradation, and Energy Consumption: A Panel Analysis in MENA Region' [2016] *Journal of the Knowledge Economy* 1; Matthew A. Cole, 'Corruption, Income and the Environment: An Empirical Analysis' (2007) 62 *Ecological Economics* 637; R. J. Smith and others, 'Governance and the Loss of Biodiversity' (2003) 426 *Nature* 67.

³ *Global Environment Outlook – Geo-6 Assessment for the Pan-European Region* (United Nations Environment Programme, 2016) 61; 'WHO Chief: Air Pollution Link to 600,000 Deaths in Children', *BBC News* (6 March 2017) www.bbc.co.uk/news/health-39175410, accessed 1 April 2021.

million deaths annually in the world and 480,000 in Europe, according to estimates by the World Health Organization (WHO).⁴ Those disproportionately affected by ambient air pollution are already vulnerable segments of society: children, the elderly, and the poor.⁵

The front line of this crisis lies in major cities such as London, as much as in New Delhi and Beijing, where the pollution has reached dramatic proportions. Overall, it was estimated in successive studies that in any given year, depending on the methodology employed, at least 3,537 and as many as 9,416 deaths in Greater London were attributable to long-term exposure to air pollution.⁶ The extremely small particles from fossil fuel power plants, combustion engines, tyres, and brakes contained in the air settle in the lungs and brains of individuals, and have been linked to various respiratory illnesses such as cancers and Alzheimer's disease.⁷ Despite these serious health implications, regulatory and enforcement responses from governments have been sluggish and ineffective: more than 95 per cent of the urban population in Europe remains exposed to air pollution above WHO guidelines.⁸ Indeed, one does not have to be a radical ecologist to appreciate that a staggering number of everyday human activities result in hazardous environmental harm, driven by an ideology that prioritises short-term wealth accumulation over long-term and sustainable economic development.

The argument that the thriving of humankind is fundamentally linked to preserving the environment and ecosystems has been advanced in the field of environmental ethics for decades.⁹ Regardless of whether one ultimately assigns an instrumental or an intrinsic value to the natural environment, it is

⁴ For detailed definitions of harmful substances, see 'Ambient (Outdoor) Air Quality and Health', *World Health Organization* (2014) www.who.int/mediacentre/factsheets/fs313/en/, accessed 1 April 2021; *Burden of Disease from Ambient Air Pollution for 2012* (World Health Organization, 2014) www.who.int/phe/health_topics/outdoorair/databases/AAP_BoD_results_March2014.pdf, accessed 1 April 2021, 1.

⁵ *Global Environment Outlook*, 9.

⁶ Heather Walton and others, *Understanding the Health Impacts of Air Pollution in London* (King's College London – Environmental Research Group, 2015) 40; A. M. Gowers, B. G. Miller, and J. R. Stedman, *Estimating Local Mortality Burdens Associated with Particulate Air Pollution* (Public Health England, 2014) 21.

⁷ Barbara A. Maher and others, 'Magnetite Pollution Nanoparticles in the Human Brain' (2016) 113 *Proceedings of the National Academy of Sciences* 10797.

⁸ *Global Environment Outlook – Geo-6 Assessment for the Pan-European Region*, 61.

⁹ Arne Naess, 'The Shallow and the Deep, Long-Range Ecology Movement: A Summary' (1973) 16 *Inquiry* 95; John Passmore, *Man's Responsibility for Nature* (2nd ed., Duckworth 1980); Andrew Light and Eric Katz, 'Introduction: Environmental Pragmatism and Environmental Ethics as Contested Terrain' in Eric Katz and Andrew Light (eds.), *Environmental Pragmatism* (Routledge 1996) 1; Avner de Shalit, *Why Does Posterity Matter* (Routledge 1994).

abundantly clear that the current levels of environmental harm cannot continue without putting the long-term survival of humankind in serious doubt.¹⁰ The most prominent example is anthropocentric climate change, which has attracted mass protests and shapes the political activism of an entire generation. Beyond this headline-grabbing policy debate, countless environmental degradations and pollutants remain chronically under-regulated.

This is perplexing given that many national constitutions and international treaties recognise the value of a sound environment, and at times contain express provisions mandating its protection: most prominently in the form of individual rights to a healthy environment or constitutional mission statements that commit states to environmental protection. Widespread breaches of these legal norms present a fundamental challenge to the seriousness of such commitments, especially as the meaningful enjoyment of a host of human rights is intimately linked to and presupposes basic environmental conditions. A right to protest government policy is an empty guarantee if the air that protesters breathe is contaminated to a point where venturing outdoors entails serious health risks.¹¹ Property rights safeguarding home ownership are meaningless if states permit airplanes to pass directly overhead, and a state that orchestrates a crackdown on independent journalism does no less violence to human rights than a state that permits industries to contaminate drinking water with impunity.¹² Given these pervasive threats, the apparent failure to translate general and abstract commitments to human rights and environmental protection into specific and practical measures that safeguard the environment is a serious shortcoming. In part, this failure is fuelled by the lack of attention that human rights law scholarship pays to the implications of environmental harm, and the ad hoc doctrinal approach taken by many international and domestic courts.

Orthodox legal thinking has considerable reservations about attaching the status of human rights to environmental interests. Such scepticism was

¹⁰ Dale Jamieson, *Reason in a Dark Time – Why the Struggle Against Climate Change Has Failed – and What It Means for Our Future* (Oxford University Press 2014) 237.

¹¹ Oliver Wainwright, 'Inside Beijing's Airpocalypse – A City Made "Almost Uninhabitable" by Pollution' *The Guardian* (16 December 2014) www.theguardian.com/cities/2014/dec/16/beijing-airpocalypse-city-almost-uninhabitable-pollution-china, accessed 1 April 2021.

¹² Harry Cockburn, 'Turkey Coup: Erdogan Bans All Academics from Leaving Country as Government Crackdown Intensifies' *Independent* (20 July 2016) www.independent.co.uk/news/world/europe/turkey-coup-erdogan-academics-ban-leaving-country-government-crackdown-latest-a7146591.html, accessed 1 April 2021; *Stockton and others v. United Kingdom* App no 36053/97 (Commission, 15 January 1998) [liquid aluminium entered water distribution network]; *Otgon v. The Republic of Moldova* App no 22743/07 (ECtHR, 25 October 2016) [ruptured sewage pipeline contaminated drinking water supply].

admittedly more fashionable in earlier scholarship and court decisions, but its echoes remain audible in critiques that question the utility and importance of environmental human rights, our ability to define them with sufficient clarity, and concerns as to how we balance their demands with competing interests.¹³ These critiques often connect with wider concerns: for instance, the capacity of human rights to bring about substantial policy improvements and social change, and the suitability of courts as forums for the effective and legitimate enforcement of such rights, especially when their decisions conflict with those of democratic legislatures. Accordingly, critics instead emphasise procedural over substantive guarantees, and a gradual implementation model based on economic, social, and cultural rights as a template for environmental protection through human rights.¹⁴

While complete opposition has become rare, human rights and environmental law scholarship nonetheless tend to focus only in passing on environmental human rights and their implications.¹⁵ Even environmentally progressive accounts often present environmental harm as a human rights issue only in specific contexts such as climate change,¹⁶ and the associated

¹³ Philippe Sands and others, *Principles of International Environmental Law* (4th ed., Cambridge University Press 2018) chapter 17; Alan Boyle, 'Human Rights and the Environment – Where Next?' in Ben Boer (ed.), *Environmental Law Dimensions of Human Rights* (Oxford University Press 2015) 219; Conor Gearty, 'Do Human Rights Help or Hinder Environmental Protection?' (2010) 1 *Journal of Human Rights and the Environment* 7.

¹⁴ Stuart Bell, Donald McGillivray, and Ole W. Pedersen, *Environmental Law* (8th ed., Oxford University Press 2013) 15; Margaret DeMerieux, 'Deriving Environmental Rights from the European Convention for the Protection of Human Rights and Fundamental Freedoms' (2001) 21 *Oxford Journal of Legal Studies* 521; B. Weston and David Bollier, 'Toward a Recalibrated Human Right to a Clean and Healthy Environment: Making the Conceptual Transition' (2013) 4 *Journal of Human Rights and the Environment* 116; James Harrison, 'Reflections on the Role of International Courts and Tribunals in the Settlement of Environmental Disputes and the Development of International Environmental Law' (2013) 25 *Journal of Environmental Law* 501.

¹⁵ William A. Schabas, *The European Convention on Human Rights – A Commentary* (Oxford University Press 2015) 387–8; Philip Alston, Ryan Goodman, and Henry J. Steiner, *International Human Rights: Text and Materials* (Oxford University Press 2013) 1536; Olivier De Schutter, *International Human Rights Law – Cases, Materials, Commentary* (2nd ed., Cambridge University Press 2014) 372–3, 457; Rhona K. M. Smith, *Textbook on International Human Rights* (6th ed., Oxford University Press 2014) 395, remarkably does not mention the environmental cases, nor do Ilias Batekas and Lutz Oette, *International Human Rights Law and Practice* (Cambridge University Press 2013) 516–7; Merris Amos, *Human Rights Law* (2nd ed., Hart Publishing 2014) 425, 508–9, 515.

¹⁶ Catalina Devandas Aguilar and others, *The Effects of Climate Change on the Full Enjoyment of Human Rights* (United Nations Human Rights Council, 2015); Anna Grear, 'Towards "Climate Justice"? A Critical Reflection on Legal Subjectivity and Climate Injustice: Warning Signals, Patterned Hierarchies, Directions for Future Law and Policy' (2014) 5 *Journal of Human Rights and the Environment* 103; Eric A. Posner, 'Climate Change and International

refugees,¹⁷ as well as natural resources such as water.¹⁸ Overall, the scholarship thus conveys the image of a fragmented relationship, a patchwork of largely unrelated issues that do not lend themselves to a comprehensive and coherent normative or indeed doctrinal approach.

In my view, this image is misleading and based on an undertheorised relationship between human rights and environmental harm. Many important questions remain unsettled, including to what extent environmental harm can be accommodated by human rights and more significantly, how human rights protection regimes can provide effective safeguards in practice. The prospect of a practical normative framework for courts would be fanciful if appropriately addressing environmental harm required a radical departure from fundamental characteristics of human rights law, or the practice and procedures of courts. Against prevailing scepticism, this book argues that there is a sufficient basis for a comprehensive framework that theorises the relationship between human rights and environmental harm while remaining practically viable in the context of existing protection regimes: that framework is the environmental minimum.

In simplified terms, the environmental minimum framework facilitates the practical protection of the environment through existing human rights law. On the one hand, it provides individuals with a claim against states to ensure basic regulations of harmful degradation and pollution (protective function), while on the other hand providing a justification for environmental regulations when they are challenged based on human rights (limitation function). The environmental minimum endeavours to give specific guidance to courts based on the abstract commitments to environmental protection that human rights presuppose, and which constitutional rights, mission statements, and international treaties express in general terms. This book defends two connected claims: that the environmental minimum represents a normatively

Human Rights Litigation: A Critical Appraisal' (2007) 155 *University of Pennsylvania Law Review* 1925.

¹⁷ Bonnie Docherty and Tyler Giannini, 'Confronting a Rising Tide: A Proposal for a Convention on Climate Change Refugees' (2009) 33 *Harvard Environmental Law Review*; Daniel A. Farber, 'Basic Compensation for Victims of Climate Change' (2007) 155 *University of Pennsylvania Law Review* 1605.

¹⁸ Daphina Misiedjan, *Towards a Sustainable Human Right to Water: Supporting Vulnerable People and Protecting Water Resources* (Intersentia 2019); Malcolm Langford and Anna F. S. Russell, *The Human Right to Water: Theory, Practice and Prospects* (Cambridge University Press 2017); Astrida Neimanis, 'Alongside the Right to Water, a Posthumanist Feminist Imaginary' (2014) 5 *Journal of Human Rights and the Environment* 5; Paula Gerber and Bruce Chen, 'Recognition of the Human Right to Water – Has the Tide Turned?' (2011) 36 *Alternative Law Journal* 21; John Scanlon, Angela Cassar, and Noémi Nemes, 'Water as a Human Right?' [2004] IUCN Environmental Policy and Law Paper.

consistent and attractive as well as a practically viable framework for conceptualising the relationship between human rights and the environment.

The normative appeal derives from the compatibility of the environmental minimum with the normative claims of environmental human rights. The framework presents a principled account that incorporates the core characteristics of human rights and is consistent with key principles in domestic and international law, including the rule of law and *pacta sunt servanda*. The key normative claim is this: states must provide principled regulation of environmental harms in good faith, based on the best available scientific evidence, and ensure their consistent practical enforcement. This applies to any state that takes its human rights obligations and the rule of law seriously. This normative argument is developed in Part I of this book.

The environmental minimum framework is practically viable because it accounts for the extensive and rich environmental case law of international (UN, Africa, American, European) and domestic courts, most notably the European Court of Human Rights (ECtHR). The environmental minimum translates the general and abstract commitment to human rights and environmental protection into actionable standards of review that chime with and incrementally develop the modern doctrinal approach. This practicality argument preoccupies Part II of this book which conducts an in-depth analysis of the environmental minimum in the context of the ECHR.

Part III considers the potential contributions of the environmental minimum in other international protection regimes (ACPHR, ACHR, ICCPR, ICESCR) and for environmental constitutionalism through the lens of two case studies, namely South Africa and Germany. Part IV explores what the environmental minimum framework can achieve beyond human rights law, notably by alleviating three pathologies that plague domestic and international environmental regulation, as well as clarifying and enhancing the claims and enforcement mechanisms of international environmental law (transboundary environmental harm and Sustainable Development Goals).

The following section of the introduction outlines definitions of key terms used throughout the book before turning to a concise summary of the distinct elements of the overall argument.

1.2 DEFINITIONS

1.2.1 *Environment*

The term ‘environment’ describes ‘all of the external abiotic and biotic factors, conditions, and influences that affect the life, development, and survival of an

organism or a community.¹⁹ The term thus encompasses all natural resources, such as air, land, and water, as well as the natural and the human-made environment, as both play important roles in human well-being.²⁰ The book is however concerned only with harm to the natural environment, that which is comprised of the interaction of all living species, climate, weather, and natural resources that affect human survival and economic activity.²¹ This definition excludes social environments, for instance a workplace, adversely affected through a loss of trust amongst co-workers. The overarching term of environmental harm encompasses both degradation and pollution.

Degradation is defined as the ‘depletion or destruction of a potentially renewable resource such as air, water, soil, forest, or wildlife, by using it at a rate faster than it can be naturally renewed.’²² Pollution is defined as the ‘process of contaminating or polluting’, for instance of air and water.²³ In simplified terms, degradation takes something away from the natural environment, for instance by depleting a source of water, whereas pollution adds something undesirable to the environment, for instance arsenic to drinking water. This understanding therefore excludes the degradation of human-made environments, such as those found within buildings and those created through infrastructure, but notably includes their pollution: while a poor state of maintenance of a bridge is not relevant with respect to environmental degradation, as it does not entail the depletion of resources, it may well constitute pollution if the bridge is hazardous to wildlife. Both environmental degradation and pollution will be collectively referred to as ‘environmental harm’ in this book.

1.2.2 *Human Rights*

This book draws on the account of James Nickel, who succinctly formulates the key characteristics of human rights in contemporary legal thinking. It is undoubtedly worthwhile to engage with other accounts of human rights,²⁴ but

¹⁹ ‘Environment’ in Chris Park (ed.), *A Dictionary of Environment and Conservation* (Oxford University Press 2007).

²⁰ Adopted from the ‘Declaration of the United Nations Conference on the Human Environment’, 16–23 June 1972, UN Doc.A/CONF 48/14/Rev.1 [1].

²¹ D. L. Johnson and others, ‘Meanings of Environmental Terms’ (1997) 26 *Journal of Environmental Quality* 581.

²² ‘Environmental Degradation’ in Park (ed.), *A Dictionary of Environment and Conservation*.

²³ ‘Pollution’ in Park (ed.), *A Dictionary of Environment and Conservation*.

²⁴ See, for instance, Charles R. Beitz, *The Idea of Human Rights* (Oxford University Press 2011) and his practical conception; Amartya Sen, ‘Elements of a Theory of Human Rights’ (2004) 32 *Philosophy & Public Affairs* 315 and his freedom-based conception; Rex Martin, *A System of*

a comprehensive discussion would go beyond the requirements of the argument presented here. Save for a few basic assumptions, the environmental minimum does not rely on any particular notion of human rights.²⁵

According to Nickel, human rights are rights which contain numerous and specific claims focusing on freedoms, protections, and benefits (as opposed to few and general statements of principles), held by rightsholders (all living persons) against addressees (those with duties and responsibilities towards rightsholders, typically states). They set minimum standards (as opposed to exhaustively formulating an ideal),²⁶ which are independent of recognition or enactment,²⁷ but that make no claim to absolute priority, only to relative priority over other considerations ('high-priority norms').²⁸ This understanding of human rights has three immediate consequences for the idea of protecting the environment through human rights.

First, because the rightsholders are individual humans, human rights do not protect from environmental harm that is not established with sufficient certainty and linked to detrimental impacts on humans. This excludes from consideration poorly evidenced environmental harm which does not directly impact humans: for instance, electromagnetic waves from cell phone towers, or harm that occurs naturally regardless of human activities, for instance a volcanic eruption.

The 'specific claims' characteristic meanwhile excludes broad expressions of principle, such as those found in constitutional mission statements proclaiming the importance of environmental protection. These cannot be considered a sufficient basis for protection because it is not clear whether individuals can make legal claims and typically only commit the state to take environmental policy considerations into account.²⁹ Flexibility and

Rights (Oxford University Press 1997) and his moral conception; in the specific context of environmental rights, see Tim Hayward, *Constitutional Environmental Rights* (Oxford University Press 2005) 43, he draws considerably on the views of Jürgen Habermas, 'Remarks on Legitimation through Human Rights' (1998) 24 *Philosophy & Social Criticism* 157, 161 and sees recognition as a necessary, but on its own insufficient, guide to the normative content of human rights.

²⁵ See Chapter 2.

²⁶ Minimalism also features in other contemporary human rights accounts, see James Griffin, *On Human Rights* (Oxford University Press 2008) 33; Beitz, *The Idea of Human Rights*, 141–2.

²⁷ A key difference to the account by Martin, *A System of Rights* and Philip Alston, 'Conjuring up New Human Rights: A Proposal for Quality Control' (1984) 78 *American Journal of International Law* 607.

²⁸ James W. Nickel, *Making Sense of Human Rights* (2nd ed., Blackwell 2007) 9–10; a key difference to the account of Sen, 'Elements of a Theory of Human Rights'.

²⁹ See, for instance, Article 20a Basic Law for the Federal Republic of Germany (adopted 8 May 1949, in force 23 May 1949, as last amended 29 September 2020) (GG), discussed in Chapter 9.

interpretational leeway are only compatible with the concept of human rights to the extent that obligations remain reasonably determinable in the context of specific cases. Human rights require more than expressions of principle and must endeavour to offer tangible protections to rightsholders.

The minimum standard is a key conceptual feature of human rights, as they do not purport to provide optimal protection,³⁰ nor enshrine any particular comprehensive notion of justice.³¹ Likewise, protections from environmental harm are not intended to describe, nor can they provide, comprehensive protection of what may constitute an ideal environment. Such an attempt would not only conflict with the concept of human rights but also fail to recognise that human rights can make significantly diverging and conflicting normative claims. As many sceptics of environmental human rights point out, reasonable people disagree over what constitutes an ideal environment and the means by which it should be achieved.³² The scope for agreement is reduced the further one ventures away from the lowest common denominators that necessarily underpin any vision of environmental protection.

Finally, the high-priority characteristic of human rights requires a justification for the prioritisation of environmental protection over other desirable interests. We must explain why environmental interests belong to the category of things that human rights protect: what distinguishes them, for instance, from business opportunities in the extraction of natural gas resources through fracking, or majority preferences in the distribution of resources, for instance in allocating public funding to football clubs over comparatively less popular theatres, opera houses, and museums?³³

Once this priority of environmental interests is established, we further require an idea of how environmental interests can be balanced with competing interests. This is because recognising a human rights-based interest in environmental protection does not equate to absolute priority over other considerations. Not every marginal furtherance of environmental protection can justify limitations of other human rights: for instance, expropriating land in order to increase the size of a nature reserve requires carefully weighing environmental protection against property ownership. An adjudicative body must resolve cases where human rights are invoked on both sides of an issue: to strike an appropriate balance, determine compensation and necessary remedies. This is particularly salient in the context of environmental protection, as it has the potential to

³⁰ Nickel, *Making Sense of Human Rights*, 36.

³¹ Jeff King, *Judging Social Rights* (Cambridge University Press 2012) 21.

³² Boyle, 'Human Rights and the Environment – Where Next?', 219.

³³ King, *Judging Social Rights*, 21.

conflict with a wide range of competing interests based on human rights, notably general economic development: this has been a source of particular tension with respect to international efforts to combat climate change.³⁴

1.2.3 *Environmental Rights*

Based on this understanding of the environment, environmental harm, and human rights, there are several types of environmental rights that should be distinguished.

Procedural environmental rights typically focus on status obligations granting individuals participatory rights, such as access to information during administrative or regulatory proceedings, or standing to raise environmental claims in court. The prime international example is found in the Aarhus Convention, which commits states to providing access to information and to justice and public participation in environmental decision-making processes.³⁵ Domestic examples include the many forms of participation rights granted to non-governmental organisations (NGOs) and procedural rights to pursue public interest litigation, for instance under § 61 of the Federal Nature Protection Act in Germany.³⁶

Substantive environmental rights contain positive and negative obligations, focusing on guaranteeing an environment of a certain quality or the prevention of certain environmental harms. They are often codified in domestic constitutions, contained within ordinary legislation, or form a part of international agreements, for instance regional human rights protection regimes. Their scope is potentially wide-ranging and may encompass protections of the natural environment beyond the immediate needs of humans. Typical examples are section 24 of the Constitution of South Africa as well as Article 24 (Right to a general satisfactory environment) of the ACHPR and Article 11 of the Protocol of San Salvador to the ACHR.

As we have seen, human rights are rights based on considerations of political morality, and individuals enjoy them independent of express recognition or codification.³⁷ Consequently, environmental human rights describe

³⁴ For a discussion of climate change as the pivotal transboundary environmental harm, see Chapter 11.

³⁵ Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (adopted 28 June 1998, in force 30 October 2001), 2161 UNTS 447 (Aarhus Convention).

³⁶ Bundesnaturschutzgesetz of 29 July 2009 (BGBl. I S. 2542), last amended through Article 5 of the Law of 25 February 2021 (BGBl. I S. 306).

³⁷ Nickel, *Making Sense of Human Rights*, 9; King, *Judging Social Rights*, 21.